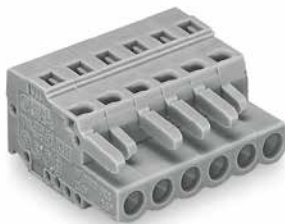
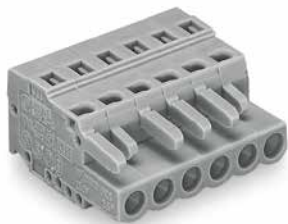


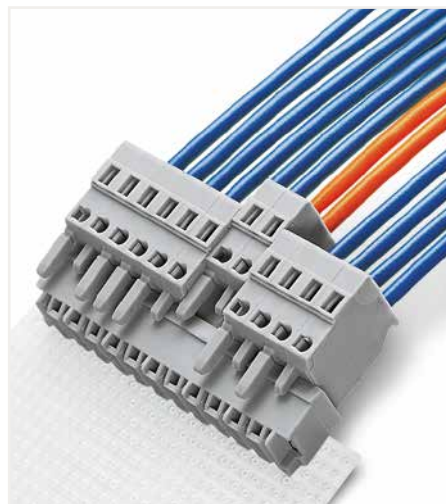
1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Plugging without loss of pin spacing



231-106/102-000



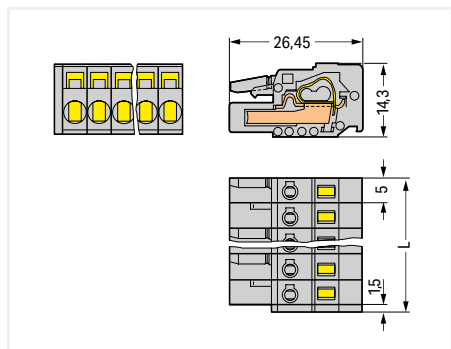
Total pole number for female connectors = pole number for male header

Pole No.	Item No.	PU	Pole No.	Item No.	PU
2	231-102/026-000	100	2	231-102/102-000	100
3	231-103/026-000	100	3	231-103/102-000	100
4	231-104/026-000	100	4	231-104/102-000	100
5	231-105/026-000	100	5	231-105/102-000	100
6	231-106/026-000	50	6	231-106/102-000	50
7	231-107/026-000	50	7	231-107/102-000	50
8	231-108/026-000	50	8	231-108/102-000	50
9	231-109/026-000	50	9	231-109/102-000	50
10	231-110/026-000	50	10	231-110/102-000	50
11	231-111/026-000	25	11	231-111/102-000	25
12	231-112/026-000	25	12	231-112/102-000	25
13	231-113/026-000	25	13	231-113/102-000	25
14	231-114/026-000	25	14	231-114/102-000	25
15	231-115/026-000	25	15	231-115/102-000	25
16	231-116/026-000	25	16	231-116/102-000	25
17	231-117/026-000	25	17	231-117/102-000	25
18	231-118/026-000	25	18	231-118/102-000	25
19	231-119/026-000	10	19	231-119/102-000	10
20	231-120/026-000	10	21	231-121/102-000	10
21	231-121/026-000	10	22	231-122/102-000	10
22	231-122/026-000	10	23	231-123/102-000	10
23	231-123/026-000	10	24	231-124/102-000	10
24	231-124/026-000	10			

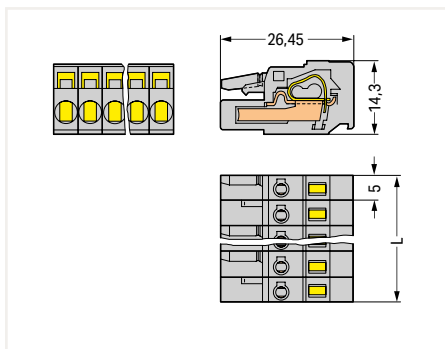


Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

9



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Locking of plug-in connection: Locking lever

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange ▶ with reinforcing strips



231-106/031-000

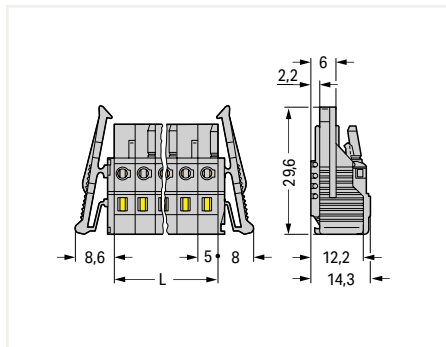
231-106/027-000

Pole No.	Item No.	PU
2	231-102/037-000	100
3	231-103/037-000	50
4	231-104/037-000	50
5	231-105/037-000	50
6	231-106/037-000	50
7	231-107/037-000	50
8	231-108/037-000	25
9	231-109/037-000	25
10	231-110/037-000	25
11	231-111/037-000	25
12	231-112/037-000	25
13	231-113/037-000	25
14	231-114/037-000	25
15	231-115/037-000	25
16	231-116/037-000	10
17	231-117/037-000	10
18	231-118/037-000	10
19	231-119/037-000	10
20	231-120/037-000	10
21	231-121/037-000	10
22	231-122/037-000	10
23	231-123/037-000	10
24	231-124/037-000	10

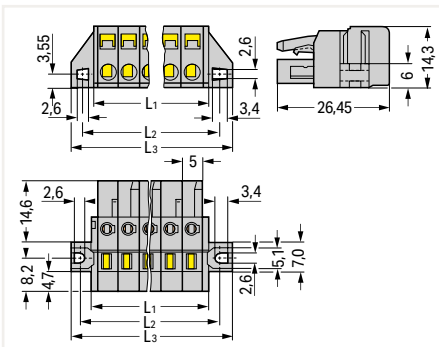
Pole No.	Item No.	PU
2	231-102/031-000	100
3	231-103/031-000	50
4	231-104/031-000	50
5	231-105/031-000	50
6	231-106/031-000	50
7	231-107/031-000	50
8	231-108/031-000	50
9	231-109/031-000	25
10	231-110/031-000	25
11	231-111/031-000	25
12	231-112/031-000	25
13	231-113/031-000	25
14	231-114/031-000	25
15	231-115/031-000	25
16	231-116/031-000	10
17	231-117/031-000	10
18	231-118/031-000	10
19	231-119/031-000	10
20	231-120/031-000	10
21	231-121/031-000	10
22	231-122/031-000	10
23	231-123/031-000	10
24	231-124/031-000	10

Pole No.	Item No.	PU
6	231-106/027-000	50
7	231-107/027-000	50
8	231-108/027-000	50
9	231-109/027-000	25
10	231-110/027-000	25
11	231-111/027-000	25
12	231-112/027-000	25
13	231-113/027-000	25
14	231-114/027-000	25
15	231-115/027-000	25
16	231-116/027-000	10
17	231-117/027-000	10
18	231-118/027-000	10
19	231-119/027-000	10
20	231-120/027-000	10
21	231-121/027-000	10
22	231-122/027-000	10
23	231-123/027-000	10
24	231-124/027-000	10

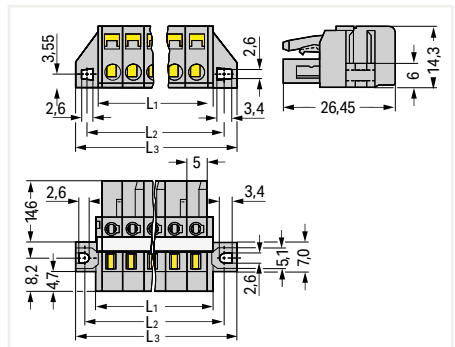
9



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only



L₁ = (pole no. x pin spacing) + 3 mm
L₂ = (pole no. x pin spacing) + 8.8 mm
L₃ = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only



L₁ = (pole no. x pin spacing) + 3 mm
L₂ = (pole no. x pin spacing) + 8.8 mm
L₃ = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

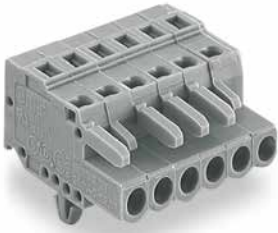
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

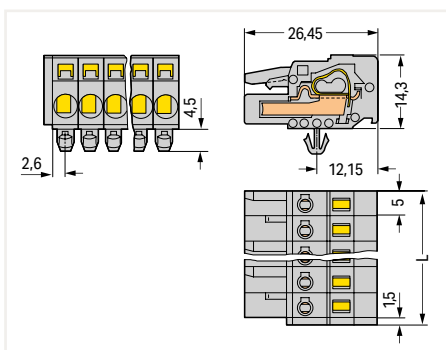
Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



231-106/008-000

Pole No.	Item No.	PU
2	231-102/008-000	100
3	231-103/008-000	100
4	231-104/008-000	100
5	231-105/008-000	100
6	231-106/008-000	50
7	231-107/008-000	25
8	231-108/008-000	50
9	231-109/008-000	50
10	231-110/008-000	50
11	231-111/008-000	25
12	231-112/008-000	25
13	231-113/008-000	25
14	231-114/008-000	25
15	231-115/008-000	25
16	231-116/008-000	25
17	231-117/008-000	25
18	231-118/008-000	25
19	231-119/008-000	10
20	231-120/008-000	10
21	231-121/008-000	10
22	231-122/008-000	10
23	231-123/008-000	10
24	231-124/008-000	10



$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

2- to 3-pole female connectors – one latch only

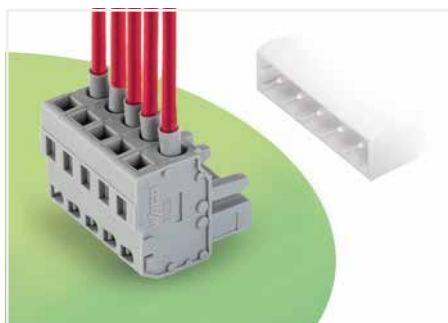
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Color: gray



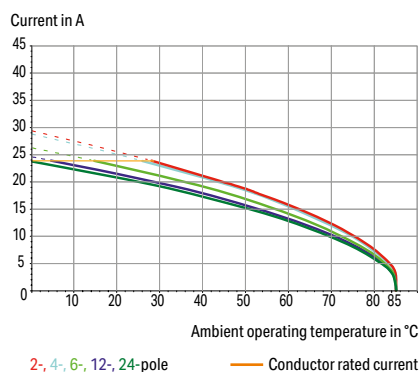
- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

Derating Curve

1-conductor female connector (231-102/026-000) with THT male header (231-432/001-000)

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"

Based on: EN 60512-5-2 / Reduction factor: 0.8

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Strain relief	Page 730
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Color: gray

Conductor entry direction to mating direction: 90°

Conductor entry direction to mating direction: 270°



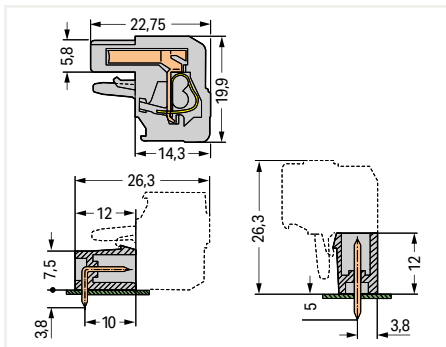
232-206/026-000



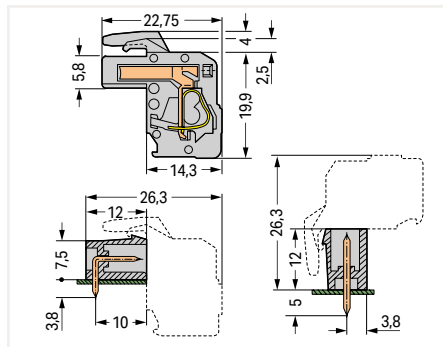
232-106/026-000

Pole No.	Item No.	PU
2	232-202/026-000	100
3	232-203/026-000	100
4	232-204/026-000	100
5	232-205/026-000	100
6	232-206/026-000	50
7	232-207/026-000	50
8	232-208/026-000	50
9	232-209/026-000	50
10	232-210/026-000	50
11	232-211/026-000	25
12	232-212/026-000	25
13	232-213/026-000	25
14	232-214/026-000	25
15	232-215/026-000	25
16	232-216/026-000	25
17	232-217/026-000	25
18	232-218/026-000	25
19	232-219/026-000	10
20	232-220/026-000	10
21	232-221/026-000	10
22	232-222/026-000	10
23	232-223/026-000	10
24	232-224/026-000	10

Pole No.	Item No.	PU
2	232-102/026-000	100
3	232-103/026-000	100
4	232-104/026-000	100
5	232-105/026-000	100
6	232-106/026-000	50
7	232-107/026-000	50
8	232-108/026-000	50
9	232-109/026-000	50
10	232-110/026-000	50
11	232-111/026-000	25
12	232-112/026-000	25
13	232-113/026-000	25
14	232-114/026-000	25
15	232-115/026-000	25
16	232-116/026-000	25
17	232-117/026-000	25
18	232-118/026-000	25
19	232-119/026-000	10
20	232-120/026-000	10
21	232-121/026-000	10
22	232-122/026-000	10
23	232-123/026-000	10
24	232-124/026-000	10



L = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only



L = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

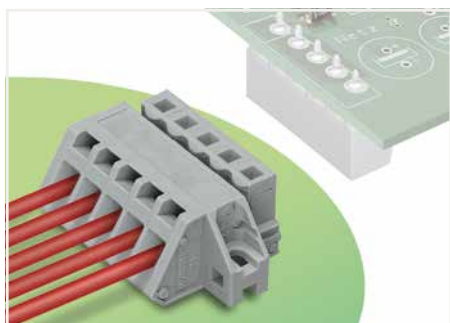
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

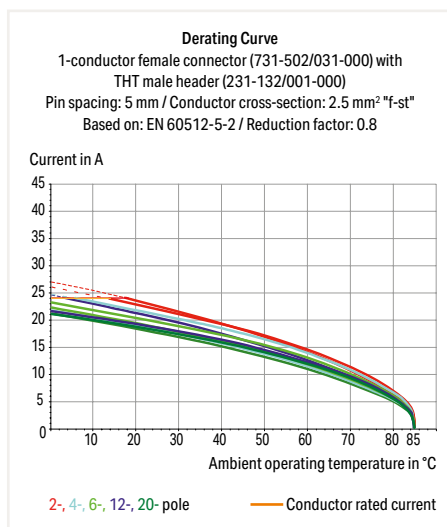
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray



- Universal connection for all conductor types
- Available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-35 rail mounted
- Easy conductor termination, even when halves are mated



Electrical Data

Ratings per	IEC/EN 60664-1		
Overtoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	7 ... 8 mm / 0.28 ... 0.31 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Jumper	Page 733
Marking	Page 865
Mounting	Page 732, 869
Strain relief	Page 730
Test and measurement	Page 725
Tool	Page 538, 870
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange



731-505/031-000

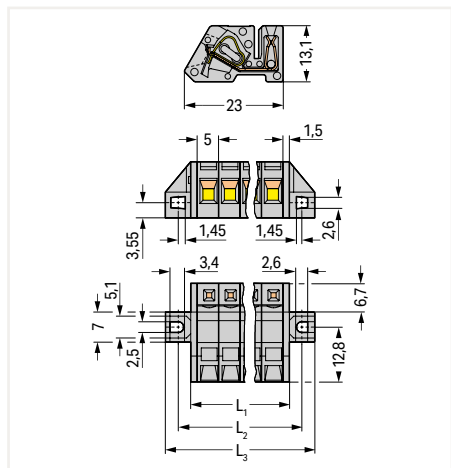


Angled female connector – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

Pole No.	Item No.	PU
2	731-502/031-000	100
3	731-503/031-000	50
4	731-504/031-000	50
5	731-505/031-000	50
6	731-506/031-000	50
7	731-507/031-000	50
8	731-508/031-000	50
9	731-509/031-000	25
10	731-510/031-000	25
11	731-511/031-000	25
12	731-512/031-000	25
13	731-513/031-000	25
14	731-514/031-000	25
15	731-515/031-000	25
16	731-516/031-000	10
17	731-517/031-000	10
18	731-518/031-000	10
19	731-519/031-000	10
20	731-520/031-000	10



Angled female connector – used as through-panel connector; termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 3 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 8.8 \text{ mm}$
 $L_3 = (\text{pole no.} \times \text{pin spacing}) + 14.8 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot

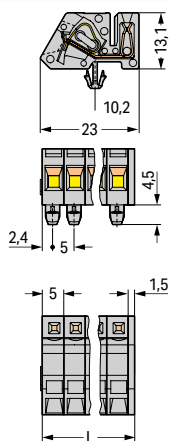


731-505/008-000



Angled female connector with DIN-35 rail-mount adapter (209-120)

Pole No.	Item No.	PU
2	731-502/008-000	100
3	731-503/008-000	50
4	731-504/008-000	50
5	731-505/008-000	50
6	731-506/008-000	50
7	731-507/008-000	50
8	731-508/008-000	50
9	731-509/008-000	50
10	731-510/008-000	50
11	731-511/008-000	25
12	731-512/008-000	25
13	731-513/008-000	25
14	731-514/008-000	25
15	731-515/008-000	25
16	731-516/008-000	25
17	731-517/008-000	25
18	731-518/008-000	25
19	731-519/008-000	10
20	731-520/008-000	10



$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

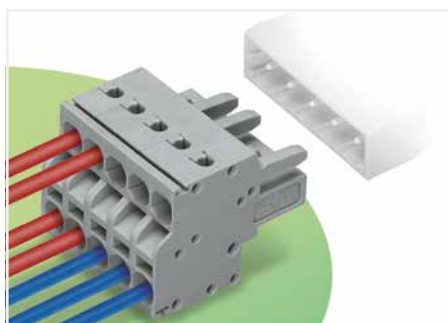
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

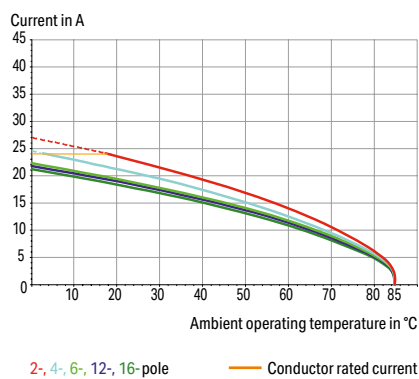
Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve

2-conductor female connector (231-2102/026-000) with
THT male header (231-132/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 729
Test and measurement	Page 725
Tool	Page 725, 870
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Locking of plug-in connection: Locking lever

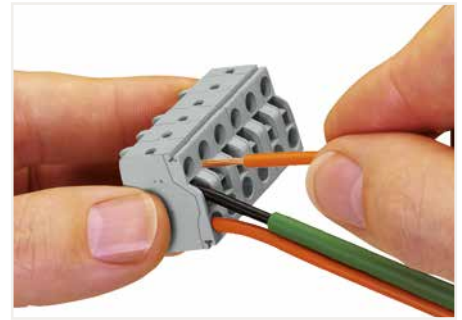


231-2106/026-000

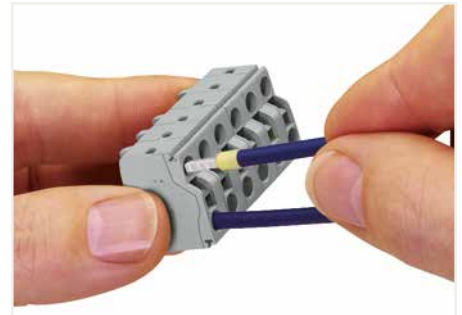
231-2106/037-000

Pole No.	Item No.	PU
2	231-2102/026-000	100
3	231-2103/026-000	100
4	231-2104/026-000	100
5	231-2105/026-000	50
6	231-2106/026-000	50
7	231-2107/026-000	50
8	231-2108/026-000	50
9	231-2109/026-000	50
10	231-2110/026-000	50
11	231-2111/026-000	25
12	231-2112/026-000	25
13	231-2113/026-000	25
14	231-2114/026-000	25
15	231-2115/026-000	25
16	231-2116/026-000	25

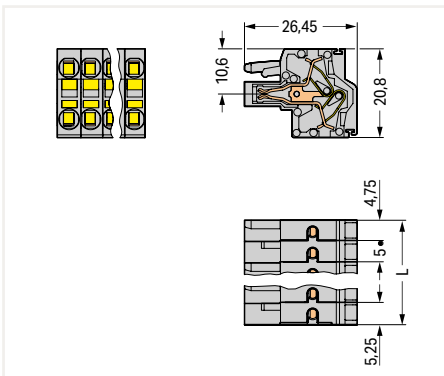
Pole No.	Item No.	PU
2	231-2102/037-000	100
3	231-2103/037-000	50
4	231-2104/037-000	50
5	231-2105/037-000	50
6	231-2106/037-000	50
7	231-2107/037-000	50
8	231-2108/037-000	25
9	231-2109/037-000	25
10	231-2110/037-000	25
11	231-2111/037-000	25
12	231-2112/037-000	25
13	231-2113/037-000	25
14	231-2114/037-000	25
15	231-2115/037-000	25
16	231-2116/037-000	10



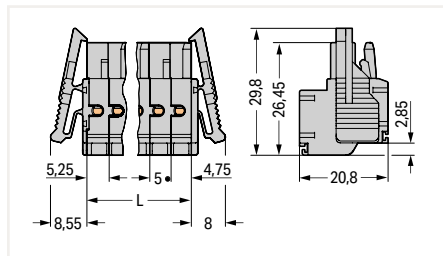
Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.



$L = (\text{pole no.} - 2) \times \text{pin spacing} + 10 \text{ mm}$



$L = (\text{pole no.} - 2) \times \text{pin spacing} + 10 \text{ mm}$

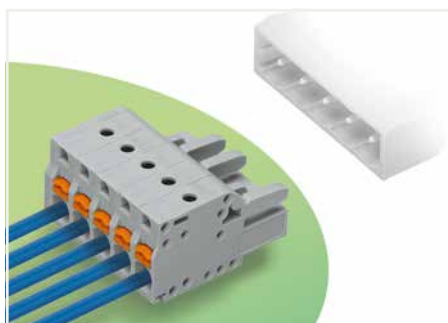
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

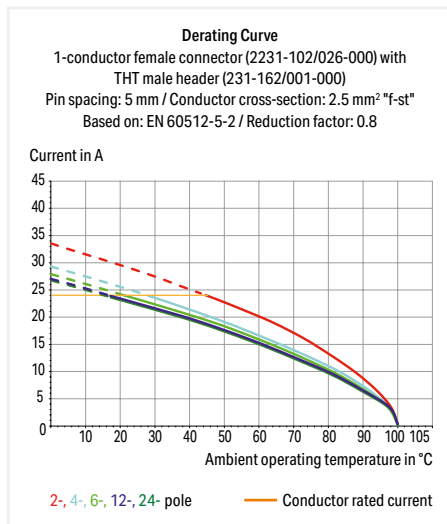
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

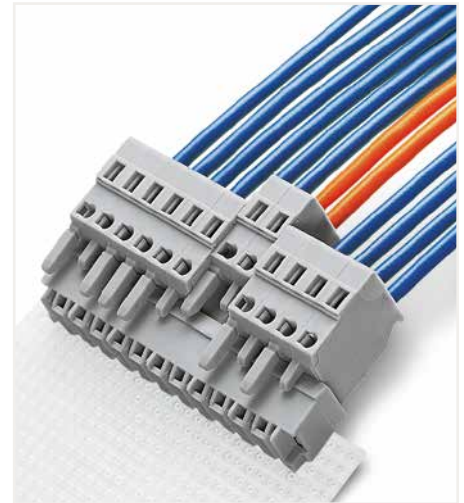
Plugging without loss of pin spacing



2231-106/026-000

2231-106/102-000

Pole No.	Item No.	PU	Pole No.	Item No.	PU
2	2231-102/026-000	100	2	2231-102/102-000	100
3	2231-103/026-000	100	3	2231-103/102-000	100
4	2231-104/026-000	100	4	2231-104/102-000	100
5	2231-105/026-000	100	5	2231-105/102-000	100
6	2231-106/026-000	50	6	2231-106/102-000	50
7	2231-107/026-000	50	7	2231-107/102-000	50
8	2231-108/026-000	50	8	2231-108/102-000	50
9	2231-109/026-000	50	9	2231-109/102-000	50
10	2231-110/026-000	50	10	2231-110/102-000	50
11	2231-111/026-000	25	11	2231-111/102-000	25
12	2231-112/026-000	25	12	2231-112/102-000	25
13	2231-113/026-000	25	13	2231-113/102-000	25
14	2231-114/026-000	25	14	2231-114/102-000	25
15	2231-115/026-000	25	15	2231-115/102-000	25
16	2231-116/026-000	25	16	2231-116/102-000	25
17	2231-117/026-000	25	17	2231-117/102-000	25
18	2231-118/026-000	25	18	2231-118/102-000	25
19	2231-119/026-000	10	19	2231-119/102-000	10
20	2231-120/026-000	10	20	2231-120/102-000	10
21	2231-121/026-000	10	21	2231-121/102-000	10
22	2231-122/026-000	10	22	2231-122/102-000	10
23	2231-123/026-000	10	23	2231-123/102-000	10
24	2231-124/026-000	10	24	2231-124/102-000	10

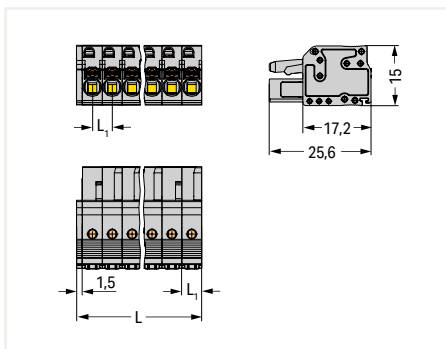


Total pole number for female connectors = pole number for male header

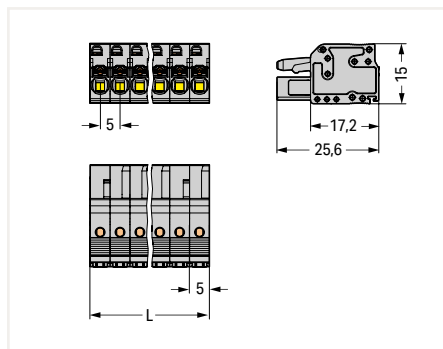


Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

9



L = (pole no. x pin spacing) + 1.5 mm
L₁ = 5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Locking of plug-in connection: Locking lever

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



2231-106/037-000

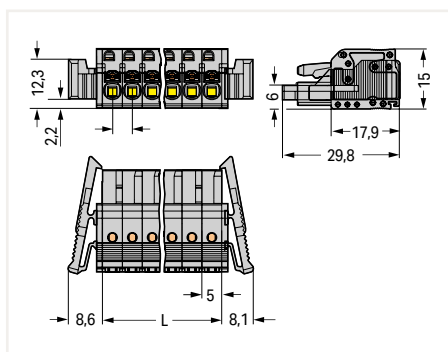
2231-106/031-000

2231-106/008-000

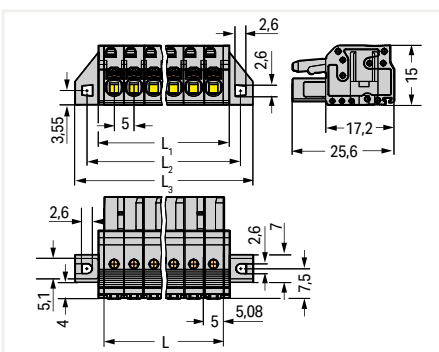
Pole No.	Item No.	PU
2	2231-102/037-000	100
3	2231-103/037-000	50
4	2231-104/037-000	50
5	2231-105/037-000	50
6	2231-106/037-000	50
7	2231-107/037-000	50
8	2231-108/037-000	25
9	2231-109/037-000	25
10	2231-110/037-000	25
11	2231-111/037-000	25
12	2231-112/037-000	25
13	2231-113/037-000	25
14	2231-114/037-000	25
15	2231-115/037-000	25
16	2231-116/037-000	10
17	2231-117/037-000	10
18	2231-118/037-000	10
19	2231-119/037-000	10
20	2231-120/037-000	10
21	2231-121/037-000	10
22	2231-122/037-000	10
23	2231-123/037-000	10
24	2231-124/037-000	10

Pole No.	Item No.	PU
2	2231-102/031-000	100
3	2231-103/031-000	50
4	2231-104/031-000	50
5	2231-105/031-000	50
6	2231-106/031-000	50
7	2231-107/031-000	50
8	2231-108/031-000	50
9	2231-109/031-000	25
10	2231-110/031-000	25
11	2231-111/031-000	25
12	2231-112/031-000	25
13	2231-113/031-000	25
14	2231-114/031-000	25
15	2231-115/031-000	25
16	2231-116/031-000	10
17	2231-117/031-000	10
18	2231-118/031-000	10
19	2231-119/031-000	10
20	2231-120/031-000	10
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22	2231-122/031-000	10
23	2231-123/031-000	10
24	2231-124/031-000	10

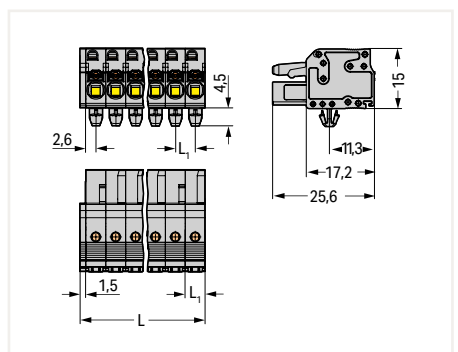
Pole No.	Item No.	PU
2	2231-102/008-000	100
3	2231-103/008-000	100
4	2231-104/008-000	100
5	2231-105/008-000	100
6	2231-106/008-000	50
7	2231-107/008-000	25
8	2231-108/008-000	50
9	2231-109/008-000	50
10	2231-110/008-000	50
11	2231-111/008-000	25
12	2231-112/008-000	25
13	2231-113/008-000	25
14	2231-114/008-000	25
15	2231-115/008-000	25
16	2231-116/008-000	25
17	2231-117/008-000	25
18	2231-118/008-000	25
19	2231-119/008-000	10
20	2231-120/008-000	10
21	2231-121/008-000	10
22	2231-122/008-000	10
23	2231-123/008-000	10
24	2231-124/008-000	10



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
L₁ = L + 2.8 mm
L₂ = L + 8.8 mm
L₃ = L + 14.8 mm
2- to 3-pole female connectors – one latch only



L = (pole no. x pin spacing) + 1.5 mm
L₁ = 5 mm
2- to 3-pole female connectors – one latch only

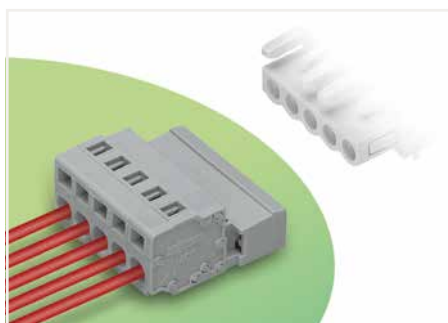
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

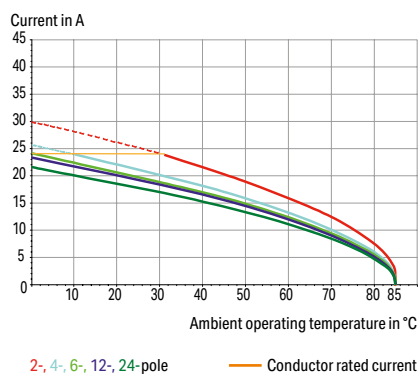
Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

Derating Curve

1-conductor female connector (231-102/026-000) with
1-conductor male header (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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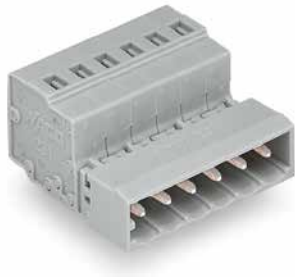
The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
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Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 730
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

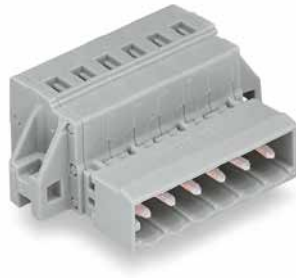
1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange

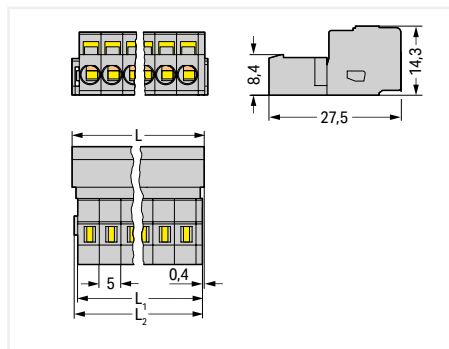


231-606

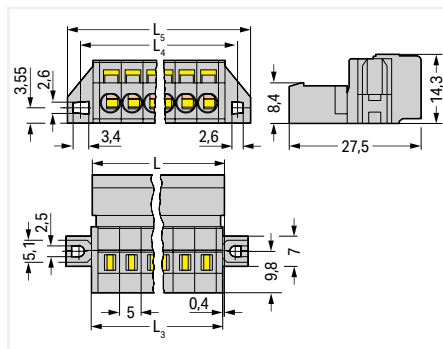


231-606/019-000

Pole No.	Item No.	PU	Pole No.	Item No.	PU
2	231-602	100	2	231-602/019-000	100
3	231-603	100	3	231-603/019-000	50
4	231-604	100	4	231-604/019-000	50
5	231-605	50	5	231-605/019-000	50
6	231-606	50	6	231-606/019-000	50
7	231-607	50	7	231-607/019-000	50
8	231-608	50	8	231-608/019-000	50
9	231-609	50	9	231-609/019-000	25
10	231-610	50	10	231-610/019-000	25
11	231-611	25	11	231-611/019-000	25
12	231-612	25	12	231-612/019-000	25
13	231-613	25	13	231-613/019-000	25
14	231-614	25	14	231-614/019-000	25
15	231-615	25	15	231-615/019-000	25
16	231-616	25	16	231-616/019-000	10
17	231-617	25	17	231-617/019-000	10
18	231-618	25	18	231-618/019-000	10
19	231-619	10	19	231-619/019-000	10
20	231-620	10	20	231-620/019-000	10
21	231-621	10	21	231-621/019-000	10
22	231-622	10	22	231-622/019-000	10
23	231-623	10	23	231-623/019-000	10
24	231-624	10	24	231-624/019-000	10



L = (pole no. - 1) x pin spacing + 8.2 mm
L₁ = L - 1.7 mm
L₂ = L - 1.2 mm



L = (pole no. - 1) x pin spacing + 8.2 mm
L₃ = L - 0.2 mm
L₄ = L₃ + 5.8 mm
L₅ = L₃ + 11.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

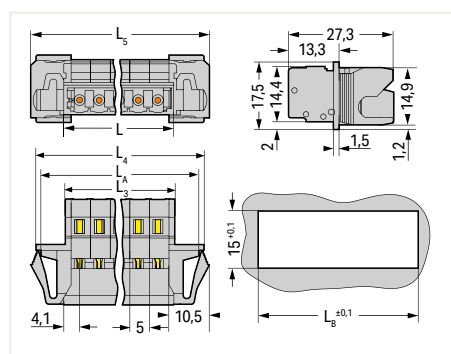
Mounting type: Feed-through mounting ▶ Mounting type: Snap-in



231-606/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 ... 2.5 mm plate thickness

Pole No.	Item No.	PU
2	231-602/114-000	50
3	231-603/114-000	50
4	231-604/114-000	50
5	231-605/114-000	50
6	231-606/114-000	50
7	231-607/114-000	25
8	231-608/114-000	25
9	231-609/114-000	25
10	231-610/114-000	25
11	231-611/114-000	25
12	231-612/114-000	25
13	231-613/114-000	25
14	231-614/114-000	25
15	231-615/114-000	10
16	231-616/114-000	10
17	231-617/114-000	10
18	231-618/114-000	10
19	231-619/114-000	10
20	231-620/114-000	10
21	231-621/114-000	10
22	231-622/114-000	10
23	231-623/114-000	10
24	231-624/114-000	10



$L = (\text{pole no.} \times \text{pin spacing}) + 3.2 \text{ mm}$

$L_3 = L - 0.2 \text{ mm}$

$L_4 = L_3 + 15.2 \text{ mm}$

$L_5 = L_3 + 18 \text{ mm}$

$L_6 = L_3 + 12.6 \text{ mm}$

$L_8 = L_3 + 13.2 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

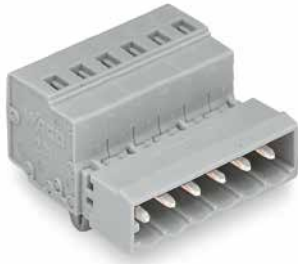
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- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

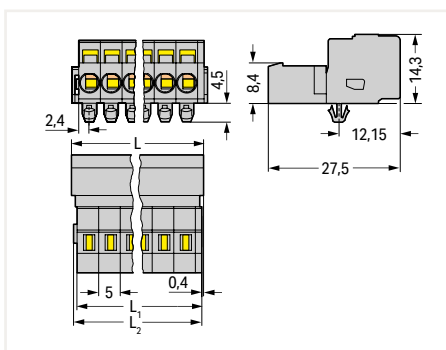
Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



231-606/018-000

Pole No.	Item No.	PU
2	231-602/018-000	100
3	231-603/018-000	100
4	231-604/018-000	100
5	231-605/018-000	50
6	231-606/018-000	50
7	231-607/018-000	50
8	231-608/018-000	50
9	231-609/018-000	50
10	231-610/018-000	50
11	231-611/018-000	25
12	231-612/018-000	25
13	231-613/018-000	25
14	231-614/018-000	25
15	231-615/018-000	25
16	231-616/018-000	25
17	231-617/018-000	25
18	231-618/018-000	25
19	231-619/018-000	10
20	231-620/018-000	10
21	231-621/018-000	10
22	231-622/018-000	10
23	231-623/018-000	10
24	231-624/018-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L_1 = L - 1.7 \text{ mm}$

$L_2 = L - 1.2 \text{ mm}$

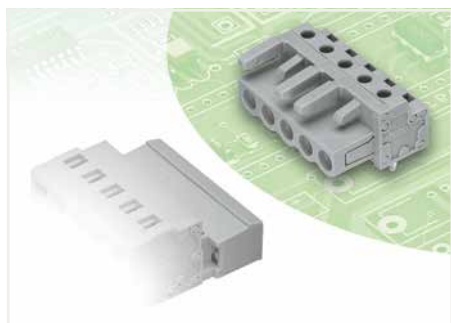
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

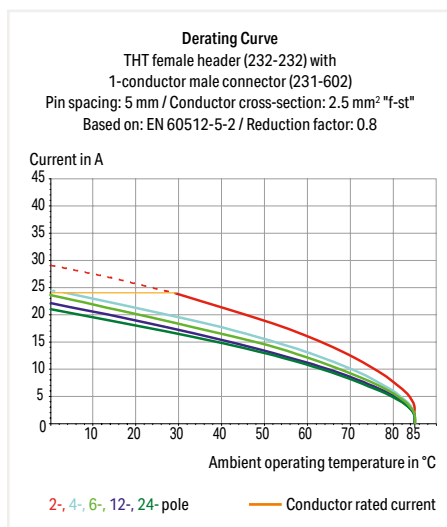
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 ^(±0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting Page 869

Test and measurement Page 725, 886

Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

Mating direction to the PCB: 0°

Mating direction to the PCB: 90°

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 0°



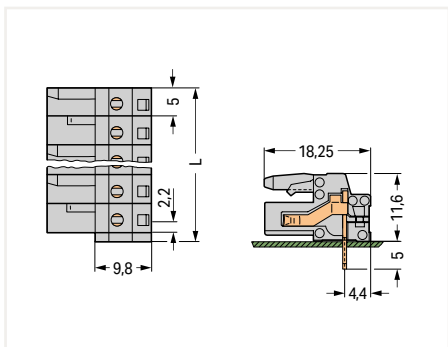
232-136

232-236/039-000

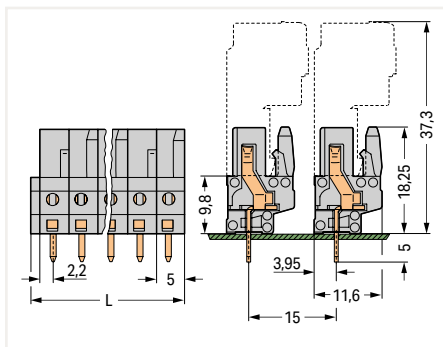
Pole No.	Item No.	PU
2	232-232	200
3	232-233	100
4	232-234	100
5	232-235	100
6	232-236	50
7	232-237	50
8	232-238	50
9	232-239	50
10	232-240	50
11	232-241	25
12	232-242	25
13	232-243	25
14	232-244	25
15	232-245	25
16	232-246	25
17	232-247	25
18	232-248	25
19	232-249	10
20	232-250	10
21	232-251	10
22	232-252	10
23	232-253	10
24	232-254	10

Pole No.	Item No.	PU
2	232-132	100
3	232-133	100
4	232-134	100
5	232-135	100
6	232-136	50
7	232-137	50
8	232-138	50
9	232-139	50
10	232-140	50
11	232-141	25
12	232-142	25
13	232-143	25
14	232-144	25
15	232-145	25
16	232-146	25
17	232-147	25
18	232-148	25
19	232-149	10
20	232-150	10
21	232-151	10
22	232-152	10
23	232-153	10
24	232-154	10

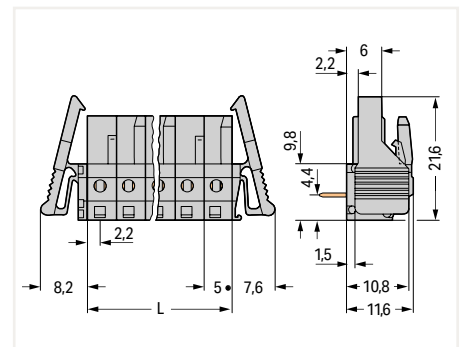
Pole No.	Item No.	PU
2	232-232/039-000	100
3	232-233/039-000	50
4	232-234/039-000	50
5	232-235/039-000	50
6	232-236/039-000	50
7	232-237/039-000	50
8	232-238/039-000	50
9	232-239/039-000	25
10	232-240/039-000	25
11	232-241/039-000	25
12	232-242/039-000	25
13	232-243/039-000	25
14	232-244/039-000	25
15	232-245/039-000	25
16	232-246/039-000	10
17	232-247/039-000	10
18	232-248/039-000	10
19	232-249/039-000	10
20	232-250/039-000	10
21	232-251/039-000	10
22	232-252/039-000	10
23	232-253/039-000	10
24	232-254/039-000	10



L = (pole no. x pin spacing) + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

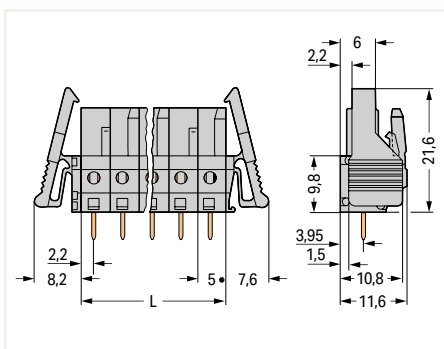
Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 90°



232-136/039-000

Pole No.	Item No.	PU
2	232-132/039-000	100
3	232-133/039-000	50
4	232-134/039-000	50
5	232-135/039-000	50
6	232-136/039-000	50
7	232-137/039-000	50
8	232-138/039-000	50
9	232-139/039-000	25
10	232-140/039-000	25
11	232-141/039-000	25
12	232-142/039-000	25
13	232-143/039-000	25
14	232-144/039-000	25
15	232-145/039-000	25
16	232-146/039-000	10
17	232-147/039-000	10
18	232-148/039-000	10
19	232-149/039-000	10
20	232-150/039-000	10
21	232-151/039-000	10
22	232-152/039-000	10
23	232-153/039-000	10



L = pole no. x pin spacing
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

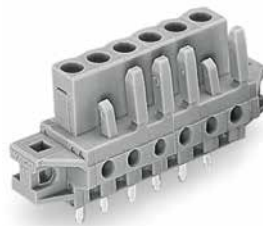
Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

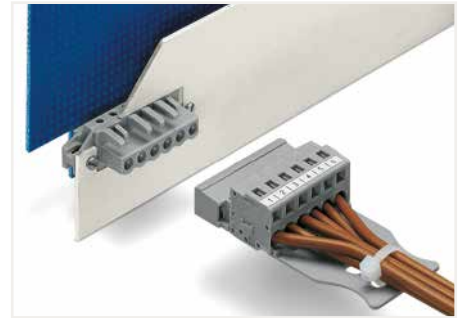
Mating direction to the PCB: 90°



232-236/031-000



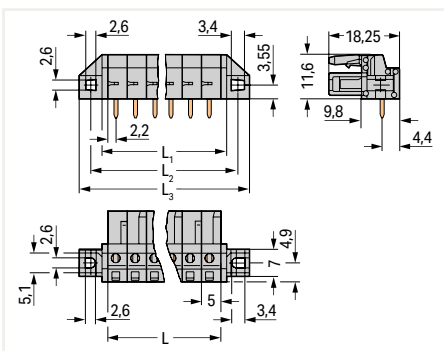
232-136/031-000



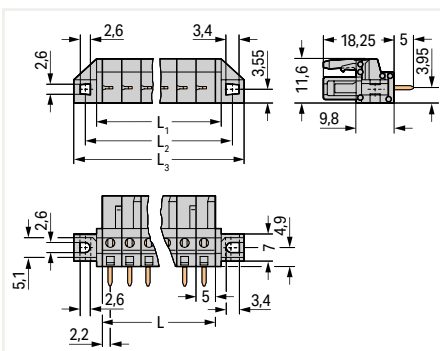
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-232/031-000	100
3	232-233/031-000	50
4	232-234/031-000	50
5	232-235/031-000	50
6	232-236/031-000	50
7	232-237/031-000	50
8	232-238/031-000	50
9	232-239/031-000	25
10	232-240/031-000	25
11	232-241/031-000	25
12	232-242/031-000	25
13	232-243/031-000	25
14	232-244/031-000	25
15	232-245/031-000	25
16	232-246/031-000	10
17	232-247/031-000	10
18	232-248/031-000	10
19	232-249/031-000	10
20	232-250/031-000	10
21	232-251/031-000	10
22	232-252/031-000	10
23	232-253/031-000	10
24	232-254/031-000	10

Pole No.	Item No.	PU
2	232-132/031-000	100
3	232-133/031-000	50
4	232-134/031-000	50
5	232-135/031-000	50
6	232-136/031-000	50
7	232-137/031-000	50
8	232-138/031-000	50
9	232-139/031-000	25
10	232-140/031-000	25
11	232-141/031-000	25
12	232-142/031-000	25
13	232-143/031-000	25
14	232-144/031-000	25
15	232-145/031-000	25
16	232-146/031-000	10
17	232-147/031-000	10
18	232-148/031-000	10
19	232-149/031-000	10
20	232-150/031-000	10
21	232-151/031-000	10
22	232-152/031-000	10
23	232-153/031-000	10
24	232-154/031-000	10



L = pole no. x pin spacing
 L₁ = L + 3 mm
 L₂ = L + 8.8 mm
 L₃ = L + 14.8 mm
 2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
 L₁ = L + 3 mm
 L₂ = L + 8.8 mm
 L₃ = L + 14.8 mm
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

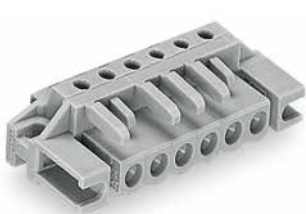
THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

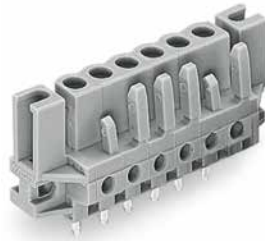
Mounting type: Flush feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

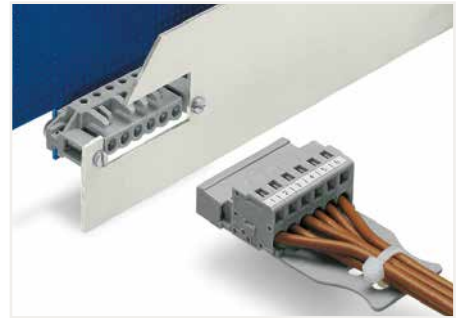
Mating direction to the PCB: 90°



232-236/047-000



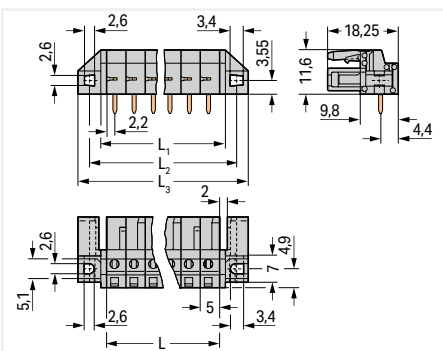
232-136/047-000



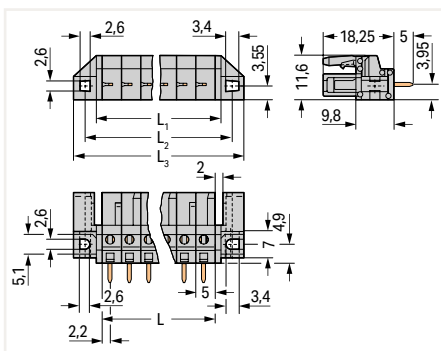
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-232/047-000	100
3	232-233/047-000	50
4	232-234/047-000	50
5	232-235/047-000	50
6	232-236/047-000	50
7	232-237/047-000	50
8	232-238/047-000	50
9	232-239/047-000	25
10	232-240/047-000	25
11	232-241/047-000	25
12	232-242/047-000	25
13	232-243/047-000	25
14	232-244/047-000	25
15	232-245/047-000	25
16	232-246/047-000	10
17	232-247/047-000	10
18	232-248/047-000	10
19	232-249/047-000	10
20	232-250/047-000	10
21	232-251/047-000	10
22	232-252/047-000	10
23	232-253/047-000	10
24	232-254/047-000	10

Pole No.	Item No.	PU
2	232-132/047-000	100
3	232-133/047-000	50
4	232-134/047-000	50
5	232-135/047-000	50
6	232-136/047-000	50
7	232-137/047-000	50
8	232-138/047-000	50
9	232-139/047-000	25
10	232-140/047-000	25
11	232-141/047-000	25
12	232-142/047-000	25
13	232-143/047-000	25
14	232-144/047-000	25
15	232-145/047-000	25
16	232-146/047-000	10
17	232-147/047-000	10
18	232-148/047-000	10
19	232-149/047-000	10
20	232-150/047-000	10
21	232-151/047-000	10
22	232-152/047-000	10
23	232-153/047-000	10
24	232-154/047-000	10



L = pole no. x pin spacing
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only

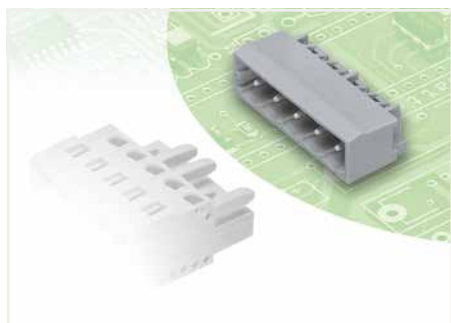
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

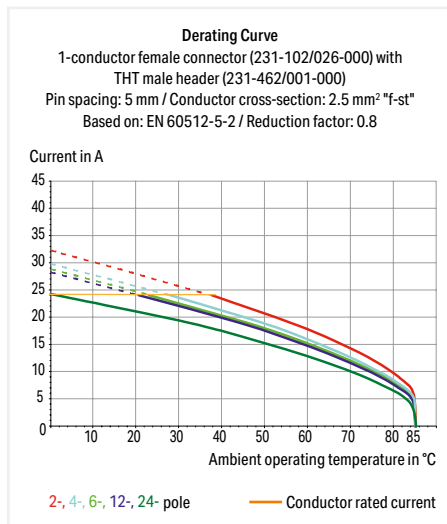
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

Mounting Page 869

Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: gray

Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

Mounting type: Feed-through mounting; Panel mounting
 ▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm



231-436/001-000



231-136/001-000

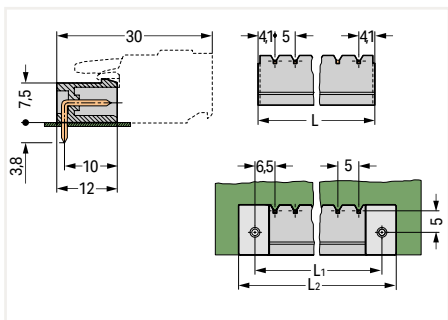


231-436/040-000

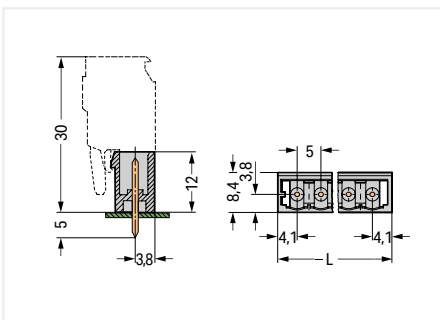
Pole No.	Item No.	PU
2	231-432/001-000	200
3	231-433/001-000	200
4	231-434/001-000	200
5	231-435/001-000	200
6	231-436/001-000	100
7	231-437/001-000	100
8	231-438/001-000	100
9	231-439/001-000	100
10	231-440/001-000	100
11	231-441/001-000	100
12	231-442/001-000	100
13	231-443/001-000	50
14	231-444/001-000	50
15	231-445/001-000	50
16	231-446/001-000	50
17	231-447/001-000	50
18	231-448/001-000	50
19	231-449/001-000	50
20	231-450/001-000	50
21	231-451/001-000	50
22	231-452/001-000	50
23	231-453/001-000	50
24	231-454/001-000	50

Pole No.	Item No.	PU
2	231-132/001-000	200
3	231-133/001-000	200
4	231-134/001-000	200
5	231-135/001-000	200
6	231-136/001-000	100
7	231-137/001-000	100
8	231-138/001-000	100
9	231-139/001-000	100
10	231-140/001-000	100
11	231-141/001-000	100
12	231-142/001-000	100
13	231-143/001-000	50
14	231-144/001-000	50
15	231-145/001-000	50
17	231-147/001-000	50
18	231-148/001-000	50
19	231-149/001-000	50
20	231-150/001-000	50
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23	231-153/001-000	50
24	231-154/001-000	50

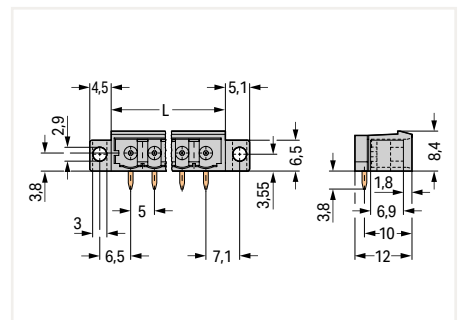
Pole No.	Item No.	PU
2	231-432/040-000	200
3	231-433/040-000	200
5	231-435/040-000	100
6	231-436/040-000	100
14	231-444/040-000	50



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

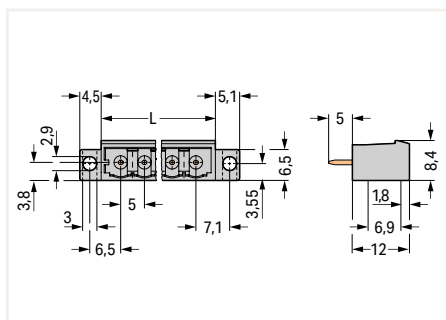
Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting
 ▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm



231-136/040-000

Pole No.	Item No.	PU
2	231-132/040-000	200
3	231-133/040-000	200
5	231-135/040-000	100
6	231-136/040-000	100
14	231-144/040-000	50



$$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$$

9

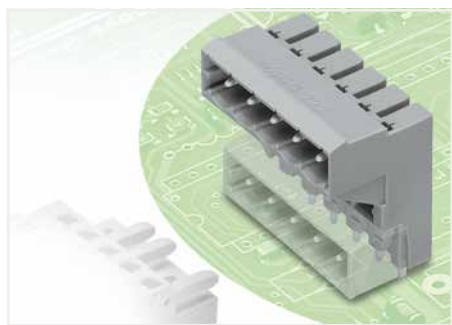
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

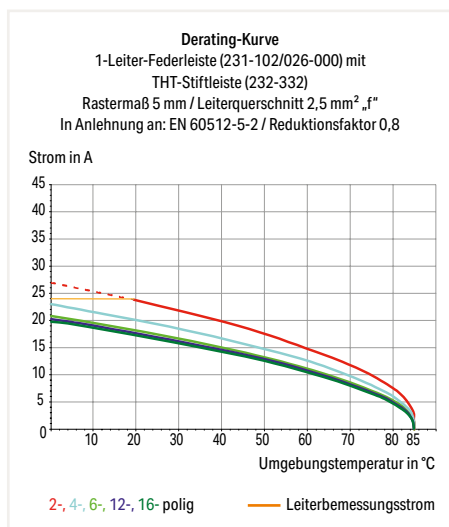
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header for double-deck assembly ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 5 mm ▶ Color: gray



- Male headers for double-deck assembly provide high-density wiring for wire-to-board connections
- Horizontal PCB mounting
- Double-deck design allows male or female headers with angled solder pins to be placed on the lower deck
- Coding option available



Electrical Data

Ratings per		IEC/EN 60664-1		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	12 A	12 A	12 A	
Approbations per		UL 1059		
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per		UL 1977		
Rated voltage	600 V			
Rated current	10 A			
Approbations per		CSA		
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
-------------------------	-----------------

The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

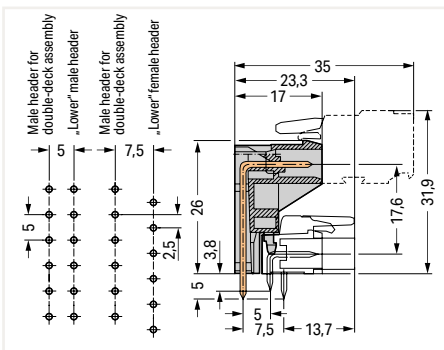
THT male header for double-deck assembly ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Mating direction to the PCB:
0° ▶ Solder pin length: 5 mm ▶ Color: gray



232-336

Pole No.	Item No.	PU
2	232-332	100
3	232-333	100
4	232-334	100
5	232-335	100
6	232-336	50
7	232-337	50
8	232-338	50
10	232-340	50
12	232-342	50
16	232-346	25



Length = (pole no. - 1) x pin spacing + 8.2 mm
 The solder pins of the "lower" male headers are in line.
 The solder pins of the "lower" female headers are staggered by half a pin spacing.

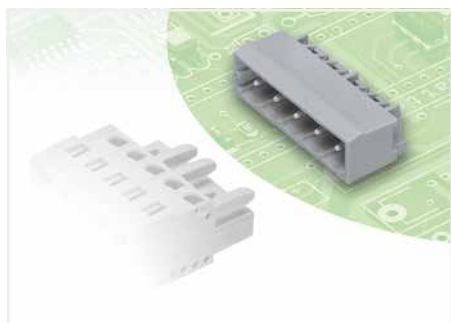
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

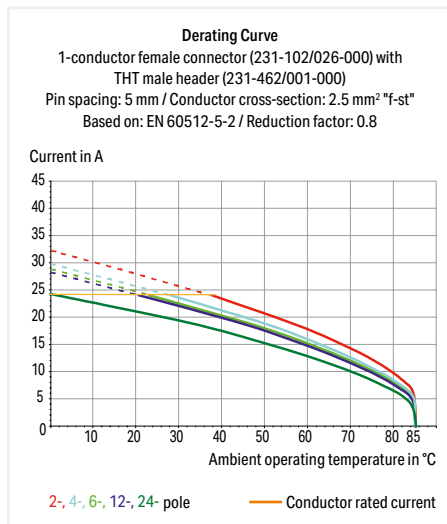
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
-------------------------	-----------------

The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

Mounting Page 869

Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: gray

Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

Mounting type: Feed-through mounting; Panel mounting
 ▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm



231-466/001-000



231-166/001-000

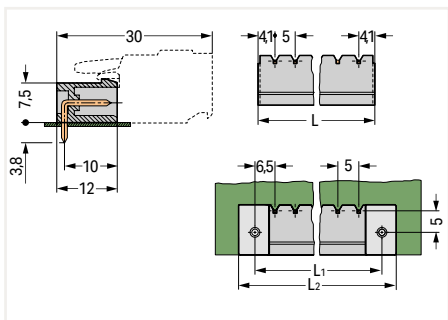


231-466/040-000

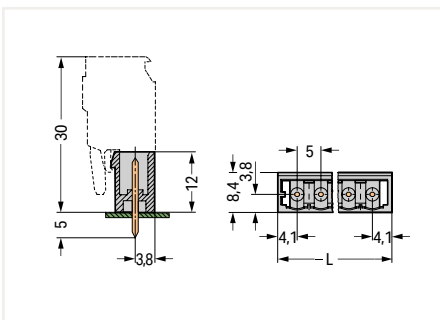
Pole No.	Item No.	PU
2	231-462/001-000	200
3	231-463/001-000	200
4	231-464/001-000	200
5	231-465/001-000	200
6	231-466/001-000	100
7	231-467/001-000	100
8	231-468/001-000	100
9	231-469/001-000	100
10	231-470/001-000	100
11	231-471/001-000	100
12	231-472/001-000	100
13	231-473/001-000	50
14	231-474/001-000	50
15	231-475/001-000	50
16	231-476/001-000	50
17	231-477/001-000	50
18	231-478/001-000	50
19	231-479/001-000	50
20	231-480/001-000	50
21	231-481/001-000	50
22	231-482/001-000	50
23	231-483/001-000	50
24	231-484/001-000	50

Pole No.	Item No.	PU
2	231-162/001-000	200
3	231-163/001-000	200
4	231-164/001-000	200
5	231-165/001-000	200
6	231-166/001-000	200
7	231-167/001-000	100
8	231-168/001-000	100
9	231-169/001-000	100
10	231-170/001-000	100
11	231-171/001-000	100
12	231-172/001-000	100
13	231-173/001-000	50
14	231-174/001-000	50
15	231-175/001-000	50
16	231-176/001-000	50
17	231-177/001-000	50
18	231-178/001-000	50
19	231-179/001-000	50
20	231-180/001-000	50
21	231-181/001-000	50
22	231-182/001-000	50
23	231-183/001-000	50
24	231-184/001-000	50

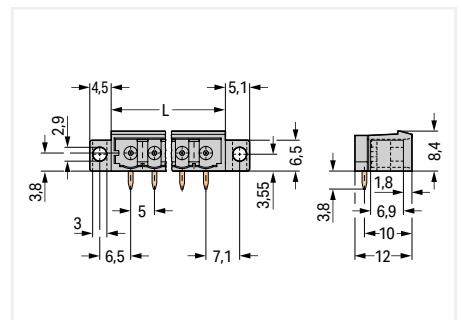
Pole No.	Item No.	PU
2	231-462/040-000	200
3	231-463/040-000	200
5	231-465/040-000	100
6	231-466/040-000	100
14	231-474/040-000	50



L = (pole no. - 1) x pin spacing + 8.2 mm
 L₁ = L + 5 mm
 L₂ = L₁ + 7.4 mm



L = (pole no. - 1) x pin spacing + 8.2 mm



L = (pole no. - 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

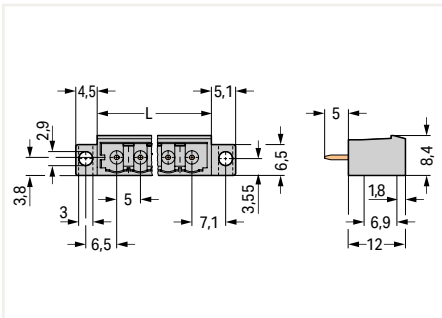
Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting
 ▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm



231-166/040-000

Pole No.	Item No.	PU
2	231-162/040-000	200
3	231-163/040-000	200
5	231-165/040-000	100
6	231-166/040-000	100
14	231-174/040-000	50



$$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$$

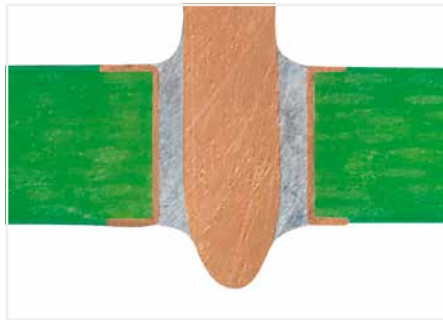
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

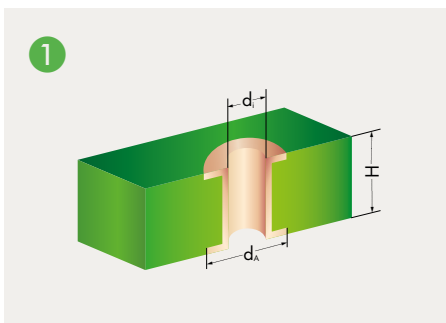
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THR (Through-Hole Reflow) Soldering Process



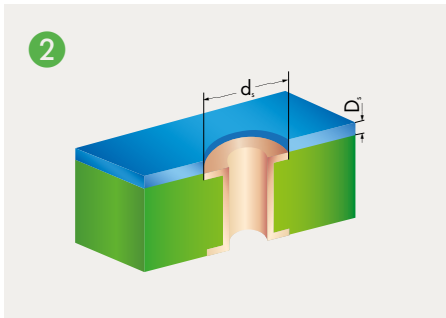
By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.

Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3 WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.



Metal-plated PCB bore hole

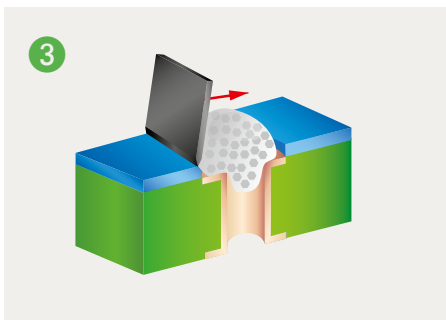
Series	d _i (mm)	d _A (mm)	H (mm)	d _s (mm)	D _s (μm)	d (mm)	L (mm)
218	1.1 ^{+0.1}	1.9	<2	1.8	150	0.9	2.8
231 (1 x 1 mm)	1.4 ^{+0.1}	2.5	<2	2.4	150	1.2	2.4
231 (1.2 x 1.2 mm)	1.7 ^{+0.1}	2.8	<2	2.7	150	1.5	2.4
236	1.1 ^{+0.1}	2.2	<2	2.1	150	0.9	3.6
250	1.1 ^{+0.1}	2.0	<2	1.9	150	0.9	2.4
713	1.0 ^{+0.1}	1.9	<2	1.8	150	1.0	2.4
733	1.2 ^{+0.1}	1.9	<2	1.8	150	1.0	2.4
734	1.4 ^{+0.1}	2.5	<2	2.4	150	1.2	2.4
2060	1.5 ^{+0.1}	2.4	<2	2.3	150	1.25	2.4
2061	1.5 ^{+0.1}	2.4	<2	2.3	150	1.25	1.5/2.4
2086	1.0 ^{+0.1}	2.0	<2	1.9	150	0.85	1.5/2.4



SMD positioning pattern

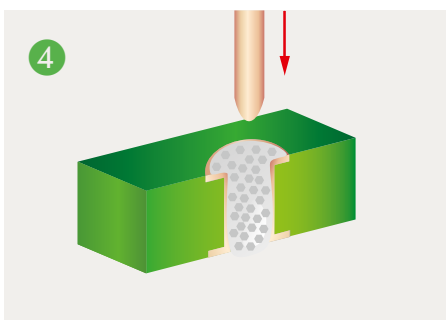
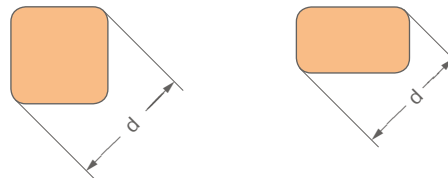
- d_i: Plated through-hole diameter
- d_A: Outer diameter of metal-plated PCB hole*
- H: PCB thickness
- d_s: Pattern hole diameter
- D_s: Pattern thickness
- d: Pin diagonal
- L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

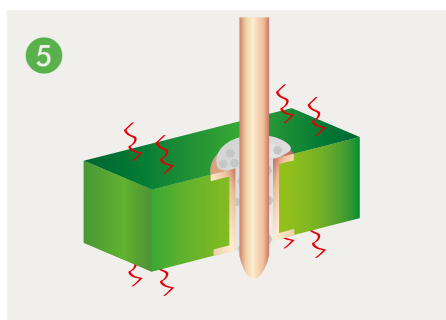


Solder paste application

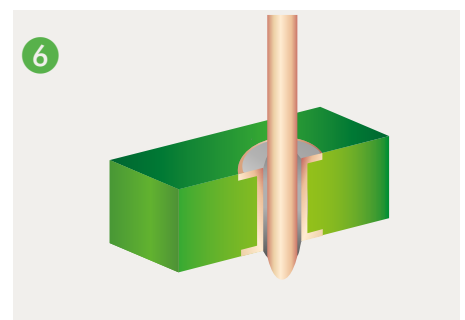
Solder pin form



Component assembly, automatic/by hand



Reflow soldering process



THR soldering joint

THR male header ▶ MCS MIDI Classic ▶ 231 Series

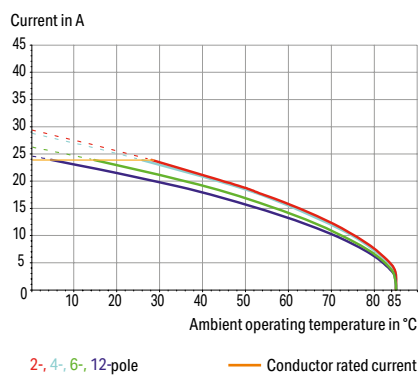
Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

Derating Curve

1-conductor female connector (231-102/026-000) with
THR male header (231-432/001-000/105-604)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 ^(±0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering Page 596

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: black

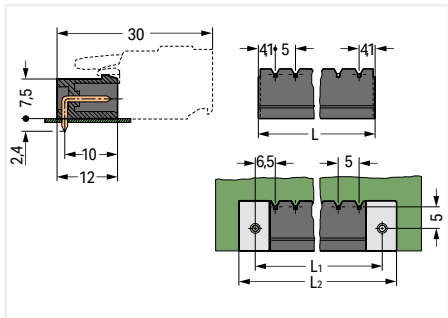
Mating direction to the PCB: 0°

Suitable for automated assembly

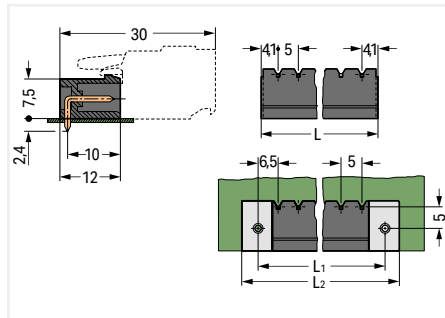


Pole No.	Item No.	PU
2	231-432/001-000/105-604	200
3	231-433/001-000/105-604	200
4	231-434/001-000/105-604	200
5	231-435/001-000/105-604	200
6	231-436/001-000/105-604	100
7	231-437/001-000/105-604	100
8	231-438/001-000/105-604	100
9	231-439/001-000/105-604	100
10	231-440/001-000/105-604	100
11	231-441/001-000/105-604	100
12	231-442/001-000/105-604	100

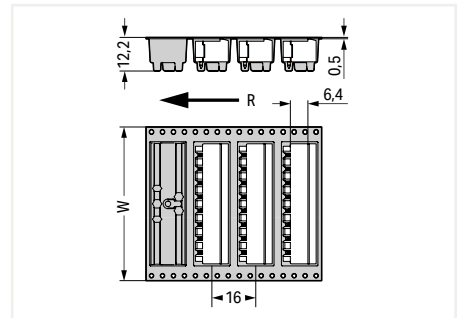
Pole No.	Tape width	Item No.	PU
2	32 mm	231-432/001-000/105-604/997-405	170
3	32 mm	231-433/001-000/105-604/997-405	170
4	56 mm	231-434/001-000/105-604/997-407	170
5	56 mm	231-435/001-000/105-604/997-407	170
6	56 mm	231-436/001-000/105-604/997-407	170
7	56 mm	231-437/001-000/105-604/997-407	170
8	56 mm	231-438/001-000/105-604/997-407	170
9	88 mm	231-439/001-000/105-604/997-409	170
10	88 mm	231-440/001-000/105-604/997-409	170
11	88 mm	231-441/001-000/105-604/997-409	170
12	88 mm	231-442/001-000/105-604/997-409	170



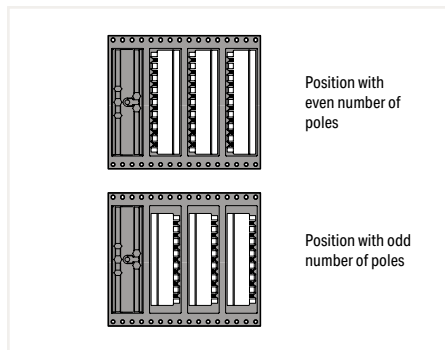
$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 4.8 \text{ mm}$
 $L_2 = L_1 + 7.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 4.8 \text{ mm}$
 $L_2 = L_1 + 7.2 \text{ mm}$



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: black

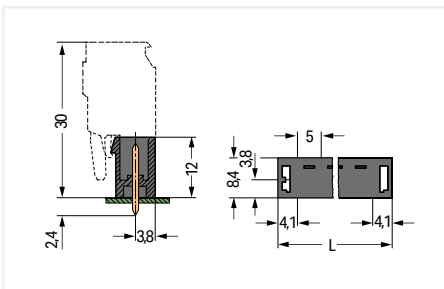
Mating direction to the PCB: 90°

Suitable for automated assembly

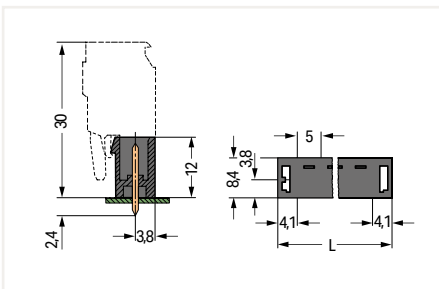


Pole No.	Item No.	PU
2	231-132/001-000/105-604	200
3	231-133/001-000/105-604	200
4	231-134/001-000/105-604	200
5	231-135/001-000/105-604	200
6	231-136/001-000/105-604	100
7	231-137/001-000/105-604	100
8	231-138/001-000/105-604	100
9	231-139/001-000/105-604	100
10	231-140/001-000/105-604	100
11	231-141/001-000/105-604	100
12	231-142/001-000/105-604	100

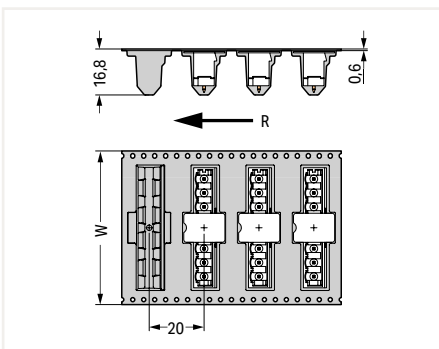
Pole No.	Tape width	Item No.	PU
2	32 mm	231-132/001-000/105-604/997-405	170
3	32 mm	231-133/001-000/105-604/997-405	170
4	56 mm	231-134/001-000/105-604/997-407	170
5	56 mm	231-135/001-000/105-604/997-407	170
6	56 mm	231-136/001-000/105-604/997-407	170
7	56 mm	231-137/001-000/105-604/997-407	170
8	56 mm	231-138/001-000/105-604/997-407	170
9	88 mm	231-139/001-000/105-604/997-409	170
10	88 mm	231-140/001-000/105-604/997-409	170
11	88 mm	231-141/001-000/105-604/997-409	170
12	88 mm	231-142/001-000/105-604/997-409	170



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



W = tape width
R = feed direction

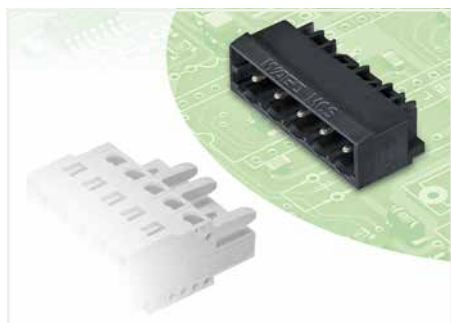
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

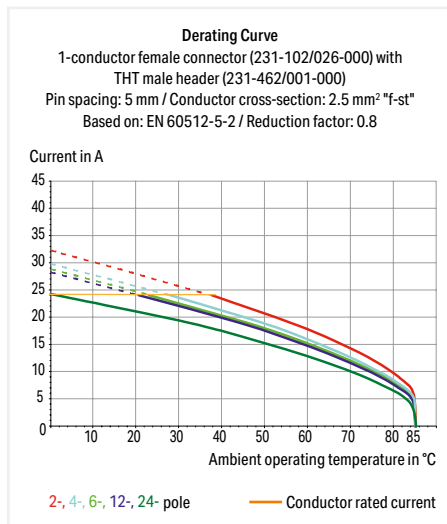
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 1.2 mm
Plated through-hole diameter (THR)	1.7 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering Page 596

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: black

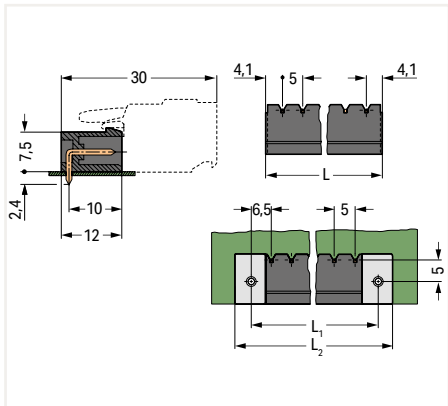
Mating direction to the PCB: 0°

Suitable for automated assembly

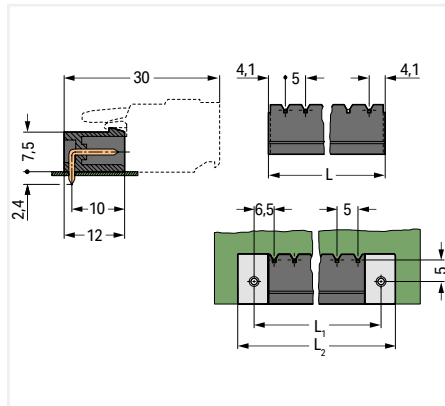


Pole No.	Item No.	PU
2	231-462/001-000/105-604	200
3	231-463/001-000/105-604	200
4	231-464/001-000/105-604	200
5	231-465/001-000/105-604	200
6	231-466/001-000/105-604	100
7	231-467/001-000/105-604	100
8	231-468/001-000/105-604	100
9	231-469/001-000/105-604	100
10	231-470/001-000/105-604	100
11	231-471/001-000/105-604	100
12	231-472/001-000/105-604	100

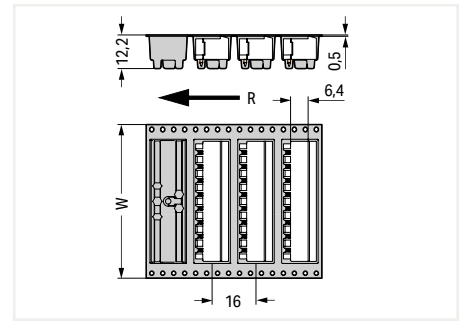
Pole No.	Tape width	Item No.	PU
2	32 mm	231-462/001-000/105-604/997-405	170
3	32 mm	231-463/001-000/105-604/997-405	170
4	56 mm	231-464/001-000/105-604/997-407	170
5	56 mm	231-465/001-000/105-604/997-407	170
6	56 mm	231-466/001-000/105-604/997-407	170
7	56 mm	231-467/001-000/105-604/997-407	170
8	56 mm	231-468/001-000/105-604/997-407	170
9	88 mm	231-469/001-000/105-604/997-409	170
10	88 mm	231-470/001-000/105-604/997-409	170
11	88 mm	231-471/001-000/105-604/997-409	170
12	88 mm	231-472/001-000/105-604/997-409	170



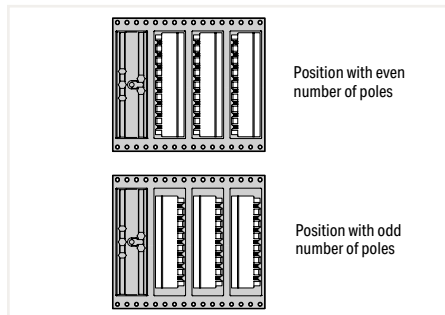
$L = (\text{pole no.} \times \text{pin spacing}) + 3.2 \text{ mm}$
 $L_1 = L + 4.8 \text{ mm}$
 $L_2 = L_1 + 7.2 \text{ mm}$



$L = (\text{pole no.} \times \text{pin spacing}) + 3.2 \text{ mm}$
 $L_1 = L + 4.8 \text{ mm}$
 $L_2 = L_1 + 7.2 \text{ mm}$



W = tape width
 R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: black

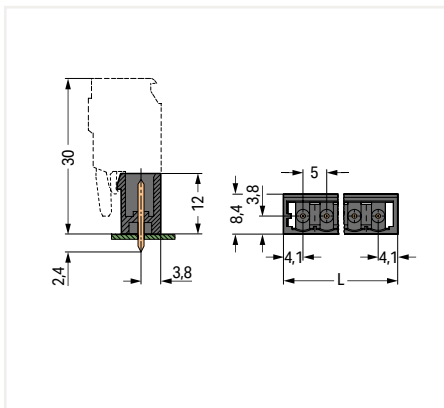
Mating direction to the PCB: 90°

Suitable for automated assembly

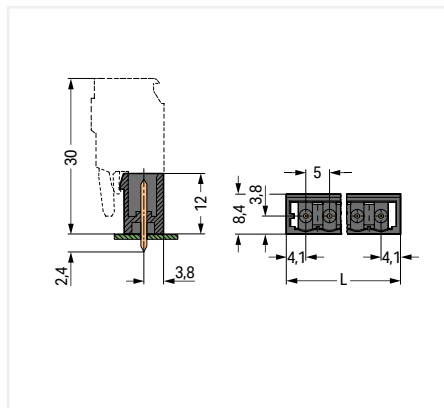


Pole No.	Item No.	PU
2	231-162/001-000/105-604	200
3	231-163/001-000/105-604	200
4	231-164/001-000/105-604	200
5	231-165/001-000/105-604	200
6	231-166/001-000/105-604	100
7	231-167/001-000/105-604	100
8	231-168/001-000/105-604	100
9	231-169/001-000/105-604	100
10	231-170/001-000/105-604	100
11	231-171/001-000/105-604	100
12	231-172/001-000/105-604	100

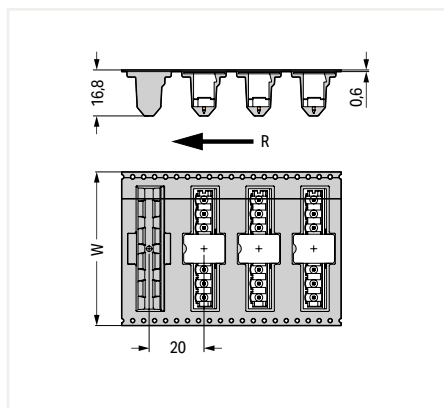
Pole No.	Tape width	Item No.	PU
2	32 mm	231-162/001-000/105-604/997-405	170
3	32 mm	231-163/001-000/105-604/997-405	170
4	56 mm	231-164/001-000/105-604/997-407	170
5	56 mm	231-165/001-000/105-604/997-407	170
6	56 mm	231-166/001-000/105-604/997-407	170
7	56 mm	231-167/001-000/105-604/997-407	170
8	56 mm	231-168/001-000/105-604/997-407	170
9	88 mm	231-169/001-000/105-604/997-409	170
10	88 mm	231-170/001-000/105-604/997-409	170
11	88 mm	231-171/001-000/105-604/997-409	170
12	88 mm	231-172/001-000/105-604/997-409	170



L = (pole no. x pin spacing) + 3.2 mm



L = (pole no. x pin spacing) + 3.2 mm



W = tape width
R = feed direction

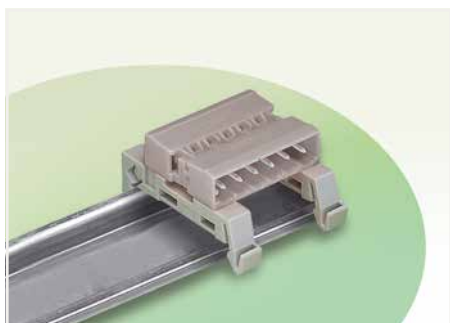
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Mounting type: DIN-35 rail ▶ Color: gray



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A

Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		

Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

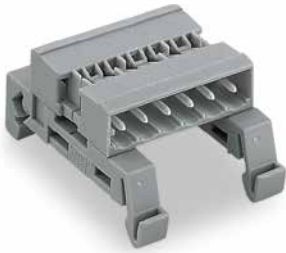
DIN-rail Page 868

See technical section for further information

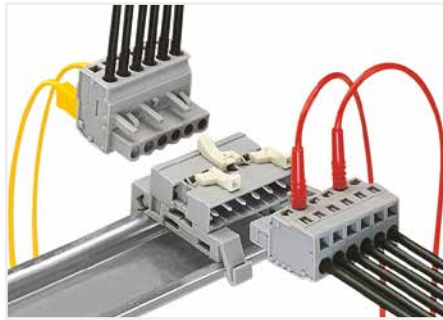
For approvals and corresponding ratings, visit www.wago.com

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Mounting type: DIN-35 rail ▶ Color: gray

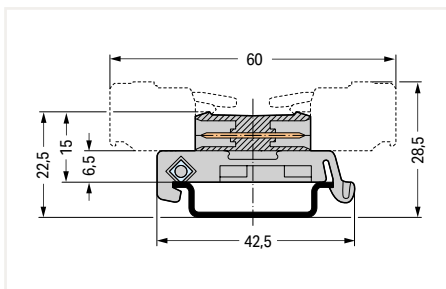


232-506/007-000



Angled female connector – straight female connector

Pole No.	Item No.	PU
2	232-502/007-000	100
3	232-503/007-000	50
4	232-504/007-000	50
5	232-505/007-000	50
6	232-506/007-000	50
7	232-507/007-000	25
8	232-508/007-000	25
9	232-509/007-000	25
10	232-510/007-000	25
11	232-511/007-000	25
12	232-512/007-000	25
13	232-513/007-000	25
14	232-514/007-000	25
15	232-515/007-000	25
16	232-516/007-000	25
17	232-517/007-000	25
18	232-518/007-000	25
19	232-519/007-000	25
20	232-520/007-000	25
21	232-521/007-000	10
22	232-522/007-000	10
23	232-523/007-000	10
24	232-524/007-000	10



Total length = (pole no. - 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

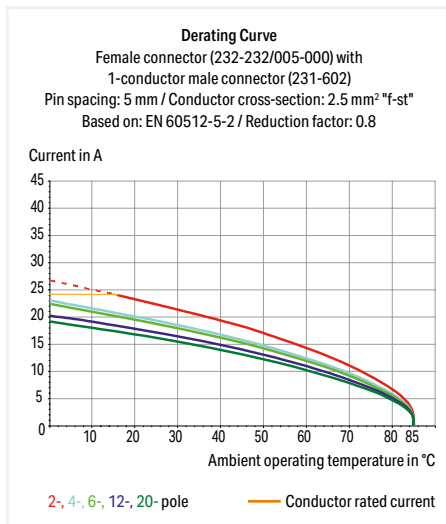
- Other pole numbers

Female connector for rail-mount terminal blocks ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Color: gray



- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Female connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Female connectors are touch-proof when unmated, providing a pluggable, live output
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Test and measurement Page 725

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

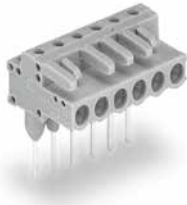
Female connector for rail-mount terminal blocks ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Color: gray

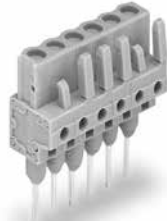
Mating direction to the rail-mount terminal block: 0°

Mating direction to the rail-mount terminal block: 90°

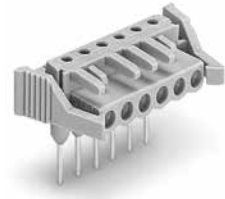
Locking of plug-in connection: Locking lever ▶ Mating direction to the rail-mount terminal block: 0°



232-236/005-000



232-136/005-000

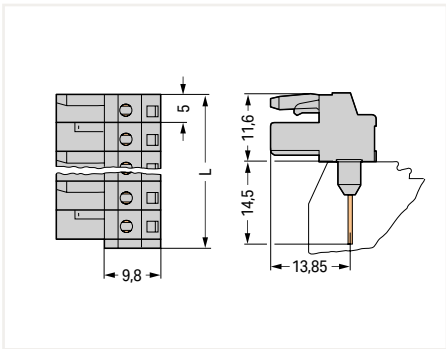


232-236/005-000/039-000

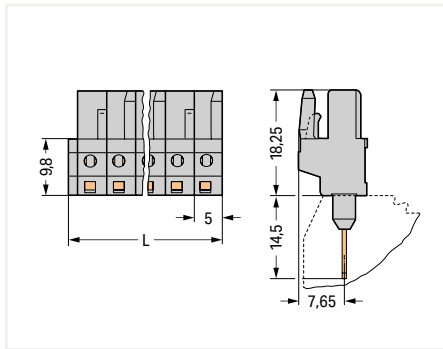
Pole No.	Item No.	PU
2	232-232/005-000	100
3	232-233/005-000	100
4	232-234/005-000	100
5	232-235/005-000	100
6	232-236/005-000	50
7	232-237/005-000	50
8	232-238/005-000	50
9	232-239/005-000	50
10	232-240/005-000	50
11	232-241/005-000	25
12	232-242/005-000	25

Pole No.	Item No.	PU
2	232-132/005-000	100
3	232-133/005-000	100
4	232-134/005-000	100
5	232-135/005-000	100
6	232-136/005-000	50
7	232-137/005-000	50
8	232-138/005-000	50
9	232-139/005-000	50
10	232-140/005-000	50
11	232-141/005-000	25
12	232-142/005-000	25

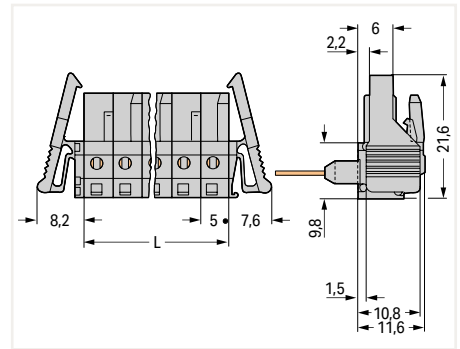
Pole No.	Item No.	PU
2	232-232/005-000/039-000	100
3	232-233/005-000/039-000	50
4	232-234/005-000/039-000	50
5	232-235/005-000/039-000	50
6	232-236/005-000/039-000	50
7	232-237/005-000/039-000	50
9	232-239/005-000/039-000	25
10	232-240/005-000/039-000	25
11	232-241/005-000/039-000	25
12	232-242/005-000/039-000	25



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

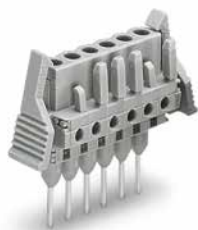
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers

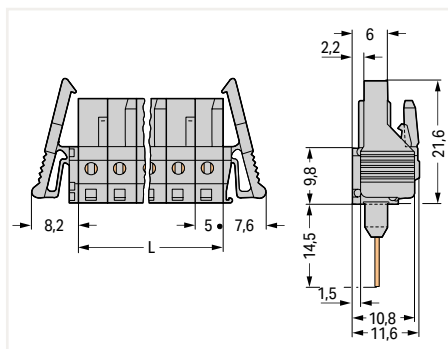
Female connector for rail-mount terminal blocks ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5 mm / 0.197 inch ▶ Color: gray

Locking of plug-in connection: Locking lever ▶ Mating direction to the rail-mount terminal block: 90 °



Pole No.	Item No.	PU
2	232-132/005-000/039-000	100
3	232-133/005-000/039-000	50
4	232-134/005-000/039-000	50
5	232-135/005-000/039-000	50
6	232-136/005-000/039-000	50
7	232-137/005-000/039-000	50
8	232-138/005-000/039-000	50
9	232-139/005-000/039-000	25
10	232-140/005-000/039-000	25
11	232-141/005-000/039-000	25
12	232-142/005-000/039-000	25



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers

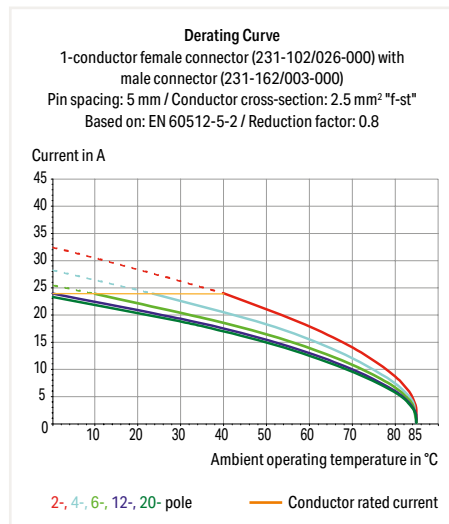
9

Male connector for rail-mount terminal blocks ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Color: gray



- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Male connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Pins can be touched when the connector is unplugged, so power supply should be performed via terminal block (observe rated voltage!)
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

Tool Page 725

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Male connector for rail-mount terminal blocks ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5 mm / 0.197 inch ▶ Color: gray

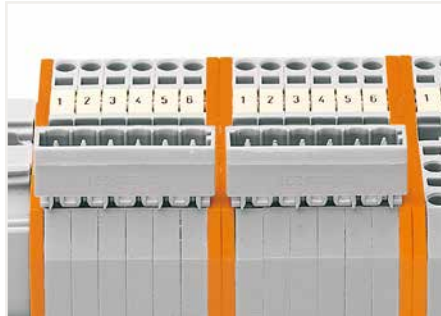


231-166/003-000

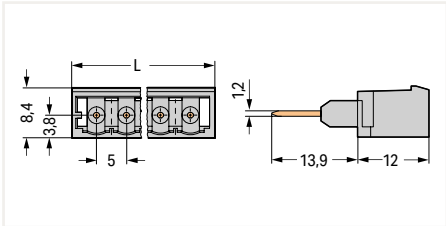


Inserting a male connector via multipole operating tool.

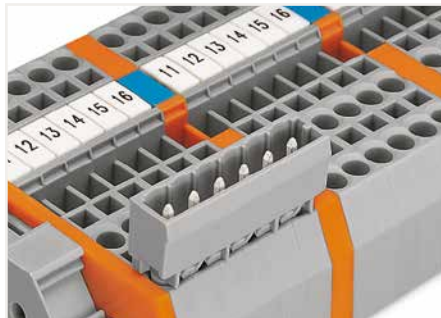
Pole No.	Item No.	PU
2	231-162/003-000	200
3	231-163/003-000	200
4	231-164/003-000	200
5	231-165/003-000	200
6	231-166/003-000	100
7	231-167/003-000	100
8	231-168/003-000	100
9	231-169/003-000	100
10	231-170/003-000	100
11	231-171/003-000	100
12	231-172/003-000	100



The extra width of the male connectors when used on front-entry, rail-mount terminal blocks must be compensated for by either two intermediate plates or rail-mount spacer block (block assembly).



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



Spacer blocks can be bridged via alternate or staggered jumpers.

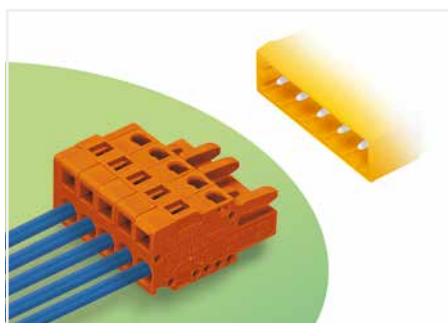
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

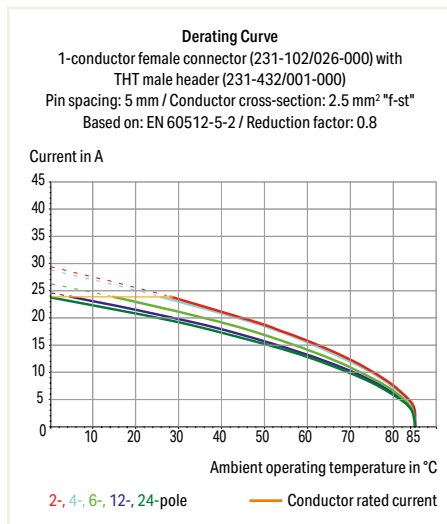
- Other pole numbers

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 730
Test and measurement	Page 725, 886
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

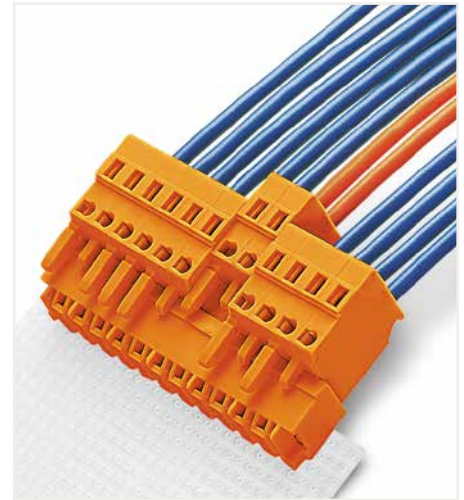
Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Plugging without loss of pin spacing

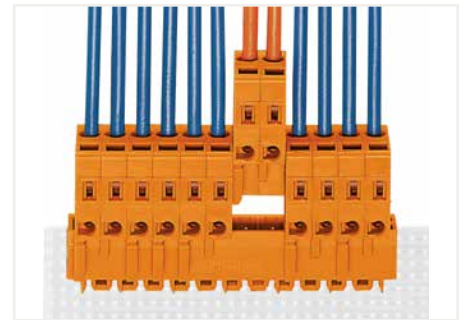


231-306/102-000

Pole No.	Item No.	PU	Pole No.	Item No.	PU
2	231-302/026-000	100	2	231-302/102-000	100
3	231-303/026-000	100	3	231-303/102-000	100
4	231-304/026-000	100	4	231-304/102-000	100
5	231-305/026-000	100	5	231-305/102-000	100
6	231-306/026-000	50	6	231-306/102-000	50
7	231-307/026-000	50	7	231-307/102-000	50
8	231-308/026-000	50	8	231-308/102-000	50
9	231-309/026-000	50	9	231-309/102-000	50
10	231-310/026-000	50	10	231-310/102-000	50
11	231-311/026-000	25	11	231-311/102-000	25
12	231-312/026-000	25	12	231-312/102-000	25
13	231-313/026-000	25	13	231-313/102-000	25
14	231-314/026-000	25	14	231-314/102-000	25
15	231-315/026-000	25	15	231-315/102-000	25
16	231-316/026-000	25	16	231-316/102-000	25
17	231-317/026-000	25	17	231-317/102-000	25
18	231-318/026-000	10	18	231-318/102-000	10
19	231-319/026-000	10	19	231-319/102-000	10
20	231-320/026-000	10	20	231-320/102-000	10
21	231-321/026-000	10	21	231-321/102-000	10
22	231-322/026-000	10	22	231-322/102-000	10
23	231-323/026-000	10	23	231-323/102-000	10
24	231-324/026-000	10	24	231-324/102-000	10

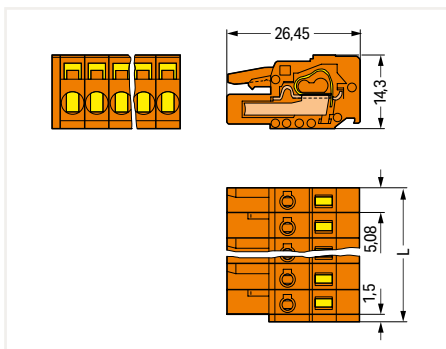


Total pole number for female connectors = pole number for male header

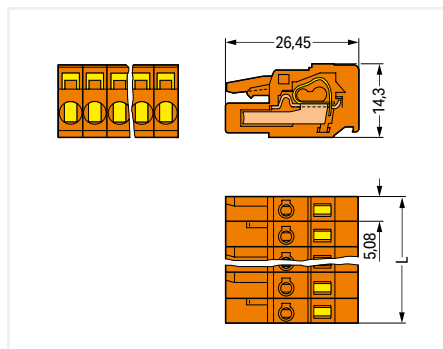


Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

9



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Locking of plug-in connection: Locking lever

Locking of plug-in connection: Screw flange



231-306/037-000

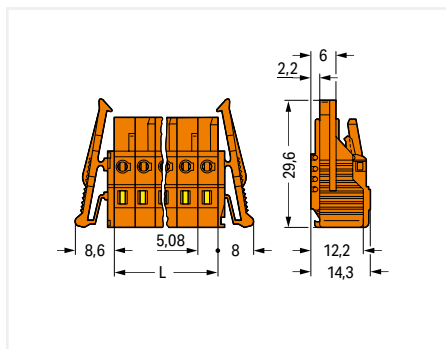


231-306/107-000

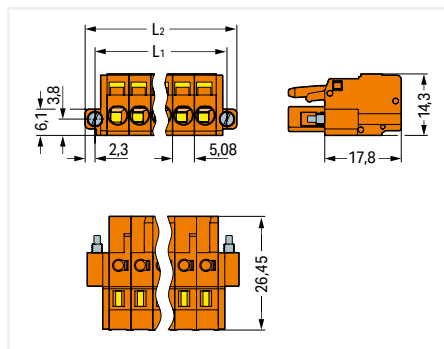
Pole No.	Item No.	PU
2	231-302/037-000	100
3	231-303/037-000	50
4	231-304/037-000	50
5	231-305/037-000	50
6	231-306/037-000	50
7	231-307/037-000	50
8	231-308/037-000	25
9	231-309/037-000	25
10	231-310/037-000	25
11	231-311/037-000	25
12	231-312/037-000	25
13	231-313/037-000	25
14	231-314/037-000	25
15	231-315/037-000	25
16	231-316/037-000	10
17	231-317/037-000	10
18	231-318/037-000	10
19	231-319/037-000	10
20	231-320/037-000	10
21	231-321/037-000	10
22	231-322/037-000	10
23	231-323/037-000	10
24	231-324/037-000	10

Pole No.	Item No.	PU
2	231-302/107-000	100
3	231-303/107-000	100
4	231-304/107-000	50
5	231-305/107-000	50
6	231-306/107-000	50
7	231-307/107-000	50
8	231-308/107-000	50
9	231-309/107-000	25
10	231-310/107-000	25
12	231-312/107-000	25
14	231-314/107-000	25
15	231-315/107-000	25
16	231-316/107-000	25

9



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 5.4 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 10 \text{ mm}$
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

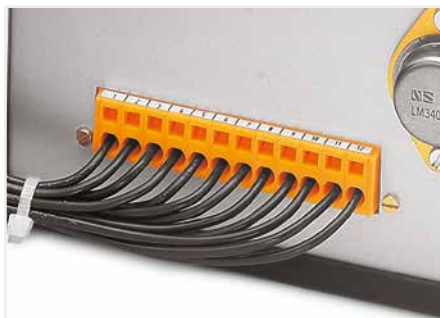


231-306/031-000



Female connectors with mounting flanges can be used as PCB through-panel connectors – conductor termination parallel to CAGE CLAMP® actuation.

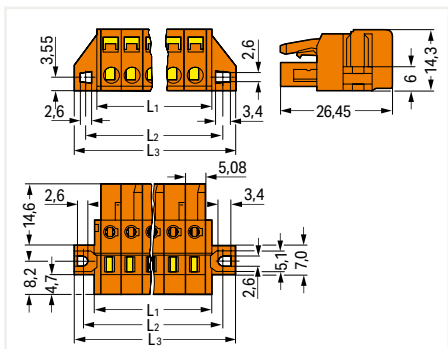
Pole No.	Item No.	PU
2	231-302/031-000	100
3	231-303/031-000	50
4	231-304/031-000	50
5	231-305/031-000	50
6	231-306/031-000	50
7	231-307/031-000	50
8	231-308/031-000	50
9	231-309/031-000	25
10	231-310/031-000	25
11	231-311/031-000	25
12	231-312/031-000	25
13	231-313/031-000	25
14	231-314/031-000	25
15	231-315/031-000	25
16	231-316/031-000	10
17	231-317/031-000	10
18	231-318/031-000	10
19	231-319/031-000	10
20	231-320/031-000	10
21	231-321/031-000	10
22	231-322/031-000	10
23	231-323/031-000	10
24	231-324/031-000	10



PCB female connectors with mounting flanges can be used as through-panel connectors for external wiring.



16-pole female connector with mounting flanges in a 19" rack – conductor termination parallel to CAGE CLAMP® actuation



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 3 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 8.8 \text{ mm}$
 $L_3 = (\text{pole no.} \times \text{pin spacing}) + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange ▶ with reinforcing strips

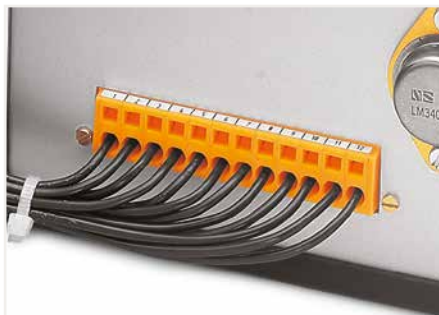


231-306/027-000



Female connectors with mounting flanges can be used as PCB through-panel connectors – conductor termination parallel to CAGE CLAMP® actuation.

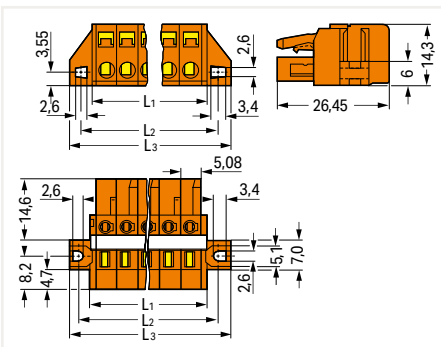
Pole No.	Item No.	PU
6	231-306/027-000	50
7	231-307/027-000	50
8	231-308/027-000	50
9	231-309/027-000	25
10	231-310/027-000	25
11	231-311/027-000	25
12	231-312/027-000	25
13	231-313/027-000	25
14	231-314/027-000	25
15	231-315/027-000	25
16	231-316/027-000	10
17	231-317/027-000	10
18	231-318/027-000	10
19	231-319/027-000	10
20	231-320/027-000	10
21	231-321/027-000	10
22	231-322/027-000	10
23	231-323/027-000	10
24	231-324/027-000	10



PCB female connectors with mounting flanges can be used as through-panel connectors for external wiring.



16-pole female connector with mounting flanges in a 19" rack – conductor termination parallel to CAGE CLAMP® actuation



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 3 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 8.8 \text{ mm}$
 $L_3 = (\text{pole no.} \times \text{pin spacing}) + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

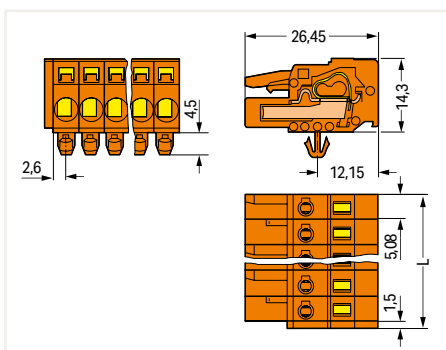
Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



231-306/008-000

Pole No.	Item No.	PU
2	231-302/008-000	100
3	231-303/008-000	100
4	231-304/008-000	100
5	231-305/008-000	100
6	231-306/008-000	50
7	231-307/008-000	50
8	231-308/008-000	50
9	231-309/008-000	50
10	231-310/008-000	50
11	231-311/008-000	25
12	231-312/008-000	25
13	231-313/008-000	25
14	231-314/008-000	25
15	231-315/008-000	25
16	231-316/008-000	25
17	231-317/008-000	25
18	231-318/008-000	10
19	231-319/008-000	10
20	231-320/008-000	10
21	231-321/008-000	10
22	231-322/008-000	10
23	231-323/008-000	10
24	231-324/008-000	10



$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

2- to 3-pole female connectors – one latch only

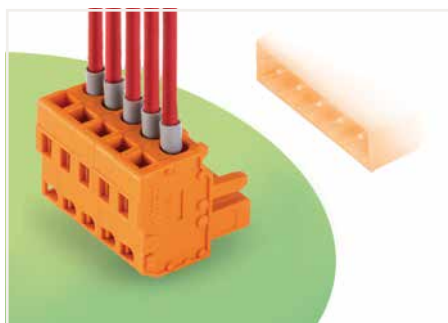
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

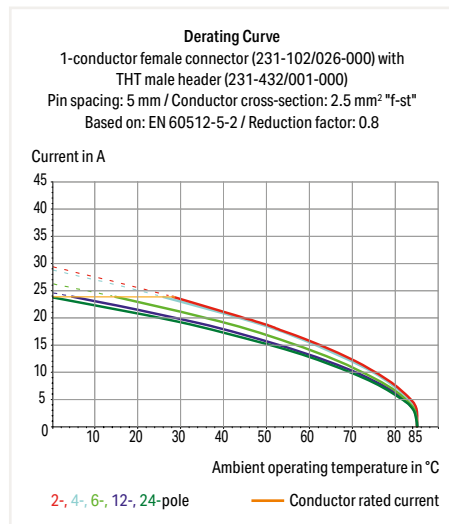
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overtoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Strain relief	Page 730
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 232 Series

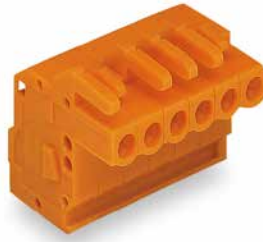
Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Color: orange

Conductor entry direction to mating direction: 90°

Conductor entry direction to mating direction: 270°



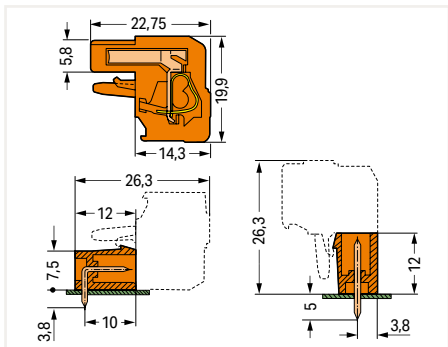
232-406/026-000



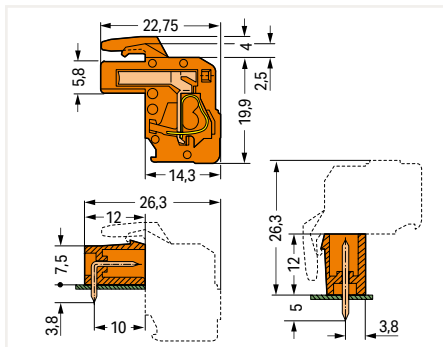
232-306/026-000

Pole No.	Item No.	PU
2	232-402/026-000	100
3	232-403/026-000	100
4	232-404/026-000	100
5	232-405/026-000	100
6	232-406/026-000	50
7	232-407/026-000	50
8	232-408/026-000	50
9	232-409/026-000	50
10	232-410/026-000	50
11	232-411/026-000	25
12	232-412/026-000	25
13	232-413/026-000	25
14	232-414/026-000	25
15	232-415/026-000	25
16	232-416/026-000	25
17	232-417/026-000	25
18	232-418/026-000	10
19	232-419/026-000	10
20	232-420/026-000	10
21	232-421/026-000	10
22	232-422/026-000	10
23	232-423/026-000	10
24	232-424/026-000	10

Pole No.	Item No.	PU
2	232-302/026-000	100
3	232-303/026-000	100
4	232-304/026-000	100
5	232-305/026-000	100
6	232-306/026-000	50
7	232-307/026-000	50
8	232-308/026-000	50
9	232-309/026-000	50
10	232-310/026-000	50
11	232-311/026-000	25
12	232-312/026-000	25
13	232-313/026-000	25
14	232-314/026-000	25
15	232-315/026-000	25
16	232-316/026-000	25
17	232-317/026-000	25
18	232-318/026-000	10
19	232-319/026-000	10
20	232-320/026-000	10
21	232-321/026-000	10
22	232-322/026-000	10
23	232-323/026-000	10
24	232-324/026-000	10



Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only



Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

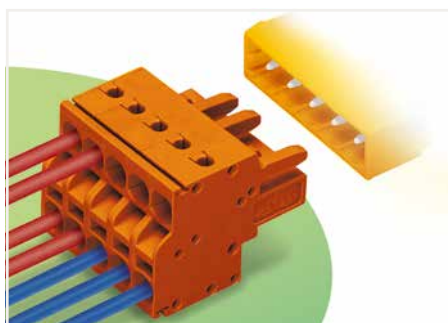
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

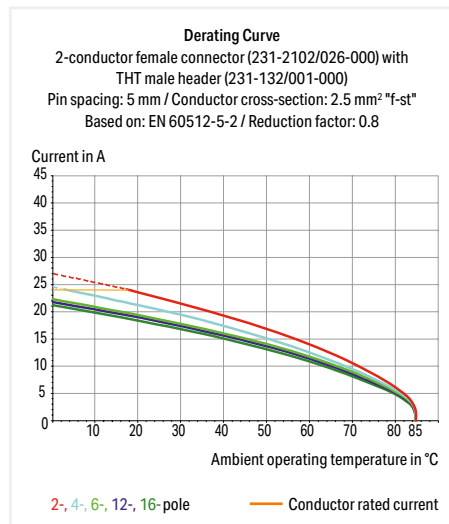
- Gold-plated or partially gold-plated contact surfaces

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
-------------------------	----------------

The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

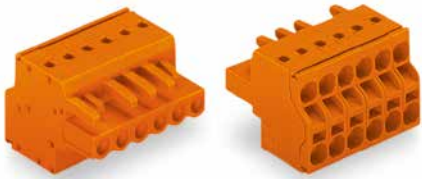
Ferrule	Page 879
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Tool	Page 725, 870
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

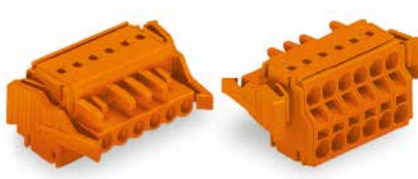
Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Locking of plug-in connection: Locking lever

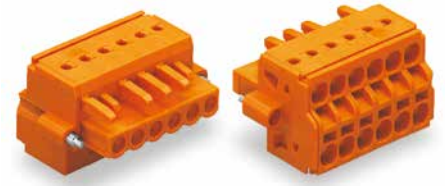
Locking of plug-in connection: Screw flange



231-2306/026-000



231-2306/037-000

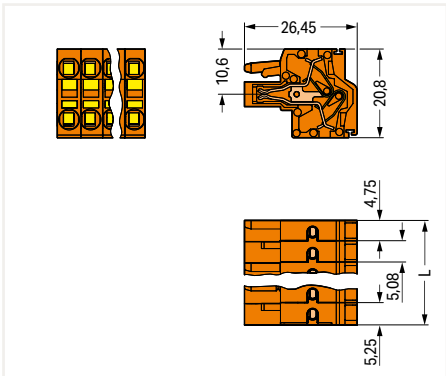


231-2306/107-000

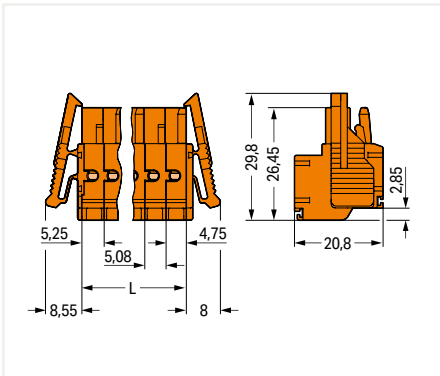
Pole No.	Item No.	PU
2	231-2302/026-000	100
3	231-2303/026-000	100
4	231-2304/026-000	100
5	231-2305/026-000	50
6	231-2306/026-000	50
7	231-2307/026-000	50
8	231-2308/026-000	50
9	231-2309/026-000	50
10	231-2310/026-000	50
11	231-2311/026-000	25
12	231-2312/026-000	25
13	231-2313/026-000	25
14	231-2314/026-000	25
15	231-2315/026-000	25
16	231-2316/026-000	25

Pole No.	Item No.	PU
2	231-2302/037-000	100
3	231-2303/037-000	50
4	231-2304/037-000	50
5	231-2305/037-000	50
6	231-2306/037-000	50
7	231-2307/037-000	50
8	231-2308/037-000	25
9	231-2309/037-000	25
10	231-2310/037-000	25
11	231-2311/037-000	25
12	231-2312/037-000	25
13	231-2313/037-000	25
14	231-2314/037-000	25
15	231-2315/037-000	25
16	231-2316/037-000	10

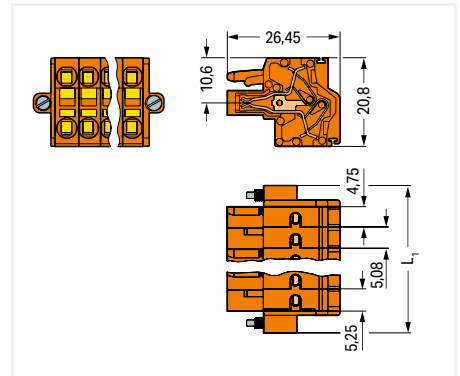
Pole No.	Item No.	PU
2	231-2302/107-000	100
3	231-2303/107-000	100
4	231-2304/107-000	50
5	231-2305/107-000	50
6	231-2306/107-000	50
7	231-2307/107-000	50
8	231-2308/107-000	50
9	231-2309/107-000	25
10	231-2310/107-000	25
12	231-2312/107-000	25
14	231-2314/107-000	25
15	231-2315/107-000	25
16	231-2316/107-000	10



L = (pole no. - 2) x pin spacing + 10 mm
2- to 3-pole female connectors – one latch only



L = (pole no. - 2) x pin spacing + 10 mm
2- to 3-pole female connectors – one latch only



L1 = (pole no. - 2) x pin spacing + 20 mm
2- to 3-pole female connectors – one latch only

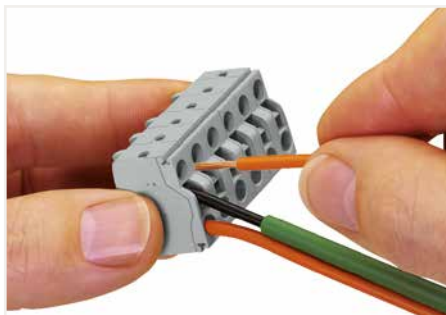
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

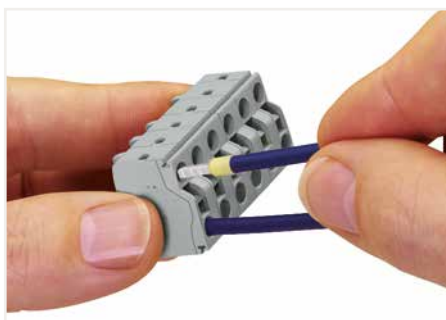
- Gold-plated or partially gold-plated contact surfaces

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: orange



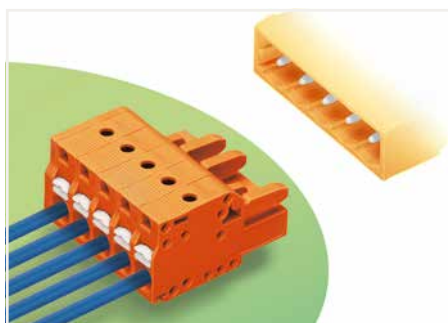
Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors <math>< 0.5 \text{ mm}^2</math> (20 AWG) are terminated and removed using a screwdriver.



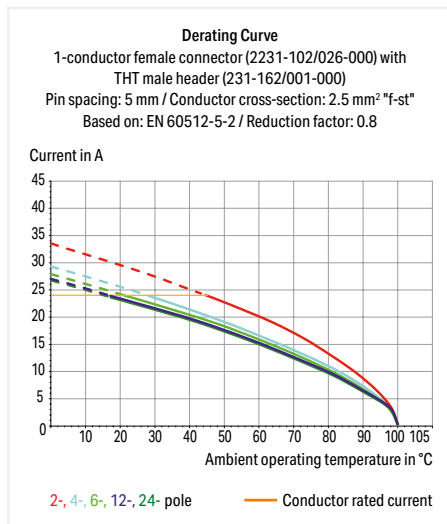
Solid conductors $\geq 0.5 \text{ mm}^2$ (20 AWG), as well as feruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Plugging without loss of pin spacing

Locking of plug-in connection: Locking lever



2231-306/026-000



2231-306/102-000



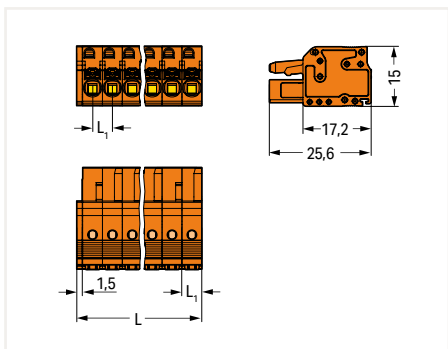
2231-306/037-000

Pole No.	Item No.	PU
2	2231-302/026-000	100
3	2231-303/026-000	100
4	2231-304/026-000	100
5	2231-305/026-000	100
6	2231-306/026-000	50
7	2231-307/026-000	50
8	2231-308/026-000	50
9	2231-309/026-000	50
10	2231-310/026-000	50
11	2231-311/026-000	25
12	2231-312/026-000	25
13	2231-313/026-000	25
14	2231-314/026-000	25
15	2231-315/026-000	25
16	2231-316/026-000	25
17	2231-317/026-000	25
18	2231-318/026-000	10
19	2231-319/026-000	10
20	2231-320/026-000	10
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22	2231-322/026-000	10
23	2231-323/026-000	10
24	2231-324/026-000	10

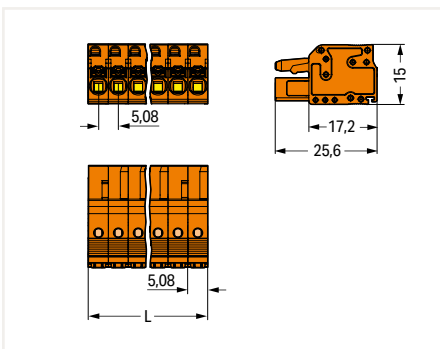
Pole No.	Item No.	PU
2	2231-302/102-000	100
3	2231-303/102-000	100
4	2231-304/102-000	100
5	2231-305/102-000	100
6	2231-306/102-000	50
7	2231-307/102-000	50
8	2231-308/102-000	50
9	2231-309/102-000	50
10	2231-310/102-000	50
11	2231-311/102-000	25
12	2231-312/102-000	25
13	2231-313/102-000	25
14	2231-314/102-000	25
15	2231-315/102-000	25
16	2231-316/102-000	25
17	2231-317/102-000	25
18	2231-318/102-000	10
19	2231-319/102-000	10
20	2231-320/102-000	10
21	2231-321/102-000	10
22	2231-322/102-000	10
23	2231-323/102-000	10
24	2231-324/102-000	10

Pole No.	Item No.	PU
2	2231-302/037-000	100
3	2231-303/037-000	50
4	2231-304/037-000	50
5	2231-305/037-000	50
6	2231-306/037-000	50
7	2231-307/037-000	50
8	2231-308/037-000	25
9	2231-309/037-000	25
10	2231-310/037-000	25
11	2231-311/037-000	25
12	2231-312/037-000	25
13	2231-313/037-000	25
14	2231-314/037-000	25
15	2231-315/037-000	25
16	2231-316/037-000	10
17	2231-317/037-000	10
18	2231-318/037-000	10
19	2231-319/037-000	10
20	2231-320/037-000	10
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22	2231-322/037-000	10
23	2231-323/037-000	10
24	2231-324/037-000	10

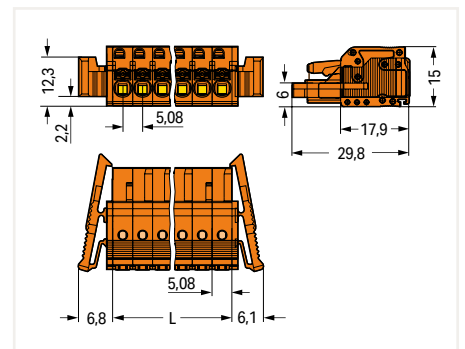
9



L = (pole no. x pin spacing) + 1.5 mm
 L₁ = 5,08 mm
 2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
 2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Locking of plug-in connection: Screw flange

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



2231-306/107-000

2231-306/031-000

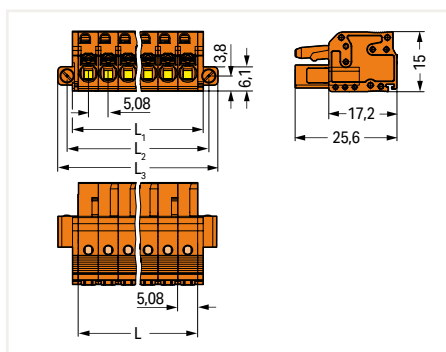
2231-306/008-000

Pole No.	Item No.	PU
2	2231-302/107-000	100
3	2231-303/107-000	100
4	2231-304/107-000	50
5	2231-305/107-000	50
6	2231-306/107-000	50
7	2231-307/107-000	50
8	2231-308/107-000	50
9	2231-309/107-000	25
10	2231-310/107-000	25
12	2231-312/107-000	25
14	2231-314/107-000	25
15	2231-315/107-000	25
16	2231-316/107-000	10

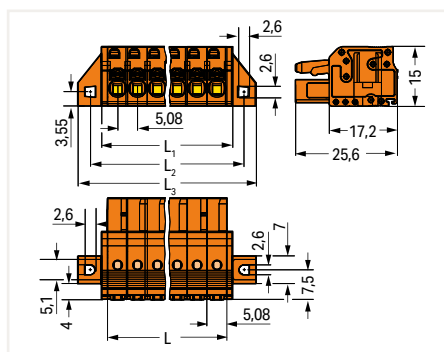
Pole No.	Item No.	PU
2	2231-302/031-000	100
3	2231-303/031-000	50
4	2231-304/031-000	50
5	2231-305/031-000	50
6	2231-306/031-000	50
7	2231-307/031-000	50
8	2231-308/031-000	50
9	2231-309/031-000	50
10	2231-310/031-000	25
11	2231-311/031-000	25
12	2231-312/031-000	25
13	2231-313/031-000	25
14	2231-314/031-000	25
15	2231-315/031-000	25
16	2231-316/031-000	10
17	2231-317/031-000	10
18	2231-318/031-000	10
19	2231-319/031-000	10
20	2231-320/031-000	10
21	2231-321/031-000	10
22	2231-322/031-000	10
23	2231-323/031-000	10
24	2231-324/031-000	10

Pole No.	Item No.	PU
2	2231-302/008-000	100
3	2231-303/008-000	100
4	2231-304/008-000	100
5	2231-305/008-000	100
6	2231-306/008-000	50
7	2231-307/008-000	50
8	2231-308/008-000	50
9	2231-309/008-000	50
10	2231-310/008-000	50
11	2231-311/008-000	25
12	2231-312/008-000	25
13	2231-313/008-000	25
14	2231-314/008-000	25
15	2231-315/008-000	25
16	2231-316/008-000	25
17	2231-317/008-000	25
18	2231-318/008-000	10
19	2231-319/008-000	10
20	2231-320/008-000	10
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22	2231-322/008-000	10
23	2231-323/008-000	10
24	2231-324/008-000	10

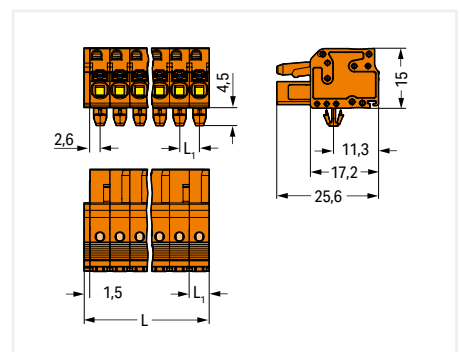
9



L = pole no. x pin spacing
 $L_1 = L + 2.8 \text{ mm}$
 $L_2 = L + 5.4 \text{ mm}$
 $L_3 = L + 10 \text{ mm}$
 2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
 $L_1 = L + 2.8 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only



L = (pole no. x pin spacing) + 1.5 mm
 $L_1 = 5.08 \text{ mm}$
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

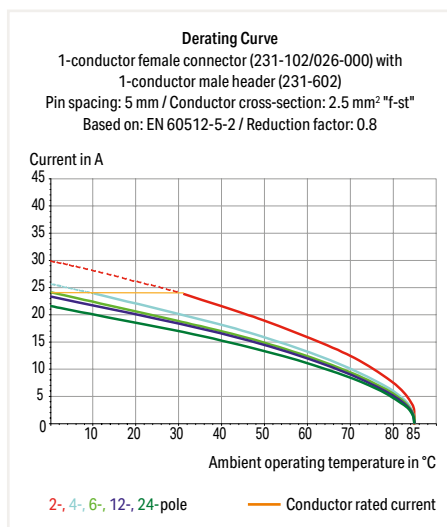
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approvals per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 730
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

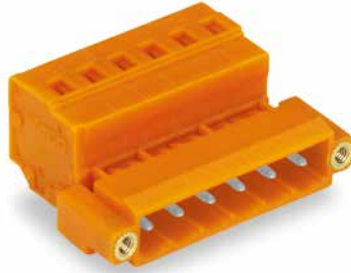
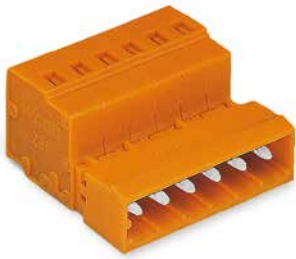
For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Locking of plug-in connection: Threaded flange

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange



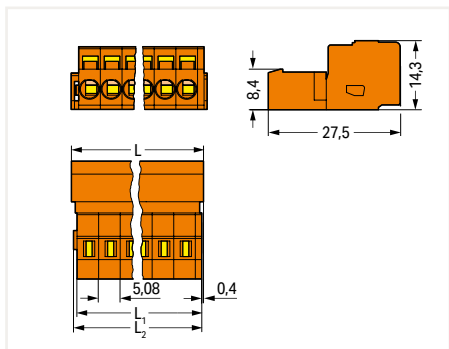
231-636/109-000

231-636/019-000

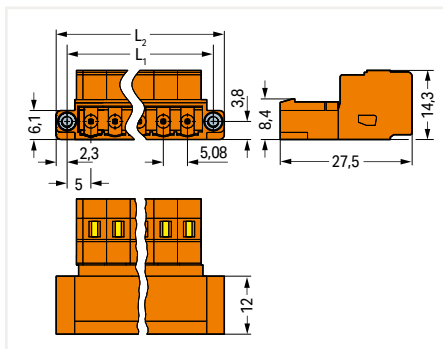
Pole No.	Item No.	PU
2	231-632	100
3	231-633	100
4	231-634	100
5	231-635	50
6	231-636	50
7	231-637	50
8	231-638	50
9	231-639	50
10	231-640	50
11	231-641	25
12	231-642	25
13	231-643	25
14	231-644	25
15	231-645	25
16	231-646	25
17	231-647	25
18	231-648	10
19	231-649	10
20	231-650	10
21	231-651	10
22	231-652	10
23	231-653	10
24	231-654	10

Pole No.	Item No.	PU
2	231-632/109-000	100
3	231-633/109-000	50
4	231-634/109-000	50
5	231-635/109-000	50
6	231-636/109-000	50
7	231-637/109-000	50
8	231-638/109-000	50
9	231-639/109-000	25
10	231-640/109-000	25
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14	231-644/109-000	25
15	231-645/109-000	25
16	231-646/109-000	10

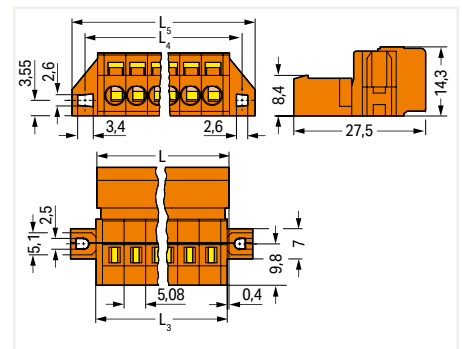
Pole No.	Item No.	PU
2	231-632/019-000	100
3	231-633/019-000	50
4	231-634/019-000	50
5	231-635/019-000	50
6	231-636/019-000	50
7	231-637/019-000	50
8	231-638/019-000	50
9	231-639/019-000	25
10	231-640/019-000	25
11	231-641/019-000	25
12	231-642/019-000	25
13	231-643/019-000	25
14	231-644/019-000	25
15	231-645/019-000	25
16	231-646/019-000	10
17	231-647/019-000	10
18	231-648/019-000	10
19	231-649/019-000	10
20	231-650/019-000	10
21	231-651/019-000	10
22	231-652/019-000	10
23	231-653/019-000	10
24	231-654/019-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L - 1.7 \text{ mm}$
 $L_2 = L - 1.2 \text{ mm}$



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 5.4 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 10 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_3 = L - 0.2 \text{ mm}$
 $L_4 = L_3 + 5.8 \text{ mm}$
 $L_5 = L_3 + 11.8 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

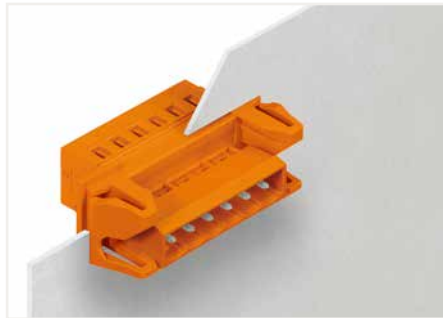
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

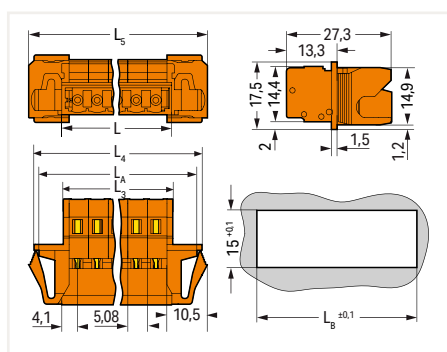
Mounting type: Feed-through mounting ▶ Mounting type: Snap-in



231-636/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 ... 2.5 mm plate thickness

Pole No.	Item No.	PU
2	231-632/114-000	50
3	231-633/114-000	50
4	231-634/114-000	50
5	231-635/114-000	50
6	231-636/114-000	50
7	231-637/114-000	25
8	231-638/114-000	25
9	231-639/114-000	25
10	231-640/114-000	25
11	231-641/114-000	25
12	231-642/114-000	25
13	231-643/114-000	25
14	231-644/114-000	25
15	231-645/114-000	10
16	231-646/114-000	10
17	231-647/114-000	10
18	231-648/114-000	10
19	231-649/114-000	10
20	231-650/114-000	10
21	231-651/114-000	10
22	231-652/114-000	10
23	231-653/114-000	10
24	231-654/114-000	10



$L = (\text{pole no.} \times \text{pin spacing}) + 3.2 \text{ mm}$

$L_3 = L - 0.2 \text{ mm}$

$L_4 = L_3 + 15.2 \text{ mm}$

$L_5 = L_3 + 18 \text{ mm}$

$L_6 = L_3 + 12.6 \text{ mm}$

$L_8 = L_3 + 13.2 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

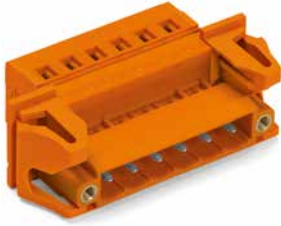
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 231 Series

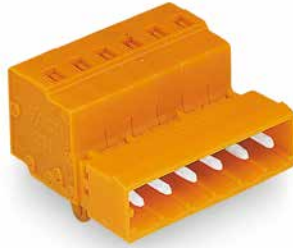
Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Feed-through mounting ▶ Mounting type: Snap-in ▶ Locking of plug-in connection: Threaded flange

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



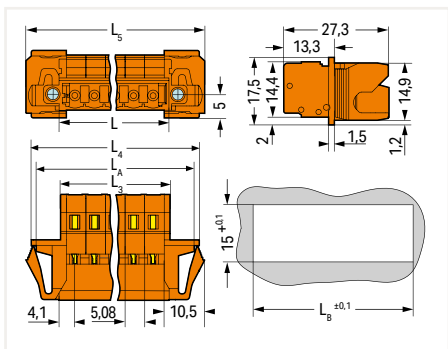
231-636/129-000



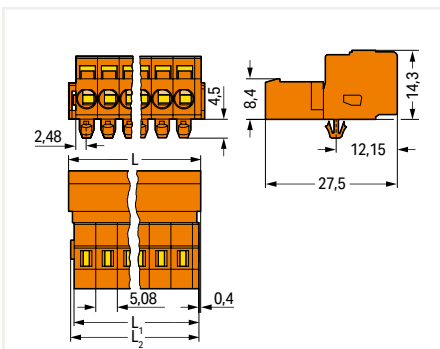
231-636/018-000

Pole No.	Item No.	PU
2	231-632/129-000	50
3	231-633/129-000	50
4	231-634/129-000	50
5	231-635/129-000	50
6	231-636/129-000	50
7	231-637/129-000	25
8	231-638/129-000	25
9	231-639/129-000	25
10	231-640/129-000	25
12	231-642/129-000	25
14	231-644/129-000	25
15	231-645/129-000	10
16	231-646/129-000	10

Pole No.	Item No.	PU
2	231-632/018-000	100
3	231-633/018-000	100
4	231-634/018-000	100
5	231-635/018-000	50
6	231-636/018-000	50
7	231-637/018-000	50
8	231-638/018-000	50
9	231-639/018-000	50
10	231-640/018-000	50
11	231-641/018-000	25
12	231-642/018-000	25
13	231-643/018-000	25
14	231-644/018-000	25
15	231-645/018-000	25
16	231-646/018-000	25
17	231-647/018-000	25
18	231-648/018-000	10
19	231-649/018-000	10
20	231-650/018-000	10
21	231-651/018-000	10
22	231-652/018-000	10
23	231-653/018-000	10
24	231-654/018-000	10



$L = (\text{pole no.} \times \text{pin spacing}) + 3.2 \text{ mm}$
 $L_3 = L - 0.2 \text{ mm}$
 $L_4 = L_3 + 15.2 \text{ mm}$
 $L_5 = L_3 + 18 \text{ mm}$
 $L_A = L_3 + 12.6 \text{ mm}$
 $L_B = L_3 + 13.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L - 1.7 \text{ mm}$
 $L_2 = L - 1.2 \text{ mm}$

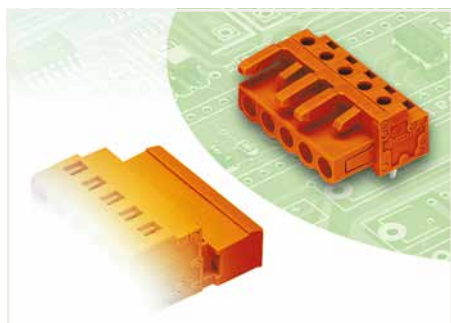
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

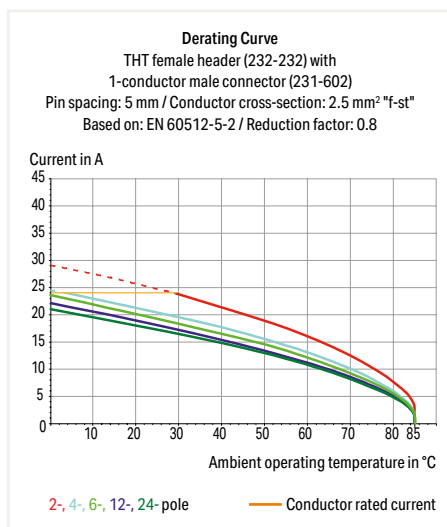
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 ^(±0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting Page 869

Test and measurement Page 725, 886

Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

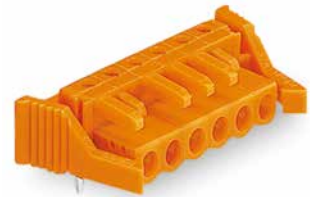
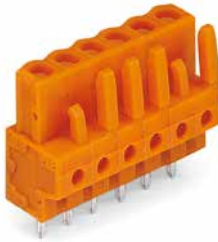
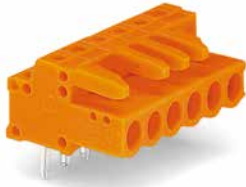
THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

Mating direction to the PCB: 0°

Mating direction to the PCB: 90°

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 0°



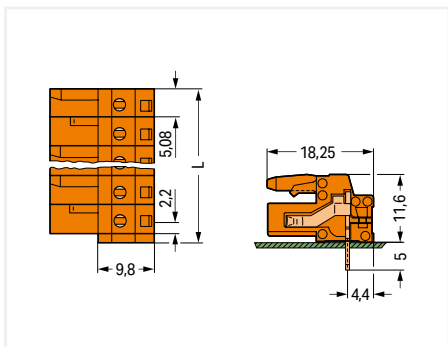
232-266

232-266/039-000

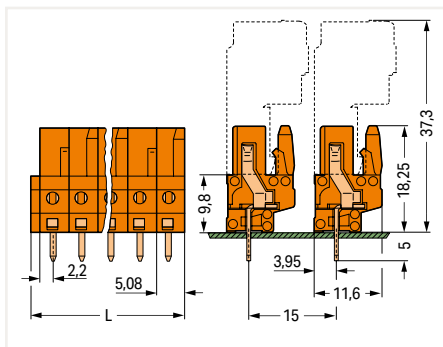
Pole No.	Item No.	PU
2	232-262	100
3	232-263	100
4	232-264	100
5	232-265	100
6	232-266	50
7	232-267	50
8	232-268	50
9	232-269	50
10	232-270	50
11	232-271	25
12	232-272	25
13	232-273	25
14	232-274	25
15	232-275	25
16	232-276	25
17	232-277	25
18	232-278	25
19	232-279	10
20	232-280	10
21	232-281	10
22	232-282	10
23	232-283	10
24	232-284	10

Pole No.	Item No.	PU
2	232-162	100
3	232-163	100
4	232-164	100
5	232-165	100
6	232-166	50
7	232-167	50
8	232-168	50
9	232-169	50
10	232-170	50
11	232-171	25
12	232-172	25
13	232-173	25
14	232-174	25
15	232-175	25
16	232-176	25
17	232-177	25
18	232-178	25
19	232-179	10
20	232-180	10
21	232-181	10
22	232-182	10
23	232-183	10
24	232-184	10

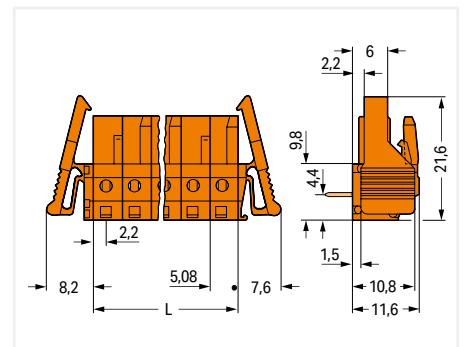
Pole No.	Item No.	PU
2	232-262/039-000	100
3	232-263/039-000	50
4	232-264/039-000	50
5	232-265/039-000	50
6	232-266/039-000	50
7	232-267/039-000	50
8	232-268/039-000	50
9	232-269/039-000	25
10	232-270/039-000	25
11	232-271/039-000	25
12	232-272/039-000	25
13	232-273/039-000	25
14	232-274/039-000	25
15	232-275/039-000	25
16	232-276/039-000	10
17	232-277/039-000	10
18	232-278/039-000	10
19	232-279/039-000	10
20	232-280/039-000	10
21	232-281/039-000	10
22	232-282/039-000	10
23	232-283/039-000	10
24	232-284/039-000	10



L = (pole no. x pin spacing) + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

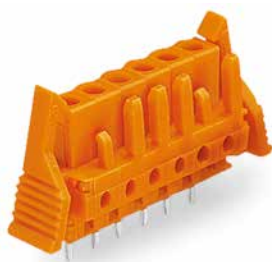
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

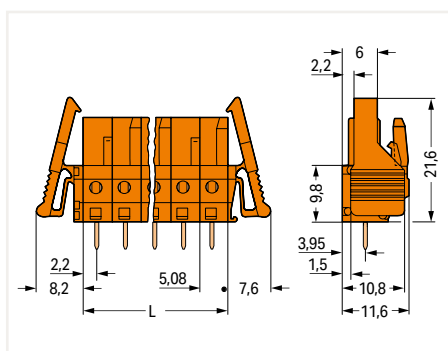
Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 90 °



232-166/039-000

Pole No.	Item No.	PU
2	232-162/039-000	100
3	232-163/039-000	50
4	232-164/039-000	50
5	232-165/039-000	50
6	232-166/039-000	50
7	232-167/039-000	50
8	232-168/039-000	50
9	232-169/039-000	25
10	232-170/039-000	25
11	232-171/039-000	25
12	232-172/039-000	25
13	232-173/039-000	25
14	232-174/039-000	25
15	232-175/039-000	25
16	232-176/039-000	10
17	232-177/039-000	10
18	232-178/039-000	10
19	232-179/039-000	10
20	232-180/039-000	10
21	232-181/039-000	10
22	232-182/039-000	10
23	232-183/039-000	10
24	232-184/039-000	10



L = pole no. x pin spacing
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

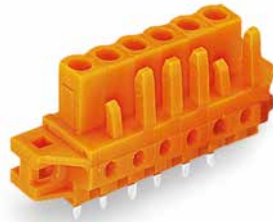
Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

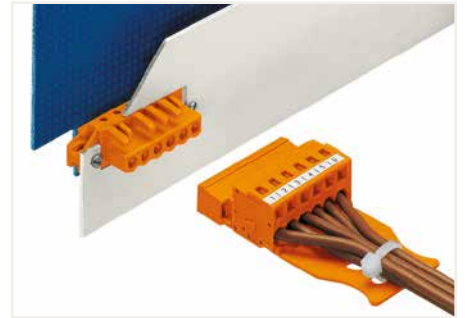
Mating direction to the PCB: 90°



232-266/031-000



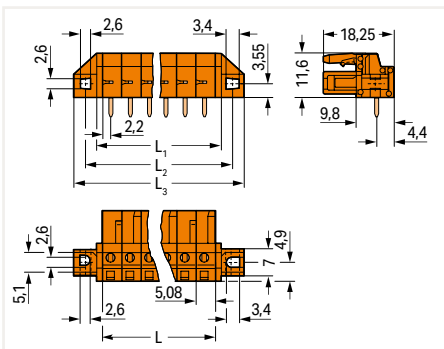
232-166/031-000



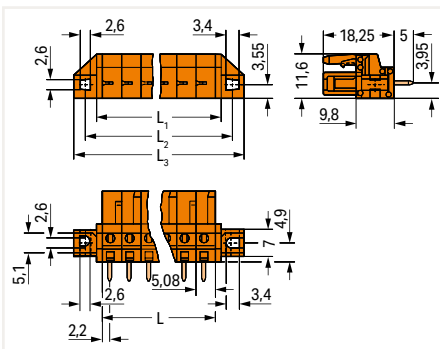
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-262/031-000	100
3	232-263/031-000	50
4	232-264/031-000	50
5	232-265/031-000	50
6	232-266/031-000	50
7	232-267/031-000	50
8	232-268/031-000	50
9	232-269/031-000	25
10	232-270/031-000	25
11	232-271/031-000	25
12	232-272/031-000	25
13	232-273/031-000	25
14	232-274/031-000	25
15	232-275/031-000	25
16	232-276/031-000	10
17	232-277/031-000	10
18	232-278/031-000	10
19	232-279/031-000	10
20	232-280/031-000	10
21	232-281/031-000	10
22	232-282/031-000	10
23	232-283/031-000	10
24	232-284/031-000	10

Pole No.	Item No.	PU
2	232-162/031-000	100
3	232-163/031-000	50
4	232-164/031-000	50
5	232-165/031-000	50
6	232-166/031-000	50
7	232-167/031-000	50
8	232-168/031-000	50
9	232-169/031-000	25
10	232-170/031-000	25
11	232-171/031-000	25
12	232-172/031-000	25
13	232-173/031-000	25
14	232-174/031-000	25
15	232-175/031-000	25
16	232-176/031-000	10
17	232-177/031-000	10
18	232-178/031-000	10
19	232-179/031-000	10
20	232-180/031-000	10
21	232-181/031-000	10
22	232-182/031-000	10
23	232-183/031-000	10
24	232-184/031-000	10



L = pole no. x pin spacing
 L₁ = L + 3 mm
 L₂ = L + 8.8 mm
 L₃ = L + 14.8 mm
 2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
 L₁ = L + 3 mm
 L₂ = L + 8.8 mm
 L₃ = L + 14.8 mm
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

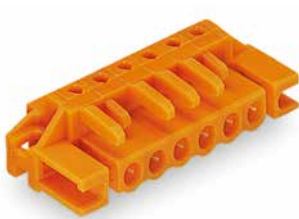
THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

Mounting type: Flush feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

Mating direction to the PCB: 90°



232-266/047-000



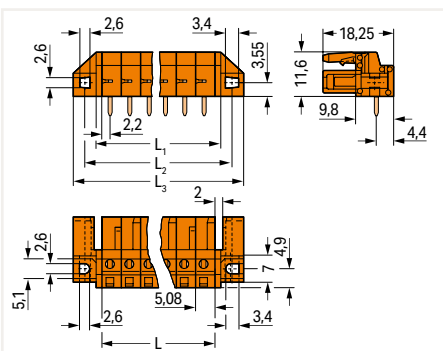
232-166/047-000



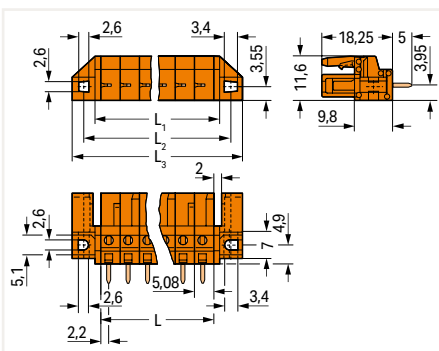
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-262/047-000	100
3	232-263/047-000	50
4	232-264/047-000	50
5	232-265/047-000	50
6	232-266/047-000	50
7	232-267/047-000	50
8	232-268/047-000	50
9	232-269/047-000	25
10	232-270/047-000	25
11	232-271/047-000	25
12	232-272/047-000	25
13	232-273/047-000	25
14	232-274/047-000	25
15	232-275/047-000	25
16	232-276/047-000	10
17	232-277/047-000	10
18	232-278/047-000	10
19	232-279/047-000	10
20	232-280/047-000	10
21	232-281/047-000	10
22	232-282/047-000	10
23	232-283/047-000	10
24	232-284/047-000	10

Pole No.	Item No.	PU
2	232-162/047-000	100
3	232-163/047-000	50
4	232-164/047-000	50
5	232-165/047-000	50
6	232-166/047-000	50
7	232-167/047-000	50
8	232-168/047-000	50
9	232-169/047-000	25
10	232-170/047-000	25
11	232-171/047-000	25
12	232-172/047-000	25
13	232-173/047-000	25
14	232-174/047-000	25
15	232-175/047-000	25
16	232-176/047-000	10
17	232-177/047-000	10
18	232-178/047-000	10
19	232-179/047-000	10
20	232-180/047-000	10
21	232-181/047-000	10
22	232-182/047-000	10
23	232-183/047-000	10
24	232-184/047-000	10



L = pole no. x pin spacing
 L₁ = L + 3 mm
 L₂ = L + 8.8 mm
 L₃ = L + 14.8 mm
 2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
 L₁ = L + 3 mm
 L₂ = L + 8.8 mm
 L₃ = L + 14.8 mm
 2- to 3-pole female connectors – one latch only

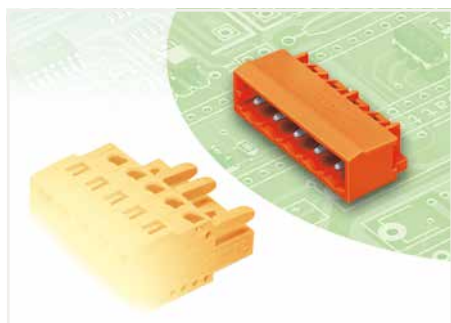
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

Derating Curve

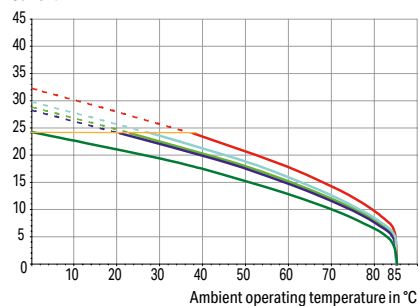
1-conductor female connector (231-102/026-000) with

THT male header (231-462/001-000)

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"

Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A



2-, 4-, 6-, 12-, 24- pole

— Conductor rated current

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: orange

Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

Locking of plug-in connection: Threaded flange ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

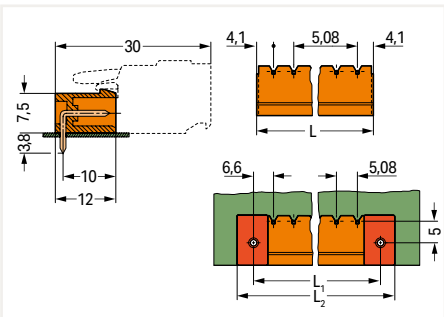


231-336/001-000

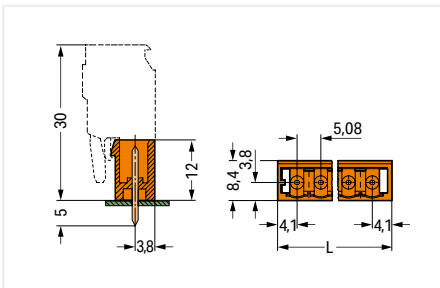
Pole No.	Item No.	PU
2	231-532/001-000	200
3	231-533/001-000	200
4	231-534/001-000	200
5	231-535/001-000	200
6	231-536/001-000	100
7	231-537/001-000	100
8	231-538/001-000	100
9	231-539/001-000	100
10	231-540/001-000	100
11	231-541/001-000	100
12	231-542/001-000	100
13	231-543/001-000	50
14	231-544/001-000	50
15	231-545/001-000	50
16	231-546/001-000	50
17	231-547/001-000	50
18	231-548/001-000	50
19	231-549/001-000	50
20	231-550/001-000	50
21	231-551/001-000	50
22	231-552/001-000	50
23	231-553/001-000	50
24	231-554/001-000	50

Pole No.	Item No.	PU
2	231-332/001-000	200
3	231-333/001-000	200
4	231-334/001-000	200
5	231-335/001-000	200
6	231-336/001-000	100
7	231-337/001-000	100
8	231-338/001-000	100
9	231-339/001-000	100
10	231-340/001-000	100
11	231-341/001-000	100
12	231-342/001-000	100
13	231-343/001-000	50
14	231-344/001-000	50
15	231-345/001-000	50
16	231-346/001-000	50
17	231-347/001-000	50
18	231-348/001-000	50
19	231-349/001-000	50
20	231-350/001-000	50
21	231-351/001-000	50
22	231-352/001-000	50
23	231-353/001-000	50
24	231-354/001-000	50

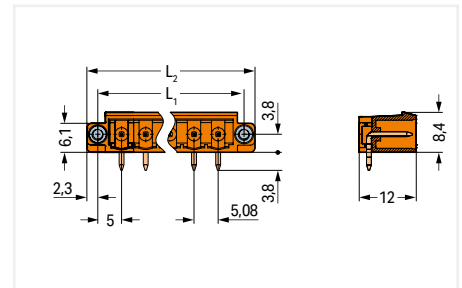
Pole No.	Item No.	PU
2	231-532/108-000	200
3	231-533/108-000	200
4	231-534/108-000	100
5	231-535/108-000	100
6	231-536/108-000	100
7	231-537/108-000	100
8	231-538/108-000	100
9	231-539/108-000	100
10	231-540/108-000	100
12	231-542/108-000	100
14	231-544/108-000	50
15	231-545/108-000	50
16	231-546/108-000	50



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 5.4 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 10 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

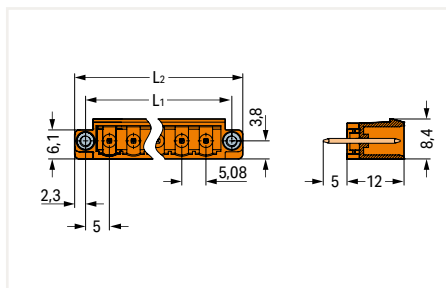
Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: orange

Locking of plug-in connection: Threaded flange ▶ Mating direction to the PCB: 90 ° ▶ Solder pin length: 5 mm



231-336/108-000

Pole No.	Item No.	PU
2	231-332/108-000	200
3	231-333/108-000	200
4	231-334/108-000	100
5	231-335/108-000	100
6	231-336/108-000	100
7	231-337/108-000	100
8	231-338/108-000	100
9	231-339/108-000	100
10	231-340/108-000	100
12	231-342/108-000	100
14	231-344/108-000	50
15	231-345/108-000	50
16	231-346/108-000	50



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 5.4 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 10 \text{ mm}$

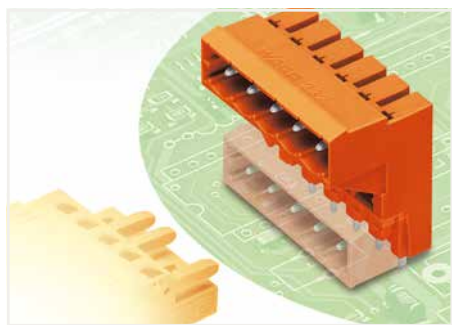
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

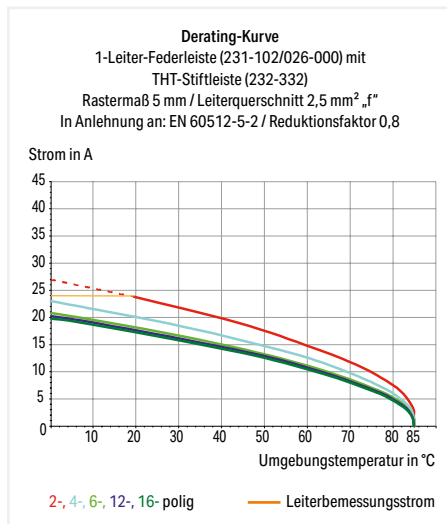
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header for double-deck assembly ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 5 mm ▶ Color: orange



- Male headers for double-deck assembly provide high-density wiring for wire-to-board connections
- Horizontal PCB mounting
- Double-deck design allows male or female headers with angled solder pins to be placed on the lower deck
- Coding option available



Electrical Data

Ratings per		IEC/EN 60664-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Rated voltage		320 V	320 V	630 V
Rated impulse voltage		4 kV	4 kV	4 kV
Rated current		12 A	12 A	12 A
Approbations per		UL 1059		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		10 A	-	10 A
Approbations per		UL 1977		
Rated voltage		600 V		
Rated current		10 A		
Approbations per		CSA		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

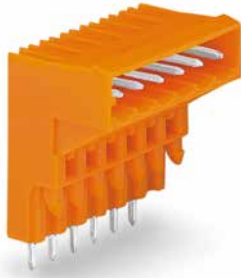
Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

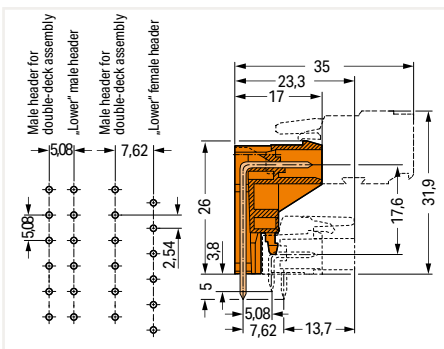
THT male header for double-deck assembly ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 5 mm ▶ Color: orange



232-366

Pole No.	Item No.	PU
2	232-362	100
3	232-363	100
4	232-364	100
6	232-366	50
8	232-368	50
10	232-370	50
12	232-372	50
16	232-376	25



Length = (pole no. - 1) x pin spacing + 8.2 mm
 The solder pins of the "lower" male headers are in line.
 The solder pins of the "lower" female headers are staggered by half a pin spacing.

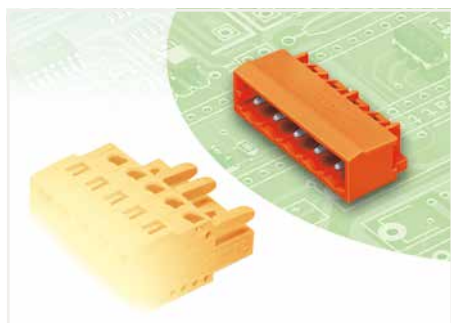
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

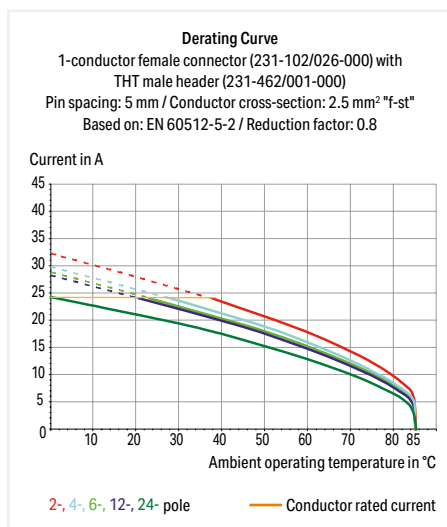
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

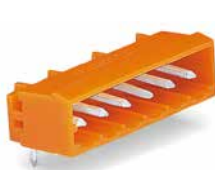
THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: orange

Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

Locking of plug-in connection: Threaded flange ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm



231-566/001-000



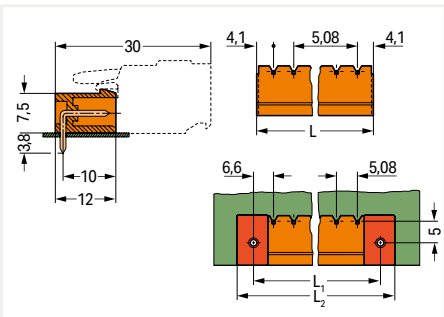
231-366/001-000



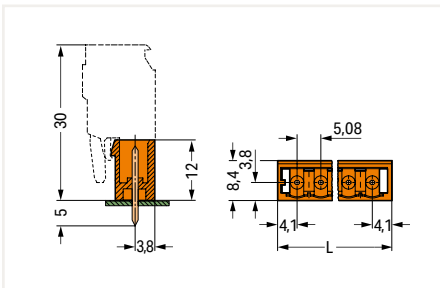
Pole No.	Item No.	PU
2	231-562/001-000	200
3	231-563/001-000	200
4	231-564/001-000	200
5	231-565/001-000	200
6	231-566/001-000	100
7	231-567/001-000	100
8	231-568/001-000	100
9	231-569/001-000	100
10	231-570/001-000	100
11	231-571/001-000	100
12	231-572/001-000	100
13	231-573/001-000	50
14	231-574/001-000	50
15	231-575/001-000	50
16	231-576/001-000	50
17	231-577/001-000	50
18	231-578/001-000	50
19	231-579/001-000	50
20	231-580/001-000	50
21	231-581/001-000	50
22	231-582/001-000	50
23	231-583/001-000	50
24	231-584/001-000	50

Pole No.	Item No.	PU
2	231-362/001-000	200
3	231-363/001-000	200
4	231-364/001-000	200
5	231-365/001-000	200
6	231-366/001-000	100
7	231-367/001-000	100
8	231-368/001-000	100
9	231-369/001-000	100
10	231-370/001-000	100
11	231-371/001-000	100
12	231-372/001-000	100
13	231-373/001-000	50
14	231-374/001-000	50
15	231-375/001-000	50
16	231-376/001-000	50
17	231-377/001-000	50
18	231-378/001-000	50
19	231-379/001-000	50
20	231-380/001-000	50
21	231-381/001-000	50
22	231-382/001-000	50
23	231-383/001-000	50
24	231-384/001-000	50

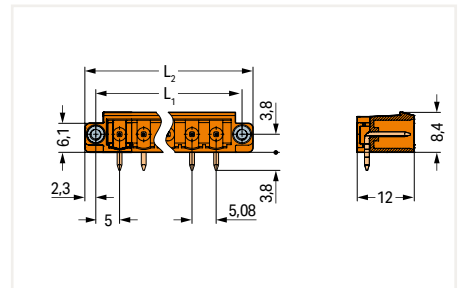
Pole No.	Item No.	PU
2	231-562/108-000	100
3	231-563/108-000	200
4	231-564/108-000	100
5	231-565/108-000	100
6	231-566/108-000	100
7	231-567/108-000	100
8	231-568/108-000	100
9	231-569/108-000	100
10	231-570/108-000	100
12	231-572/108-000	100
14	231-574/108-000	50
15	231-575/108-000	50
16	231-576/108-000	50



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 5.4 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 10 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

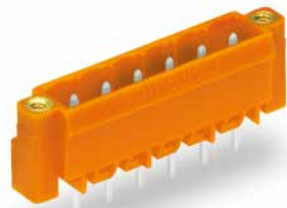
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

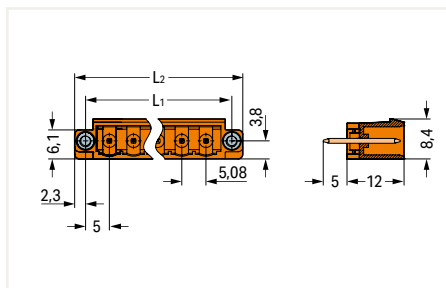
Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: orange

Locking of plug-in connection: Threaded flange ▶ Mating direction to the PCB: 90 ° ▶ Solder pin length: 5 mm



231-366/108-000

Pole No.	Item No.	PU
2	231-362/108-000	200
3	231-363/108-000	200
4	231-364/108-000	100
5	231-365/108-000	100
6	231-366/108-000	100
7	231-367/108-000	100
8	231-368/108-000	100
9	231-369/108-000	100
10	231-370/108-000	100
12	231-372/108-000	100
14	231-374/108-000	50
15	231-375/108-000	50
16	231-376/108-000	50


 $L_1 = (\text{pole no.} \times \text{pin spacing}) + 5.4 \text{ mm}$
 $L_2 = (\text{pole no.} \times \text{pin spacing}) + 10 \text{ mm}$

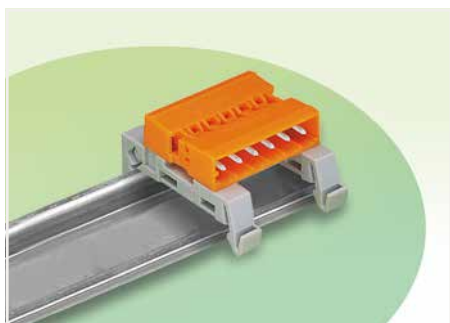
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Mounting type: DIN-35 rail ▶ Color: orange



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A

Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		

Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

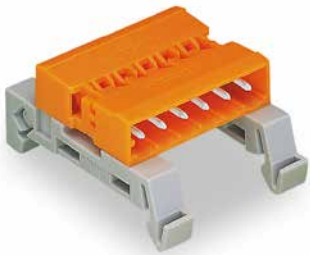
DIN-rail Page 868

See technical section for further information

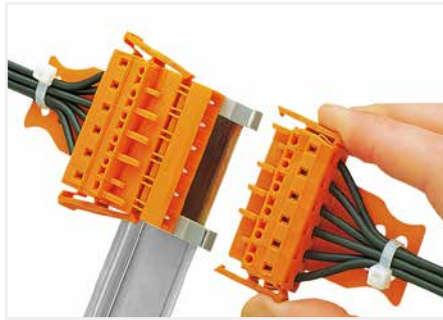
For approvals and corresponding ratings, visit www.wago.com

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Mounting type: DIN-35 rail ▶ Color: orange

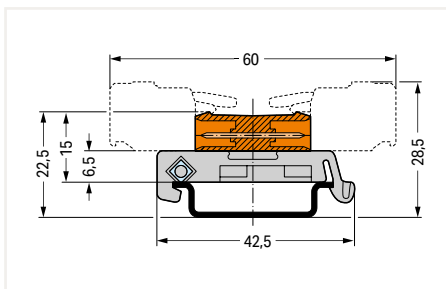


232-536/007-000



Female connectors with locking levers

Pole No.	Item No.	PU
2	232-532/007-000	100
3	232-533/007-000	50
4	232-534/007-000	50
5	232-535/007-000	50
6	232-536/007-000	50
7	232-537/007-000	25
8	232-538/007-000	25
9	232-539/007-000	25
10	232-540/007-000	25
11	232-541/007-000	25
12	232-542/007-000	25
13	232-543/007-000	25
14	232-544/007-000	25
15	232-545/007-000	25
16	232-546/007-000	25
17	232-547/007-000	25
18	232-548/007-000	25
19	232-549/007-000	10
20	232-550/007-000	25
21	232-551/007-000	10
22	232-552/007-000	10
23	232-553/007-000	10
24	232-554/007-000	10



Total length = (pole no. - 1) x pin spacing + 8.2 mm

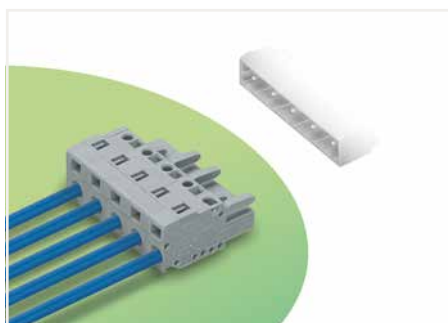
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

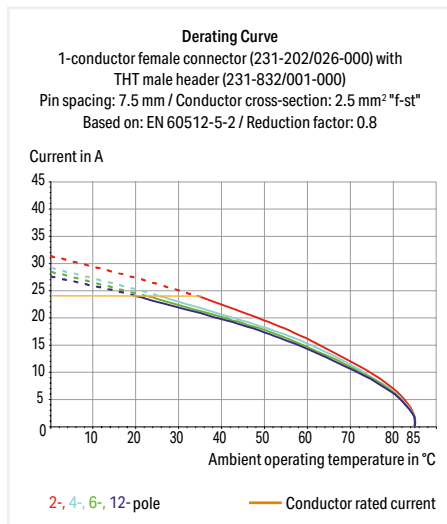
- Other pole numbers

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

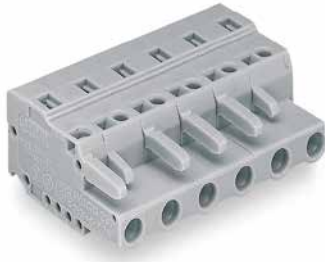
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

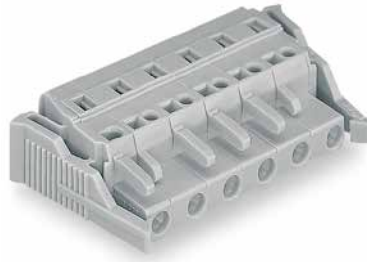
Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Locking of plug-in connection: Locking lever

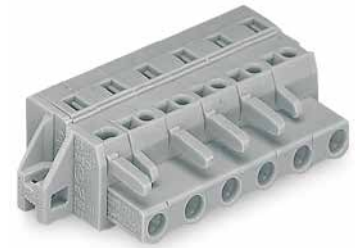
Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange



231-206/026-000



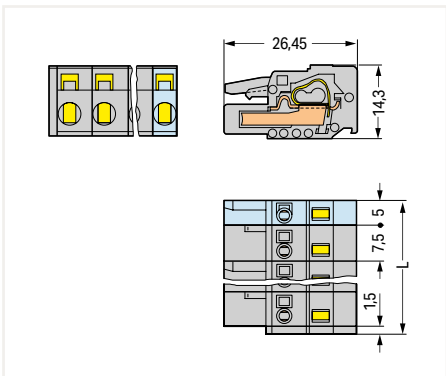
231-206/037-000



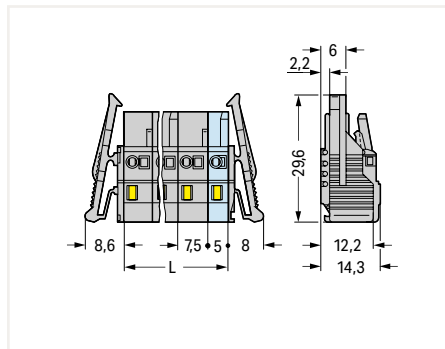
Pole No.	Item No.	PU
2	231-202/026-000	100
3	231-203/026-000	100
4	231-204/026-000	50
5	231-205/026-000	50
6	231-206/026-000	50
7	231-207/026-000	50
8	231-208/026-000	25
9	231-209/026-000	25
10	231-210/026-000	25
11	231-211/026-000	25
12	231-212/026-000	25
13	231-213/026-000	10
16	231-216/026-000	10

Pole No.	Item No.	PU
2	231-202/037-000	50
3	231-203/037-000	50
4	231-204/037-000	50
5	231-205/037-000	50
6	231-206/037-000	25
7	231-207/037-000	25
8	231-208/037-000	25
9	231-209/037-000	25
10	231-210/037-000	25
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12	231-212/037-000	10
13	231-213/037-000	10
16	231-216/037-000	10

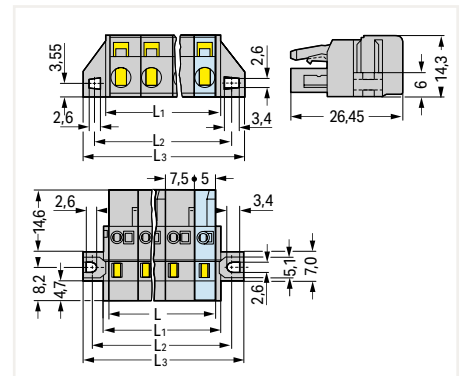
Pole No.	Item No.	PU
2	231-202/031-000	50
3	231-203/031-000	50
4	231-204/031-000	50
5	231-205/031-000	50
6	231-206/031-000	25
7	231-207/031-000	25
8	231-208/031-000	25
9	231-209/031-000	25
10	231-210/031-000	25
11	231-211/031-000	10
12	231-212/031-000	10
13	231-213/031-000	10
16	231-216/031-000	10



L = (pole no. - 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5 mm
L₁ = L + 3 mm
L₂ = L + 8.8 mm
L₃ = L + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

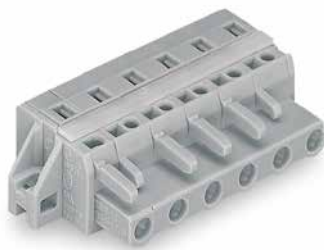
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange ▶ with reinforcing strips

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



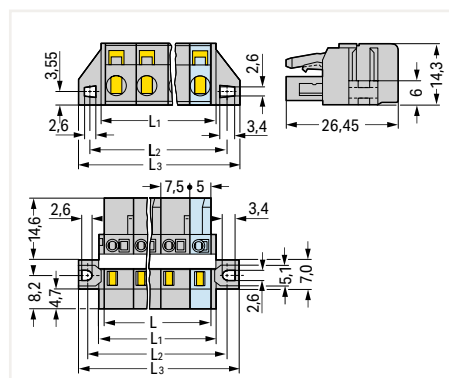
231-206/027-000



231-206/008-000

Pole No.	Item No.	PU
6	231-206/027-000	25
7	231-207/027-000	25
8	231-208/027-000	25
9	231-209/027-000	25
10	231-210/027-000	25
11	231-211/027-000	10
12	231-212/027-000	10
13	231-213/027-000	10
16	231-216/027-000	10

Pole No.	Item No.	PU
2	231-202/008-000	100
3	231-203/008-000	100
4	231-204/008-000	50
5	231-205/008-000	50
6	231-206/008-000	50
7	231-207/008-000	50
8	231-208/008-000	25
9	231-209/008-000	25
10	231-210/008-000	25
11	231-211/008-000	25
12	231-212/008-000	25
13	231-213/008-000	10
16	231-216/008-000	10



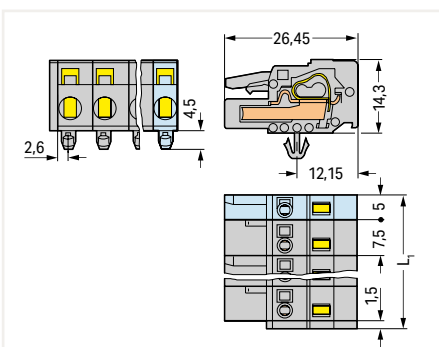
$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm}$

$L_1 = L + 3 \text{ mm}$

$L_2 = L + 8.8 \text{ mm}$

$L_3 = L + 14.8 \text{ mm}$

2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 1.5 \text{ mm}$

2- to 3-pole female connectors – one latch only

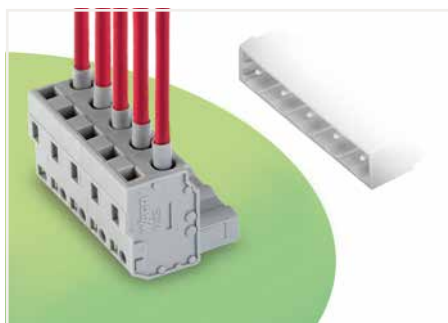
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

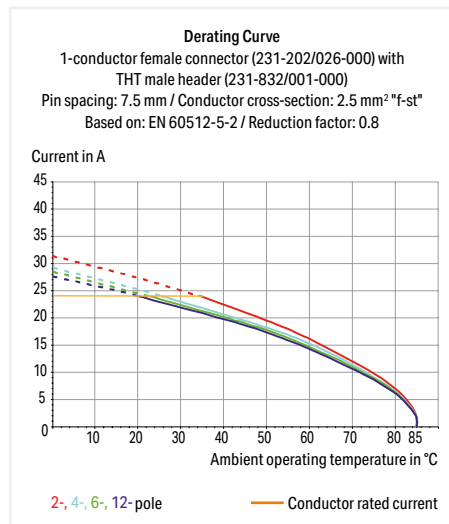
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 732 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 270 ° ▶ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

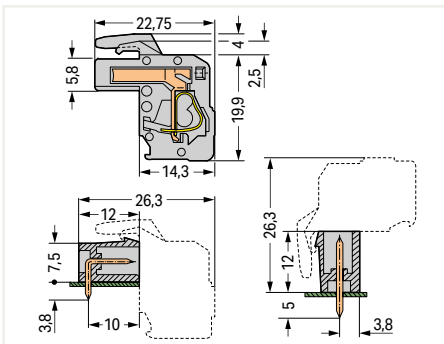
1-conductor female plug ▶ MCS MIDI Classic ▶ 732 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 270 ° ▶ Color: gray



732-106/026-000

Pole No.	Item No.	PU
2	732-102/026-000	100
3	732-103/026-000	100
4	732-104/026-000	50
5	732-105/026-000	25
6	732-106/026-000	50
7	732-107/026-000	50
8	732-108/026-000	25
9	732-109/026-000	25
10	732-110/026-000	25
11	732-111/026-000	25
12	732-112/026-000	25
16	732-116/026-000	10



Total length = (pole no. - 1) x pin spacing + 5 mm + 1.5 mm + 0.9 mm

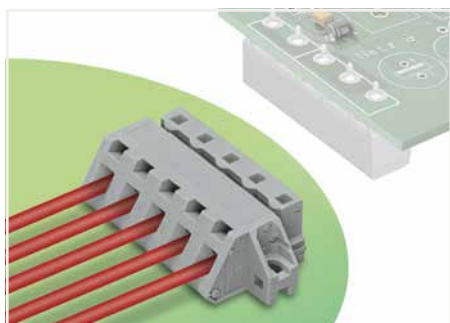
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

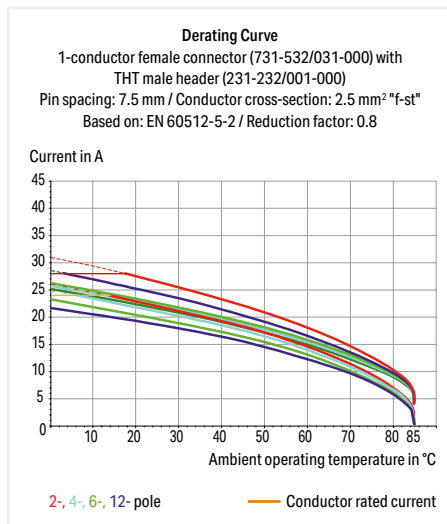
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray



- Universal connection for all conductor types
- Available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-35 rail mounted
- Easy conductor termination, even when halves are mated

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	7 ... 8 mm / 0.28 ... 0.31 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Marking	Page 865
Mounting	Page 732, 869
Strain relief	Page 731
Test and measurement	Page 725
Tool	Page 538, 870
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange



731-535/031-000

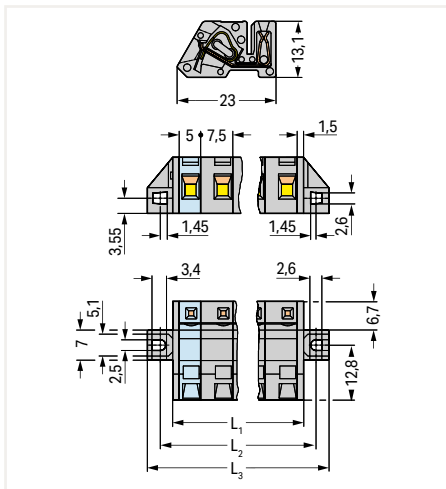


Angled female connector – used as through-panel connector; termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.

Pole No.	Item No.	PU
2	731-532/031-000	50
3	731-533/031-000	50
4	731-534/031-000	50
5	731-535/031-000	25
6	731-536/031-000	25
7	731-537/031-000	25
8	731-538/031-000	25
9	731-539/031-000	25
10	731-540/031-000	25
11	731-541/031-000	10
12	731-542/031-000	10
13	731-543/031-000	10
16	731-546/031-000	10



Angled female connector – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.



$L_1 = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 3 \text{ mm}$

$L_2 = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 8.8 \text{ mm}$

$L_3 = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 14.8 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot

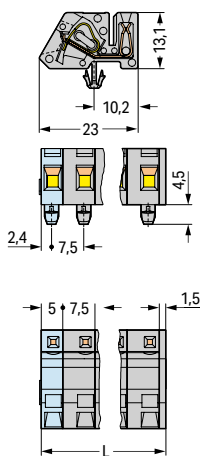


731-535/008-000



Angled female connector with DIN-35 rail-mount adapter (209-120)

Pole No.	Item No.	PU
2	731-532/008-000	100
3	731-533/008-000	100
4	731-534/008-000	50
5	731-535/008-000	50
6	731-536/008-000	50
7	731-537/008-000	50
8	731-538/008-000	25
9	731-539/008-000	25
10	731-540/008-000	25
11	731-541/008-000	25
12	731-542/008-000	25
13	731-543/008-000	10
16	731-546/008-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 1.5 \text{ mm}$

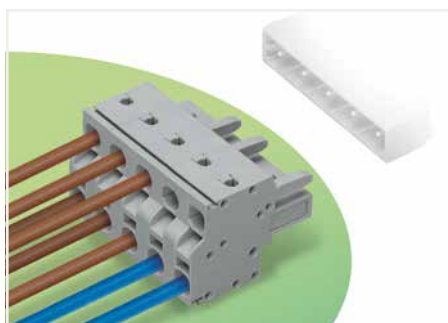
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

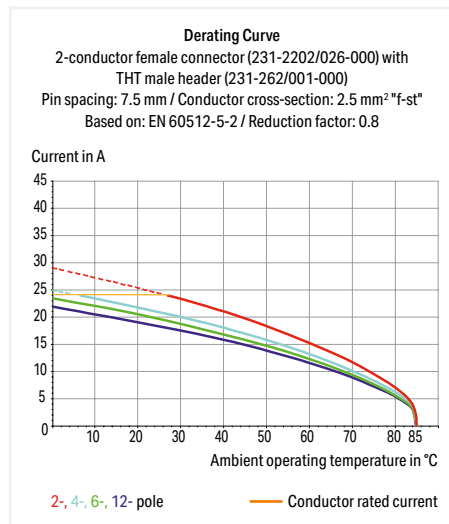
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

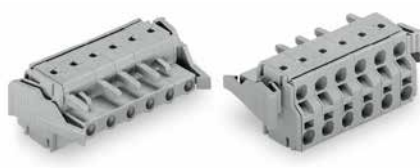
2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Locking of plug-in connection: Locking lever



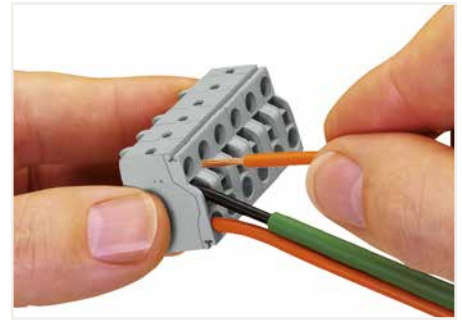
231-2206/026-000



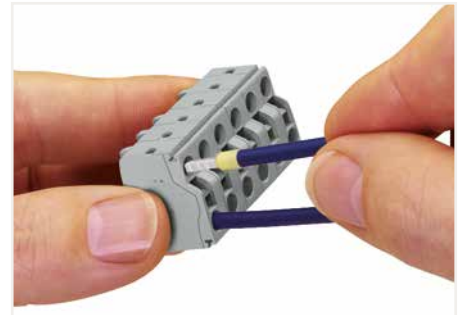
231-2206/037-000

Pole No.	Item No.	PU
2	231-2202/026-000	100
3	231-2203/026-000	100
4	231-2204/026-000	50
5	231-2205/026-000	50
6	231-2206/026-000	50
7	231-2207/026-000	50
8	231-2208/026-000	25
9	231-2209/026-000	25
10	231-2210/026-000	25
11	231-2211/026-000	25
12	231-2212/026-000	25

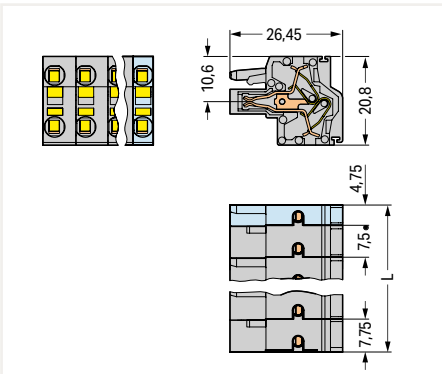
Pole No.	Item No.	PU
2	231-2202/037-000	50
3	231-2203/037-000	50
4	231-2204/037-000	50
5	231-2205/037-000	50
6	231-2206/037-000	25
7	231-2207/037-000	25
8	231-2208/037-000	25
9	231-2209/037-000	25
10	231-2210/037-000	25
11	231-2211/037-000	10
12	231-2212/037-000	10



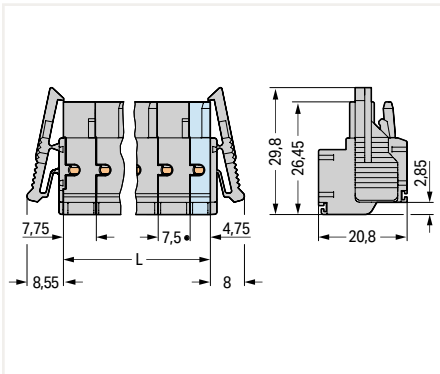
Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.



L = (pole no. - 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. - 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only

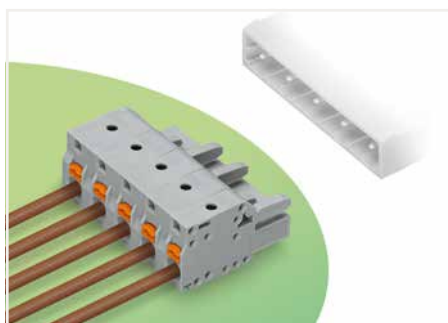
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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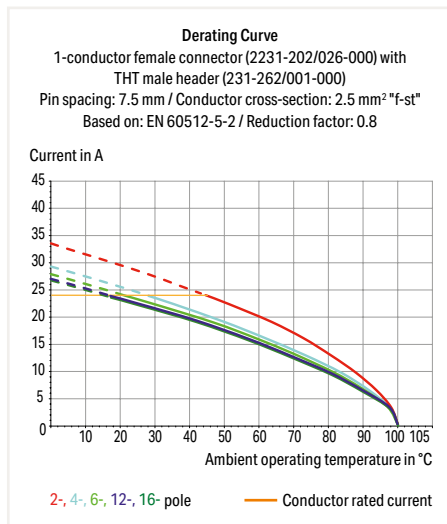
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

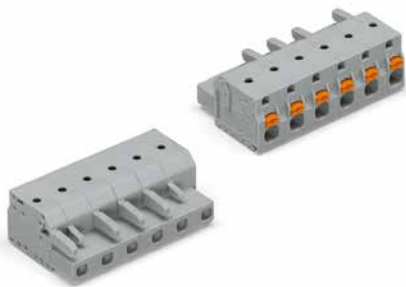
Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732
Strain relief	Page 729
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See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

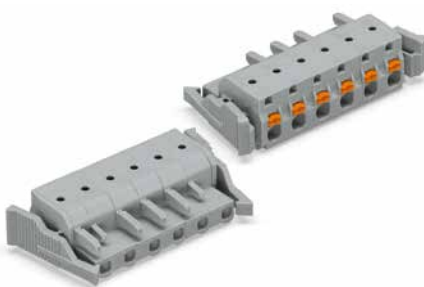
Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Locking of plug-in connection: Locking lever

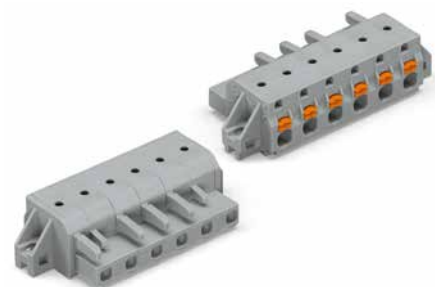
Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange



2231-206/026-000



2231-206/037-000

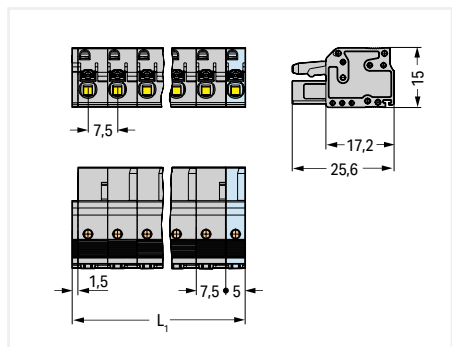


2231-206/031-000

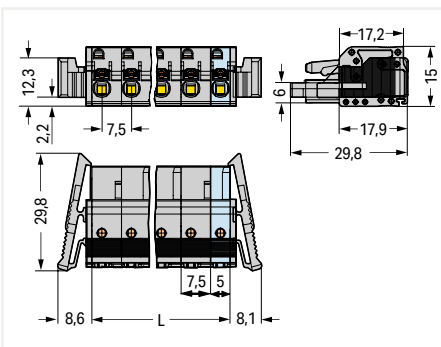
Pole No.	Item No.	PU
2	2231-202/026-000	100
3	2231-203/026-000	100
4	2231-204/026-000	50
5	2231-205/026-000	50
6	2231-206/026-000	50
7	2231-207/026-000	50
8	2231-208/026-000	25
9	2231-209/026-000	25
10	2231-210/026-000	25
11	2231-211/026-000	25
12	2231-212/026-000	25
13	2231-213/026-000	10
16	2231-216/026-000	10

Pole No.	Item No.	PU
2	2231-202/037-000	50
3	2231-203/037-000	50
4	2231-204/037-000	50
5	2231-205/037-000	50
6	2231-206/037-000	25
7	2231-207/037-000	25
8	2231-208/037-000	25
9	2231-209/037-000	25
10	2231-210/037-000	25
11	2231-211/037-000	10
12	2231-212/037-000	10
13	2231-213/037-000	10
16	2231-216/037-000	10

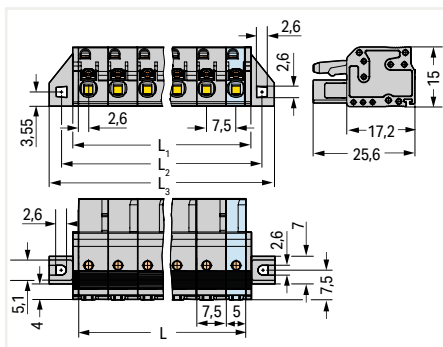
Pole No.	Item No.	PU
2	2231-202/031-000	50
3	2231-203/031-000	50
4	2231-204/031-000	50
5	2231-205/031-000	50
6	2231-206/031-000	25
7	2231-207/031-000	25
8	2231-208/031-000	25
9	2231-209/031-000	25
10	2231-210/031-000	25
11	2231-211/031-000	10
12	2231-212/031-000	10
13	2231-213/031-000	10
16	2231-216/031-000	10



$L_1 = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 1.5 \text{ mm}$
2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm}$
2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm}$
 $L_1 = L + 2.8 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

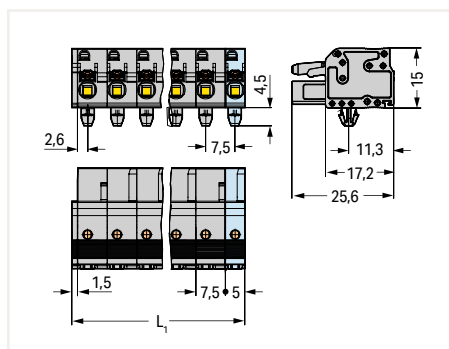
Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



2231-206/008-000

Pole No.	Item No.	PU
2	2231-202/008-000	100
3	2231-203/008-000	100
4	2231-204/008-000	50
5	2231-205/008-000	50
6	2231-206/008-000	50
7	2231-207/008-000	50
8	2231-208/008-000	25
9	2231-209/008-000	25
10	2231-210/008-000	25
11	2231-211/008-000	25
12	2231-212/008-000	25
13	2231-213/008-000	10
16	2231-216/008-000	10



$L_1 = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 1.5 \text{ mm}$
2- to 3-pole female connectors – one latch only

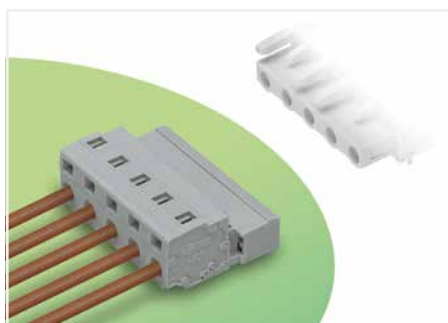
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

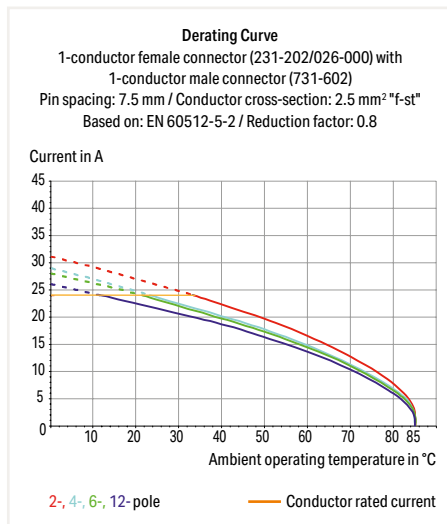
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Insulation stop	Page 727
Marking	Page 865
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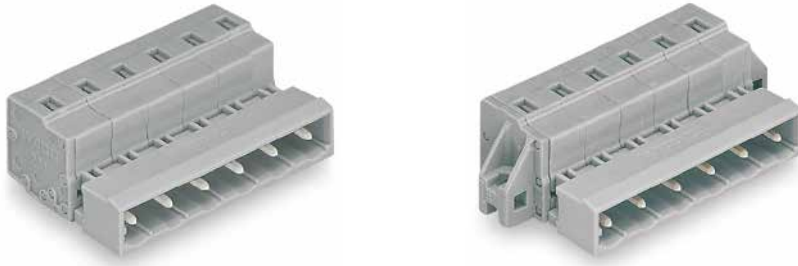
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

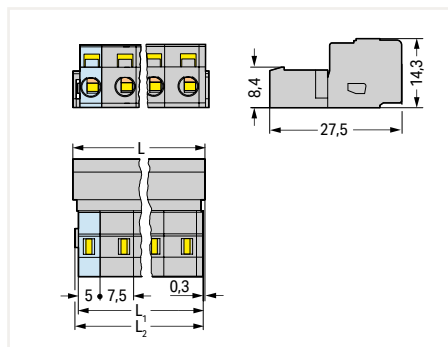
Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange

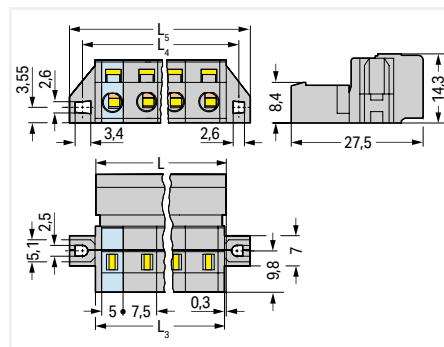


731-606/019-000

Pole No.	Item No.	PU	Pole No.	Item No.	PU
2	731-602	100	2	731-602/019-000	50
3	731-603	100	3	731-603/019-000	50
4	731-604	50	4	731-604/019-000	50
5	731-605	50	5	731-605/019-000	50
6	731-606	50	6	731-606/019-000	25
7	731-607	50	7	731-607/019-000	25
8	731-608	25	8	731-608/019-000	25
9	731-609	25	9	731-609/019-000	25
10	731-610	25	10	731-610/019-000	25
11	731-611	25	11	731-611/019-000	10
12	731-612	25	12	731-612/019-000	10
13	731-613	10	13	731-613/019-000	10
16	731-616	10	16	731-616/019-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L - 1.7 \text{ mm}$
 $L_2 = L - 1.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_3 = L - 0.2 \text{ mm}$
 $L_4 = L_3 + 5.8 \text{ mm}$
 $L_5 = L_3 + 11.8 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

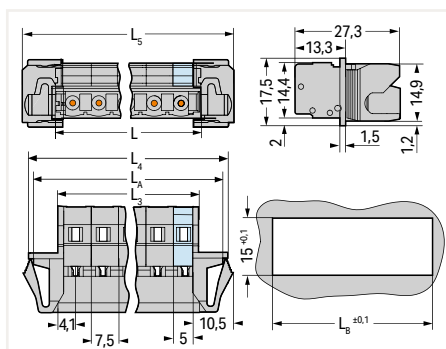
Mounting type: Feed-through mounting ▶ Mounting type: Snap-in



731-606/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 ... 2.5 mm plate thickness

Pole No.	Item No.	PU
2	731-602/114-000	50
3	731-603/114-000	50
4	731-604/114-000	50
5	731-605/114-000	25
6	731-606/114-000	25
7	731-607/114-000	25
8	731-608/114-000	25
9	731-609/114-000	25
10	731-610/114-000	10
11	731-611/114-000	10
12	731-612/114-000	10
13	731-613/114-000	10
16	731-616/114-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L_3 = L - 0.2 \text{ mm}$

$L_4 = L_3 + 15.2 \text{ mm}$

$L_5 = L_3 + 18 \text{ mm}$

$L_6 = L_3 + 12.6 \text{ mm}$

$L_8 = L_3 + 13.2 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

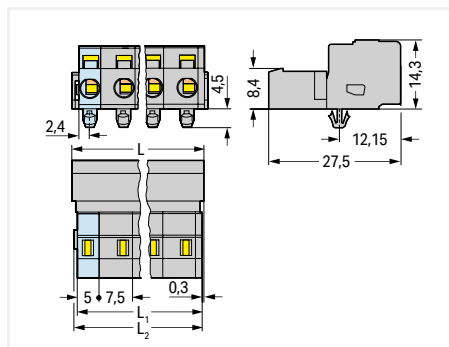
Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



731-606/018-000

Pole No.	Item No.	PU
2	731-602/018-000	100
3	731-603/018-000	100
4	731-604/018-000	50
5	731-605/018-000	50
6	731-606/018-000	50
7	731-607/018-000	50
8	731-608/018-000	25
9	731-609/018-000	25
10	731-610/018-000	25
11	731-611/018-000	25
12	731-612/018-000	25
13	731-613/018-000	10
16	731-616/018-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L_1 = L - 1.7 \text{ mm}$

$L_2 = L - 1.2 \text{ mm}$

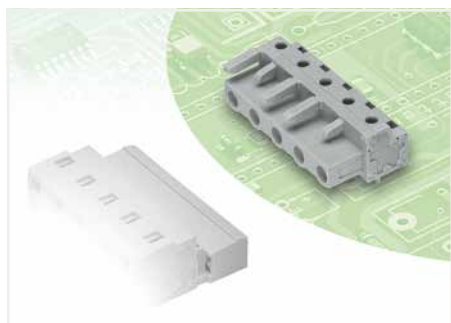
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

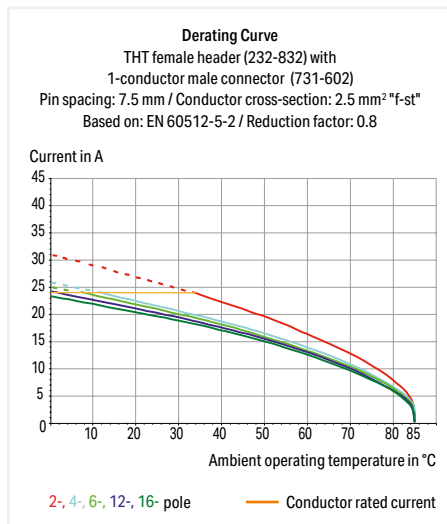
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 ^(±0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

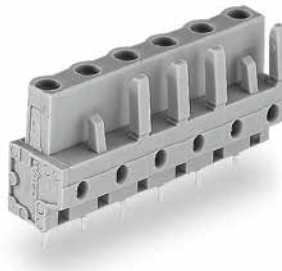
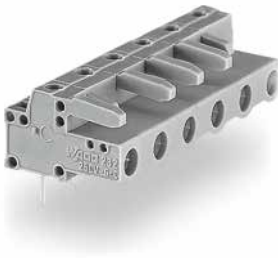
THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

Mating direction to the PCB: 0°

Mating direction to the PCB: 90°

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 0°

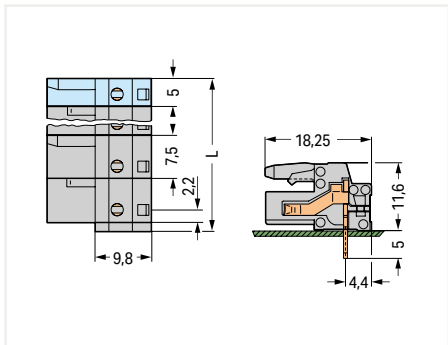


232-836/039-000

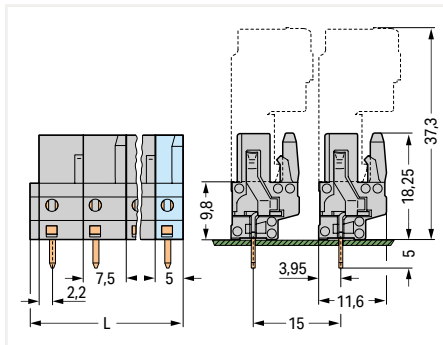
Pole No.	Item No.	PU
2	232-832	100
3	232-833	100
4	232-834	50
5	232-835	50
6	232-836	50
7	232-837	50
8	232-838	25
9	232-839	25
10	232-840	25
11	232-841	25
12	232-842	25
13	232-843	10
16	232-846	10

Pole No.	Item No.	PU
2	232-732	100
3	232-733	100
4	232-734	50
5	232-735	50
6	232-736	50
7	232-737	50
8	232-738	25
9	232-739	25
10	232-740	25
11	232-741	25
12	232-742	25
13	232-743	10
16	232-746	10

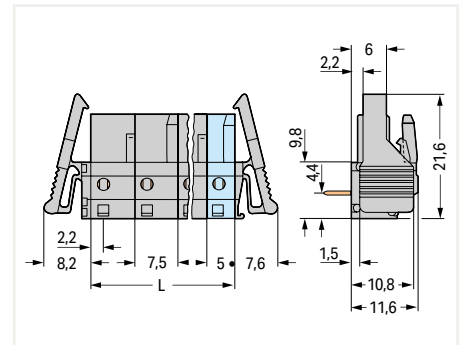
Pole No.	Item No.	PU
2	232-832/039-000	50
3	232-833/039-000	50
4	232-834/039-000	50
5	232-835/039-000	50
6	232-836/039-000	25
7	232-837/039-000	25
8	232-838/039-000	25
9	232-839/039-000	25
10	232-840/039-000	25
11	232-841/039-000	10
12	232-842/039-000	10
13	232-843/039-000	10
16	232-846/039-000	10



L = (pole no. - 1) x pin spacing + 5 mm + 1.5 mm
 Distance to first solder pin: 2.2 mm
 2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5 mm + 1.5 mm
 2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5 mm
 Distance to first solder pin: 2.2 mm
 2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

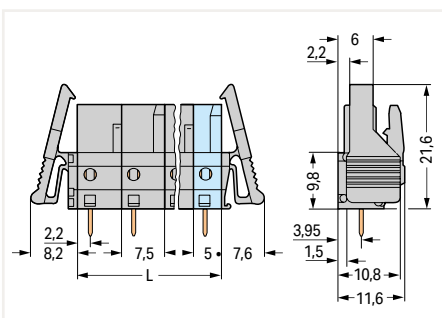
Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 90°



232-736/039-000

Pole No.	Item No.	PU
2	232-732/039-000	50
3	232-733/039-000	50
4	232-734/039-000	50
5	232-735/039-000	50
6	232-736/039-000	25
7	232-737/039-000	25
8	232-738/039-000	25
9	232-739/039-000	25
10	232-740/039-000	25
11	232-741/039-000	10
12	232-742/039-000	10
13	232-743/039-000	10
16	232-746/039-000	10



L = (pole no. - 1) x pin spacing + 5 mm
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

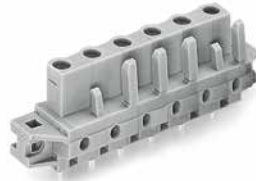
Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

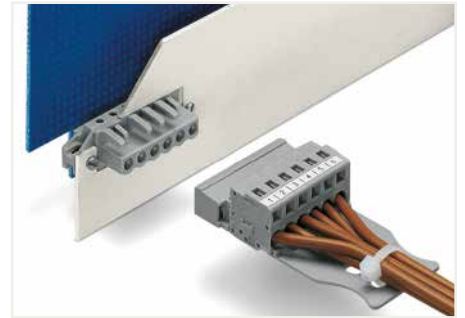
Mating direction to the PCB: 90°



232-836/031-000



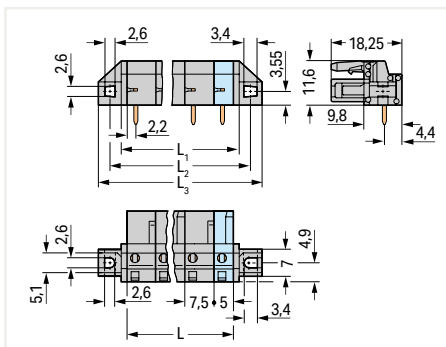
232-736/031-000



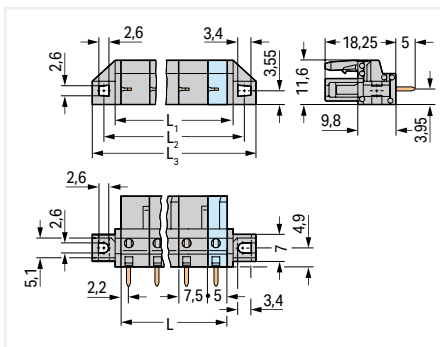
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-832/031-000	50
3	232-833/031-000	50
4	232-834/031-000	50
5	232-835/031-000	50
6	232-836/031-000	25
7	232-837/031-000	25
8	232-838/031-000	25
9	232-839/031-000	25
10	232-840/031-000	25
11	232-841/031-000	10
12	232-842/031-000	10
13	232-843/031-000	10
16	232-846/031-000	10

Pole No.	Item No.	PU
2	232-732/031-000	50
3	232-733/031-000	50
4	232-734/031-000	50
5	232-735/031-000	50
6	232-736/031-000	25
7	232-737/031-000	25
8	232-738/031-000	25
9	232-739/031-000	25
10	232-740/031-000	25
11	232-741/031-000	10
12	232-742/031-000	25
13	232-743/031-000	10
16	232-746/031-000	10



L = (pole no. - 1) x pin spacing + 5 mm
 L1 = L + 3 mm
 L2 = L + 8.8 mm
 L3 = L + 14.8 mm
 2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5 mm
 L1 = L + 3 mm
 L2 = L + 8.8 mm
 L3 = L + 14.8 mm
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: gray

Mounting type: Flush feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

Mating direction to the PCB: 90°



232-836/047-000



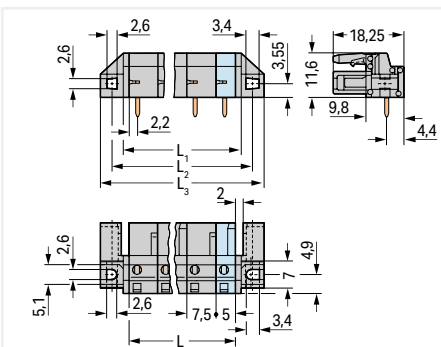
232-736/047-000



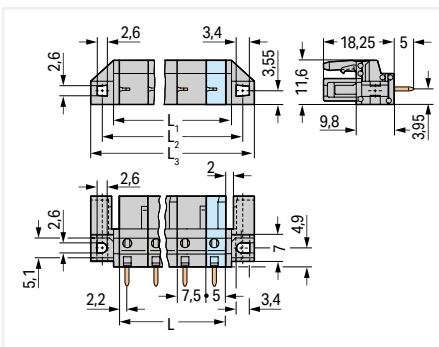
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-832/047-000	50
3	232-833/047-000	50
4	232-834/047-000	50
5	232-835/047-000	50
6	232-836/047-000	25
7	232-837/047-000	25
8	232-838/047-000	25
9	232-839/047-000	25
10	232-840/047-000	25
11	232-841/047-000	10
12	232-842/047-000	10
13	232-843/047-000	10
16	232-846/047-000	10

Pole No.	Item No.	PU
2	232-732/047-000	100
3	232-733/047-000	50
4	232-734/047-000	50
5	232-735/047-000	50
6	232-736/047-000	25
7	232-737/047-000	50
8	232-738/047-000	25
9	232-739/047-000	25
10	232-740/047-000	25
11	232-741/047-000	25
12	232-742/047-000	25
13	232-743/047-000	10
16	232-746/047-000	10



L = (pole no. - 1) x pin spacing + 5 mm
 L1 = L + 3 mm
 L2 = L + 8.8 mm
 L3 = L + 14.8 mm
 2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5 mm
 L1 = L + 3 mm
 L2 = L + 8.8 mm
 L3 = L + 14.8 mm
 2- to 3-pole female connectors – one latch only

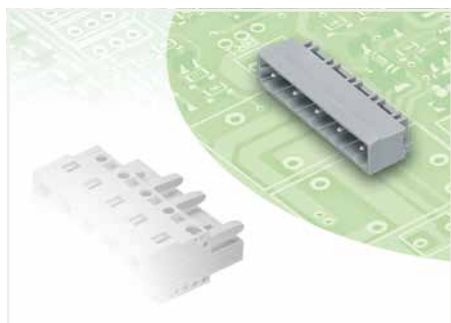
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

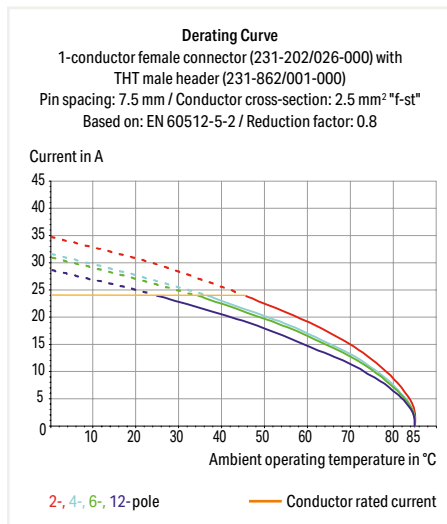
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

Mounting Page 869

Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: gray

Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

Mounting type: Feed-through mounting; Panel mounting
 ▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm



231-836/001-000



231-236/001-000

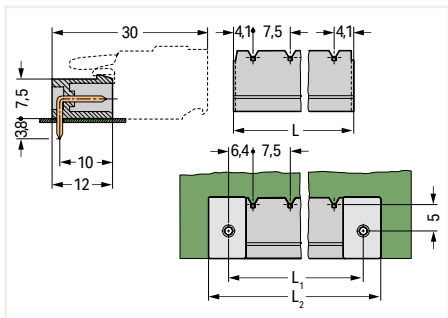


231-840/040-000

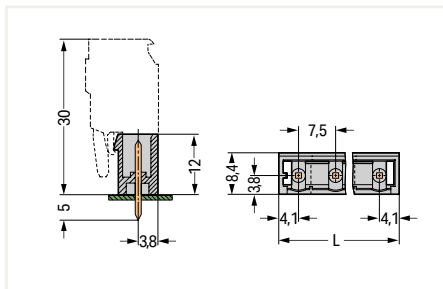
Pole No.	Item No.	PU
2	231-832/001-000	200
3	231-833/001-000	200
4	231-834/001-000	100
5	231-835/001-000	100
6	231-836/001-000	100
7	231-837/001-000	50
8	231-838/001-000	50
9	231-839/001-000	50
10	231-840/001-000	50
11	231-841/001-000	50
12	231-842/001-000	50
13	231-843/001-000	50
16	231-846/001-000	50

Pole No.	Item No.	PU
2	231-232/001-000	200
3	231-233/001-000	200
4	231-234/001-000	100
5	231-235/001-000	100
6	231-236/001-000	100
7	231-237/001-000	50
8	231-238/001-000	50
9	231-239/001-000	50
10	231-240/001-000	50
11	231-241/001-000	50
12	231-242/001-000	50
13	231-243/001-000	50
16	231-246/001-000	50

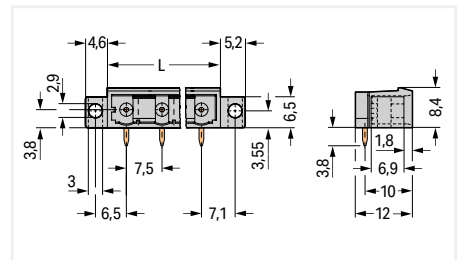
Pole No.	Item No.	PU
10	231-840/040-000	50



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

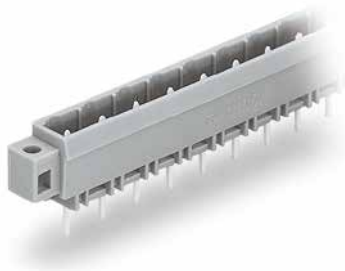
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

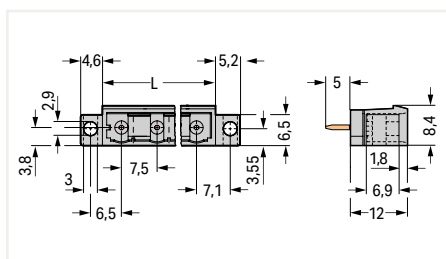
Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting
 ▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm



231-240/040-000

Pole No.	Item No.	PU
10	231-240/040-000	25



$$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$$

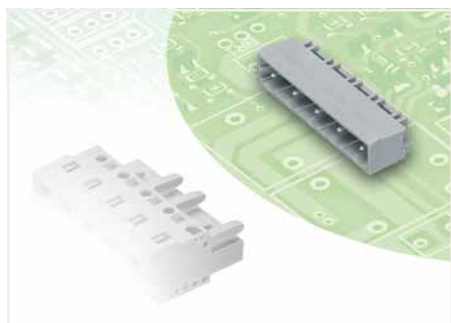
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

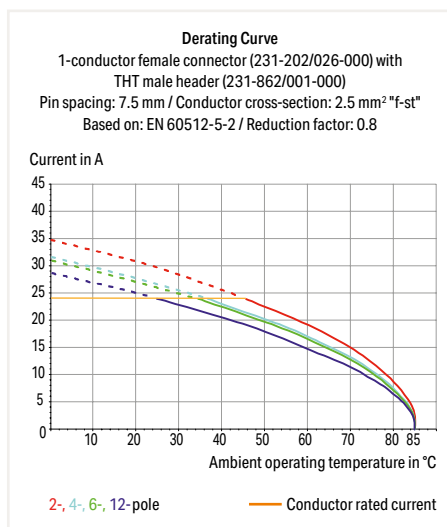
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

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Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

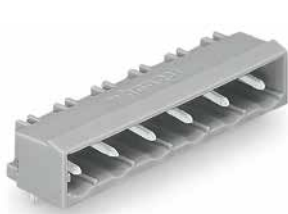
THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: gray

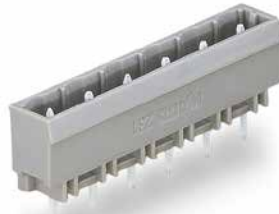
Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm



231-866/001-000



231-266/001-000

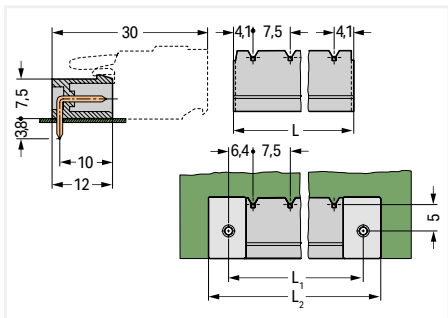


231-870/040-000

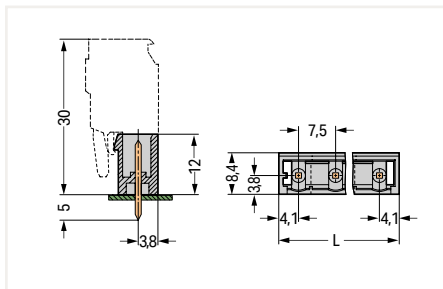
Pole No.	Item No.	PU
2	231-862/001-000	200
3	231-863/001-000	200
4	231-864/001-000	100
5	231-865/001-000	100
6	231-866/001-000	100
7	231-867/001-000	50
8	231-868/001-000	50
9	231-869/001-000	50
10	231-870/001-000	50
11	231-871/001-000	50
12	231-872/001-000	50
13	231-873/001-000	50
16	231-876/001-000	50

Pole No.	Item No.	PU
2	231-262/001-000	200
3	231-263/001-000	200
4	231-264/001-000	100
5	231-265/001-000	100
6	231-266/001-000	100
7	231-267/001-000	50
8	231-268/001-000	50
9	231-269/001-000	50
10	231-270/001-000	50
11	231-271/001-000	50
12	231-272/001-000	50
13	231-273/001-000	50
16	231-276/001-000	50

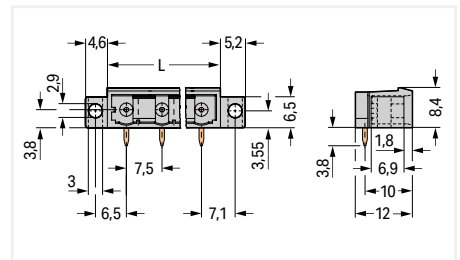
Pole No.	Item No.	PU
10	231-870/040-000	50



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

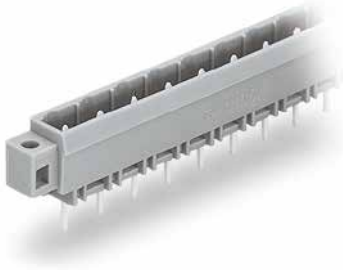
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

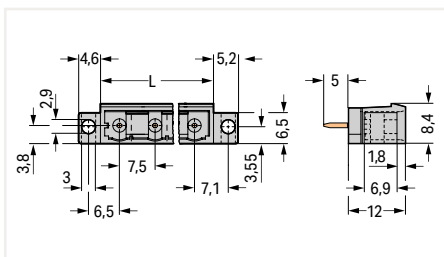
Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: gray

Mounting type: Feed-through mounting; Panel mounting
 ▶ Mounting type: Mounting flange ▶ Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm



231-270/040-000

Pole No.	Item No.	PU
10	231-270/040-000	50



$$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$$

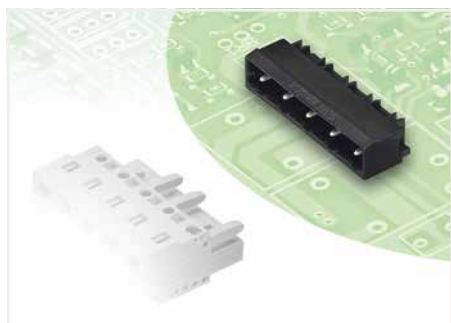
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

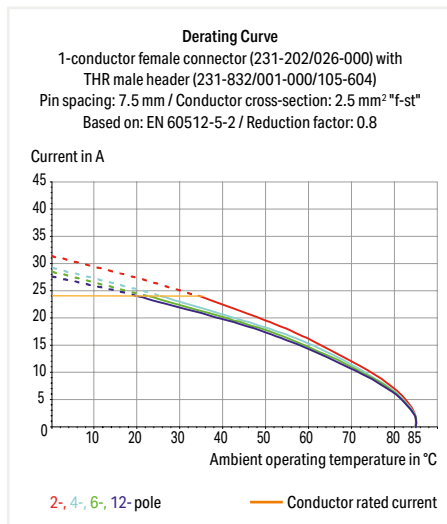
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 ^(±0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering Page 596

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: black

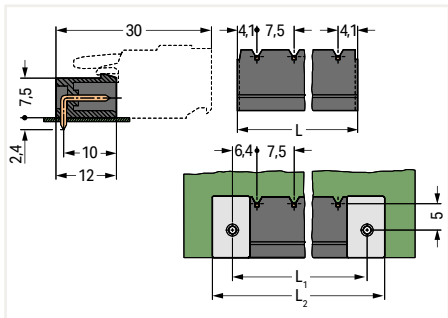
Mating direction to the PCB: 0°

Suitable for automated assembly

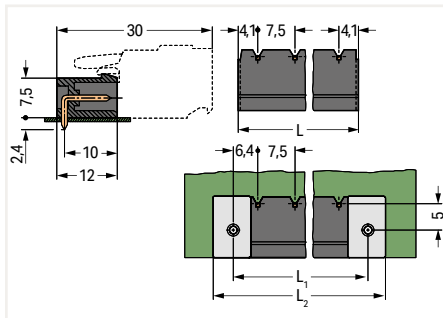


Pole No.	Item No.	PU
2	231-832/001-000/105-604	200
3	231-833/001-000/105-604	200
4	231-834/001-000/105-604	100
5	231-835/001-000/105-604	100
6	231-836/001-000/105-604	100
7	231-837/001-000/105-604	50
8	231-838/001-000/105-604	50
9	231-839/001-000/105-604	50
10	231-840/001-000/105-604	50
11	231-841/001-000/105-604	50
12	231-842/001-000/105-604	50

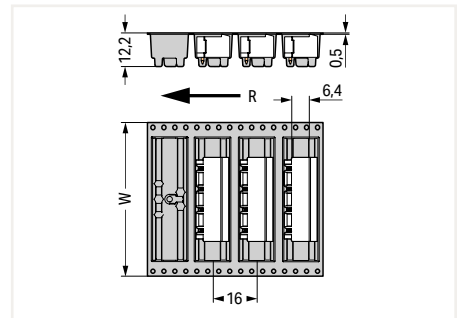
Pole No.	Tape width	Item No.	PU
2	32 mm	231-832/001-000/105-604/997-405	170
3	56 mm	231-833/001-000/105-604/997-407	170
4	56 mm	231-834/001-000/105-604/997-407	170
5	56 mm	231-835/001-000/105-604/997-407	170
6	88 mm	231-836/001-000/105-604/997-409	330
7	88 mm	231-837/001-000/105-604/997-409	330
8	88 mm	231-838/001-000/105-604/997-409	330
9	88 mm	231-839/001-000/105-604/997-409	330



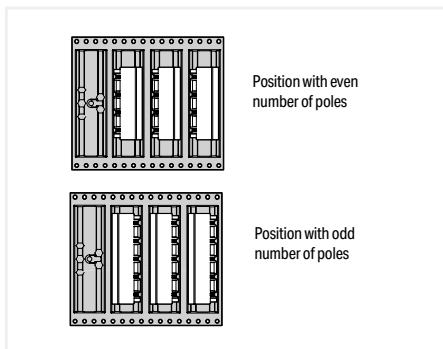
$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: black

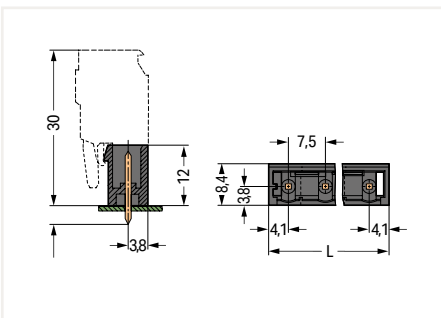
Mating direction to the PCB: 90°

Suitable for automated assembly

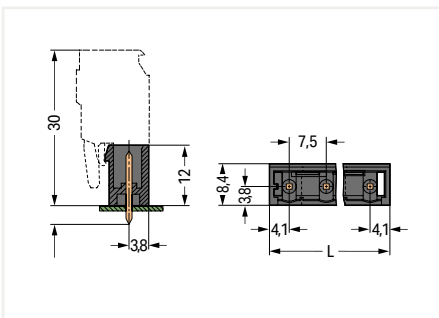


Pole No.	Item No.	PU
2	231-232/001-000/105-604	200
3	231-233/001-000/105-604	200
4	231-234/001-000/105-604	100
5	231-235/001-000/105-604	100
6	231-236/001-000/105-604	100
7	231-237/001-000/105-604	50
8	231-238/001-000/105-604	50
9	231-239/001-000/105-604	50
10	231-240/001-000/105-604	50
11	231-241/001-000/105-604	50
12	231-242/001-000/105-604	50

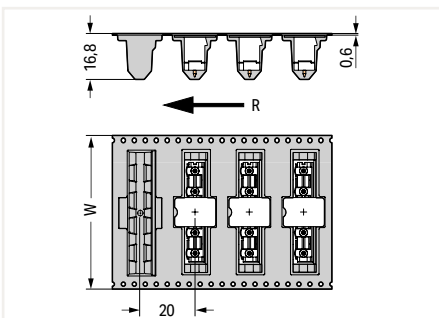
Pole No.	Tape width	Item No.	PU
2	32 mm	231-232/001-000/105-604/997-405	170
3	56 mm	231-233/001-000/105-604/997-407	170
4	56 mm	231-234/001-000/105-604/997-407	170
5	56 mm	231-235/001-000/105-604/997-407	170
6	88 mm	231-236/001-000/105-604/997-409	170
7	88 mm	231-237/001-000/105-604/997-409	170
8	88 mm	231-238/001-000/105-604/997-409	170
9	88 mm	231-239/001-000/105-604/997-409	170



L = (pole no. - 1) x pin spacing + 8.2 mm



L = (pole no. - 1) x pin spacing + 8.2 mm



W = tape width
R = feed direction

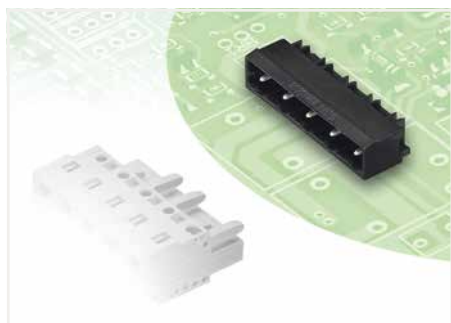
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

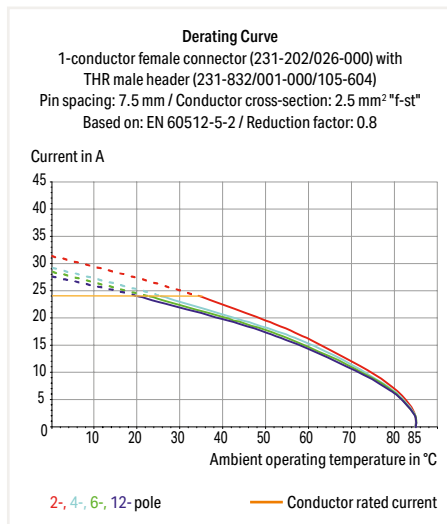
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

**Electrical Data**

Ratings per		IEC/EN 60664-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Rated voltage		500 V	630 V	1000 V
Rated impulse voltage		6 kV	6 kV	6 kV
Rated current		16 A	16 A	16 A
Approbations per		UL 1059		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		10 A	-	10 A
Approbations per		UL 1977		
Rated voltage		600 V		
Rated current		15 A		
Approbations per		CSA		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 1.2 mm
Plated through-hole diameter (THR)	1.7 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering Page 596

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: black

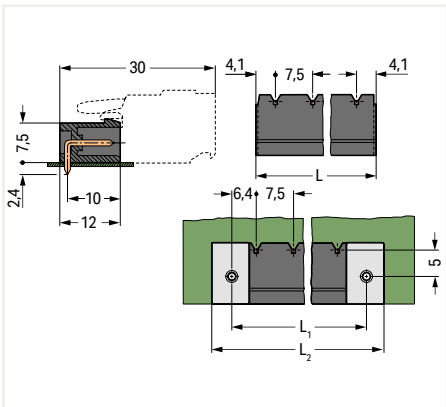
Mating direction to the PCB: 0°

Suitable for automated assembly

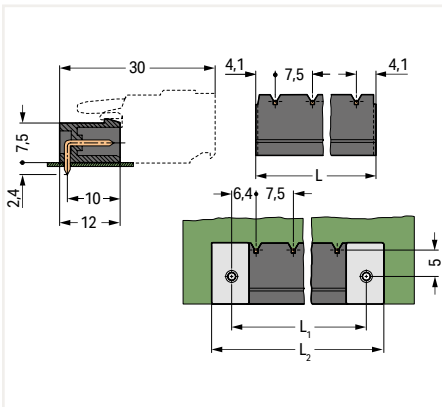


Pole No.	Item No.	PU
2	231-862/001-000/105-604	200
3	231-863/001-000/105-604	200
4	231-864/001-000/105-604	100
5	231-865/001-000/105-604	100
6	231-866/001-000/105-604	100
7	231-867/001-000/105-604	50
8	231-868/001-000/105-604	50
9	231-869/001-000/105-604	50
10	231-870/001-000/105-604	50
11	231-871/001-000/105-604	50
12	231-872/001-000/105-604	50

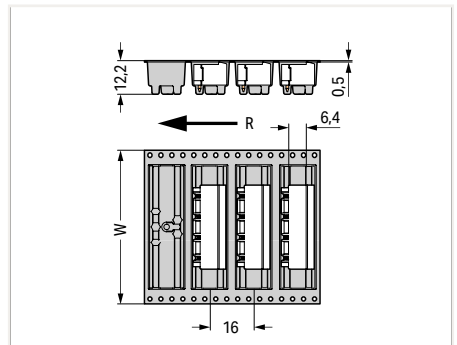
Pole No.	Tape width	Item No.	PU
2	32 mm	231-862/001-000/105-604/997-405	170
3	56 mm	231-863/001-000/105-604/997-407	170
4	56 mm	231-864/001-000/105-604/997-407	170
5	56 mm	231-865/001-000/105-604/997-407	170
6	88 mm	231-866/001-000/105-604/997-409	330
7	88 mm	231-867/001-000/105-604/997-409	330
8	88 mm	231-868/001-000/105-604/997-409	330
9	88 mm	231-869/001-000/105-604/997-409	330



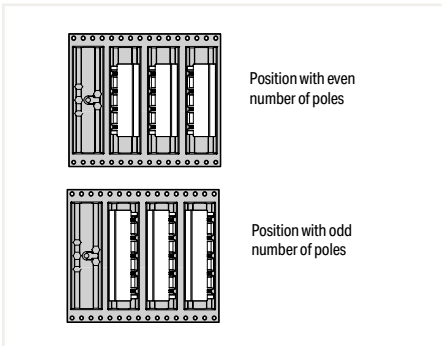
$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: black

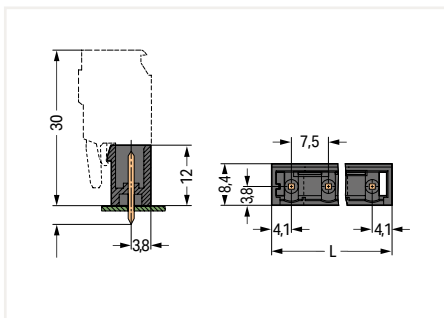
Mating direction to the PCB: 90°

Suitable for automated assembly

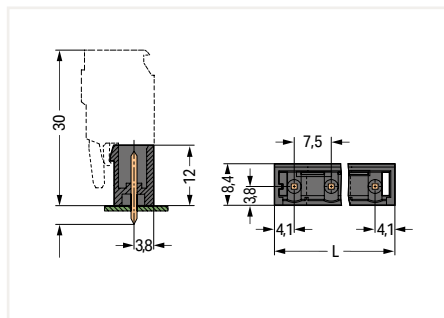


Pole No.	Item No.	PU
2	231-262/001-000/105-604	200
3	231-263/001-000/105-604	200
4	231-264/001-000/105-604	100
5	231-265/001-000/105-604	100
6	231-266/001-000/105-604	50
7	231-267/001-000/105-604	50
8	231-268/001-000/105-604	50
9	231-269/001-000/105-604	50
10	231-270/001-000/105-604	50
11	231-271/001-000/105-604	50
12	231-272/001-000/105-604	50

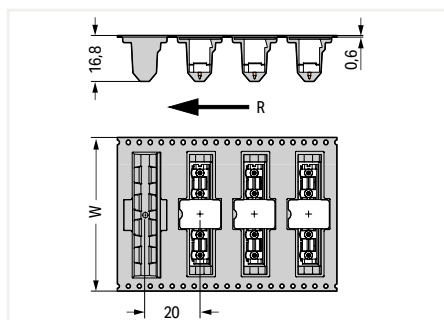
Pole No.	Tape width	Item No.	PU
2	32 mm	231-262/001-000/105-604/997-405	170
3	56 mm	231-263/001-000/105-604/997-407	170
4	56 mm	231-264/001-000/105-604/997-407	170
5	56 mm	231-265/001-000/105-604/997-407	170
6	88 mm	231-266/001-000/105-604/997-409	170
7	88 mm	231-267/001-000/105-604/997-409	170
8	88 mm	231-268/001-000/105-604/997-409	170
9	88 mm	231-269/001-000/105-604/997-409	170



L = (pole no. - 1) x pin spacing + 8.2 mm



L = (pole no. - 1) x pin spacing + 8.2 mm



W = tape width
R = feed direction

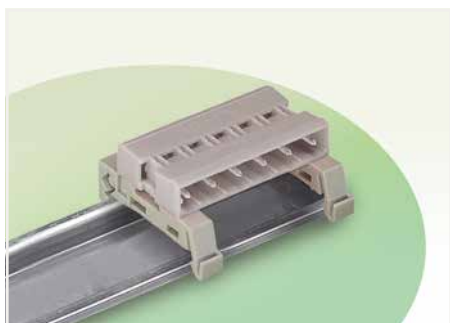
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Mounting type: DIN-35 rail ▶ Color: gray



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A

Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		

Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

DIN-rail Page 868

See technical section for further information

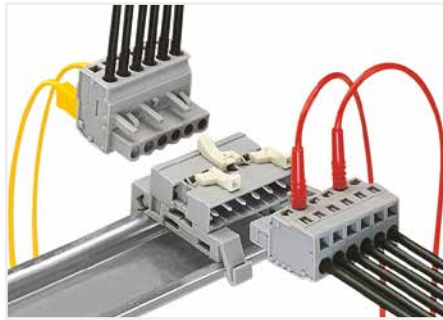
For approvals and corresponding ratings, visit www.wago.com

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Mounting type: DIN-35 rail ▶ Color: gray

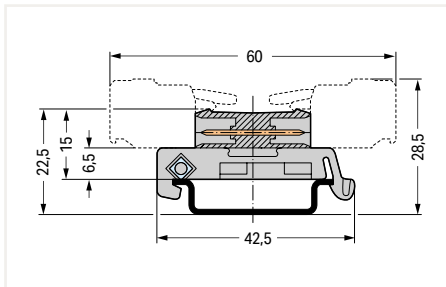


232-566/007-000



Angled female connector – straight female connector

Pole No.	Item No.	PU
2	232-562/007-000	50
3	232-563/007-000	50
4	232-564/007-000	25
5	232-565/007-000	50
6	232-566/007-000	25
7	232-567/007-000	10
8	232-568/007-000	10
9	232-569/007-000	10
10	232-570/007-000	10
11	232-571/007-000	10
12	232-572/007-000	10



Total length = (pole no. - 1) x pin spacing + 8.2 mm

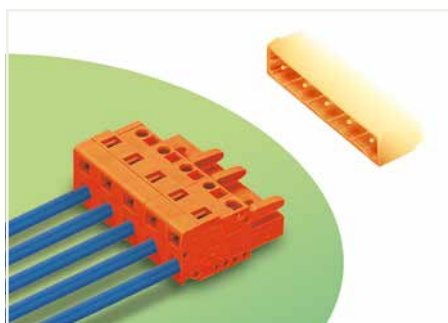
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

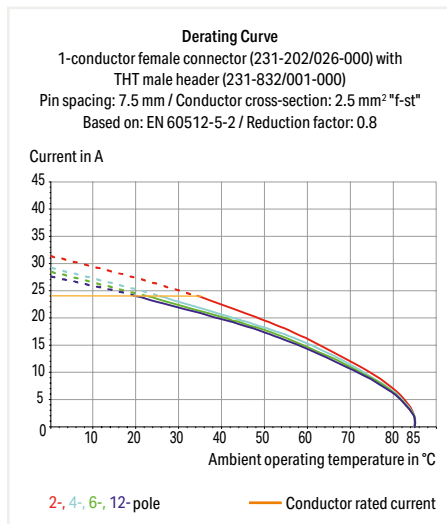
- Other pole numbers

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Locking of plug-in connection: Locking lever

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange



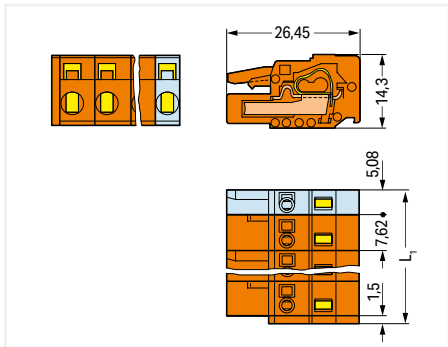
231-706/037-000

231-706/031-000

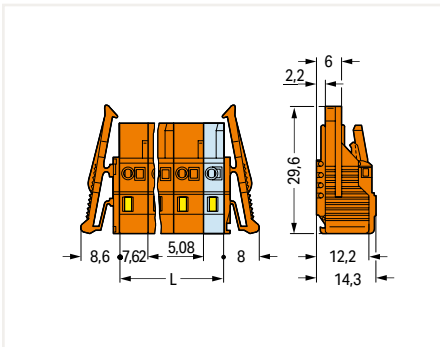
Pole No.	Item No.	PU
2	231-702/026-000	100
3	231-703/026-000	100
4	231-704/026-000	50
5	231-705/026-000	50
6	231-706/026-000	50
7	231-707/026-000	50
8	231-708/026-000	25
9	231-709/026-000	25
10	231-710/026-000	25
11	231-711/026-000	25
12	231-712/026-000	25

Pole No.	Item No.	PU
2	231-702/037-000	50
3	231-703/037-000	50
4	231-704/037-000	50
5	231-705/037-000	50
6	231-706/037-000	25
7	231-707/037-000	25
8	231-708/037-000	25
9	231-709/037-000	25
10	231-710/037-000	25
11	231-711/037-000	10
12	231-712/037-000	10

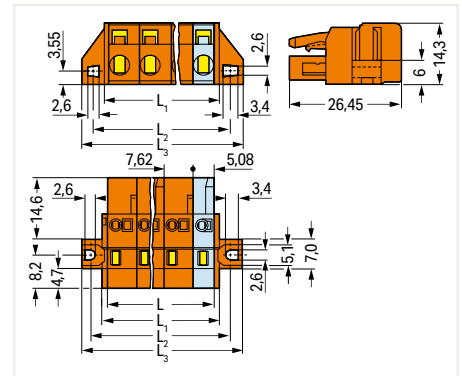
Pole No.	Item No.	PU
2	231-702/031-000	50
3	231-703/031-000	50
4	231-704/031-000	50
5	231-705/031-000	50
6	231-706/031-000	25
7	231-707/031-000	25
8	231-708/031-000	25
9	231-709/031-000	25
10	231-710/031-000	25
11	231-711/031-000	10
12	231-712/031-000	10



$L_1 = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm} + 1.5 \text{ mm}$
2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange ▶ with reinforcing strips

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



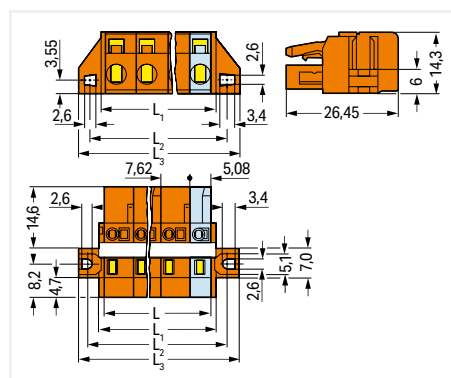
231-706/027-000



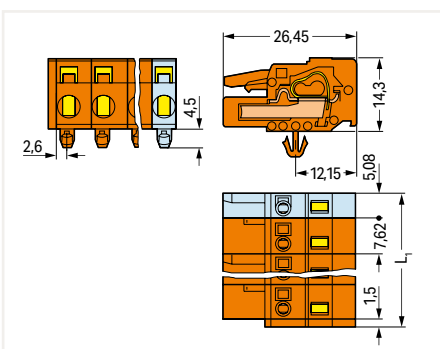
231-706/008-000

Pole No.	Item No.	PU
6	231-706/027-000	25
7	231-707/027-000	25
8	231-708/027-000	25
9	231-709/027-000	25
10	231-710/027-000	25
11	231-711/027-000	10
12	231-712/027-000	10

Pole No.	Item No.	PU
2	231-702/008-000	100
3	231-703/008-000	100
4	231-704/008-000	50
5	231-705/008-000	50
6	231-706/008-000	50
7	231-707/008-000	50
8	231-708/008-000	25
9	231-709/008-000	25
10	231-710/008-000	25
11	231-711/008-000	25
12	231-712/008-000	25



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_4 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only



$L_1 = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm} + 1.5 \text{ mm}$
 2- to 3-pole female connectors – one latch only

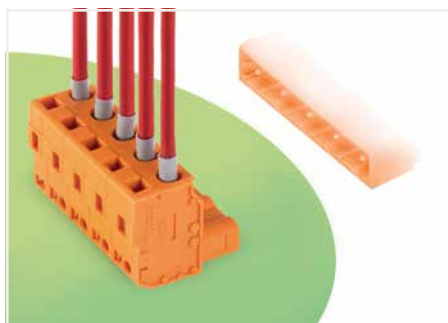
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

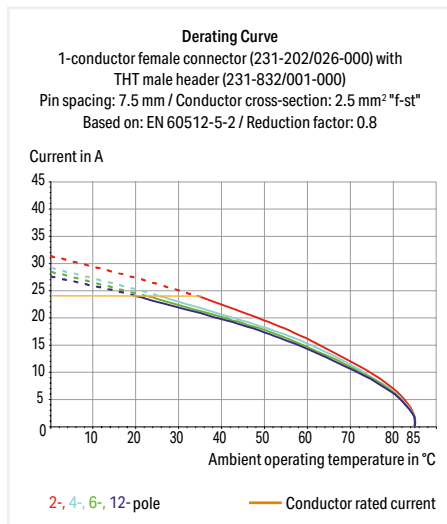
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 732 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 270 ° ▶ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

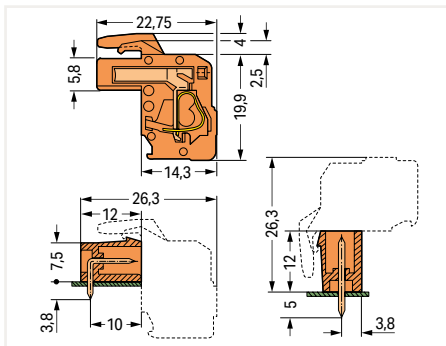
1-conductor female plug ▶ MCS MIDI Classic ▶ 732 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 270 ° ▶ Color: orange



732-126/026-000

Pole No.	Item No.	PU
2	732-122/026-000	100
3	732-123/026-000	100
4	732-124/026-000	50
5	732-125/026-000	50
6	732-126/026-000	50
7	732-127/026-000	50
8	732-128/026-000	25
9	732-129/026-000	25
10	732-130/026-000	25
11	732-131/026-000	25
12	732-132/026-000	25



Total length = (pole no. - 1) x pin spacing + 5.08 mm + 1.5 mm + 0.9 mm

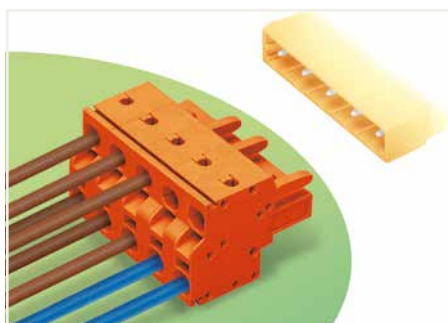
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

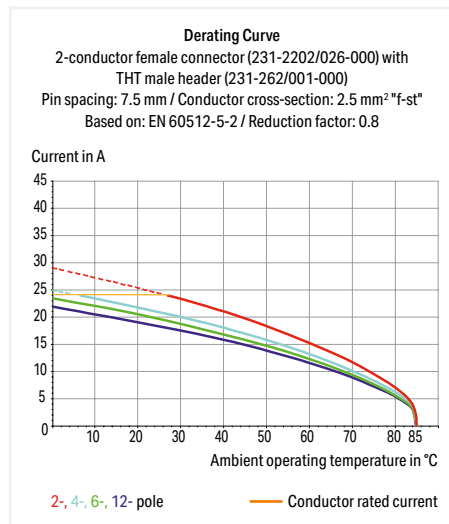
- Gold-plated or partially gold-plated contact surfaces

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

**Electrical Data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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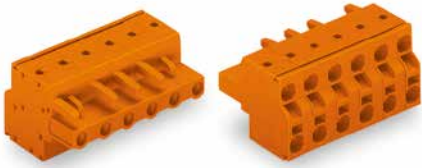
The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 729
Test and measurement	Page 725
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

2-conductor female connector ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Locking of plug-in connection: Locking lever



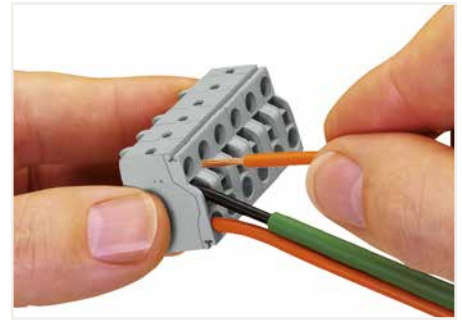
231-2706/026-000



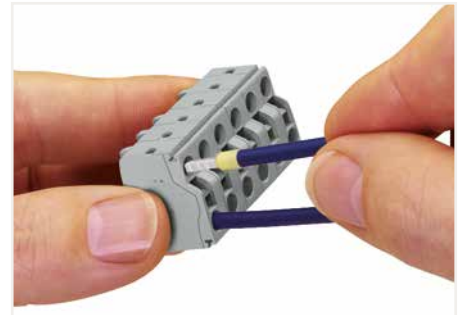
231-2706/037-000

Pole No.	Item No.	PU
2	231-2702/026-000	100
3	231-2703/026-000	100
4	231-2704/026-000	50
5	231-2705/026-000	50
6	231-2706/026-000	50
7	231-2707/026-000	50
8	231-2708/026-000	25
9	231-2709/026-000	25
10	231-2710/026-000	25
11	231-2711/026-000	25
12	231-2712/026-000	25

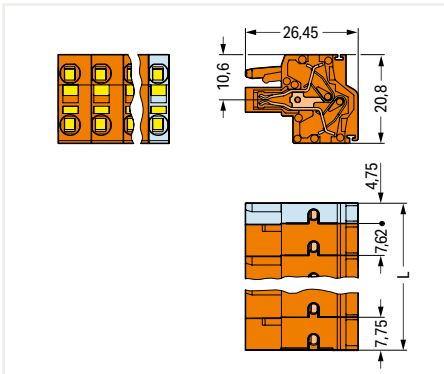
Pole No.	Item No.	PU
2	231-2702/037-000	50
3	231-2703/037-000	50
4	231-2704/037-000	50
5	231-2705/037-000	50
6	231-2706/037-000	25
7	231-2707/037-000	25
8	231-2708/037-000	25
9	231-2709/037-000	25
10	231-2710/037-000	25
11	231-2711/037-000	10
12	231-2712/037-000	10



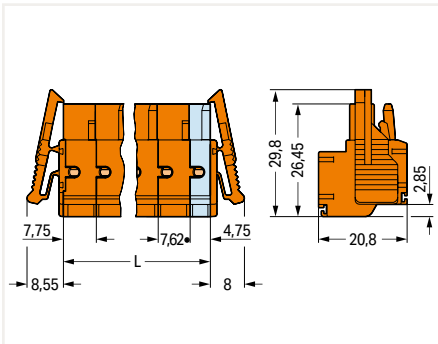
Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.



L = (pole no. - 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. - 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only

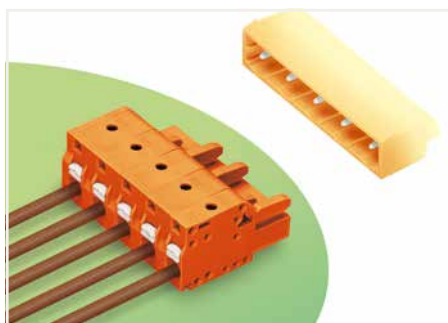
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

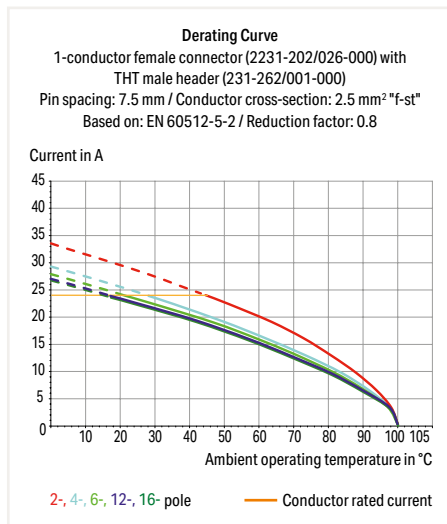
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
Solid conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm ² / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
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Mounting	Page 732
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

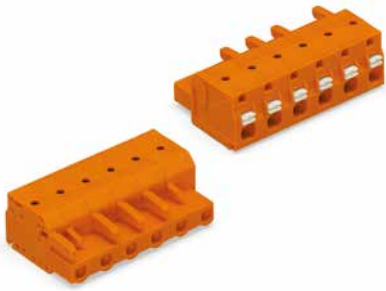
For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

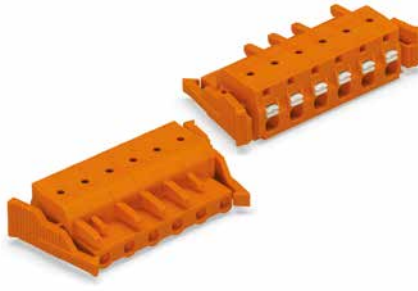
Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Locking of plug-in connection: Locking lever

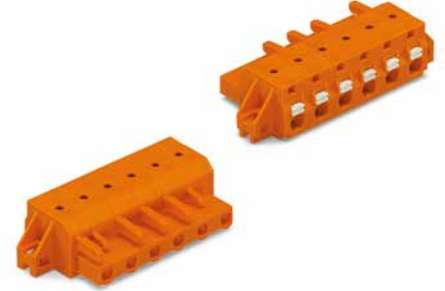
Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange



2231-706/026-000



2231-706/037-000

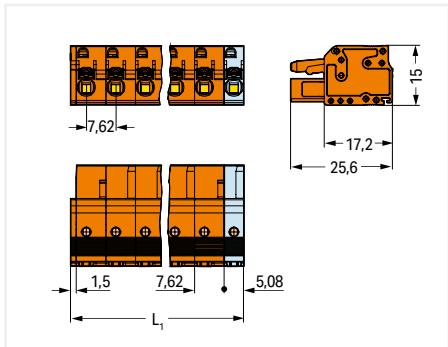


2231-706/031-000

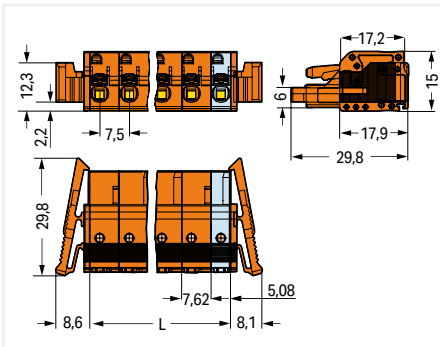
Pole No.	Item No.	PU
2	2231-702/026-000	100
3	2231-703/026-000	100
4	2231-704/026-000	50
5	2231-705/026-000	50
6	2231-706/026-000	50
7	2231-707/026-000	50
8	2231-708/026-000	25
9	2231-709/026-000	25
10	2231-710/026-000	25
11	2231-711/026-000	25
12	2231-712/026-000	25

Pole No.	Item No.	PU
2	2231-702/037-000	50
3	2231-703/037-000	50
4	2231-704/037-000	50
5	2231-705/037-000	50
6	2231-706/037-000	25
7	2231-707/037-000	25
8	2231-708/037-000	25
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10	2231-710/037-000	25
11	2231-711/037-000	10
12	2231-712/037-000	10

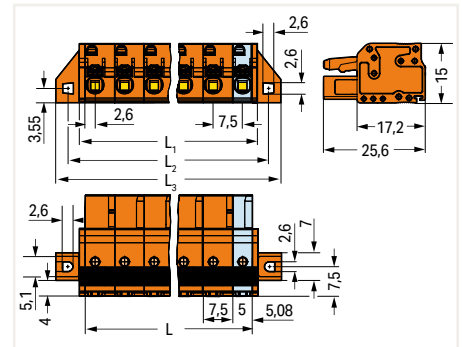
Pole No.	Item No.	PU
2	2231-702/031-000	50
3	2231-703/031-000	50
4	2231-704/031-000	50
5	2231-705/031-000	50
6	2231-706/031-000	25
7	2231-707/031-000	25
8	2231-708/031-000	25
9	2231-709/031-000	25
10	2231-710/031-000	25
11	2231-711/031-000	10
12	2231-712/031-000	10



$L_1 = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm} + 1.5 \text{ mm}$
2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
 $L_1 = L + 2.8 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

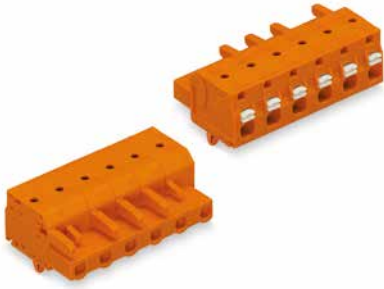
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

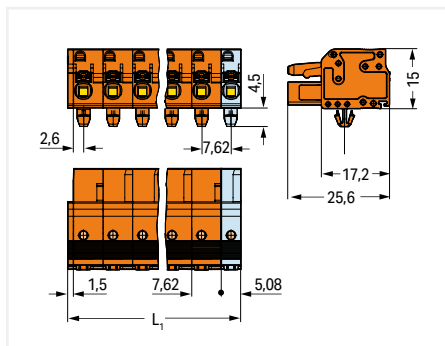
1-conductor female plug ▶ MCS MIDI Classic ▶ 2231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



Pole No.	Item No.	PU
2	2231-702/008-000	100
3	2231-703/008-000	100
4	2231-704/008-000	50
5	2231-705/008-000	50
6	2231-706/008-000	50
7	2231-707/008-000	50
8	2231-708/008-000	25
9	2231-709/008-000	25
10	2231-710/008-000	25
11	2231-711/008-000	25
12	2231-712/008-000	25



$L_1 = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm} + 1.5 \text{ mm}$
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Gold-plated or partially gold-plated contact surfaces

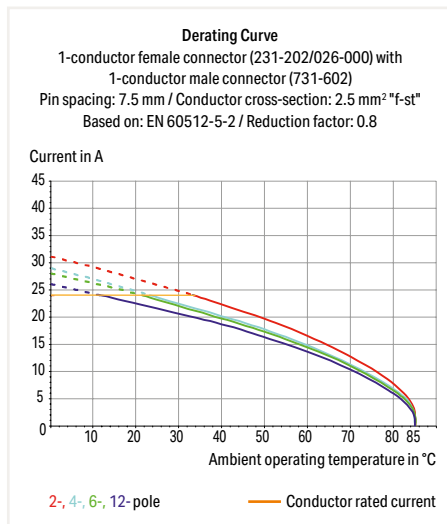
9

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers



Electrical Data						
Montageart	Feed-through mounting; Panel mounting			Feed-through mounting		
Befestigungsart	Mounting flange; Snap-in; Snap-in foot			Snap-in		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overtoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	500 V	630 V	100 V
Rated impulse voltage	6 kV	6 kV	6 kV	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A	12 A	12 A	12 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A
Approbations per	UL 1977			UL 1977		
Rated voltage	600 V	-	-	600 V	-	-
Rated current	15 A	-	-	15 A	-	-
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 ... +100 °C

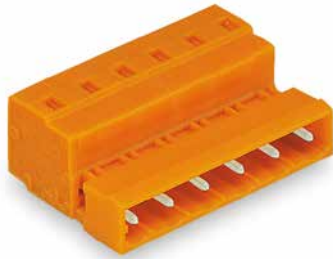
The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 731
Tool	Page 538, 870
Direct marking	Page 734
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Feed-through mounting; Panel mounting
▶ Mounting type: Mounting flange



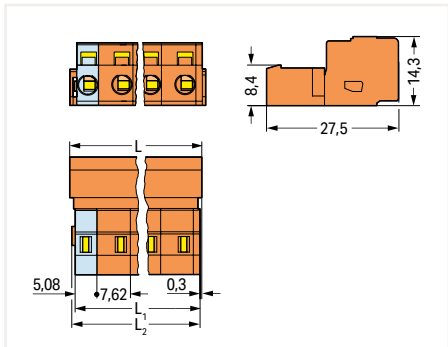
731-636



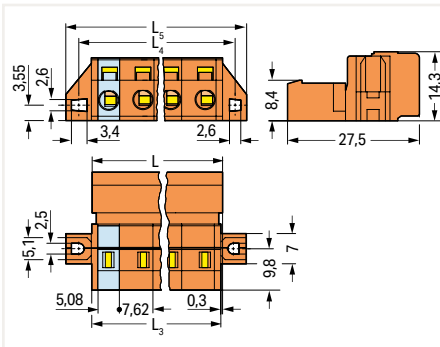
731-636/019-000

Pole No.	Item No.	PU
2	731-632	100
3	731-633	100
4	731-634	50
5	731-635	50
6	731-636	50
7	731-637	50
8	731-638	25
9	731-639	25
10	731-640	25
11	731-641	25
12	731-642	25

Pole No.	Item No.	PU
2	731-632/019-000	50
3	731-633/019-000	50
4	731-634/019-000	50
5	731-635/019-000	50
6	731-636/019-000	25
7	731-637/019-000	25
8	731-638/019-000	25
9	731-639/019-000	25
10	731-640/019-000	25
11	731-641/019-000	10
12	731-642/019-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L - 1.7 \text{ mm}$
 $L_2 = L - 1.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_3 = L - 0.2 \text{ mm}$
 $L_4 = L_3 + 5.8 \text{ mm}$
 $L_5 = L_3 + 11.8 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

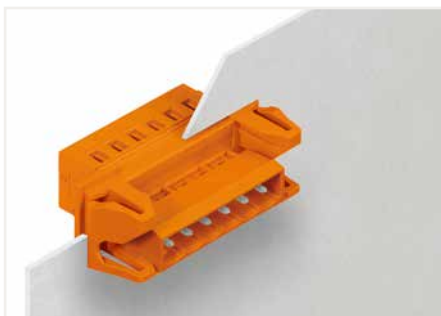
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

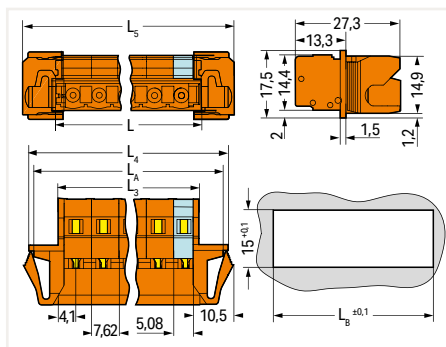
Mounting type: Feed-through mounting ▶ Mounting type: Snap-in



731-636/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 ... 2.5 mm plate thickness

Pole No.	Item No.	PU
2	731-632/114-000	50
3	731-633/114-000	50
4	731-634/114-000	50
5	731-635/114-000	25
6	731-636/114-000	25
7	731-637/114-000	25
8	731-638/114-000	25
9	731-639/114-000	25
10	731-640/114-000	10
11	731-641/114-000	10
12	731-642/114-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L_3 = L - 0.2 \text{ mm}$

$L_4 = L_3 + 15.2 \text{ mm}$

$L_5 = L_3 + 18 \text{ mm}$

$L_A = L_3 + 12.6 \text{ mm}$

$L_8 = L_3 + 13.2 \text{ mm}$

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

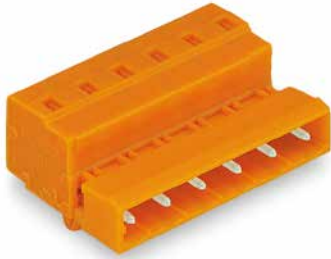
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▶ MCS MIDI Classic ▶ 731 Series

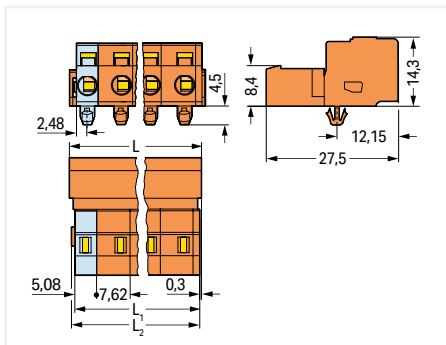
Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot



731-636/018-000

Pole No.	Item No.	PU
2	731-632/018-000	100
3	731-633/018-000	100
4	731-634/018-000	50
5	731-635/018-000	50
6	731-636/018-000	50
7	731-637/018-000	50
8	731-638/018-000	25
9	731-639/018-000	25
10	731-640/018-000	25
11	731-641/018-000	25
12	731-642/018-000	25



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L_1 = L - 1.7 \text{ mm}$

$L_2 = L - 1.2 \text{ mm}$

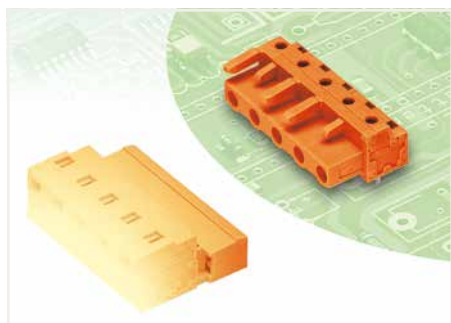
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

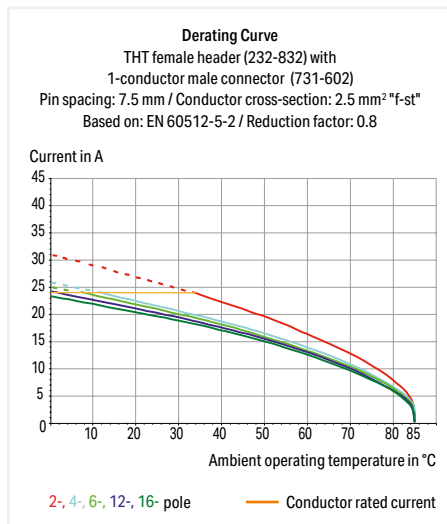
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 ^(±0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting Page 869

Test and measurement Page 725, 886

Cutout dimensions Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

Mating direction to the PCB: 0°

Mating direction to the PCB: 90°

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 0°

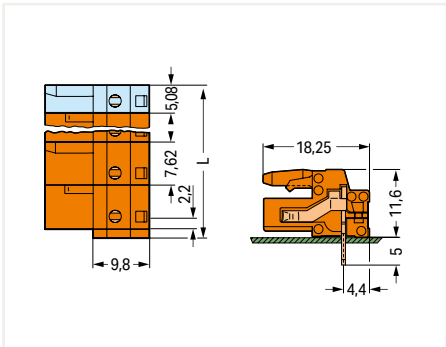


232-866/039-000

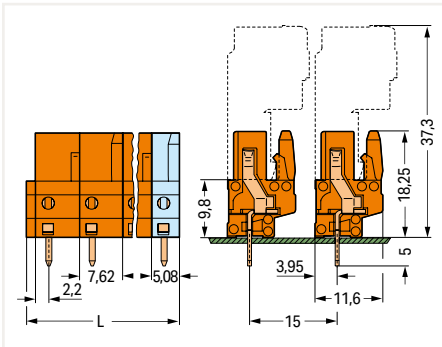
Pole No.	Item No.	PU
2	232-862	100
3	232-863	100
4	232-864	50
5	232-865	50
6	232-866	50
7	232-867	50
8	232-868	25
9	232-869	25
10	232-870	25
11	232-871	25
12	232-872	25

Pole No.	Item No.	PU
2	232-762	100
3	232-763	100
4	232-764	50
5	232-765	50
6	232-766	50
7	232-767	50
8	232-768	25
9	232-769	25
10	232-770	25
11	232-771	25
12	232-772	25

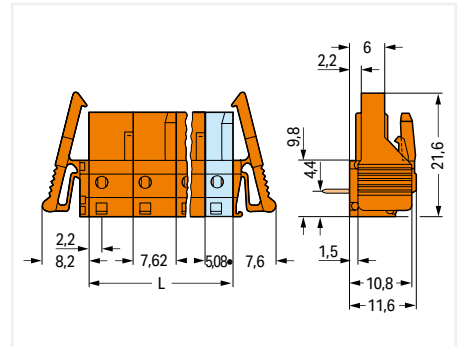
Pole No.	Item No.	PU
2	232-862/039-000	50
3	232-863/039-000	50
4	232-864/039-000	50
5	232-865/039-000	50
6	232-866/039-000	25
7	232-867/039-000	25
8	232-868/039-000	25
9	232-869/039-000	25
10	232-870/039-000	25
11	232-871/039-000	10
12	232-872/039-000	10



L = (pole no. - 1) x pin spacing + 5.08 mm + 1.5 mm
 Distance to first solder pin: 2.2 mm
 2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5.08 mm + 1.5 mm
 2- to 3-pole female connectors – one latch only



L = (pole no. - 1) x pin spacing + 5.08 mm
 Distance to first solder pin: 2.2 mm
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

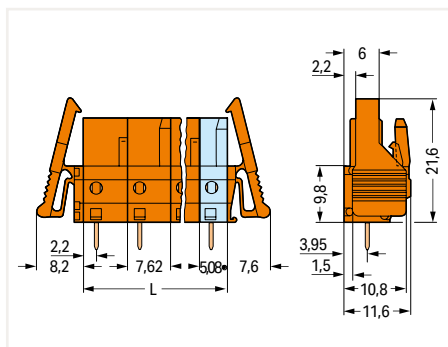
Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

Locking of plug-in connection: Locking lever ▶ Mating direction to the PCB: 90°



232-766/039-000

Pole No.	Item No.	PU
2	232-762/039-000	50
3	232-763/039-000	50
4	232-764/039-000	50
5	232-765/039-000	50
6	232-766/039-000	25
7	232-767/039-000	25
8	232-768/039-000	25
9	232-769/039-000	25
10	232-770/039-000	25
11	232-771/039-000	10
12	232-772/039-000	10



L = (pole no. - 1) x pin spacing + 5.08 mm
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

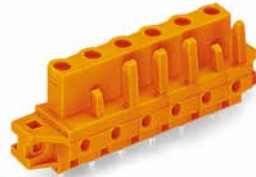
Mounting type: Feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

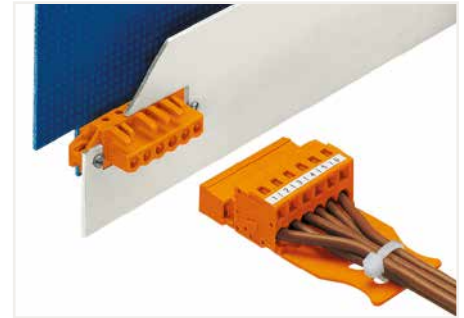
Mating direction to the PCB: 90°



232-866/031-000



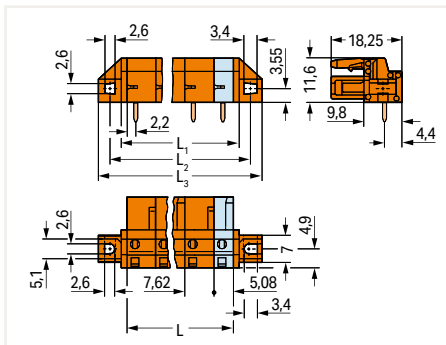
232-766/031-000



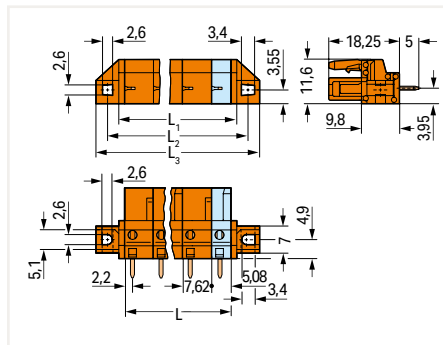
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-862/031-000	50
3	232-863/031-000	50
4	232-864/031-000	50
5	232-865/031-000	50
6	232-866/031-000	25
7	232-867/031-000	25
8	232-868/031-000	25
9	232-869/031-000	25
10	232-870/031-000	25
11	232-871/031-000	10
12	232-872/031-000	10

Pole No.	Item No.	PU
2	232-762/031-000	50
3	232-763/031-000	50
4	232-764/031-000	50
5	232-765/031-000	50
6	232-766/031-000	25
7	232-767/031-000	25
8	232-768/031-000	25
9	232-769/031-000	25
10	232-770/031-000	25
11	232-771/031-000	10
12	232-772/031-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 0.6 x 1 mm ▶ Color: orange

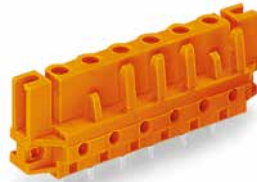
Mounting type: Flush feed-through mounting; Panel mounting ▶ Mounting type: Mounting flange

Mating direction to the PCB: 0°

Mating direction to the PCB: 90°



232-866/047-000



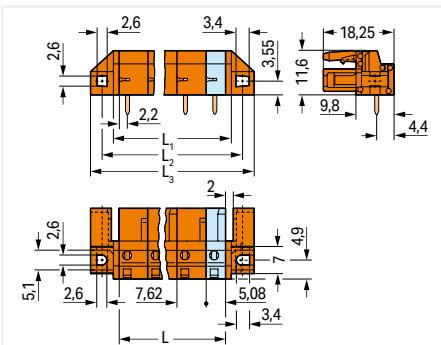
232-766/047-000



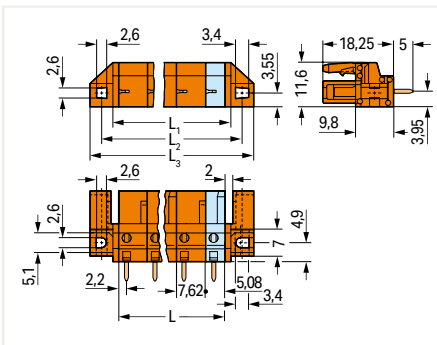
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Pole No.	Item No.	PU
2	232-862/047-000	50
3	232-863/047-000	50
4	232-864/047-000	50
5	232-865/047-000	50
6	232-866/047-000	25
7	232-867/047-000	25
8	232-868/047-000	25
9	232-869/047-000	25
10	232-870/047-000	25
11	232-871/047-000	10
12	232-872/047-000	10

Pole No.	Item No.	PU
2	232-762/047-000	50
3	232-763/047-000	50
4	232-764/047-000	50
5	232-765/047-000	50
6	232-766/047-000	25
7	232-767/047-000	25
8	232-768/047-000	25
9	232-769/047-000	25
10	232-770/047-000	25
11	232-771/047-000	10
12	232-772/047-000	10



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.08 \text{ mm}$
 $L_1 = L + 3 \text{ mm}$
 $L_2 = L + 8.8 \text{ mm}$
 $L_3 = L + 14.8 \text{ mm}$
 2- to 3-pole female connectors – one latch only

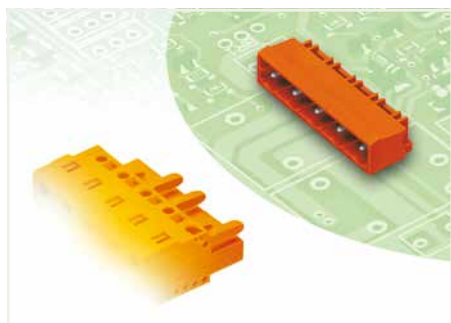
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

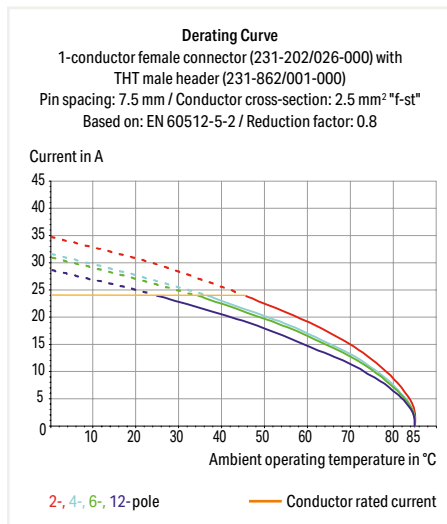
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

**Electrical Data**

Ratings per		IEC/EN 60664-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Rated voltage		500 V	630 V	1000 V
Rated impulse voltage		6 kV	6 kV	6 kV
Rated current		12 A	12 A	12 A
Approbations per		UL 1059		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		10 A	-	10 A
Approbations per		UL 1977		
Rated voltage		600 V		
Rated current		10 A		
Approbations per		CSA		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

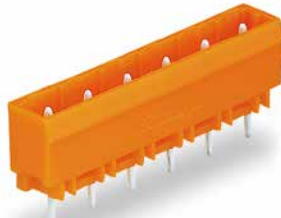
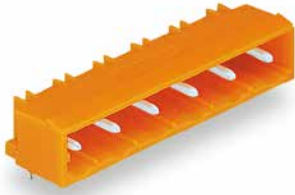
For approvals and corresponding ratings, visit www.wago.com

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Color: orange

Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

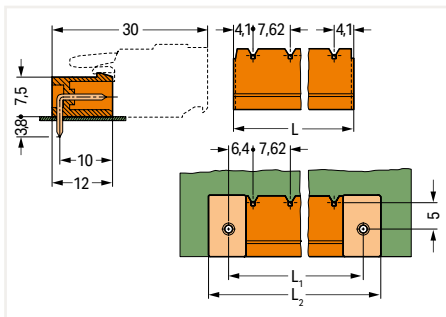


231-936/001-000

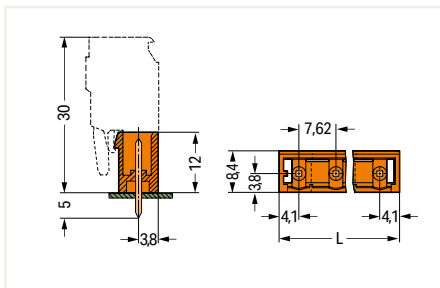
231-736/001-000

Pole No.	Item No.	PU
2	231-932/001-000	100
3	231-933/001-000	200
4	231-934/001-000	100
5	231-935/001-000	100
6	231-936/001-000	50
7	231-937/001-000	50
8	231-938/001-000	50
9	231-939/001-000	50
10	231-940/001-000	50
11	231-941/001-000	50
12	231-942/001-000	50

Pole No.	Item No.	PU
2	231-732/001-000	200
3	231-733/001-000	200
4	231-734/001-000	100
5	231-735/001-000	100
6	231-736/001-000	100
7	231-737/001-000	50
8	231-738/001-000	50
9	231-739/001-000	50
10	231-740/001-000	50
11	231-741/001-000	50
12	231-742/001-000	50



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

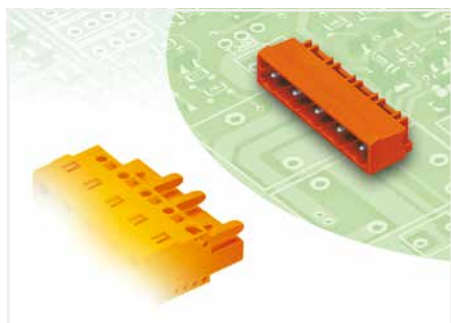
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

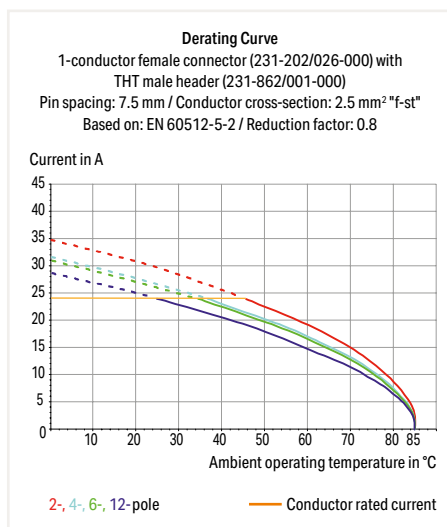
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 ^(+0.1) mm

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

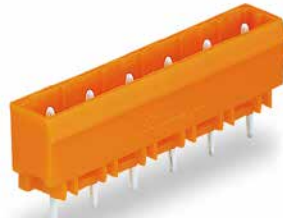
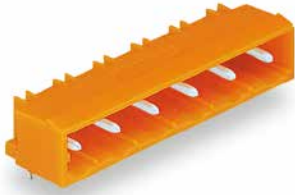
For approvals and corresponding ratings, visit www.wago.com

THT male header ▶ MCS MIDI Classic ▶ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 1.2 x 1.2 mm ▶ Color: orange

Mating direction to the PCB: 0° ▶ Solder pin length: 3.8 mm

Mating direction to the PCB: 90° ▶ Solder pin length: 5 mm

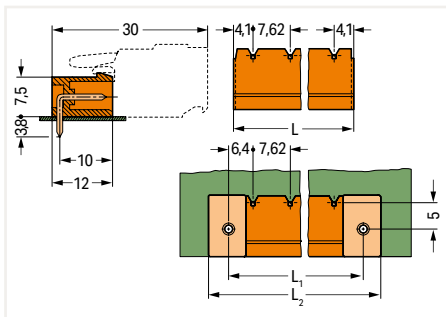


231-966/001-000

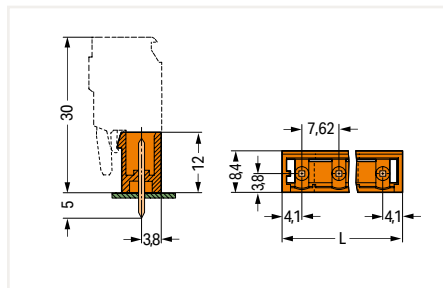
231-766/001-000

Pole No.	Item No.	PU
2	231-962/001-000	200
3	231-963/001-000	200
4	231-964/001-000	100
5	231-965/001-000	100
6	231-966/001-000	100
7	231-967/001-000	50
8	231-968/001-000	50
9	231-969/001-000	50
10	231-970/001-000	50
11	231-971/001-000	50
12	231-972/001-000	50

Pole No.	Item No.	PU
2	231-762/001-000	200
3	231-763/001-000	200
4	231-764/001-000	100
5	231-765/001-000	100
6	231-766/001-000	100
7	231-767/001-000	50
8	231-768/001-000	50
9	231-769/001-000	50
10	231-770/001-000	50
11	231-771/001-000	50
12	231-772/001-000	50



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

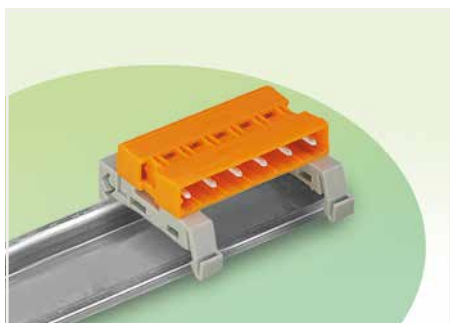
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Mounting type: DIN-35 rail ▶ Color: orange



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A

Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		

Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 ... +100 °C
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The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

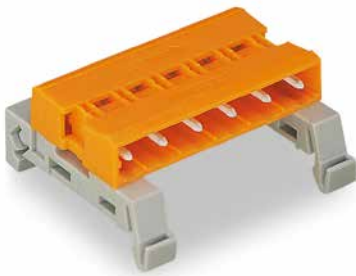
DIN-rail Page 868

See technical section for further information

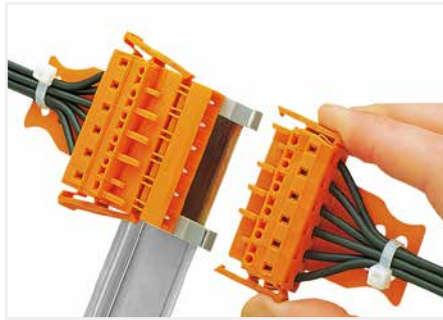
For approvals and corresponding ratings, visit www.wago.com

Double pin header ▶ MCS MIDI Classic ▶ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Mounting type: DIN-35 rail ▶ Color: orange

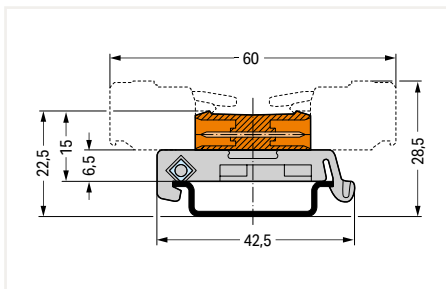


232-586/007-000



Female connectors with locking levers

Pole No.	Item No.	PU
2	232-582/007-000	50
3	232-583/007-000	50
4	232-584/007-000	25
5	232-585/007-000	25
6	232-586/007-000	25
7	232-587/007-000	10
8	232-588/007-000	10
9	232-589/007-000	10
10	232-590/007-000	10
11	232-591/007-000	10
12	232-592/007-000	10



Total length = (pole no. - 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Other pole numbers