WAGO Current and Energy Measurement Technology

WAGO Current and Energy Measurement Technology

Selection Guide: Current Transformers
The Right Solution for Every Application

Current Transformers 855 Series	Split-Core Current Transformers	Plug-In Current Transformers with CAGE CLAMP® Connection Technology
		
Application	Retrofit	New systems
Coil bobbin	Separable	Closed
Connection technology	Connection cable (color coded)	CAGE CLAMP®
Mounting	Round cable (insulated), copper current bar (insulated	Round cable, copper current bar, DIN-rail, mounting plate
Compatibility with other WAGO components	750-493, (750-493/000-001) 750-494, (750-494/000-001) 750-495, (750-495/000-001) 857-550, 2857-570/024-001 2857-570/024-005	
Primary rated current	60 … 1000 A	50 … 2500 A
Secondary rated current	1 A / 5 A	1 A / 5 A
Accuracy class	0.5; 1 or 3	1 or 3
Surrounding air temperature	–10 … +55 °C	–5 … +50 °C
Standards	EN 61869-2	EN 61869-2
Approvals	–	c UL us
Connection examples		

* In the measurement range between 0.8 and 32 A and in combination with WAGO's 3-Phase Power Measurement Modules, accuracy class 0.5 per EN 61869-2 is achieved.

Plug-In Current Transformers with *picoMAX*® Pluggable Connectors		Rogowski Coils RC 70 / RC 125 / RC 175	Current and Voltage Taps
			
New systems		Retrofit	New systems
Closed		Bayonet connector, separable	Closed
picoMAX®		Connectiono cable	Push-in CAGE CLAMP®
Round cable, copper current bar, mounting plate		Round cable, copper current bar	Jumper slot of the 285 series 2-Conductor Th-rough Teremin Blocks 285-150, 285-195, 285-1185, 285-141, 285-181, 285-1161
750-493,750-494 750-495, 857-550, 2857-570/024-001		750-495/000-002 857-552 2857-570/024-000	750-493 750-494 750-495 857-550 2857-570/024-001
32 A	35 / 64 A	Up to 4000 A	150 ... 350 A
320 mA	1 A	22.5 mV/kA	1 A
0.5*	1	0.5	0.5
–10 ... +55 °C		–40 ... +80 °C	–25 ... +70 °C
EN 61869-2		IEC 61010-1 / EN 61869-2	EN 61869-2, EN 60947-7-3, IEC 60068-2-6
–		UL listed	–
			

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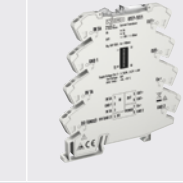
Selection Guide: WAGO Measurement Technology
The Right Solution for Every Application

Measurement Devices 879, 750, 857 and 2857 Series	Energy Meters			Through-Hole Current Signal Conditioner	Current Sigal Conditioner	Voltage Signal Conditioner
Illustration						
Application	Measurement, indication, billing (MID approval)			Measurement, isolation, amplification, filtering, conversion		
Input voltage	3 x 230 / 400 VAC	3 x 230 / 400 VAC	3 x 230 / 400 VAC			300 VAC/VDC
Input Current	Direct: 65 A	Direct: 65 A	1 A / 5 A*	Via hall sensor: max. 100 AAC/ADC	Direct: max. 6 AAC/ADC	
Output	Modbus®, M-Bus and 2 x S0 interfaces			Analog output module (±10 V / ±20 mA) Digital output Relay output (max. 6 A)	Analog output (±10 V / ±20 mA) Digital output	
Energy consumption	x	x	x			
Active, apparent and reactive energy/power	x	x	x			
Phase position	x	x	x			
Rotary field detection	x	x	x			
Power factor	x	x	x			
Four-quadrant operation (inductive, capacitive, consumer, generator)	x	x	x			
Neutral conductor measurement						
Specialty functions	Display and *Bluetooth*®					
Other product variants						
Housing width	72 mm (4TE)	72 mm (4TE)	35 mm (2TE)	22,5 mm	6 mm	6 mm
Item number	879-3000	879-3020	879-3040	2857-550	857-551	857-560
Note	Plug-in current transformers, split-core current transformers, Rogowski coils, voltage taps – see “Selection Guide: WAGO Current Transformers”					

* Only with a current transformer
** Only with a Rogowski coil

3-Phase Power Measurement Modules					3-Phase Power Measurement Module	1-Phase Power Measurement Module
						
Measurement and evaluation with the WAGO I/O System			AC/DC current measurement via external shunt	Measurement in the medium-voltage range	Measurement, evaluation and recording at a distance from the control level	Measurement, isolation, amplification, filtering, conversion
3~ 277 / 480 VAC 2 x 277 VDC	3~ 277 / 480 VAC 2 x 277 VDC	3~ 400 / 690 VAC	3~ 277 / 480 VAC 2 x 277 VDC	3~ 20 kV exclusively via sensors per IEC 61869-7	3~ 400 / 690 VAC	500 VAC/VDC
1 A (750-493)* 5 A (750-493/000-001)*	1 A (750-494)* 5 A (750-494/000-001)*	1 A (750-495)* 5 A (750-495/000-001)* to 4000 A (750-495/000-002)**	Depending on external shunt (50 … 300 mV)	300 A exclusively via sensors per IEC 61869-8	1 A (2857-570/024-001)* 5 A (2857-570/024-005)* to 4000 A (2857-570/024-000)**	Direct: max. 8 AAC/ADC
		Prozess data in the WAGO I/O System			RS-485 Serial interface (Modbus-RTU) Digital output	Analog output (±10 V / ±20 mA) Digital output Relay output (max. 6 A)
x	x	x	x	x	x	x
x	x	x	x	x	x	x
x	x	x	x	x	x	x
	x	x	x	x	x	
(x)	x	x	x	x	x	
	x	x	x	x	x	
		x			x	
					microSD slot	Digital output as S0 interface
	Extended temperatur range: -20 … +60 °C: 750-494/025-000 (1 A), 750-494/025-001 (5 A)	750 XTR: 750-495/040-000 (1 A), 750-495/040-001 (5 A), 750-495/040-002 (Rogowski coil)				
12 mm	12 mm	24 mm	12 mm	24 mm	72 mm (4TE)	22,5 mm
See information on current	See information on current	See information on current	750-494/000-005	750-495/040-010	See information on current	2857-569
Plug-in current transformers, split-core current transformers, Rogowski coils, voltage taps – see “Selection Guide: WAGO Current Transformers”						

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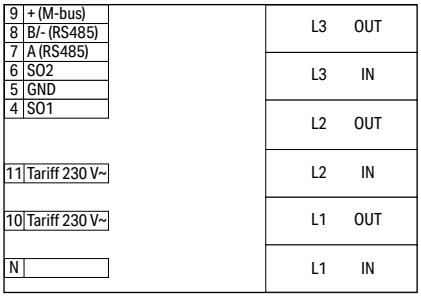
Energy Meter (MID); with Push-in CAGE CLAMP® and Lever; Direct Connection (4PU)
879 Series

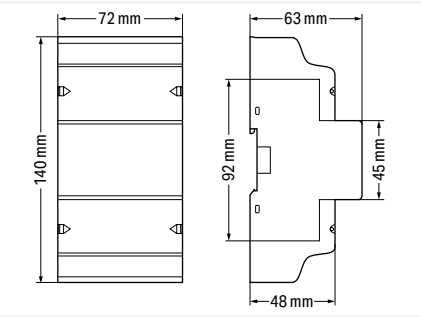


Energy consumption meter; for direct connection; 65A; 3x230/400V; 50Hz; MID; Modbus® & M-Bus; 2 x S0 interface; 4DU; 4PU

Item No.	Pack. Unit
879-3000	1

Short description:
Comprehensive energy measurement is necessary for optimizing energy consumption. WAGO now has new energy meters in its portfolio that simplify this task while providing several key advantages. They use the push-in connection technology with a lever, making them connect quickly and easily. The devices have a width of just 72 mm for direct measurement. These widths save a tremendous amount of control cabinet space. In addition to the values for active and reactive energy, the energy meters also record the mains frequency as well as current, voltage and power for all phases. And the user can conveniently see all of these energy characteristics at a glance on a large, illuminated display.

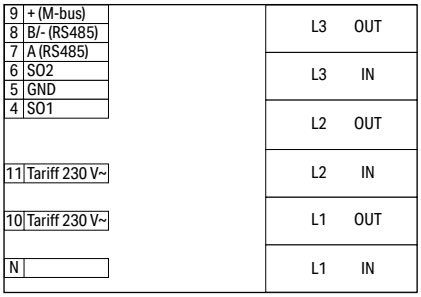
Features:
- **Saving time at every level thanks to the Push-in CAGE CLAMP® and lever**
- Real space savings: 72 mm wide (4PU)
- The communications pro: M-Bus and Modbus® interface and 2 S0 pulse outputs
- Full transparency at a glance: Display energy quality characteristics on an illuminated full-format display
- Intuitive configuration: Touch-sensitive controls and configuration app via *Bluetooth*®



Configuration	
Configuration options	Touch-sensitive controls; Configuration app via *Bluetooth*®
Input	
Input voltage range	3 x 230 … 400 VAC; ±20 %
Reference current I_{ref}	5 A
Input current	65 A
Frequency range	45 … 65 Hz
Network configuration	Two-wire, three-wire and four-wire networks
Power consumption $P_{max.}$	≤ 2 W/phase; ≤ 10 VA/phase
Measured variable	Active and reactive energy in supply and reference direction
Communication	
Communication	Modbus®; M-Bus; *Bluetooth*®
Interface	RS-485 (2-wire); 2x S0 interfaces (configurable)
Rate control input	230 VAC/VDC
Indicators	LCD with backlight
Measurement Error	
Accuracy class	Class B (= 1 % error); Active energy per EN 50470-3
Calibration validity period	8 years
Power Supply	
Power supply type	Via measurement circuit
Power consumption P_{max} (phase; effective power)	2 W
Power consumption P_{max} (phase; apparent power)	10 VA
Safety and Protection	
Dielectric strength	4 kV, 1 min; 1.2/50 µs at 6 kV
Protection class	IP51 (front side); IP20 (connection)
Protection class	II
Pollution degree	2
Connection Data	
Connection type (1)	Voltage/Current
Connection technology	Push-in CAGE CLAMP®
Actuation type	Lever
WAGO Connector	2616 Series
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with twin ferrule	0.75 … 6 mm²
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Connection type 2	Communication and rate control input
Connection technology 2	Push-in CAGE CLAMP®
Actuation type 2	Lever
WAGO Connector 2	2604 Series
Solid conductor 2	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor 2	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule 2	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule 2	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule 2	0.25 … 1.5 mm²
Strip length 2	9 … 11 mm / 0.35 … 0.43 inch
Physical Data	
Width	72 mm
Height	140 mm
Depth	63 mm
Note (dimensions)	Height without cover: 92 mm
Mechanical Data	
Mounting type	DIN-35 rail (EN 60715)
Material Data	
Housing material	PC 940A

Environmental Requirements	
Surrounding air temperature (operation)	–40 … +70 °C
Relative humidity	≤ 75 % (during storage ≤ 95 %)
Standards and Specifications	
Conformity marking	CE
Standards/Specifications	EN 50470-1/3; MID-compliant

Energy Meter (MID); with Push-in CAGE CLAMP® and Lever; Direct Connection (4PS)
879 Series

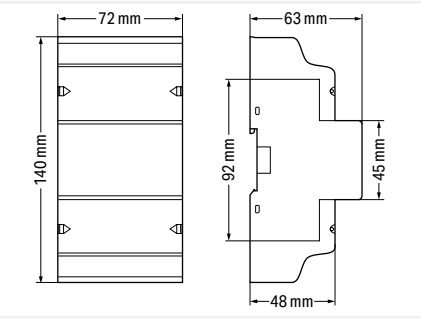


Energy consumption meter; for direct connection; 65A; 3x230/400V; 50Hz; MID; Modbus® & M-Bus; 2 x S0 interface; 4DU; 4PS

Item No.	Pack. Unit
879-3020	1

Short description:
Comprehensive energy measurement is necessary for optimizing energy consumption. WAGO now has new energy meters in its portfolio that simplify this task while providing several key advantages. They use the push-in connection technology with a lever, making them connect quickly and easily. The devices have a width of just 72 mm for direct measurement. These widths save a tremendous amount of control cabinet space. In addition to the values for active and reactive energy, the energy meters also record the mains frequency as well as current, voltage and power for all phases. And the user can conveniently see all of these energy characteristics at a glance on a large, illuminated display.

Features:
- **Saving time at every level thanks to the Push-in CAGE CLAMP® and lever**
- Real space savings: 72 mm wide (4PS)
- The communications pro: M-Bus and Modbus® interface and 2 S0 pulse outputs
- Full transparency at a glance: Display energy quality characteristics on an illuminated full-format display
- Intuitive configuration: Touch-sensitive controls and configuration app via *Bluetooth*®



Configuration	
Configuration options	Touch-sensitive controls; Configuration app via *Bluetooth*®
Input	
Input voltage range	3 x 230 … 400 VAC; ±20 %
Reference current I_{ref}	5 A
Input current	65 A
Frequency range	45 … 65 Hz
Network configuration	Two-wire, three-wire and four-wire networks
Measured variable	Active and reactive energy in supply and reference direction
Communication	
Communication	Modbus®; M-Bus; *Bluetooth*®
Interface	RS-485 (2-wire); 2x S0 interfaces (configurable)
Rate control input	230 VAC/VDC
Indicators	LCD with backlight
Measurement Error	
Accuracy class	Class B (= 1 % error); Active energy per EN 50470-3
Calibration validity period	8 years
Power Supply	
Power supply type	Via measurement circuit
Power consumption P_{max} (phase; effective power)	2 W
Power consumption P_{max} (phase; apparent power)	10 VA
Safety and Protection	
Dielectric strength	4 kV, 1 min; 1.2/50 µs at 6 kV
Protection class	IP51 (front side); IP20 (connection)
Protection class	II
Pollution degree	2
Connection Data	
Connection type (1)	Voltage/Current
Connection technology	Push-in CAGE CLAMP®
Actuation type	Lever
WAGO Connector	2616 Series
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with twin ferrule	0.75 … 6 mm²
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Connection type 2	Communication and rate control input
Connection technology 2	Push-in CAGE CLAMP®
Actuation type 2	Lever
WAGO Connector 2	2604 Series
Solid conductor 2	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor 2	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule 2	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule 2	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule 2	0.25 … 1.5 mm²
Strip length 2	9 … 11 mm / 0.35 … 0.43 inch
Physical Data	
Width	72 mm
Height	140 mm
Depth	63 mm
Note (dimensions)	Height without cover: 92 mm
Mechanical Data	
Mounting type	DIN-35 rail (EN 60715)
Material Data	
Housing material	PC 940A

Environmental Requirements	
Surrounding air temperature (operation)	–40 … +70 °C
Relative humidity	≤ 75 % (during storage ≤ 95 %)
Standards and Specifications	
Conformity marking	CE
Standards/Specifications	EN 50470-1/3; MID-compliant

Energy Meter (MID); with Push-in CAGE CLAMP® and Lever; Transformer Connection (2PCT)
879 Series

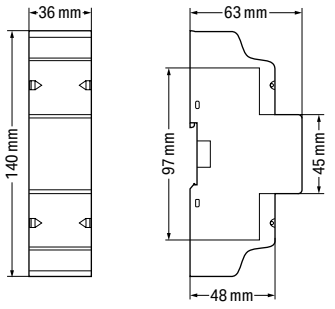
11	Tariff 230 V~	9	+ (M-bus)		CT3 OUT
10	Tariff 230 V~	8	B/- (RS485)		CT3 IN
N		7	A (RS485)		CT2 OUT
U3		6	SO2		CT2 IN
U2		5	GND		CT1 OUT
U1		4	SO1		CT1 IN

Energy Meter; Transformer Connection (6 A); 3 x 230/400 V; 50 Hz; MID; Modbus - M-Bus; 2 x interface; 2 DU; 2PCT

	Item No.	Pack. Unit
	879-3040	1

Short description:
Comprehensive energy measurement is necessary for optimizing energy consumption. WAGO now has new energy meters in its portfolio that simplify this task while providing several key advantages. They use the push-in connection technology with a lever, making them connect quickly and easily. Versions for current transformers are even slimmer at only 35 mm. These widths save a tremendous amount of control cabinet space. In addition to the values for active and reactive energy, the energy meters also record the mains frequency as well as current, voltage and power for all phases. And the user can conveniently see all of these energy characteristics at a glance on a large, illuminated display.

Features:
- **Saving time at every level thanks to the Push-in CAGE CLAMP® and lever**
- Real space savings: 35 mm wide (2PCT)
- The communications pro: M-Bus and Modbus® interface and 2 S0 pulse outputs
- Full transparency at a glance: Display energy quality characteristics on an illuminated full-format display
- Intuitive configuration: Touch-sensitive controls and configuration app via *Bluetooth®*



Configuration	
Configuration options	Touch-sensitive controls; Configuration app via *Bluetooth®*
Input	
Input voltage range	3 x 230 … 400 VAC; ±20 %
Reference current I_{ref}	1 A
Input current	6 A
Current transformer (secondary)	1 A / 5 A
Current transformer ratio	1 … 10,000
Frequency range	45 … 65 Hz
Network configuration	Two-wire, three-wire and four-wire networks
Measured variable	Active and reactive energy in supply and reference direction
Communication	
Communication	Modbus®; M-Bus; *Bluetooth®*
Interface	RS-485 (2-wire); 2x S0 interfaces (configurable)
Rate control input	230 VAC/VDC
Indicators	LCD with backlight
Measurement Error	
Accuracy class	Class B (= 1 % error); Active energy per EN 50470-3
Calibration validity period	8 years
Power Supply	
Power supply type	Via measurement circuit
Power consumption P_{max} (phase; effective power)	2 W
Power consumption P_{max} (phase; apparent power)	10 VA
Safety and Protection	
Dielectric strength	4 kV, 1 min; 1.2/50 µs at 6 kV
Protection class	IP51 (front side); IP20 (connection)
Protection class	II
Pollution degree	2
Connection Data	
Connection type (1)	Voltage/Current
Connection technology	Push-in CAGE CLAMP®
Actuation type	Lever
WAGO Connector	2604 Series
Solid conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 1.5 mm²
Strip length	9 … 11 mm / 0.35 … 0.43 inch
Connection type 2	Communication and rate control input
Connection technology 2	Push-in CAGE CLAMP®
Actuation type 2	Lever
WAGO Connector 2	2604 Series
Solid conductor 2	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor 2	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule 2	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule 2	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule 2	0.25 … 1.5 mm²
Strip length 2	9 … 11 mm / 0.35 … 0.43 inch
Physical Data	
Width	36 mm
Height	140 mm
Depth	63 mm
Note (dimensions)	Height without cover: 98.2 mm
Mechanical Data	
Mounting type	DIN-35 rail (EN 60715)
Material Data	
Housing material	PC 940A

Environmental Requirements	
Surrounding air temperature (operation)	–40 … +70 °C
Relative humidity	≤ 75 % (during storage ≤ 95 %)
Standards and Specifications	
Conformity marking	CE
Standards/Specifications	EN 50470-1/3; MID-compliant

Plug-In Current Transformer; with CAGE CLAMP® Connection
855 Series

Short description:
WAGO's plug-in units (855 Series) are inductive, single-conductor current transformers. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications.

Features:
- Screwless CAGE CLAMP® connection technology
- Several mounting options available
- Vibration- and shock-resistant
- High mechanical retention forces
- High current-carrying capacity
- Continuous overload of 120% the nominal primary current
- Low-voltage current transformer for operating voltages up to max. 1.2 kV
- For 690 V power networks
- UL recognized components

Input – Current Transformer	
Rated continuous thermal current I_{cth}	1.2 x I_N
Rated short-time thermal current I_{th}	60 x I_N/1 s (max. 100 kA/1 s)
Overcurrent limiting factor	FS5 / FS10 (type dependent; see type plate inscription)
Rated frequency	50 … 60 Hz
Safety and Protection	
Test voltage	6 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	3.75 $kVAC_{rms}$
Connection Data	
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Mechanical Data	
Mounting type	Current transformer (closed); Installation on mounting plate; Mounting on DIN-rail via carrier rail adapter; Mounting on round cable
Material Data	
Insulation class	E
Environmental Requirements	
Surrounding air temperature (operation)	–5 … +50 °C
Surrounding air temperature (storage)	–25 … +70 °C
Operating altitude (max.)	1000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2; UL: E356480

Accessories

Carrier rail adapter for plug-in current transformers (855-3xx/xxxx-xxxx and 855-4xx/xxxx-xxxx)

Item No.	Pack. Unit
855-9900	1

Quick-mount kit for plug-in current transformers with CAGE CLAMP® connections

Item No.	Pack. Unit
855-9910	1

3-phase power measurement module

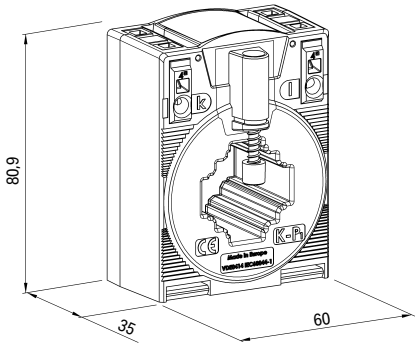
Rated Voltage	Item No.	Pack. Unit
480 VAC	750-493	1
480 VAC	750-494	1
690 VAC	750-495	1

Operating tool with a partially insulated shaft; Type 1; Blade: (3.5 x 0.4) mm

Item No.	Pack. Unit
210-720	1

» Terminal Block Assembly for Current Transformers Page 372

Plug-In Current Transformer; with CAGE CLAMP® Connection
855 Series

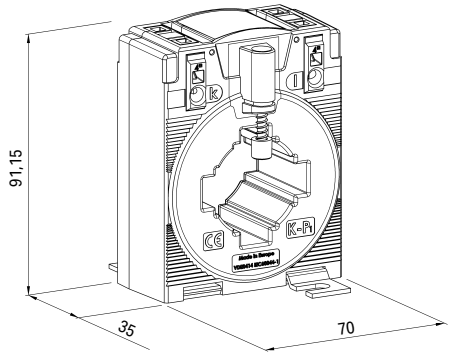


855-3xx/xxxx-xxxx

Busbar 1: 30 x 10 mm
Busbar 2: 25 x 12 mm
Busbar 3: 20 x 20 mm

Round cable: 26 mm

Plug-In Current Transformer; with CAGE CLAMP® Connection					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
50 A	1 A	1.25 VA	3	855-301/050-103	1
50 A	5 A	1.25 VA	3	855-305/050-103	1
60 A	1 A	1.25 VA	1	855-301/060-101	1
60 A	5 A	1.25 VA	1	855-305/060-101	1
75 A	1 A	2.5 VA	1	855-301/075-201	1
75 A	5 A	2.5 VA	1	855-305/075-201	1
100 A	1 A	2.5 VA	1	855-301/100-201	1
100 A	5 A	2.5 VA	1	855-305/100-201	1
150 A	1 A	5 VA	1	855-301/150-501	1
150 A	5 A	5 VA	1	855-305/150-501	1
200 A	1 A	5 VA	1	855-301/200-501	1
200 A	5 A	5 VA	1	855-305/200-501	1
250 A	1 A	5 VA	1	855-301/250-501	1
250 A	5 A	5 VA	1	855-305/250-501	1
300 A	5 A	5 VA	1	855-305/300-501	1
400 A	1 A	10 VA	1	855-301/400-1001	1
400 A	5 A	10 VA	1	855-305/400-1001	1
600 A	1 A	10 VA	1	855-301/600-1001	1
600 A	5 A	10 VA	1	855-305/600-1001	1



855-4xx/xxxx-xxxx

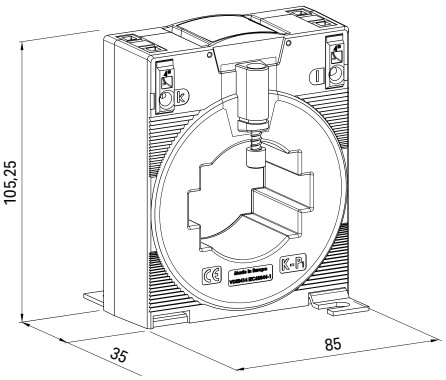
Busbar 1: 40 x 10 mm
Busbar 2: 30 x 15 mmm

Round cable: 32 mm

Plug-In Current Transformer; with CAGE CLAMP® Connection					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
250 A	1 A	5 VA	1	855-401/250-501	1
250 A	5 A	5 VA	1	855-405/250-501	1
400 A	1 A	5 VA	1	855-401/400-501	1
400 A	5 A	5 VA	1	855-405/400-501	1
600 A	1 A	5 VA	1	855-401/600-501	1
750 A	5 A	5 VA	1	855-405/750-501	1

Plug-In Current Transformer; with CAGE CLAMP® Connection
855 Series

Plug-In Current Transformer; with CAGE CLAMP® Connection					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
400 A	1 A	10 VA	1	**855-501/400-1001**	1
400 A	5 A	10 VA	1	**855-505/400-1001**	1
600 A	1 A	10 VA	1	**855-501/600-1001**	1
600 A	5 A	10 VA	1	**855-505/600-1001**	1
800 A	1 A	10 VA	1	**855-501/800-1001**	1
800 A	5 A	10 VA	1	**855-505/800-1001**	1
1000 A	1 A	10 VA	1	**855-501/1000-1001**	1
1000 A	5 A	10 VA	1	**855-505/1000-1001**	1

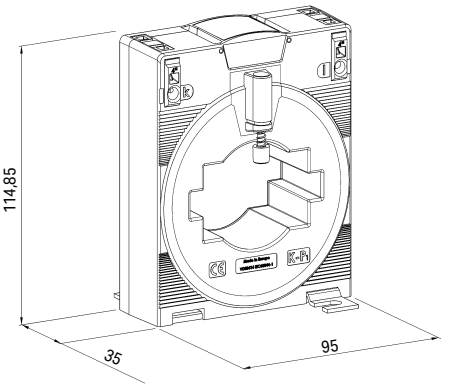


855-5xx/xxxx-xxxx

Busbar 1: 50 x 12 mm
Busbar 2: 40 x 30 mm

Round cable: 44 mm

Plug-In Current Transformer; with CAGE CLAMP® Connection					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
1500 A	5 A	5 VA	1	**855-605/1500-501**	1
1500 A	1 A	5 VA	1	**855-601/1500-501**	1



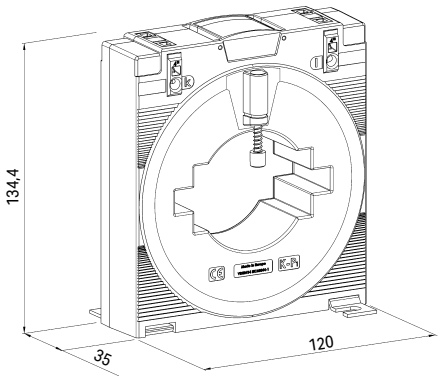
855-6xx/xxxx-xxxx

Busbar 1: 63 x 10 mm
Busbar 2: 50 x 30 mm

Round cable: 44 mm

Plug-In Current Transformer; with CAGE CLAMP® Connection
855 Series

Plug-In Current Transformer; with CAGE CLAMP® Connection					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	**Item No.**	Pack. Unit
1000 A	1 A	10 VA	1	**855-801/1000-1001**	1
2000 A	5 A	10 VA	1	**855-805/2000-1001**	1
2000 A	1 A	10 VA	1	**855-801/2000-1001**	1

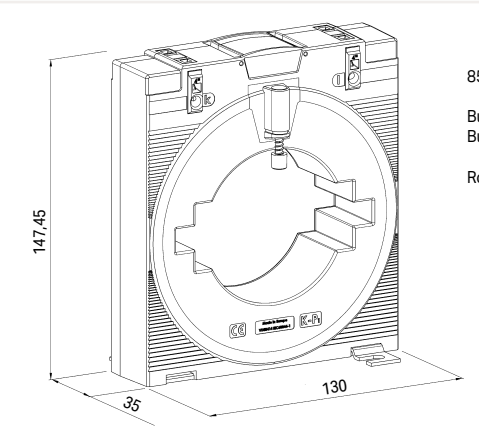


855-8xx/xxxx-xxxx

Busbar 1: 80 x 10 mm
Busbar 2: 60 x 30 mm

Round cable: 55 mm

Plug-In Current Transformer; with CAGE CLAMP® Connection					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	**Item No.**	Pack. Unit
2500 A	5 A	10 VA	1	**855-1005/2500-1001**	1
2500 A	1 A	10 VA	1	**855-1001/2500-1001**	1



855-10xx/xxxx-xxxx

Busbar 1: 100 x 10 mm
Busbar 2: 80 x 30 mm

Round cable: 70 mm

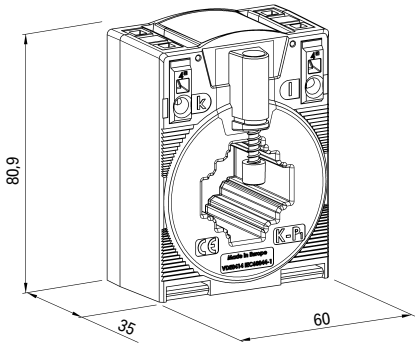
Plug-In Current Transformer for Billing Measurement
855 Series

Short description:
The 855 Series Plug-In Current Transformers for Billing Measurement are inductive, single-conductor current transformers. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications. These plug-in current transformers comply with the conformity assessment procedure (module D) and can be used for billing.

Features:
- Screwless CAGE CLAMP® connection technology
- Several mounting options available
- Vibration- and shock-resistant
- High mechanical retention forces
- High current-carrying capacity
- Continuous overload of 120% the nominal primary current
- Low-voltage current transformer for operating voltages up to max. 1.2 kV
- For 690 V power networks
- Accessories: 879-3040; Energy Meter; with Push-in CAGE CLAMP® and Lever; Transformer Connection (2PCT);

Input – Current Transformers	
Rated continuous thermal current I_{cth}	1.2 AC x I_N
Rated short-time thermal current I_{th}	60 x I_N/1 s (max. 100 kA/1 s)
Overcurrent limiting factor	FS5 / FS10 (type dependent; see type plate inscription)
Rated frequency	50 … 60 Hz
Safety and Protection	
Test voltage	6 kVAC; 50 Hz; 1 min
Highest voltage for equipment U_m	1.2 $kVAC_{rms}$
Connection Data	
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Mechanical Data	
Mounting type	Current transformer (closed); Installation on mounting plate; Mounting on DIN-rail via DIN-rail adapter; Mounting on round cable
Material Data	
Insulation class	E
Environmental Conditions	
Surrounding air temperature (operation)	–5 … +50 °C
Surrounding air temperature (storage)	–25 … +70 °C
Operating altitude, max.	1000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2

Plug-In Current Transformer for Billing Measurement
855 Series

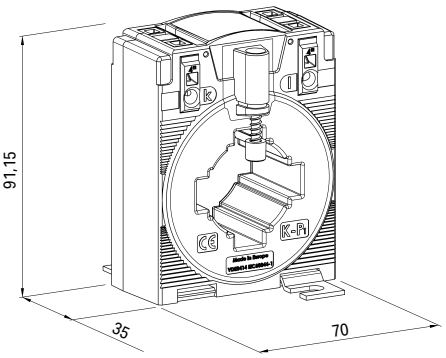


855-3xx/xxxx-xxxx

Busbar 1: 30 x 10 mm
Busbar 2: 25 x 12 mm
Busbar 3: 20 x 20 mm

Round cable: 26 mm

Plug-In Current Transformer for Billing Purposes					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
100 A	5 A	2.5 VA	0,5	855-305/100-209	1
150 A	5 A	2.5 VA	0,5	855-305/150-209	1
200 A	5 A	5 VA	0,5	855-305/200-509	1
250 A	5 A	5 VA	0,5	855-305/250-509	1
300 A	5 A	5 VA	0,5	855-305/300-509	1
400 A	5 A	5 VA	0,5	855-305/400-509	1
500 A	5 A	5 VA	0,5	855-305/500-509	1
600 A	5 A	5 VA	0,5	855-305/600-509	1
750 A	5 A	5 VA	0,5	855-305/750-509	1



855-4xx/xxxx-xxxx

Busbar 1: 40 x 10 mm
Busbar 2: 30 x 15 mmm

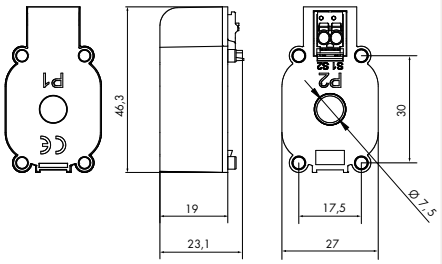
Round cable: 32 mm

Plug-In Current Transformer for Billing Purposes					
Primary Rated Current	Secondary Rated Current	Rated Power	Accuracy Class	Item No.	Pack. Unit
200 A	5 A	2.5 VA	0,5	855-405/200-209	1
250 A	5 A	2.5 VA	0,5	855-405/250-209	1
300 A	5 A	5 VA	0,5	855-405/300-509	1
400 A	5 A	5 VA	0,5	855-405/400-509	1
500 A	5 A	5 VA	0,5	855-405/500-509	1
600 A	5 A	5 VA	0,5	855-405/600-509	1
750 A	5 A	5 VA	0,5	855-405/750-509	1

Plug-In Current Transformer; with a *picoMAX*® Pluggable Connector
855 Series

Plug-In Current Transformer with *picoMAX*® Connection Technology; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 1

Prim. Rated Current	Item No.	Pack. Unit
35 A	855-2701/035-001	15 (1)
64 A	855-2701/064-001	15 (1)



Short description:
WAGO's plug-in units (855 Series) are inductive, single-conductor current transformers. Due to the measurement principle used, these current transformers are exclusively designed for AC network applications.

Features:
- First current transformer with *picoMAX*® connection technology
- Also suitable for space-restricted applications
- Simple assembly permits 17.5 mm phase spacing, allowing perfect adjustment to any circuit breaker
- Easy mount on DIN-rail or panels via carrier rail adapter
- Converts current from 64 A or 35 A to 1 A
- Accuracy class: 1

Input – Current Transformer	
Rated continuous thermal current I_{cth}	100 %
Rated short-time thermal current I_{th}	60 x I_N/1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Output – Current Transformer	
Secondary rated current	1 A
Rated Power	0.2 VA
Measurement error	
Accuracy class	1
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Protection type	IP20
Highest voltage for equipment U_m	720 VAC
Connection Data	
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	*picoMAX*® 3.5, 2091-1122
Solid conductor	0.2 … 1.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Feedthrough for measurement conductor	7.5 mm Ø
Geometric Data	
Width	27 mm / 1.063 inch
Height	46 mm / 1.811 inch
Depth	23 mm / 0.906 inch
Mechanical Data	
Mounting type	Current transformer (closed); Mounting on DIN-rail via carrier rail adapter; Mounting on round cable
Material Data	
Insulation class	E
Housing material	PA 66
Environmental Requirements	
Surrounding air temperature (operation)	–10 … +55 °C
Surrounding air temperature (storage)	–20 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2; UL

Accessories

Carrier rail adapter; for plug-in current transformer

Item No.	Pack. Unit
855-9927	1

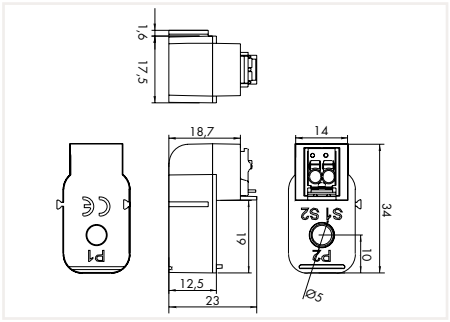
Operating tool with a partially insulated shaft; Type 1; Blade: (2.5 x 0.4) mm

Item No.	Pack. Unit
210-719	1

Plug-In Current Transformer; with a *picoMAX*® Pluggable Connector
855 Series

Plug-In Current Transformer; Primary rated current: 32 A; Secondary rated current: 320 mA

	Item No.	Pack. Unit
	855-1700/032-000	15 (1)



Short description:
The *picoMAX*® Plug-In Current Transformer with low-power output is specifically tailored to WAGO's 750 Series 3-Phase Power Measurement Modules.

Features:
- First *picoMAX*® Plug-In Current Transformer with low power output
- Assembly via side latches
- Can be mounted directly on an ECB

Notes:
- The 855-1700/032-000 Plug-In Current Transformer is exclusive to the WAGO-I/O-SYSTEM and shall only be used with WAGO's 750 Series 3-Phase Power Measurement Modules.
- WAGO recommends the following conductor cross section and length: 1.5 mm² (14 AWG) and maximum 3.0 m at the output

*Measurement range: 0.8 to 32 A in combination with the three-phase power measurement modules (750-493/494/495)
**Testing adheres to EN 61869-2 with a conversion ratio of 16 A/0.16 A (accuracy class: 0.5) and an extended primary current of 200%.

Input – Current Transformer	
Primary rated current	32 A
Rated short-time thermal current I_{th}	2 kA/0.1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Output – Current Transformer	
Secondary rated current	0.32 A
Rated Power	0.01 VA
Measurement error	
Accuracy class	0,5
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Protection type	IP20
Highest voltage for equipment U_m	720 VAC
Connection Data	
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	*picoMAX*® 3.5, 2091-1122
Solid conductor	0.2 … 1.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Feedthrough for measurement conductor	5.0 mm Ø
Geometric Data	
Width	17 mm / 0.669 inch
Height	34 mm / 1.339 inch
Depth	23 mm / 0.906 inch
Mechanical Data	
Mounting type	Current transformer (closed); Mounting on round cable
Material Data	
Insulation class	E
Housing material	PA 66
Weight	11 g
Environmental Requirements	
Surrounding air temperature (operation)	–10 … +55 °C
Surrounding air temperature (storage)	–20 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and Specifications	
Standards/specifications	EN 61869-2; EN 61010-1

Accessories

3-phase power measurement module

Rated Voltage	Item No.	Pack. Unit
480 VAC	**750-493**	1
480 VAC	**750-494**	1
690 VAC	**750-495**	1

Operating tool with a partially insulated shaft; Type 1; Blade: (2.5 x 0.4) mm

Item No.	Pack. Unit
210-719	1

4

Split-Core Current Transformers
855 Series

Short description:
WAGO's compact split-core current transformers are ideal for retrofitting existing systems. They are perfect for applications in which the current path must not be disrupted. The transformer's accuracy permits extremely precise current measurements. The split-core current transformers are capable of supplying the specified rated power at the end of the secondary cable. All transformers are supplied with color-coded cables. Two UV-resistant cable ties are also included for secure and easy mounting.

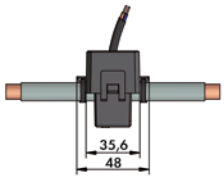
Features:
- Current ratios from 60 A up to 1000 A (primary side) and 1 A or 5 A (secondary side)
- No measuring cable interruption
- Ideal for use in very confined spaces
- Rapid mounting
- For use around insulated cables up to 42 mm diameter
- Compact and hinged
- Color-coded connecting cables up to 5 m

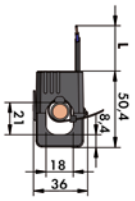
Input – Current Transformer	
Rated continuous thermal current I_{cth}	100 %
Rated short-time thermal current I_{th}	60 x I_N/1 s
Rated surge current I_{dyn}	2.5 x I_{th}
Rated frequency	50 … 60 Hz
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Protection type	IP20
Highest voltage for equipment U_m	720 VAC
Mechanical Data	
Mounting type	Split-core current transformer
Material Data	
Insulation class	E
Flammability class per UL94	V2
Housing material	PA 66
Environmental Requirements	
Surrounding air temperature (operation)	–10 … +55 °C
Surrounding air temperature (storage)	–20 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-1; EN 61869-2

Split-Core Current Transformers
855 Series

Split-Core Current Transformer; Feedthrough for measurement conductor: 18 mm Ø

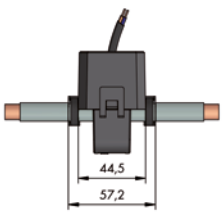
Prim. Rated Current	Sec. Rated Current	Rated Power	Accuracy class	Cable Length	Conductor Cross Section	Item No.	Pack. Unit
60 A	1 A	0.2 VA	3	3 m	0.5 mm²	855-3001/060-003	1
75 A	1 A	0.2 VA	3	3 m	0.5 mm²	855-3001/075-003	1
100 A	1 A	0.2 VA	3	3 m	0.5 mm²	855-3001/100-003	1
125 A	1 A	0.2 VA	3	3 m	0.5 mm²	855-3001/125-003	1
150 A	1 A	0.2 VA	3	3 m	0.5 mm²	855-3001/150-003	1
200 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-3001/200-001	1
250 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-3001/250-001	1

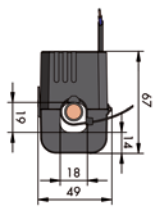




Split-Core Current Transformer; Feedthrough for measurement conductor: 18 mm Ø

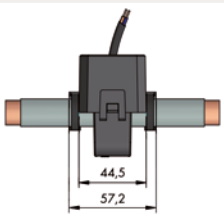
Prim. Rated Current	Sec. Rated Current	Rated Power	Accuracy class	Cable Length	Conductor Cross Section	Item No.	Pack. Unit
100 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-4001/100-001	1
125 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-4001/125-001	1
150 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-4001/150-001	1
150 A	5 A	1 VA	1	0.5 m	1.5 mm²	855-4005/150-101	1
200 A	1 A	0.2 VA	0.5	3 m	0.5 mm²	855-4001/200-001	1
200 A	5 A	1 VA	1	0.5 m	1.5 mm²	855-4005/200-101	1
250 A	1 A	0.2 VA	0.5	3 m	0.5 mm²	855-4001/250-000	1
250 A	5 A	1 VA	0.5	0.5 m	1.5 mm²	855-4005/250-100	1

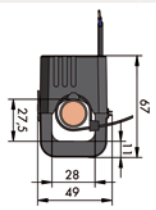




Split-Core Current Transformer; Feedthrough for measurement conductor: 28 mm Ø

Prim. Rated Current	Sec. Rated Current	Rated Power	Accuracy class	Cable Length	Conductor Cross Section	Item No.	Pack. Unit
200 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-4101/200-001	1
250 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-4101/250-001	1
250 A	5 A	1 VA	1	0.5 m	1.5 mm²	855-4105/250-101	1
300 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-4101/300-001	1
300 A	5 A	1 VA	1	0.5 m	1.5 mm²	855-4105/300-101	1
400 A	1 A	0.2 VA	1	3 m	0.5 mm²	855-4101/400-001	1
400 A	5 A	1 VA	1	0.5 m	1.5 mm²	855-4105/400-101	1
500 A	1 A	0.2 VA	0.5	3 m	0.5 mm²	855-4101/500-000	1
500 A	5 A	1 VA	1	0.5 m	1.5 mm²	855-4105/500-101	1

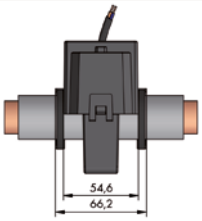


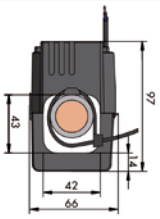


Split-Core Current Transformers
855 Series

Split-Core Current Transformer; Feedthrough for measurement conductor: 42 mm Ø

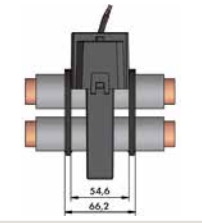
Prim. Rated Current	Sec. Rated Current	Rated Power	Accuracy class	Cable Length	Conductor Cross Section	Item No.	Pack. Unit
250 A	1 A	0.5 VA	1	5 m	0.5 mm²	855-5001/250-001	1
300 A	1 A	0.5 VA	1	5 m	0.5 mm²	855-5001/300-001	1
300 A	5 A	0.5 VA	1	3 m	1.5 mm²	855-5005/300-001	1
400 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5001/400-000	1
400 A	5 A	0.5 VA	1	3 m	1.5 mm²	855-5005/400-001	1
500 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5001/500-000	1
500 A	5 A	0.5 VA	1	3 m	1.5 mm²	855-5005/500-001	1
600 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5001/600-000	1
600 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5005/600-000	1
750 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5001/750-000	1
750 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5005/750-000	1
800 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5001/800-000	1
800 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5005/800-000	1
1000 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5001/1000-000	1
1000 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5005/1000-000	1

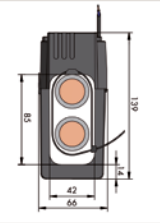




Split-Core Current Transformer; Feedthrough for measurement conductor: 42 mm Ø

Prim. Rated Current	Sec. Rated Current	Rated Power	Accuracy class	Cable Length	Conductor Cross Section	Item No.	Pack. Unit
250 A	1 A	0.5 VA	1	5 m	0.5 mm²	855-5101/250-001	1
300 A	1 A	0.5 VA	1	5 m	0.5 mm²	855-5101/300-001	1
300 A	5 A	0.5 VA	1	3 m	1.5 mm²	855-5105/300-001	1
400 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5101/400-000	1
400 A	5 A	0.5 VA	1	3 m	1.5 mm²	855-5105/400-001	1
500 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5101/500-000	1
500 A	5 A	0.5 VA	1	3 m	1.5 mm²	855-5105/500-001	1
600 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5101/600-000	1
600 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5105/600-000	1
750 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5101/750-000	1
750 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5105/750-000	1
800 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5101/800-000	1
800 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5105/800-000	1
1000 A	1 A	0.5 VA	0.5	5 m	0.5 mm²	855-5101/1000-000	1
1000 A	5 A	0.5 VA	0.5	3 m	1.5 mm²	855-5105/1000-000	1





Rogowski Coil; RC 70, RC 125 and RC 175
855 Series

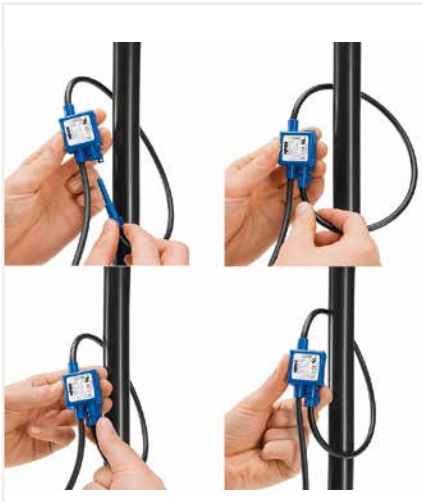
Short description:
WAGO's Rogowski coils are closed-air coils featuring a non-magnetic split core that can be connected to WAGO products (857-552; 750-495/000-002; 2857-570/024-000).

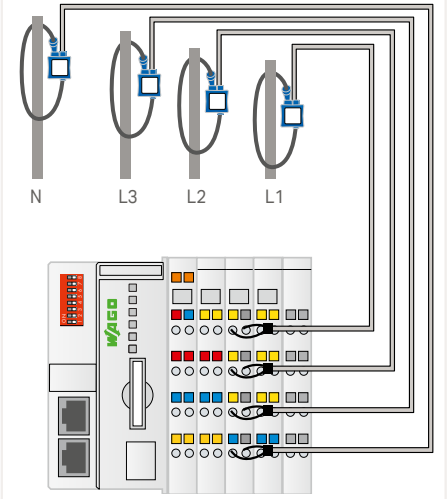
Easy mounting of the Rogowski coils allows existing systems to be retrofitted without time-consuming installation or process interruption.

Features:
- Rated insulation voltage: 1000 V Cat. III/600 V Cat. IV
- Accuracy class: 0.5 (per EN 61869-2)
- Degree of protection: IP67
- Measurement coil diameter: 70, 125 or 175 mm
- Length of signal lines: 1.5 m or 4.5 m
- Surrounding air temperature: –40 … +80°C
- Sealable bayonet connector
- Anchor points for cable ties

Note:
The specifications for the primary rated current refer to a combination with the WAGO Modules (857-552 and 750-495/000-002). Rogowski technology allows the coils to measure a wide primary current range of up to 10,000 A without loss of accuracy, because there are no saturation effects.
The requirements for standards EN 61869-1, EN 61869-2, EN 61869-6 and EN 61869-10 are only partially met, as there are fundamental differences with current transformers for a Rogowski coil.

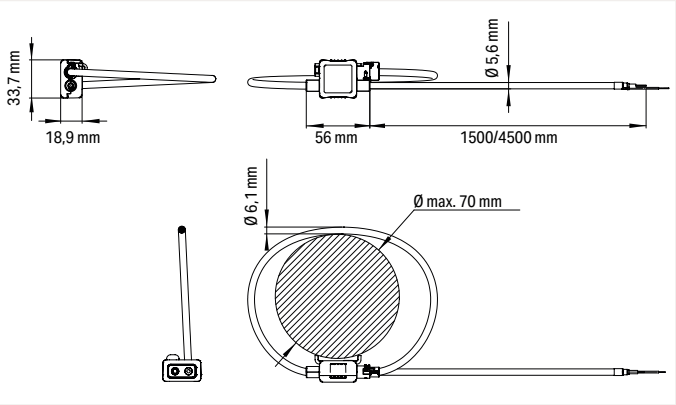
Input – Current Transformer	
Primary rated current	4000 A (in combination with WAGO products)
Rated short-time thermal current I_{th}	300 kA at 50 Hz
Rated frequency	50 … 60 Hz
Output	
Sensitivity	22.5 mV/kA at 50 Hz
Output signal (max.)	30 VDC
Measurement error	
Accuracy class	0.5
Positioning error	±0.75 %
Safety and Protection	
Rated insulation voltage	1000 V_{rms} AC (Cat. III); 600 V_{rms} AC (Cat. IV)
Test voltage for isolation	7.4 kVAC; 50 Hz; 1 min
Impulse withstand voltage (1.2/50 µs)	12.8 kV
Protection type	IP67
Mechanical Data	
Mounting type	Split-core current transformer (suspended)
Environmental Requirements	
Surrounding air temperature (operation)	–40 … +80 °C
Surrounding air temperature (storage)	–40 … +80 °C
Relative humidity	≤ 90 % (no condensation permissible)
Operating altitude (max.)	2000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61010-1; EN 61010-2-32; EN 61869-1; EN 61869-2; EN 61869-6; EN 61869-10; UL 61010-1





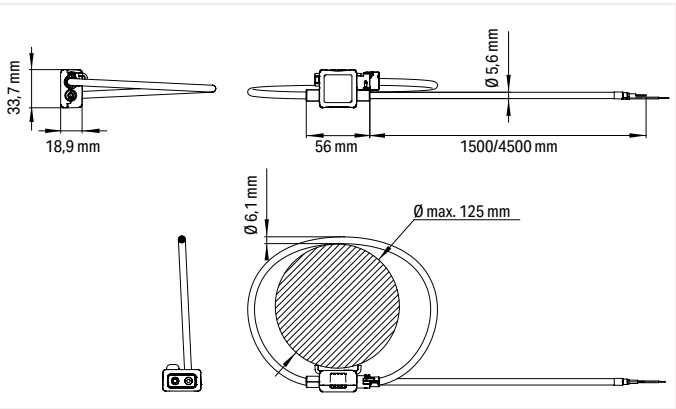
Direct connection of Rogowski coils to the three-phase power measurement module (750-495/000-002)

Rogowski Coil; RC 70, RC 125 and RC 175
855 Series



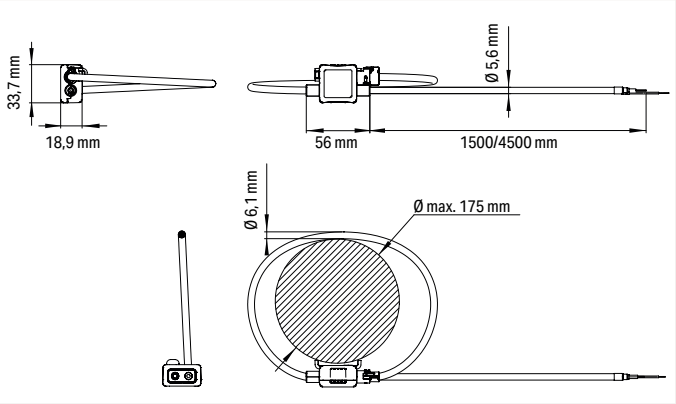
Rogowski Coil; Primary rated current: 4000 A; Output signal: 22.5 mV per kA; Accuracy class: 1; Feedthrough for measurement conductor: 70 mm Ø

Mutual Inductance M	Cable Length	Item No.	Pack. Unit
71.98 mH	1.5 m	**855-9150/2000-701**	1
71.98 mH	4.5 m	**855-9450/2000-701**	1



Rogowski Coil; Primary rated current: 4000 A; Output signal: 22.5 mV per kA; Accuracy class: 1; Feedthrough for measurement conductor: 125 mm Ø

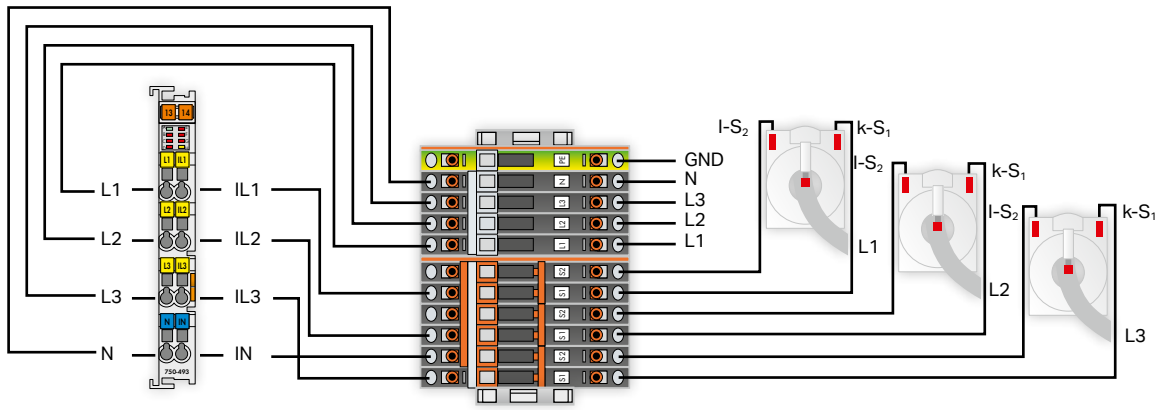
Mutual Inductance M	Cable Length	Item No.	Pack. Unit
72.14 mH	1.5 m	**855-9150/2000-1251**	1
72.14 mH	4.5 m	**855-9450/2000-1251**	1



Rogowski Coil; Primary rated current: 4000 A; Output signal: 22.5 mV per kA; Accuracy class: 1; Feedthrough for measurement conductor: 175 mm Ø

Mutual Inductance M	Cable Length	Item No.	Pack. Unit
72.31 mH	1.5 m	**855-9150/2000-1751**	1
72.31 mH	4.5 m	**855-9450/2000-1751**	1

Terminal Block Assemblies for Current and Voltage Transformers
For Fast and Easy Connections

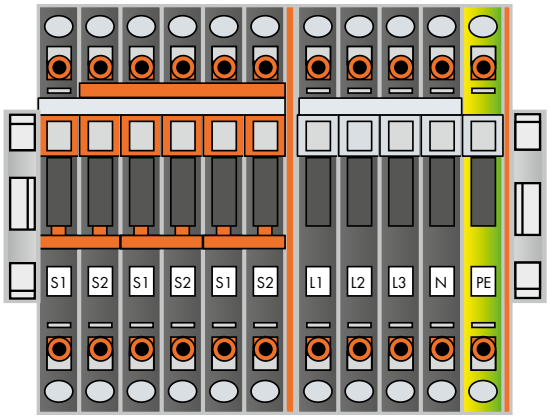


3-Phase Power Measurement Module, 750 Series

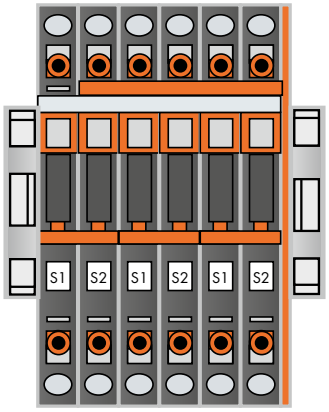
Terminal Block Assembly (2007 Series) for Current Transformers and Voltage Taps

Current Transformers, 855 Series

Pre-assembled terminal block assembly for easily connecting and short-circuiting current transformers, suitable for three-phase power measurement modules (750-493 and 750-494)

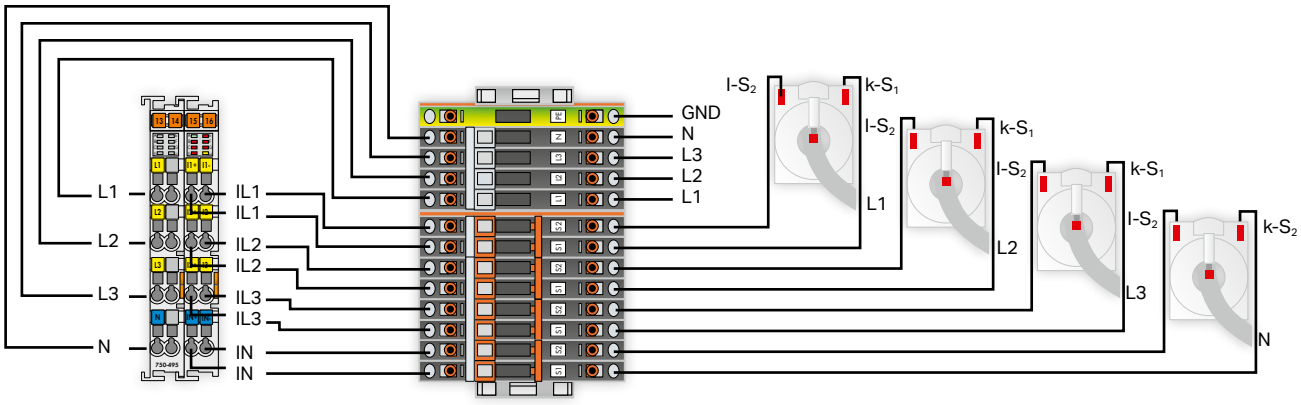


Compact terminal block for current transformer circuit, 2007-8873
Connection option for current and voltage, including 'Y' point jumper



Compact terminal block for current transformer circuit, 2007-8875
Connection option for current and voltage, including 'Y' point jumper

ADVANTAGES:
- 'Y' point jumper
- Easy and clear wiring
- Short-circuiting of current transformers
- Test sockets for control measurements
- Visible current and voltage path separation



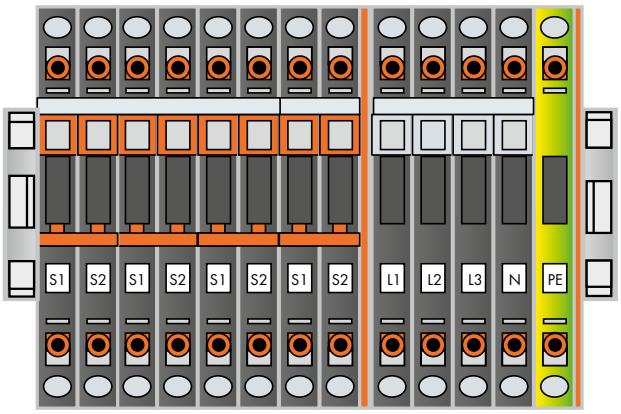
3-Phase Power Measurement Module, 750 Series

Terminal Block Assembly (2007 Series) for Current Transformers and Voltage Taps

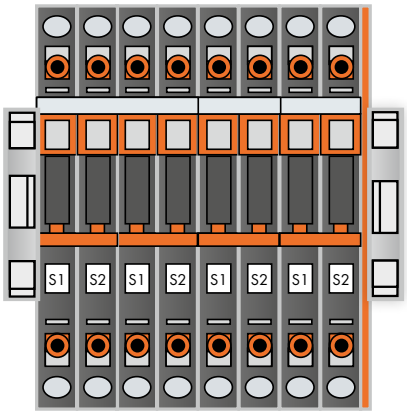
Current Transformers, 855 Series

4

Pre-assembled terminal block assembly for easily connecting and short circuiting current transformers, suitable for three-phase power measurement modules (750-495)



Compact terminal block for current transformer circuit, 2007-8874
Connection option for current and voltage



Compact terminal block for current transformer circuit, 2007-8877
Connection option for current

Current Sensor with Bus Connection; in DIN-Rail-Mount Enclosure
789 Series

Current Sensor with Bus Connection; in DIN-rail-mount enclosure; Measurement range: 0 … 80 A

	Item No.	Pack. Unit
	789-620	1

Short description:
WAGO's intelligent current sensor monitors solar plants or inverters for DC measurements within a large current measurement range.

Input	
Input signal type	Current
Input signal, current	0 … 80 ADC
Resolution [bit]	15 bits
Communication	
Communication	Modbus RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of participants (max.)	32
Bus length (max.)	≤ 1200 m
Parity	Even
Baud rate	19.2 kB
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Measurement Error	
Transmission error (typ.)	≤ 0.5 % of upper-range value (at room temperature)
Temperature coefficient	≤ 0.01 %/K
Power Supply	
Nominal supply voltage U_S	DC 24 V
Supply voltage range	12 … 34 VDC
Power consumption at nominal supply voltage	≤ 8 mA
Safety and Protection	
Protection type	IP20
Connection Data	
Feedthrough for measurement conductor	15 mm
Connector	RJ-45
Geometric Data	
Width	35 mm / 1.378 inch
Height from upper-edge of DIN-rail	55 mm / 2.165 inch
Depth	90 mm / 3.543 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	80.2 g
Environmental Requirements	
Surrounding air temperature (operation)	–20 … +70 °C
Surrounding air temperature (storage)	–40 … +85 °C
Standards and Specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DIN EN 50178

Accessories

Interface Module with RJ-45 Connector

Item No.	Pack. Unit
289-965	1

Interface Module with RJ-45 Connector and Shield Clamping Saddle

Color	Item No.	Pack. Unit
white	289-966	1

ETHERNET RJ-45 Connector

Item No.	Pack. Unit
750-975	1

789-620

RJ-45-Connector Pin Assignment:

Pin	Function
1	Ub
2	
3	n. c.
4	A (Data+)
5	B (Data-)
6	n.c.
7	GND
8	

Communication Description:

Modbus®-Function	Read Holding Registers (0x03)
Address of Measured Value	0x0004
Data Type Measurement	Integer

Error Numbers	
id	Description
01	Illegal Function
03	Illegal Data
101	Overflow (Current > +83 A)
102	Underflow (Current < -3 A)

DIP Switch Adjustability

● = ON

Adress	DIP Switch					Terminating Resistor	DIP Switch 1
	2	3	4	5	6	-	
1						150 Ohm	●
2					●		
3				●			
4				●	●		
5			●				
6			●		●		
7			●	●			
8			●	●	●		
9		●					
10		●			●		
11		●		●			
12		●		●	●		
13		●	●				
14		●	●		●		
15		●	●	●			
16		●	●	●	●		
17	●						
18	●				●		
19	●			●			
20	●			●	●		
21	●		●				
22	●		●		●		
23	●		●	●			
24	●		●	●	●		
25	●	●					
26	●	●			●		
27	●	●		●			
28	●	●		●	●		
29	●	●	●				
30	●	●	●		●		
31	●	●	●	●			
32	●	●	●	●	●		

NOTICE:
Only set the Modbus® address in the OFF state.

Current Sensor with Bus Connection; in DIN-Rail-Mount Enclosure
789 Series

Current Signal Conditioner; Current input signal: 140 ADC; Modbus® RTU; Supply voltage: 24 VDC; Module width: 35 mm

	Item No.	Pack. Unit
	789-621	1

Short description:
WAGO's intelligent current sensor monitors solar plants or inverters for DC measurements within a large current measurement range. The sensor is mounted on DIN-35 rail.

Input	
Input signal type	Current
Input signal, current	0 … 140 ADC
Resolution [bit]	15 bits
Communication	
Communication	Modbus® RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of participants (max.)	32
Bus length (max.)	≤ 1200 m
Parity	Even
Baud rate	19.2 kB
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Measurement Error	
Transmission error (typ.)	≤ 0.5 % of upper-range value (0 … 80 A; at room temperature); ≤ 1 % of upper-range value (80 … 140 A; at room temperature)
Temperature coefficient	≤ 0.05 %/K (−20 … +60 °C); ≤ 0.1 %/K (−60 … +70 °C)
Power Supply	
Nominal supply voltage U_S	DC 24 V
Supply voltage range	12 … 34 VDC
Power consumption at nominal supply voltage	≤ 8 mA
Safety and Protection	
Protection type	IP20
Connection Data	
Feedthrough for measurement conductor	15 mm Ø
Connector	RJ-45
Geometric Data	
Width	35 mm / 1.378 inch
Height from upper-edge of DIN-rail	55 mm / 2.165 inch
Depth	90 mm / 3.543 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	77.22 g
Environmental Requirements	
Surrounding air temperature (operation)	−20 … +70 °C
Surrounding air temperature (storage)	−40 … +85 °C
Standards and Specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DIN EN 50178

Accessories

Interface Module with RJ-45 Connector

	Item No.	Pack. Unit
	289-965	1

Interface Module with RJ-45 Connector and Shield Clamping Saddle

Color	Item No.	Pack. Unit
white	289-966	1

ETHERNET RJ-45 Connector

	Item No.	Pack. Unit
	750-975	1

789-621

RJ-45-Connector Pin Assignment:

Pin	Function
1	Ub
2	
3	n.c.
4	A (Data+)
5	B (Data-)
6	n.c.
7	GND
8	

Communication Description:

Modbus® Function	Read Holding Registers (0x03)
Address of Measured Value	0x0004
Data Type Measurement	Integer

Error Numbers	
id	Description
01	Illegal Function
03	Illegal Data
101	Overflow (Current > +83 A)
102	Underflow (Current < -3 A)

DIP Switch Adjustability

● = ON

Adress	DIP Switch					Terminating Resistor	DIP Switch 1
	2	3	4	5	6	-	
1						150 Ohm	●
2					●		
3				●			
4				●	●		
5			●				
6			●		●		
7			●	●			
8			●	●	●		
9		●					
10		●			●		
11		●		●			
12		●		●	●		
13		●	●				
14		●	●		●		
15		●	●	●			
16		●	●	●	●		
17	●						
18	●				●		
19	●			●			
20	●			●	●		
21	●		●				
22	●		●		●		
23	●		●	●			
24	●		●	●	●		
25	●	●					
26	●	●			●		
27	●	●		●			
28	●	●		●	●		
29	●	●	●				
30	●	●	●		●		
31	●	●	●	●			
32	●	●	●	●	●		

NOTICE:
Only set the Modbus® Adress in the OFF state.

Current Sensor with Bus Connection; in DIN-Rail-Mount Enclosure
789 Series

Current Signal Conditioner; Current input signal: 50 ADC; Modbus® RTU; Supply voltage: 24 VDC; Module width: 35 mm

	Item No.	Pack. Unit
	789-622	1

Short description:
WAGO's intelligent current sensor monitors AC currents and is mounted on DIN-35 rail.

Input	
Input signal type	Current
Input signal, current	0 … 50 AAC
Resolution [bit]	14 bits
Communication	
Communication	Modbus® RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of participants (max.)	32
Bus length (max.)	≤ 1200 m
Parity	Even
Baud rate	19.2 kB
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Measurement Error	
Transmission error (typ.)	1 % (typ.); Max. 3 % of upper-range value (at room temperature)
Temperature coefficient	≤ 0.01 %/K
Power Supply	
Nominal supply voltage U_S	DC 24 V
Supply voltage range	12 … 34 VDC
Power consumption at nominal supply voltage	≤ 8 mA
Safety and Protection	
Protection type	IP20
Connection Data	
Feedthrough for measurement conductor	15 mm Ø
Connector	RJ-45
Geometric Data	
Width	35 mm / 1.378 inch
Height from upper-edge of DIN-rail	55 mm / 2.165 inch
Depth	90 mm / 3.543 inch
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	77.22 g
Environmental Requirements	
Surrounding air temperature (operation)	–20 … +70 °C
Surrounding air temperature (storage)	–40 … +85 °C
Standards and Specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DIN EN 50178

Accessories

Interface Module with RJ-45 Connector

Item No.	Pack. Unit
289-965	1

Interface Module with RJ-45 Connector and Shield Clamping Saddle

Color	Item No.	Pack. Unit
white	289-966	1

ETHERNET RJ-45 Connector

Item No.	Pack. Unit
750-975	1

789-622

RJ-45-Connector Pin Assignment:

Pin	Function
1	Ub
2	
3	n.c.
4	A (Data+)
5	B (Data-)
6	n.c.
7	GND
8	

Communication Description:

Modbus® Function	Read Holding Registers (0x03)
Address of Measured Value	0x0004
Data Type Measurement	Integer

Error Numbers:	
id	Description
01	Illegal Function
03	Illegal Data
101	Overflow (Current > +83 A)
102	Underflow (Current < -3 A)

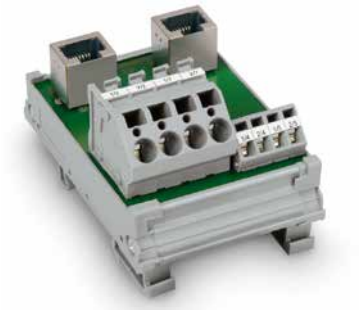
DIP Switch Adjustability

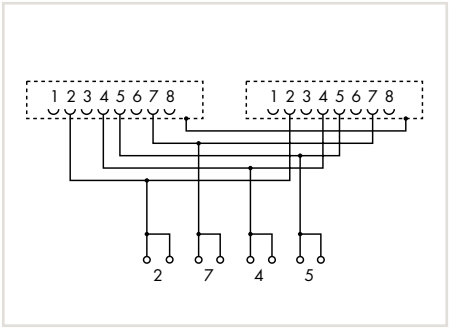
● = ON

Adress	DIP Switch					Terminating Resistor	DIP Switch 1
	2	3	4	5	6	-	
1						150 Ohm	●
2					●		
3				●			
4				●	●		
5			●				
6			●		●		
7			●	●			
8			●	●	●		
9		●					
10		●			●		
11		●		●			
12		●		●	●		
13		●	●				
14		●	●		●		
15		●	●	●			
16		●	●	●	●		
17	●						
18	●				●		
19	●			●			
20	●			●	●		
21	●		●				
22	●		●		●		
23	●		●	●			
24	●		●	●	●		
25	●	●					
26	●	●			●		
27	●	●		●			
28	●	●		●	●		
29	●	●	●				
30	●	●	●		●		
31	●	●	●	●			
32	●	●	●	●	●		

NOTICE:
Only set the Modbus® address in the OFF state.

Interface Module for Current Sensors
289 Series





Interface Module; with RJ-45 connector		
	Item No.	Pack. Unit
	289-965	1

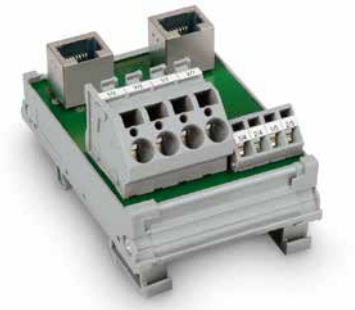
Short description:
Compatible on the field side with the
789-620, 789-621 and 789-622 Current Sensors.

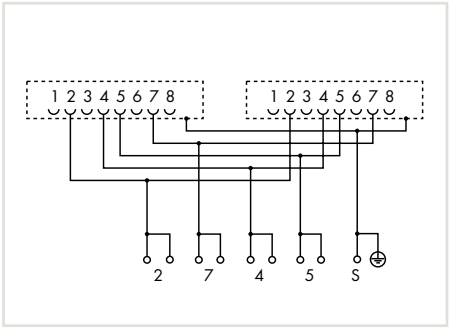
Required terminal assignment:

2: + Supply
7: - Supply
4: D+
5: D-

General Specifications	
Nominal current	1.5 A
Insulation resistance	> 500 MΩ
Safety and Protection	
Dielectric strength, contact/contact	0.5 kVrms
Connection Data	
Connection type (1)	System
Pluggable connectors	2 x RJ-45 (shielded)
Connection type 2	Clamping units 2, 7
Pole number 2	8
Design 2	PCB terminal blocks
Connection technology 2	CAGE CLAMP®
WAGO Connector 2	WAGO 236 Series
Solid conductor 2	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor 2	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length 2	5 … 6 mm / 0.2 … 0.24 inch
Connection type (3)	Clamping units 4, 5
Pole number 3	4
Design 3	PCB terminal blocks
Connection technology 3	CAGE CLAMP®
WAGO Connector 3	WAGO 745 Series
Solid conductor 3	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor (3)	0.2 … 6 mm² / 24 … 10 AWG
Strip length 3	11 … 12 mm / 0.43 … 0.47 inch
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating cycles	500
Connection cable	RJ-45 cable assembly (recommended: UTP)
Geometric Data	
Width	58 mm / 2.283 in
Height from upper-edge of DIN-rail	40 mm / 1.575 in
Depth	85 mm / 3.346 in
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	70 g
Environmental Requirements	
Surrounding air temperature (operation)	–20 … +85 °C

Interface Module for Current Sensors
289 Series





Interface Module; with RJ-45 connector and shield clamping saddle		
	Item No.	Pack. Unit
	289-966	1

Short description:
Compatible on the field side with the
789-620, 789-621 and 789-622 Current Sensors.

Required terminal assignment:

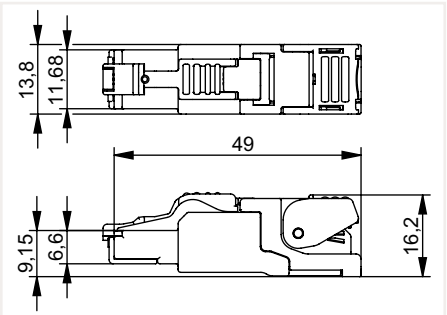
2: + Supply
7: - Supply
4: D+
5: D-

Direct shield connection to the DIN-rail via shield grounding foot

General Specifications	
Nominal current	1.5 A
Insulation resistance	≥ 500 MΩ
Specialty functions	with shield connection; with shield clamping saddle
Safety and Protection	
Dielectric strength, contact/contact	0.5 kVrms
Connection Data	
Connection type (1)	System
Pluggable connectors	2 x RJ-45 (shielded)
Connection type 2	Clamping units 2, 7
Pole number 2	8
Design 2	PCB terminal blocks
Connection technology 2	CAGE CLAMP®
WAGO Connector 2	WAGO 236 Series
Solid conductor 2	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor 2	0.08 … 2.5 mm² / 28 … 12 AWG
Strip length 2	5 … 6 mm / 0.2 … 0.24 inch
Connection type (3)	Clamping units 4, 5
Pole number 3	4
Design 3	PCB terminal blocks
Connection technology 3	CAGE CLAMP®
WAGO Connector 3	WAGO 745 Series
Solid conductor 3	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor (3)	0.2 … 6 mm² / 24 … 10 AWG
Strip length 3	11 … 12 mm / 0.43 … 0.47 inch
Note (conductor cross-section)	12 AWG: THHN, THWN
Mating cycles	500
Connection cable	Shielded RJ-45 cable assembly (recommended: UTP, STP)
WAGO Shield Clamping Saddle	27 mm wide; cable diameter up to 24 mm
Geometric Data	
Width	69 mm / 2.717 in
Height from upper-edge of DIN-rail	40 mm / 1.575 in
Depth	85 mm / 3.346 in
Mechanical Data	
Mounting type	DIN-35 rail
Material Data	
Weight	106.9 g
Environmental Requirements	
Surrounding air temperature (operation)	–20 … +85 °C

ETHERNET RJ-45 Connector
750 Series

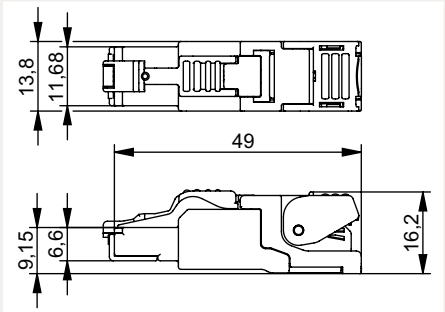
ETHERNET Plug; RJ-45; Cat. 6A; straight; 22 AWG		
Code	Item No.	Pack. Unit
TIA-568A	750-977/000-011	1
TIA-568B	750-977/000-012	1



Technical Data	
Connection type	RJ-45 connector
Number of poles	8
Cable connection direction to mating direction	0 °
Communication/fieldbus	ETHERNET
Baud rate	10,000 Mbit/s
Connection Data	
Connection type 1	IDC (Insulation Displacement Contact)
Solid conductor	0.21 … 0.32 mm² / 24/1 … 22/1 AWG
Stranded conductor (2)	0.11 … 0.36 mm² / 27/7 … 22/7 AWG
Geometric Data	
Width	13.8 mm
Height	16.2 mm
Depth	49 mm
Mechanical Data	
Connection requirement (permissible cable type)	Cat. 6A
Connectable sheathed cable diameter	5.5 … 9 mm
Housing material	Zinc die-cast
Weight	18 g
Environmental Requirements	
Surrounding air temperature (operation)	−40 … +85 °C
Surrounding air temperature (storage)	−40 … +85 °C
Protection type	IP20
Relative humidity (without condensation)	95 %
Standards and Specifications	
Standards/specifications	IEC 60603-7-51, ISO/IEC 11801, IEEE 802.3an; EIA/TIA 568-C.2; DIN EN 50173-1; UL 1863; UL 2043

ETHERNET RJ-45 Connector
750 Series

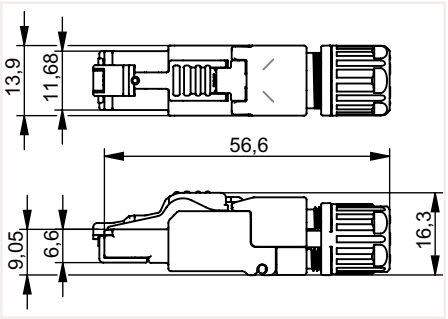
ETHERNET Plug; RJ-45; Cat. 6A; straight; 24 AWG		
Code	Item No.	Pack. Unit
TIA-568A	750-977/000-021	1
TIA-568B	750-977/000-022	1



Technical Data	
Connection type	RJ-45 connector
Number of poles	8
Cable connection direction to mating direction	0 °
Communication/fieldbus	ETHERNET
Baud rate	10,000 Mbit/s
Connection Data	
Connection type 1	IDC (Insulation Displacement Contact)
Solid conductor	0.13 … 0.21 mm² / 26/1 … 24/1 AWG
Stranded conductor (2)	0.11 … 0.23 mm² / 27/7 … 24/7 AWG
Geometric Data	
Width	13.8 mm
Height	16.2 mm
Depth	49 mm
Mechanical Data	
Connection requirement (permissible cable type)	Cat. 6A
Connectable sheathed cable diameter	5.5 … 9 mm
Housing material	Zinc die-cast
Weight	18 g
Environmental Requirements	
Surrounding air temperature (operation)	−40 … +85 °C
Surrounding air temperature (storage)	−40 … +85 °C
Protection type	IP20
Relative humidity (without condensation)	95 %
Standards and Specifications	
Standards/specifications	IEC 60603-7-51, ISO/IEC 11801, IEEE 802.3an; EIA/TIA 568-C.2; DIN EN 50173-1; UL 1863; UL 2043

ETHERNET RJ-45 Connector
750 Series

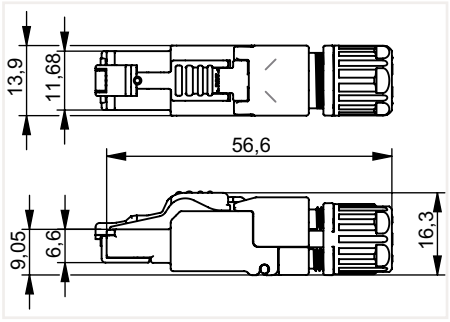
ETHERNET Plug; RJ-45; Cat. 6A; straight; 22 AWG; Strain relief		
Code	**Item No.**	Pack. Unit
TIA-568A	**750-978/000-011**	1
TIA-568B	**750-978/000-012**	1



Technical Data	
Connection type	RJ-45 connector
Number of poles	8
Cable connection direction to mating direction	0 °
Communication/fieldbus	ETHERNET
Baud rate	10,000 Mbit/s
Connection Data	
Connection type 1	IDC (Insulation Displacement Contact)
Solid conductor	0.21 … 0.32 mm² / 24/1 … 22/1 AWG
Stranded conductor (2)	0.11 … 0.36 mm² / 27/7 … 22/7 AWG
Geometric Data	
Width	13.9 mm
Height	16.3 mm
Depth	56.6 mm
Mechanical Data	
Connection requirement (permissible cable type)	Cat. 6A
Connectable sheathed cable diameter	5.5 … 10 mm
Housing material	Zinc die-cast
Weight	22 g
Environmental Requirements	
Surrounding air temperature (operation)	–40 … +85 °C
Surrounding air temperature (storage)	–40 … +85 °C
Protection type	IP20
Relative humidity (without condensation)	95 %
Standards and Specifications	
Standards/specifications	IEC 60603-7-51, ISO/IEC 11801, IEEE 802.3an; EIA/TIA 568-C.2; DIN EN 50173-1; UL 1863; UL 2043

ETHERNET RJ-45 Connector
750 Series

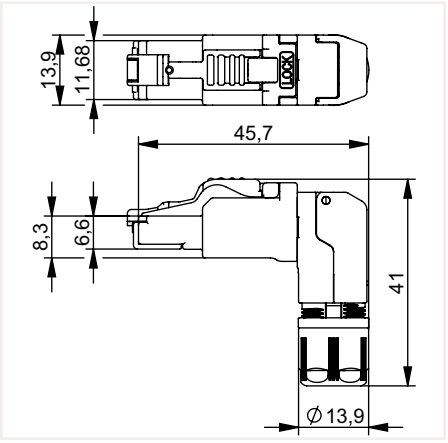
ETHERNET Plug; RJ-45; Cat. 6A; straight; 24 AWG; Strain relief		
Code	**Item No.**	Pack. Unit
TIA-568A	**750-978/000-021**	1
TIA-568B	**750-978/000-022**	1



Technical Data	
Connection type	RJ-45 connector
Number of poles	8
Cable connection direction to mating direction	0 °
Communication/fieldbus	ETHERNET
Baud rate	10,000 Mbit/s
Connection Data	
Connection type 1	IDC (Insulation Displacement Contact)
Solid conductor	0.13 … 0.21 mm² / 26/1 … 24/1 AWG
Stranded conductor (2)	0.11 … 0.23 mm² / 27/7 … 24/7 AWG
Geometric Data	
Width	13.9 mm
Height	16.3 mm
Depth	56.6 mm
Mechanical Data	
Connection requirement (permissible cable type)	Cat. 6A
Connectable sheathed cable diameter	5.5 … 10 mm
Housing material	Zinc die-cast
Weight	22 g
Environmental Requirements	
Surrounding air temperature (operation)	−40 … +85 °C
Surrounding air temperature (storage)	−40 … +85 °C
Protection type	IP20
Relative humidity (without condensation)	95 %
Standards and Specifications	
Standards/specifications	IEC 60603-7-51, ISO/IEC 11801, IEEE 802.3an; EIA/TIA 568-C.2; DIN EN 50173-1; UL 1863; UL 2043

ETHERNET RJ-45 Connector
750 Series

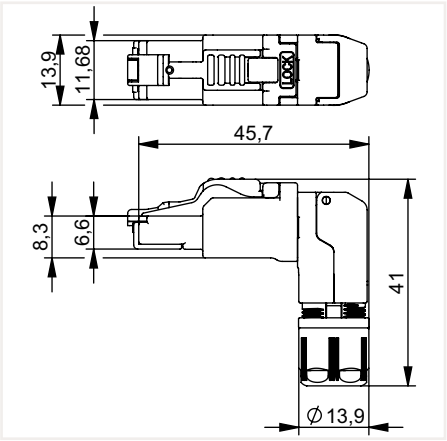
ETHERNET Plug; RJ-45; Cat. 6A; angled; 22 AWG; Strain relief		
Code	**Item No.**	Pack. Unit
TIA-568A	**750-979/000-011**	1
TIA-568B	**750-979/000-012**	



Technical Data	
Connection type	RJ-45 connector
Number of poles	8
Cable connection direction to mating direction	90 °
Communication/fieldbus	ETHERNET
Baud rate	10,000 Mbit/s
Connection Data	
Connection type 1	IDC (Insulation Displacement Contact)
Solid conductor	0.21 … 0.32 mm² / 24/1 … 22/1 AWG
Stranded conductor (2)	0.11 … 0.36 mm² / 27/7 … 22/7 AWG
Geometric Data	
Width	13.9 mm
Height	41 mm
Depth	45.7 mm
Mechanical Data	
Connection requirement (permissible cable type)	Cat. 6A
Connectable sheathed cable diameter	5.5 … 10 mm
Housing material	Zinc die-cast
Weight	26 g
Environmental Requirements	
Surrounding air temperature (operation)	–40 … +85 °C
Surrounding air temperature (storage)	–40 … +85 °C
Protection type	IP20
Relative humidity (without condensation)	95 %
Standards and Specifications	
Standards/specifications	IEC 60603-7-51, ISO/IEC 11801, IEEE 802.3an; EIA/TIA 568-C.2; DIN EN 50173-1; UL 1863; UL 2043

ETHERNET RJ-45 Connector
750 Series

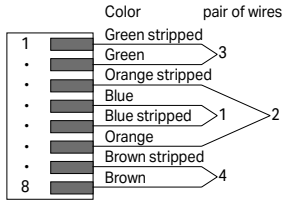
ETHERNET Plug; RJ-45; Cat. 6A; angled; 24 AWG; Strain relief		
Code	Item No.	Pack. Unit
TIA-568A	750-979/000-011	1
TIA-568B	750-979/000-012	



Technical Data	
Connection type	RJ-45 connector
Number of poles	8
Cable connection direction to mating direction	90 °
Communication/fieldbus	ETHERNET
Baud rate	10,000 Mbit/s
Connection Data	
Connection type 1	IDC (Insulation Displacement Contact)
Solid conductor	0.13 … 0.21 mm² / 26/1 … 24/1 AWG
Stranded conductor (2)	0.11 … 0.23 mm² / 27/7 … 24/7 AWG
Geometric Data	
Width	13.9 mm
Height	41 mm
Depth	45.7 mm
Mechanical Data	
Connection requirement (permissible cable type)	Cat. 6A
Connectable sheathed cable diameter	5.5 … 10 mm
Housing material	Zinc die-cast
Weight	26 g
Environmental Requirements	
Surrounding air temperature (operation)	−40 … +85 °C
Surrounding air temperature (storage)	−40 … +85 °C
Protection type	IP20
Relative humidity (without condensation)	95 %
Standards and Specifications	
Standards/specifications	IEC 60603-7-51, ISO/IEC 11801, IEEE 802.3an; EIA/TIA 568-C.2; DIN EN 50173-1; UL 1863; UL 2043

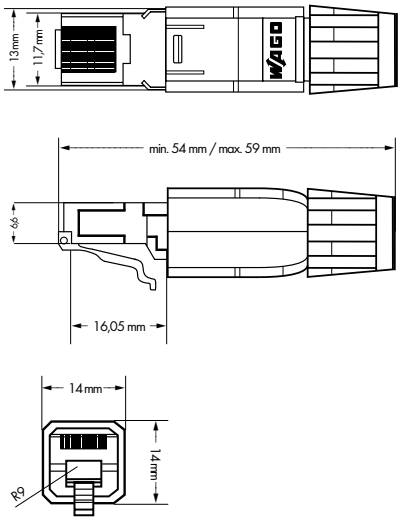
ETHERNET RJ-45 Connector
750 Series

Pin assignment TIA-568A



ETHERNET Plug RJ-45, IP20; ETHERNET 10/100 Mbit/s; for field assembly

Item No.	Pack. Unit
750-975	1



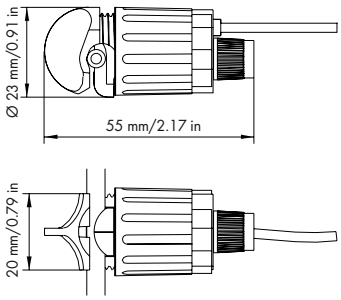
Short description:
Versatile RJ-45 connector for industrial, office and building wiring applications.

WAGO's compact RJ-45 ETHERNET connector uses IDC technology for easy field assembly – connection is made without tools. The connector is compliant with all required standards. Large conductor cross sections can also be connected and the connector satisfies Category 5e.

Technical Data	
Connection type	RJ-45 connector
Number of poles	8
Cable connection direction to mating direction	0 °
Communication/fieldbus	ETHERNET
Code	TIA-568A
Insulation resistance	(100 V) > 1 GΩ
Connection Data	
Connection type 1	IDC (Insulation Displacement Contact)
Solid conductor	0.13 … 0.24 mm² / 26/1 … 23/1 AWG
Stranded conductor (2)	0.14 … 0.36 mm² / 26/7 … 22/7 AWG
Geometric Data	
Width	14 mm
Height	14 mm
Depth	59 mm
Mechanical Data	
Shield	Brass (CuZn); hot-dip tinned 3 µm; Shield contacting: large surface >180°
Connection requirement (permissible cable type)	Cat. 5e
Connectable sheathed cable diameter	4.5 … 8 mm
Housing material	Plastic
Contact material	Bronze ($CuSn_6$)
Contact plating	> 1.2 µm gold over 1.2 µm nickel
Mating cycles (max.)	1000
Weight	12 g
Color	light gray
Environmental Requirements	
Surrounding air temperature (operation)	–20 … +70 °C
Surrounding air temperature (storage)	–40 … +70 °C
Protection type	IP20
Relative humidity (without condensation)	95 %
Vibration resistance	4g per IEC 60068-2-6
Standards/specifications	- Basic standard: IEC 60603-7 RJ-45 Category 5; - CD ISO/IEC 11801: 2002; - EN 50173: 2002; - EIA/TIA 568A: 2002

Voltage Tap
855 Series

Voltage Tap; with fuse; 2.5 … 6 mm²; Phase		
Color	Item No.	Pack. Unit
black	855-8001	1



Short description:
WAGO's 855 Series Voltage Taps easily and safely tap the measurement voltage. This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.

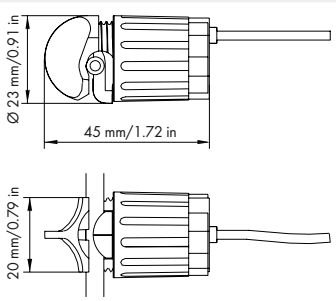
Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- For insulated conductors up to 16 mm² (6 AWG)
- Cable length: 3 m

Note:
Spare fuse: SIBA Fuse, Item No. 7008913.2

Output – Voltage Tap	
Rated voltage	400 VAC
Continuous current (max.)	2 A
Max. voltage drop (output)	≤ 0.5 VAC
Fuse (voltage path)	2 A; 450 V; F, 70 kA, 5 x 25 mm
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Rated surge voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Connection Data	
Connection technology	IDC
Solid conductor	2.5 … 6 mm² / 14 … 10 AWG
Fine-stranded conductor	2.5 … 6 mm² / 14 … 10 AWG
Feedthrough for measurement conductor	3 … 5 mm Ø
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Geometric Data	
Width	23 mm / 0.906 inch
Height	59 mm / 2.323 inch
Depth	23 mm / 0.906 inch
Cable length	3 m
Mechanical Data	
Mounting type	Insulation displacement connection (IDC)
Mounting type	Mounting on insulated round cable
Torque	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Material Data	
Weight	25.9 g
Housing material	PA 6.6; UL94 V2
Environmental Requirements	
Surrounding air temperature (operation)	–5 … +55 °C
Surrounding air temperature (storage)	–20 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Voltage Tap
855 Series

Voltage Tap; without fuse; 2.5 … 6 mm²; Neutral conductor		
Color	Item No.	Pack. Unit
blue	855-8002	1



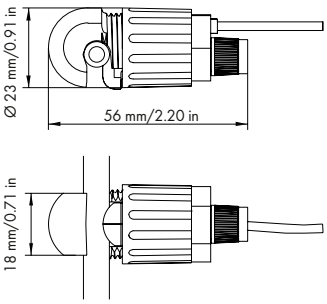
Short description:
WAGO's 855 Series Voltage Taps easily and safely tap the measurement voltage. This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.

Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- For insulated conductors up to 16 mm² (6 AWG)
- Cable length: 3 m

Output – Voltage Tap	
Rated voltage	400 VAC
Continuous current (max.)	2 A
Max. voltage drop (output)	≤ 0.5 VAC
Fuse (voltage path)	-
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Rated surge voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Connection Data	
Connection technology	IDC
Solid conductor	2.5 … 6 mm² / 14 … 10 AWG
Fine-stranded conductor	2.5 … 6 mm² / 14 … 10 AWG
Feedthrough for measurement conductor	3 … 5 mm Ø
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Geometric Data	
Width	23 mm / 0.906 inch
Height	50 mm / 1.969 inch
Depth	23 mm / 0.906 inch
Cable length	3 m
Mechanical Data	
Mounting type	Insulation displacement connection (IDC)
Mounting type	Mounting on insulated round cable
Torque	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Material Data	
Weight	20 g
Housing material	PA 6.6; UL94 V2
Environmental Requirements	
Surrounding air temperature (operation)	–5 … +55 °C
Surrounding air temperature (storage)	–20 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Voltage Tap
855 Series

Voltage Tap; with fuse; 10 … 16 mm²; Phase		
Color	Item No.	Pack. Unit
black	855-8003	1



Short description:
WAGO's 855 Series Voltage Taps easily and safely tap the measurement voltage. This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.

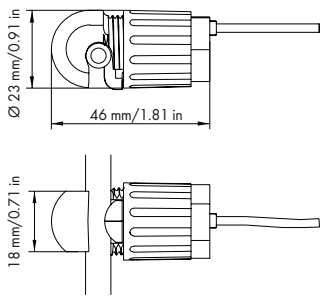
Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- For insulated conductors up to 16 mm² (6 AWG)
- Cable length: 3 m

Note:
Spare fuse: SIBA Fuse, Item No. 7008913.2

Output – Voltage Tap	
Rated voltage	400 VAC
Continuous current (max.)	2 A
Max. voltage drop (output)	≤ 0.5 VAC
Fuse	2 A; 450 V; F; 70 kA, 5 x 25 mm
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Rated surge voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Connection Data	
Connection technology	IDC
Solid conductor	10 … 16 mm² / 8 … 6 AWG
Fine-stranded conductor	10 … 16 mm² / 8 … 6 AWG
Feedthrough for measurement conductor	5 … 7 mm Ø
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Geometric Data	
Width	23 mm / 0.906 inch
Height	59 mm / 2.323 inch
Depth	23 mm / 0.906 inch
Cable length	3 m
Mechanical Data	
Mounting type	Insulation displacement connection (IDC)
Mounting type	Mounting on insulated round cable
Torque	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Material Data	
Weight	29 g
Housing material	PA 6.6; UL94 V2
Environmental Requirements	
Surrounding air temperature (operation)	–5 … +55 °C
Surrounding air temperature (storage)	–20 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Voltage Tap
855 Series

Voltage Tap; without fuse; 10 … 16 mm²; Neutral conductor		
Color	Item No.	Pack. Unit
blue	855-8004	1



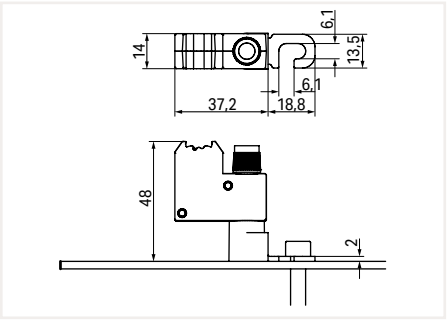
Short description:
WAGO's 855 Series Voltage Taps easily and safely tap the measurement voltage. This allows a fuse-protected measurement voltage to be tapped from an insulated conductor with just one turn – no tools required.

Features:
- Safely tap the measurement voltage with just one turn
- Tool-free assembly
- Secure mounting
- For insulated conductors up to 16 mm² (6 AWG)
- Cable length: 3 m

Output – Voltage Tap	
Rated voltage	400 VAC
Continuous current (max.)	2 A
Max. voltage drop (output)	≤ 0.5 VAC
Fuse	-
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Rated surge voltage	6 kV
Overvoltage category	III
Pollution degree	2
Protection type	IP20
Connection Data	
Connection technology	IDC
Solid conductor	10 … 16 mm² / 8 … 6 AWG
Fine-stranded conductor	10 … 16 mm² / 8 … 6 AWG
Feedthrough for measurement conductor	5 … 7 mm Ø
Cable type	Secondary side: 1 x 1.0 mm²; flexible; with ferrule
Geometric Data	
Width	23 mm / 0.906 inch
Height	50 mm / 1.969 inch
Depth	23 mm / 0.906 inch
Cable length	3 m
Mechanical Data	
Mounting type	Insulation displacement connection (IDC)
Mounting type	Mounting on insulated round cable
Torque	1.5 … 2 Nm
Usability	Can be reused several times (max. 24 times)
Material Data	
Weight	21 g
Housing material	PA 6.6; UL94 V2
Environmental Requirements	
Surrounding air temperature (operation)	–5 … +55 °C
Surrounding air temperature (storage)	–20 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 60947-7-1

Voltage Tap
855 Series

Voltage Tap; for busbar; with fuse; M6 mount		
	Item No.	Pack. Unit
	855-8006	1



Short description:
WAGO's voltage taps serve as busbar taps for measuring L- or N-conductors and are equipped with an integrated SIBA fuse with indicator. The built-in fuse is located directly above the voltage-carrying busbar. In the event of an overload and short circuit, the downstream measurement unit is safely disconnected before major damage occurs.

The voltage taps can be mounted directly on the busbar. Mounting is performed via M6 screw.

The measurement line is connected via Push-in CAGE CLAMP®, the universal connection technology for all conductor types that provides the simplicity of push-in terminations. Rigid conductors, such as solid and stranded conductors, as well as fine-stranded conductors with ferrules, can be terminated by simply pushing them in – no operating tool needed. The connection unit with a fuse and Push-in CAGE CLAMP® rotates. This creates additional added value by directly guiding subsequent wiring into the cable channel.

In addition, the voltage taps can be labeled with two different marking options.

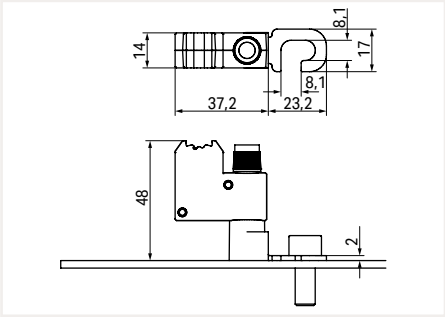
Features:
- Fuse-protected voltage tap for measurement purposes
- Safe protection through integrated fuse with indicator (measurement line/device)
- WAGO Push-in CAGE CLAMP® connection technology
- WAGO labelling options (WMB markers or marking strips)

Note:
Spare fuse: SIBA Fuse, Item No. 7008913.2

Output – Voltage Tap	
Rated voltage	400 VAC
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Connection Data	
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 2624 Series
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Connection Data	
Width	57 mm / 2.244 inch
Height	14 mm / 0.551 inch
Depth	48 mm / 1.89 inch
Mechanical Data	
Mounting type	M6 mount
Mounting type	Installation on busbar
Material Data	
Weight	30 g
Environmental Requirements	
Surrounding air temperature (operation)	–25 … +70 °C
Surrounding air temperature (storage)	–40 … +85 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Vibration resistance	10g (Industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (Ship; 5 … 150 Hz; per IEC 60068-2-6)
Standards and Specifications	
Standards/specifications	IEC 60947-7-3

Voltage Tap
855 Series

Voltage Tap; for busbar; with fuse; M8 mount		
	Item No.	Pack. Unit
	855-8008	1



Short description:
WAGO's voltage taps serve as busbar taps for measuring L- or N-conductors and are equipped with an integrated SIBA fuse with indicator. The built-in fuse is located directly above the voltage-carrying busbar. In the event of an overload and short circuit, the downstream measurement unit is safely disconnected before major damage occurs.

The voltage taps can be mounted directly on the busbar. Mounting is performed via M8 screw.

The measurement line is connected via Push-in CAGE CLAMP®, the universal connection technology for all conductor types that provides the simplicity of push-in terminations. Rigid conductors, such as solid and stranded conductors, as well as fine-stranded conductors with ferrules, can be terminated by simply pushing them in – no operating tool needed. The connection unit with a fuse and Push-in CAGE CLAMP® rotates. This creates additional added value by directly guiding subsequent wiring into the cable channel.

In addition, the voltage taps can be labeled with two different marking options.

Features:
- Fuse-protected voltage tap for measurement purposes
- Safe protection through integrated fuse with indicator (measurement line/device)
- WAGO Push-in CAGE CLAMP® connection technology
- WAGO labelling options (WMB markers or marking strips)

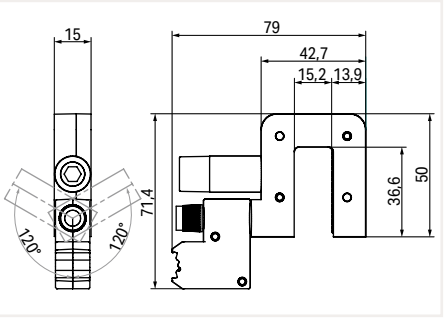
Note:
Spare fuse: SIBA Fuse, Item No. 7008913.2

Output – Voltage Tap	
Rated voltage	400 VAC
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Connection Data	
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 2624 Series
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Connection Data	
Width	61 mm / 2.402 inch
Height	14 mm / 0.551 inch
Depth	48 mm / 1.89 inch
Mechanical Data	
Mounting type	M8 mount
Mounting type	Installation on busbar
Material Data	
Weight	31 g
Environmental Requirements	
Surrounding air temperature (operation)	–25 … +70 °C
Surrounding air temperature (storage)	–40 … +85 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Vibration resistance	10g (Industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (Ship; 5 … 150 Hz; per IEC 60068-2-6)
Standards and Specifications	
Standards/specifications	IEC 60947-7-3

Voltage Tap
855 Series

Voltage Tap; for busbar; with fuse; Clamp mount

Item No.	Pack. Unit
855-8015	1



Short description:
WAGO's voltage taps serve as busbar taps for measuring L- or N-conductors and are equipped with an integrated SIBA fuse with indicator. The built-in fuse is located directly above the voltage-carrying busbar. In the event of an overload and short circuit, the downstream measurement unit is safely disconnected before major damage occurs.

The voltage taps can be mounted directly on the busbar. Clamp mount via Allen screw is performed using an insulated Allen wrench and provides an excellent contact between the busbar and the fuse. This ensures high operational safety and short-circuit protection.

The measurement line is connected via Push-in CAGE CLAMP®, the universal connection technology for all conductor types that provides the simplicity of push-in terminations. Rigid conductors, such as solid and stranded conductors, as well as fine-stranded conductors with ferrules, can be terminated by simply pushing them in – no operating tool needed. The connection unit with a fuse and Push-in CAGE CLAMP® rotates (±120°). This creates additional added value by directly guiding subsequent wiring into the cable channel.

In addition, the voltage taps can be labeled with two different marking options.

Features:
- Fuse-protected voltage tap for measurement purposes
- Safe protection through integrated fuse with indicator (measurement line/device)
- WAGO push-in termination technology
- WAGO labelling options (WMB markers or marking strips)

Note:
Spare fuse: SIBA Fuse, Item No. 7008913.2

Output – Voltage Tap	
Rated voltage	400 VAC
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)

Connection Data	
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 2624 Series
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Busbar thickness (min.)	4 mm
Busbar thickness (max.)	15 mm

Connection Data	
Width	79 mm / 3.11 inch
Height	15 mm / 0.591 inch
Depth	72 mm / 2.835 inch

Mechanical Data	
Mounting type	Clamp mount
Mounting type	Installation on busbar

Material Data	
Weight	160 g

Environmental Requirements	
Surrounding air temperature (operation)	–25 … +70 °C
Surrounding air temperature (storage)	–40 … +85 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Vibration resistance	10g (Industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (Ship; 5 … 150 Hz; per IEC 60068-2-6)

Standards and Specifications	
Standards/specifications	IEC 60947-7-3

Accessories

T-wrench; with a partially insulated shaft; SW 6.0 x 100

Item No.	Pack. Unit
855-8000	1

Current and Voltage Tap
855 Series

Current and Voltage Tap for the 50 mm² (0/1 AWG) High-Current Through Terminal Block

	Item No.	Pack. Unit
	855-501/150-000	1

Short description:
WAGO's current and voltage tap for 50 mm² (0/1 AWG) high-current through terminal blocks provides the ideal basis for successful energy management, because current and voltage are required wherever electrical power is measured. A combination of current transformer and voltage tap, this solution can be quickly and easily mounted into the jumper slot of WAGO's 50 mm² (1/0 AWG) high-current through terminal block.

An integrated fuse reliably protects downstream energy meters. An integrated current transformer (conversion ratio: 150 A/1 A) allows precise current measurement per EN 61869-2 (accuracy class: 0.5).

The current output connectors are marked with S1 (black) and S2 (red). Both termination and removal of fine-stranded conductors is performed via push-buttons. The 4-pole configuration (2 x S1 and 2 x S2) provides the following advantages:
- Current transformer (S1 and S2) can be short circuited via jumper (2000-402)
- Direct 'Y' point jumper on current transformer

The voltage is connected using a redundant terminal block.

Additionally, the current and voltage tap can be marked either using continuous marking strips or via WMB Multi Marking System.

Features:
- Power data can be directly tapped into the power supply
- Easy installation – simply insert the tap into the jumper slot of the 50 mm² (1/0 AWG) high-current through terminal block
- Integrated current transformer (150 A/1 A)
- Accuracy class: 0.5
- Fuse-protected voltage path

Note:
- Suitable for 2-conductor through terminal blocks for DIN-rail mounting (285-150; 285-154)
- Suitable for 2-conductor through terminal blocks with mounting flanges (285-141; 285-144)
- Spare fuse: SIBA Fuse, Item No. 7008913.2

Input – Current Transformer	
Primary rated current	150 A
Rated continuous thermal current I_{cth}	150 A
Rated short-time thermal current I_{th}	9 kA/1 s
Rated surge current I_{dyn}	22.5 kA
Rated frequency	50 … 60 Hz
Output – Current Transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Output – Voltage Tap	
Rated voltage	400 VAC
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Measurement Error	
Accuracy class	0.5
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Protection type	IP20
Highest voltage for equipment U_m	720 VAC
Connection Data	
Connection type 1	Current output
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 250 Series
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Connection type 2	Voltage output
Connection technology 2	Push-in CAGE CLAMP®
WAGO Connector 2	WAGO 2624 Series
Solid conductor 2	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor 2	0.2 … 6 mm² / 24 … 10 AWG
Strip length 2	10 … 12 mm / 0.39 … 0.47 inch
Feedthrough for measurement conductor	Ø ≤ 12 mm
Geometric Data	
Width	20 mm / 0.787 inch
Height	68 mm / 2.677 inch
Depth	57 mm / 2.244 inch
Mechanical Data	
Mounting type	Via jumper slot of the 2-conductor high-current through terminal block (see note)
Material Data	
Weight	66 g
Environmental Requirements	
Surrounding air temperature (operation)	–25 … +70 °C
Surrounding air temperature (storage)	–25 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Vibration resistance	10g (Industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (Ship; 5 … 150 Hz; per IEC 60068-2-6)
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-2; EN 60947-7-3

Current and Voltage Tap
855 Series

Current and Voltage Tap for the 95 mm² (4/0 AWG) High-Current Through Terminal Block

	Item No.	Pack. Unit
	855-951/250-000	1

4

Short description:
WAGO's current and voltage tap for 95 mm² (4/0 AWG) high-current through terminal blocks provides the ideal basis for successful energy management, because current and voltage are required wherever electrical power is measured. A combination of current transformer and voltage tap, this solution can be quickly and easily mounted into the jumper slot of WAGO's 95 mm² (4/0 AWG) high-current through terminal block.

An integrated fuse reliably protects downstream energy meters. An integrated current transformer (conversion ratio: 250 A/1 A) allows precise current measurement per EN 61869-2 (accuracy class: 0.5).

The current output connectors are marked with S1 (black) and S2 (red). Both termination and removal of fine-stranded conductors is performed via push-buttons. The 5-pole configuration (2 x S1 and 3 x S2) provides the following advantages:
- Current transformer (S1 and S2) can be short circuited via jumper (2000-402)
- Direct 'Y' point jumper on current transformer

The voltage is connected using a redundant terminal block.

Additionally, the current and voltage tap can be marked either using continuous marking strips or via WMB Multi Marking System.

Features:
- Power data can be directly tapped into the power supply
- Easy installation – simply insert the tap into the jumper slot of the 95 mm² (4/0 AWG) high-current through terminal block
- Integrated current transformer (250 A/1 A)
- Accuracy class: 0.5
- Fuse-protected voltage path

Note:
- Suitable for 2-conductor through terminal blocks for DIN-rail mounting (285-195; 285-194)
- Suitable for 2-conductor through terminal blocks with mounting flanges (285-181; 285-184)
- Spare fuse: SIBA Fuse, Item No. 7008913.2

Input – Current Transformer	
Primary rated current	250 A
Rated continuous thermal current I_{cth}	250 A
Rated short-time thermal current I_{th}	15 kA/1 s
Rated surge current I_{dyn}	37.5 kA
Rated frequency	50 … 60 Hz
Output – Current Transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Output – Voltage Tap	
Rated voltage	400 VAC
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Measurement Error	
Accuracy class	0.5
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Protection type	IP20
Highest voltage for equipment U_m	720 VAC
Connection Data	
Connection type 1	Current output
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 250 Series
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Connection type 2	Voltage output
Connection technology 2	Push-in CAGE CLAMP®
WAGO Connector 2	WAGO 2624 Series
Solid conductor 2	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor 2	0.2 … 6 mm² / 24 … 10 AWG
Strip length 2	10 … 12 mm / 0.39 … 0.47 inch
Feedthrough for measurement conductor	Ø ≤ 16 mm
Geometric Data	
Width	25 mm / 0.984 inch
Height	73 mm / 2.874 inch
Depth	58 mm / 2.283 inch
Mechanical Data	
Mounting type	Via jumper slot of the 2-conductor high-current through terminal block (see note)
Material Data	
Weight	98 g
Environmental Requirements	
Surrounding air temperature (operation)	–25 … +70 °C
Surrounding air temperature (storage)	–25 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Vibration resistance	10g (Industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (Ship; 5 … 150 Hz; per IEC 60068-2-6)
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-2; EN 60947-7-3

Current and Voltage Tap
855 Series

Current and Voltage Tap for the 185 mm² (350 kcmil) High-Current Through Terminal Block

	Item No.	Pack. Unit
	855-1851/350-000	1

Short description:
WAGO's current and voltage tap for 185 mm² (350 kcmil) high-current through terminal blocks provides the ideal basis for successful energy management, because current and voltage are required wherever electrical power is measured. A combination of current transformer and voltage tap, this solution can be quickly and easily mounted into the jumper slot of WAGO's 95 mm² (4/0 AWG) high-current through terminal block.

An integrated fuse reliably protects downstream energy meters. An integrated current transformer (conversion ratio: 350 A/1 A) allows precise current measurement per EN 61869-2 (accuracy class: 0.5).

The current output connectors are marked with S1 (black) and S2 (red). Both termination and removal of fine-stranded conductors is performed via push-buttons. The 5-pole configuration (2 x S1 and 3 x S2) provides the following advantages:
- Current transformer (S1 and S2) can be short circuited via jumper (2000-402)
- Direct 'Y' point jumper on current transformer

The voltage is connected using a redundant terminal block.

Additionally, the current and voltage tap can be marked either using continuous marking strips or via WMB Multi Marking System.

Features:
- Power data can be directly tapped into the power supply
- Easy installation – simply insert the tap into the jumper slot of the 185 mm² (350 kcmil) high-current through terminal block
- Integrated current transformer (350 A/1 A)
- Accuracy class: 0.5
- Fuse-protected voltage path

Note:
- Suitable for 2-conductor through terminal blocks for DIN-rail mounting (285-1185; 285-1184)
- Suitable for 2-conductor through terminal blocks with mounting flanges (285-1161; 285-1164)
- Spare fuse: SIBA Fuse, Item No. 7008913.2

Input – Current Transformer	
Primary rated current	350 A
Rated continuous thermal current I_{cth}	350 A
Rated short-time thermal current I_{th}	21 kA/1 s
Rated surge current I_{dyn}	52.5 kA
Rated frequency	50 … 60 Hz
Output – Current Transformer	
Secondary rated current	1 A
Rated power S_r	0.2 VA
Output – Voltage Tap	
Rated voltage	400 VAC
Fuse (voltage path)	2 A; 450 V; F; 70 kA; 5 x 25 mm (WAGO 855-8020)
Measurement Error	
Accuracy class	0.5
Safety and Protection	
Test voltage	3 kVAC; 50 Hz; 1 min
Protection type	IP20
Highest voltage for equipment U_m	720 VAC
Connection Data	
Connection type 1	Current output
Connection technology	Push-in CAGE CLAMP®
WAGO Connector	WAGO 250 Series
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Connection type 2	Voltage output
Connection technology 2	Push-in CAGE CLAMP®
WAGO Connector 2	WAGO 2624 Series
Solid conductor 2	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor 2	0.2 … 6 mm² / 24 … 10 AWG
Strip length 2	10 … 12 mm / 0.39 … 0.47 inch
Feedthrough for measurement conductor	Ø ≤ 21.5 mm
Geometric Data	
Width	32 mm / 1.256 inch
Height	84 mm / 3.307 inch
Depth	60 mm / 2.362 inch
Mechanical Data	
Mounting type	Via jumper slot of the 2-conductor high-current through terminal block (see note)
Material Data	
Weight	144 g
Environmental Requirements	
Surrounding air temperature (operation)	–25 … +70 °C
Surrounding air temperature (storage)	–25 … +70 °C
Relative humidity	5 … 85 % (non-condensing)
Operating altitude (max.)	2000 m
Vibration resistance	10g (Industry; 5 … 2000 Hz; per IEC 60068-2-6); 4g (Ship; 5 … 150 Hz; per IEC 60068-2-6)
Standards and Specifications	
Conformity marking	CE
Standards/specifications	EN 61869-2; EN 60947-7-3

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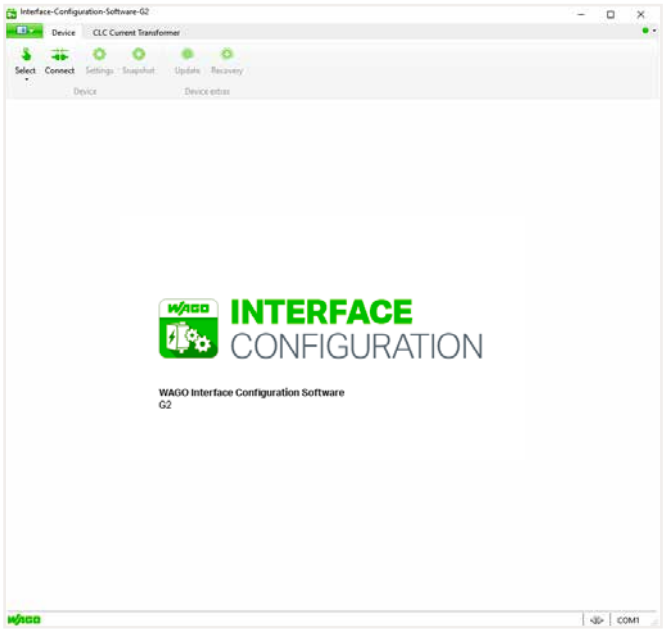
Line Length Calculation for Current Transformers

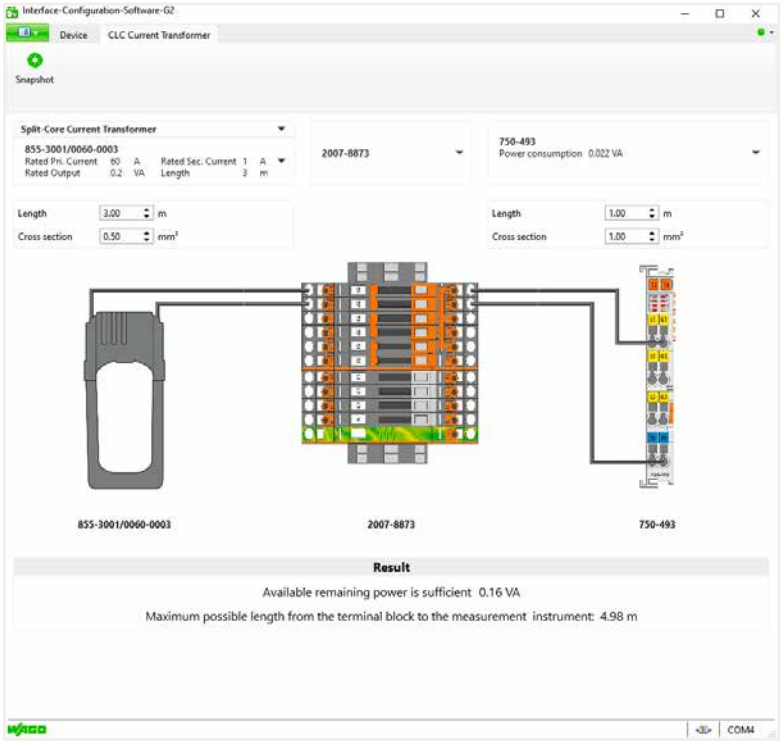
Refined Solution for Your System Planning

To determine actual power requirements, both the power requirements of the connected measurement devices and the power losses from the measurement lines connected to a transformer's secondary circuit must be taken into account.

The interface configuration software's new feature quickly and easily calculates cable length and provides the results for your system documentation.



WAGO Interface Configuration Software Start Screen



Cable length calculation using the interface configuration software

	11.05.2020 07:32 WAGO Kontakttechnik GmbH & Co. KG
	Interface Configuration Software(1.0.4.1)
Current Transformer	
Order number	855-3001/0060-0003
Rated Pri. Current	60 A
Rated Sec. Current	1 A
Rated Output	0.414 VA
Measurement instrument	
Order number	750-493
Power consumption	0.022 VA
Cabel from transducer to terminal block	
Length	3 m
Cross section	0.5 mm²
Power loss	0.214 VA
Cabel from transducer to measurment instrument	
Length	1 m
Cross section	1 mm²
Power loss	0.036 VA
Result	
Available power	0.414 VA
Total power loss	0.250 VA
Remaining power	0.164 VA
Required power	0.022 VA
Result	Available remaining power is sufficient

Simply documented!

Power calculation of copper cables between measurement device and current transformer:

$$P_V = \frac{I_S^2 \times 2 \times l}{A_{CU} \times 56} \text{ VA}$$

I_S = Secondary rated measuring current strength [A]
l = Simple cable length in m
A_{CU} = Cable cross section in mm²
P_V = Power loss of connection cables

Note: When using a common three-phase return line, the values for P_V are halved.

Example:
A 1 amp or 5 amp current transformer is used, with an ammeter on the secondary circuit, at a distance of 10 m between the transformer and the measurement device.

Current transformer 5 A

$$P_V = \frac{5^2 \times 2 \times 10}{1.5 \times 56} \text{ VA} = 5.96 \text{ VA}$$

Current transformer 1 A

$$P_V = \frac{1^2 \times 2 \times 10}{1.5 \times 56} \text{ VA} = 0.24 \text{ VA}$$

Free software download at:
www.wago.com/configuration-software