



# ipc<sup>+</sup>

ipc<sup>+</sup> well equipped: 2 Push-Pull switching outputs or 1 Push-Pull switching output with an analogue output in M18 housing.

## HIGHLIGHTS

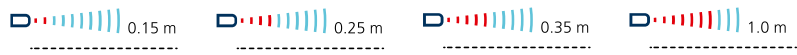
- › Analogue output 4–20 mA or 0–10 V plus 1 Push-Pull switching output in M18 design
- › IO-Link interface › for support of the new industry standard
- › Smart Sensor Profile
- › Improved temperature compensation › adjustments to working conditions within 120 seconds

## BASICS

- › 2 Push-Pull switching outputs, pnp or npn basis
- › 4 detection ranges with a measurement range of 20 mm to 1.3 m
- › microsonic Teach-in on pin 5
- › 0.1 mm resolution
- › 10–30 V operating voltage
- › LinkControl › for configuration of sensors from a PC

 **IO-Link**  
integrated

Also see the chapter  
“Function and  
advantages”





### The lpc+ ultrasonic sensors

are optionally equipped with two Push-Pull switching outputs or an analogue output plus a Push-Pull switching output. The compact series with M18 threaded sleeves covers four detection ranges from 20 mm to 1.3 m.

Ultrasonic sensors with the Push-Pull output stage support SIO and IO-Link modes. Sensors with analogue output are optionally available with 4–20 mA current output or 0–10 V voltage output. In SIO mode, sensors are configured using the microsonic Teach-in procedure on pin 5.

### For the lpc+ sensor family

there are 2 output stages and 4 detection ranges available:

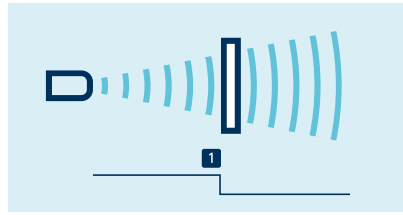
-  2 Push-Pull switching outputs with pnp or npn switching technology
-  1 Push-Pull switching output and analogue output 4–20 mA or 0–10 V

### Ultrasonic sensors with switching output have three operating modes:

- › Single switching point
- › Two-way reflective barrier
- › Window mode

### Teach-in of a single switching point

- › Place object to be detected at the desired distance **1**
- › Apply  $+U_B$  to pin 5 for about 3 seconds
- › Then apply  $+U_B$  to pin 5 again for about 1 second

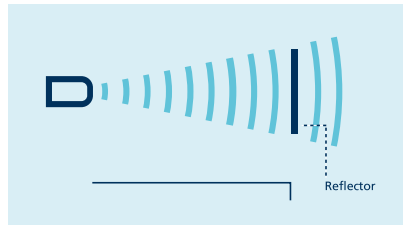


Teach-in of a switching point

### Teach-in of a two-way reflective barrier

with a fixed reflector

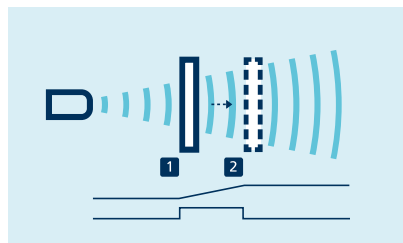
- › Apply  $+U_B$  to pin 2 for about 3 seconds
- › Then apply  $+U_B$  to pin 2 again for about 10 seconds



Teach-in of a two-way reflective barrier

### For configuration of a window

- › Place object at the near edge of the window **1**
- › Apply  $+U_B$  to pin 5 for about 3 seconds
- › Then move the object to the far edge of the window **2**
- › Then apply  $+U_B$  to pin 5 again for about 1 second



Teach-in of an analogue characteristic or a window with two switching points

### NCC/NOC

and rising/falling analogue characteristic curve can also be set via pin 5.

### Two green and two yellow LEDs

indicate the state of the output and support microsonic Teach-in.

### LinkControl

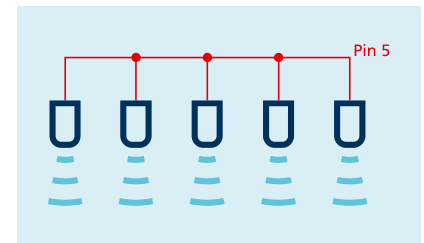
optionally permits the extensive parameterisation of lpc+ sensors. The LCA-2 LinkControl adapter, which is available as an accessory, can be used to connect lpc+ sensors to the PC.



Sensor connected to the PC via LCA-2 for programming

### Easy to synchronise

A number of lpc+ ultrasonic sensors can be run closely packed in applications synchronised to stop them from influencing one another. To this end, the sync mode has to be activated and all the sensors are to be electrically connected one to another with pin 5.



Synchronisation via pin 5

### IO-Link integrated

in version 1.1. The lpc+ ultrasonic sensors are equipped with Smart Sensor Profile, which creates more transparency between IO-Link devices.

lpc<sup>+</sup>15

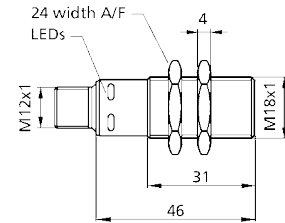
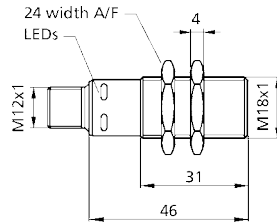
lpc<sup>+</sup>25



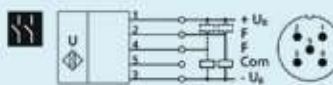
measuring range

20–250 mm

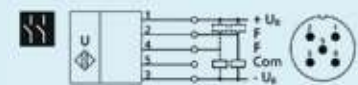
30–350 mm



blind zone	20 mm	30 mm
operating range	150 mm	250 mm
maximum range	250 mm	350 mm
angle of beam spread	please see <a href="#">i</a>	please see <a href="#">i</a>
transducer frequency	380 kHz	320 kHz
resolution/sampling rate	0.1 mm	0.1 mm
reproducibility	± 0.15 %	± 0.15 %
accuracy	± 1 % (temperature drift internally compensated)	± 1 % (temperature drift internally compensated)
operating voltage $U_B$	10 to 30 V DC, reverse polarity protection	10 to 30 V DC, reverse polarity protection
no-load current consumption	≤ 60 mA	≤ 60 mA
housing	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content
type of connection	5-pin M12 initiator plug	5-pin M12 initiator plug
controls	com input (pin 5)	com input (pin 5)
scope for settings	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>
indicators	LED green: working, LED yellow: switch status	LED green: working, LED yellow: switch status
IO-Link	V 1.1	V 1.1
IO-Link SIO mode support	yes	yes
IO-Link min. cycle time	8 ms	8 ms
Smart Sensor Profile	yes	yes
operating temperature	-25°C to +70°C	-25°C to +70°C
storage temperature	-40°C to +85°C	-40°C to +85°C
weight	35 g	35 g
switching hysteresis <sup>1)</sup>	2 mm	3 mm
switching frequency <sup>1)</sup>	25 Hz	25 Hz
response time	32 ms	32 ms
delay prior to availability	< 300 ms	< 300 ms
<b>order number</b>	<b>lpc+15/CFF</b>	<b>lpc+25/CFF</b>
switching output	2 x Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 2 \times 100$ mA	2 x Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 2 \times 100$ mA



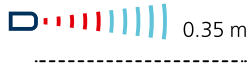
2 Push-Pull switching outputs



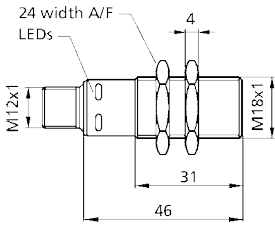
2 Push-Pull switching outputs

<sup>1)</sup> Can be programmed with LinkControl and IO-Link.

# lpc+35



65–600 mm



- 65 mm
- 350 mm
- 600 mm
- please see ⓘ
- 400 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input (pin 5)
  - Teach-in via com input on pin 5
- LCA-2 with LinkControl
- IO-Link
- LED green: working, LED yellow: switch status

V 1.1

yes

16 ms

yes

-25°C to +70°C

-40°C to +85°C

35 g

5 mm

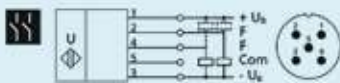
12 Hz

64 ms

< 300 ms

## lpc+35/CFF

2 x Push-Pull,  $U_B-1 V$ ,  $-U_B+1 V$ ,  $I_{max} = 2 \times 100 mA$

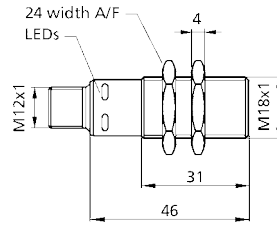


2 Push-Pull switching outputs

# lpc+100



120–1,300 mm



- 120 mm
- 1,000 mm
- 1,300 mm
- please see ⓘ
- 200 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input (pin 5)
  - Teach-in via com input on pin 5
- LCA-2 with LinkControl
- IO-Link
- LED green: working, LED yellow: switch status

V 1.1

yes

20 ms

yes

-25°C to +70°C

-40°C to +85°C

35 g

20 mm

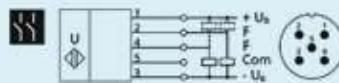
10 Hz

80 ms

< 300 ms

## lpc+100/CFF

2 x Push-Pull,  $U_B-1 V$ ,  $-U_B+1 V$ ,  $I_{max} = 2 \times 100 mA$



2 Push-Pull switching outputs

# lpc+15

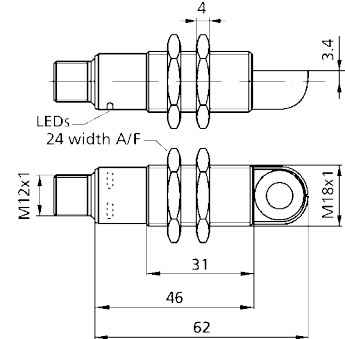
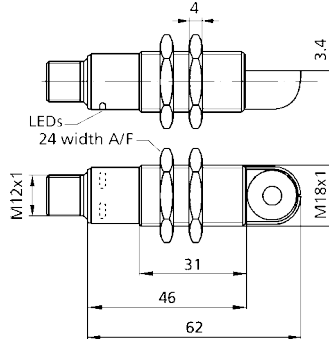
# lpc+25



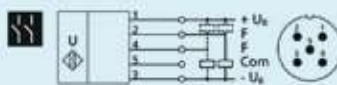
measuring range

20–250 mm

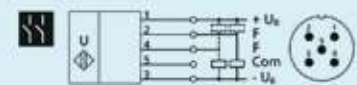
30–350 mm



blind zone	20 mm	30 mm
operating range	150 mm	250 mm
maximum range	250 mm	350 mm
angle of beam spread	please see <a href="#">i</a>	please see <a href="#">i</a>
transducer frequency	380 kHz	320 kHz
resolution/sampling rate	0.1 mm	0.1 mm
reproducibility	± 0.15 %	± 0.15 %
accuracy	± 1 % (temperature drift internally compensated)	± 1 % (temperature drift internally compensated)
operating voltage $U_B$	10 to 30 V DC, reverse polarity protection	10 to 30 V DC, reverse polarity protection
no-load current consumption	≤ 60 mA	≤ 60 mA
housing	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content
type of connection	5-pin M12 initiator plug	5-pin M12 initiator plug
controls	com input (pin 5)	com input (pin 5)
scope for settings	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>
indicators	LED green: working, LED yellow: switch status	LED green: working, LED yellow: switch status
IO-Link	V 1.1	V 1.1
IO-Link SIO mode support	yes	yes
IO-Link min. cycle time	8 ms	8 ms
Smart Sensor Profile	yes	yes
operating temperature	-25°C to +70°C	-25°C to +70°C
storage temperature	-40°C to +85°C	-40°C to +85°C
weight	40 g	40 g
switching hysteresis <sup>1)</sup>	2 mm	3 mm
switching frequency <sup>1)</sup>	25 Hz	25 Hz
response time	32 ms	32 ms
delay prior to availability	< 300 ms	< 300 ms
<b>order number</b>	<b>lpc+15/WK/CFF</b>	<b>lpc+25/WK/CFF</b>
switching output	2 x Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 2 \times 100$ mA	2 x Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 2 \times 100$ mA



2 Push-Pull switching outputs



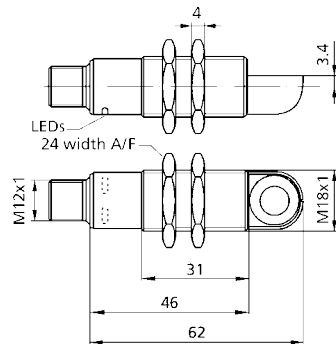
2 Push-Pull switching outputs

<sup>1)</sup> Can be programmed with LinkControl and IO-Link.

# lpc<sup>+</sup>35



65–600 mm



- 65 mm
- 350 mm
- 600 mm
- please see ⓘ
- 400 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input (pin 5)
  - Teach-in via com input on pin 5
- LCA-2 with LinkControl
- IO-Link
- LED green: working, LED yellow: switch status

V 1.1

- yes
- 16 ms
- yes

-25°C to +70°C  
-40°C to +85°C

40 g

5 mm

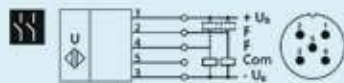
12 Hz

64 ms

< 300 ms

## lpc+35/WK/CFE

2 x Push-Pull,  $U_B-1 V$ ,  $-U_B+1 V$ ,  $I_{max} = 2 \times 100 mA$

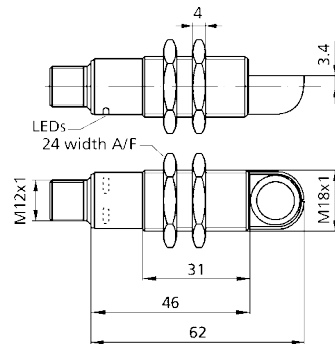


2 Push-Pull switching outputs

# lpc<sup>+</sup>100



120–1,300 mm



- 120 mm
- 1,000 mm
- 1,300 mm
- please see ⓘ
- 200 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input (pin 5)
  - Teach-in via com input on pin 5
- LCA-2 with LinkControl
- IO-Link
- LED green: working, LED yellow: switch status

V 1.1

- yes
- 20 ms
- yes

-25°C to +70°C  
-40°C to +85°C

40 g

20 mm

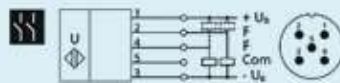
10 Hz

80 ms

< 300 ms

## lpc+100/WK/CFE

2 x Push-Pull,  $U_B-1 V$ ,  $-U_B+1 V$ ,  $I_{max} = 2 \times 100 mA$



2 Push-Pull switching outputs

lpc<sup>+</sup>15

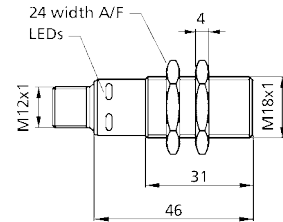
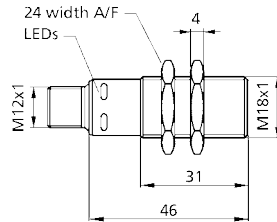
lpc<sup>+</sup>25



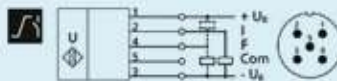
measuring range

20–250 mm

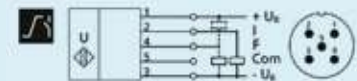
30–350 mm



blind zone	20 mm	30 mm
operating range	150 mm	250 mm
maximum range	250 mm	350 mm
angle of beam spread	please see (i)	please see (i)
transducer frequency	380 kHz	320 kHz
resolution/sampling rate	0.1 mm	0.1 mm
reproducibility	± 0.15 %	± 0.15 %
accuracy	± 1 % (temperature drift internally compensated)	± 1 % (temperature drift internally compensated)
operating voltage $U_B$	10 to 30 V DC, reverse polarity protection	10 to 30 V DC, reverse polarity protection
no-load current consumption	≤ 60 mA	≤ 60 mA
housing	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content
type of connection	5-pin M12 initiator plug	5-pin M12 initiator plug
controls	com input	com input
scope for settings	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>
indicators	LED green: working, LED yellow: switch status	LED green: working, LED yellow: switch status
IO-Link	V 1.1	V 1.1
IO-Link SIO mode support	yes	yes
IO-Link min. cycle time	8 ms	8 ms
Smart Sensor Profile	yes	yes
operating temperature	-25°C to +70°C	-25°C to +70°C
storage temperature	-40°C to +85°C	-40°C to +85°C
weight	35 g	35 g
switching hysteresis <sup>1)</sup>	2 mm	3 mm
switching frequency <sup>1)</sup>	25 Hz	25 Hz
response time	32 ms	32 ms
delay prior to availability	< 300 ms	< 300 ms
<b>order number</b>	<b>lpc+15/CFI</b>	<b>lpc+25/CFI</b>
switching output	Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 100$ mA	Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 100$ mA
analogue output	current output 4–20 mA, switchable rising/falling	current output 4–20 mA, switchable rising/falling



1 Push-Pull switching output + analogue output 4–20 mA



1 Push-Pull switching output + analogue output 4–20 mA

<b>order number</b>	<b>lpc+15/CFU</b>	<b>lpc+25/CFU</b>
switching output	Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 100$ mA	Push-Pull, $U_B-1$ V, $-U_B+1$ V, $I_{max} = 100$ mA
analogue output	voltage output 0–10 V (at $U_B \geq 15$ V) short-circuit-proof, switchable rising/falling	voltage output 0–10 V (at $U_B \geq 15$ V) short-circuit-proof, switchable rising/falling



1 Push-Pull switching output + analogue output 0–10 V



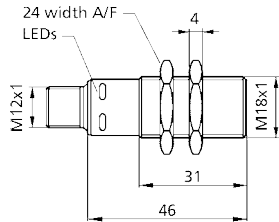
1 Push-Pull switching output + analogue output 0–10 V

<sup>1)</sup> Can be programmed with LinkControl and IO-Link.

# lpc+35



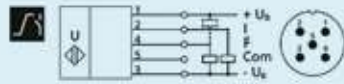
65–600 mm



- 65 mm
- 350 mm
- 600 mm
- please see ⓘ
- 400 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input
  - Teach-in via com input on pin 5
  - LCA-2 with LinkControl
  - IO-Link
- LED green: working, LED yellow: switch status
- V 1.1
- yes
- 16 ms
- yes
- 25°C to +70°C
- 40°C to +85°C
- 35 g
- 5 mm
- 12 Hz
- 64 ms
- < 300 ms

## lpc+35/CFI

Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
current output 4–20 mA, switchable rising/falling



1 Push-Pull switching output + analogue output 4–20 mA

## lpc+35/CFU

Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
voltage output 0–10 V (at  $U_B \geq 15$  V)  
short-circuit-proof, switchable rising/falling

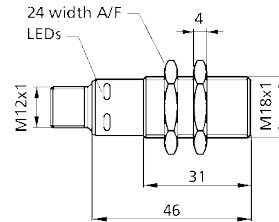


1 Push-Pull switching output + analogue output 0–10 V

# lpc+100



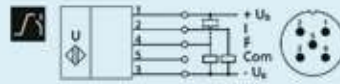
120–1,300 mm



- 120 mm
- 1,000 mm
- 1,300 mm
- please see ⓘ
- 200 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input
  - Teach-in via com input on pin 5
  - LCA-2 with LinkControl
  - IO-Link
- LED green: working, LED yellow: switch status
- V 1.1
- yes
- 20 ms
- yes
- 25°C to +70°C
- 40°C to +85°C
- 35 g
- 20 mm
- 10 Hz
- 80 ms
- < 300 ms

## lpc+100/CFI

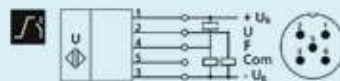
Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
current output 4–20 mA, switchable rising/falling



1 Push-Pull switching output + analogue output 4–20 mA

## lpc+100/CFU

Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
voltage output 0–10 V (at  $U_B \geq 15$  V)  
short-circuit-proof, switchable rising/falling



1 Push-Pull switching output + analogue output 0–10 V



lpc<sup>+</sup>15

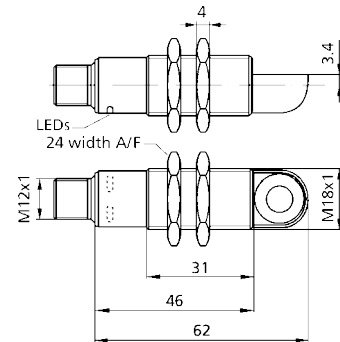
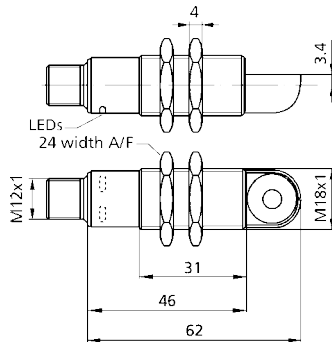
lpc<sup>+</sup>25



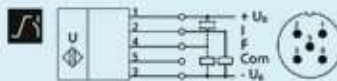
measuring range

20–250 mm

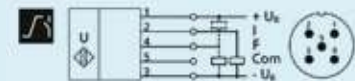
30–350 mm



blind zone	20 mm	30 mm
operating range	150 mm	250 mm
maximum range	250 mm	350 mm
angle of beam spread	please see (i)	please see (i)
transducer frequency	380 kHz	320 kHz
resolution/sampling rate	0.1 mm	0.1 mm
reproducibility	± 0.15 %	± 0.15 %
accuracy	± 1 % (temperature drift internally compensated)	± 1 % (temperature drift internally compensated)
operating voltage $U_B$	10 to 30 V DC, reverse polarity protection	10 to 30 V DC, reverse polarity protection
no-load current consumption	≤ 60 mA	≤ 60 mA
housing	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content	brass sleeve, nickel-plated: PBT, PA; ultrasonic transducer: polyurethane foam, epoxy resin with glass content
type of connection	5-pin M12 initiator plug	5-pin M12 initiator plug
controls	com input	com input
scope for settings	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>	<ul style="list-style-type: none"> <li>Teach-in via com input on pin 5</li> <li>LCA-2 with LinkControl</li> <li>IO-Link</li> </ul>
indicators	LED green: working, LED yellow: switch status	LED green: working, LED yellow: switch status
IO-Link	V 1.1	V 1.1
IO-Link SIO mode support	yes	yes
IO-Link min. cycle time	8 ms	8 ms
Smart Sensor Profile	yes	yes
operating temperature	-25°C to +70°C	-25°C to +70°C
storage temperature	-40°C to +85°C	-40°C to +85°C
weight	40 g	40 g
switching hysteresis <sup>1)</sup>	2 mm	3 mm
switching frequency <sup>1)</sup>	25 Hz	25 Hz
response time	32 ms	32 ms
delay prior to availability	< 300 ms	< 300 ms
<b>order number</b>	<b>lpc+15/WK/CFI</b>	<b>lpc+25/WK/CFI</b>
switching output	Push-Pull, $U_B$ -1 V, $-U_B$ +1 V, $I_{max}$ = 100 mA	Push-Pull, $U_B$ -1 V, $-U_B$ +1 V, $I_{max}$ = 100 mA
analogue output	current output 4–20 mA, switchable rising/falling	current output 4–20 mA, switchable rising/falling



1 Push-Pull switching output + analogue output 4–20 mA



1 Push-Pull switching output + analogue output 4–20 mA

<b>order number</b>	<b>lpc+15/WK/CFI</b>	<b>lpc+25/WK/CFI</b>
switching output	Push-Pull, $U_B$ -1 V, $-U_B$ +1 V, $I_{max}$ = 100 mA	Push-Pull, $U_B$ -1 V, $-U_B$ +1 V, $I_{max}$ = 100 mA
analogue output	voltage output 0–10 V (at $U_B$ ≥ 15 V) short-circuit-proof, switchable rising/falling	voltage output 0–10 V (at $U_B$ ≥ 15 V) short-circuit-proof, switchable rising/falling



1 Push-Pull switching output + analogue output 0–10 V



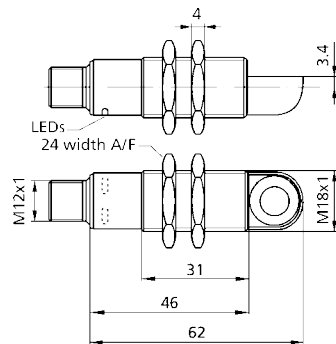
1 Push-Pull switching output + analogue output 0–10 V

<sup>1)</sup> Can be programmed with LinkControl and IO-Link.

# lpc+35



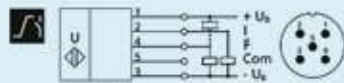
65–600 mm



- 65 mm
- 350 mm
- 600 mm
- please see ⓘ
- 400 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input
  - Teach-in via com input on pin 5
  - LCA-2 with LinkControl
  - IO-Link
- LED green: working, LED yellow: switch status
- V 1.1
- yes
- 16 ms
- yes
- 25°C to +70°C
- 40°C to +85°C
- 40 g
- 5 mm
- 12 Hz
- 64 ms
- < 300 ms

## lpc+35/WK/CFI

Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
current output 4–20 mA, switchable rising/falling



1 Push-Pull switching output + analogue output 4–20 mA

## lpc+35/WK/CFI

Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
voltage output 0–10 V (at  $U_B \geq 15$  V)  
short-circuit-proof, switchable rising/falling

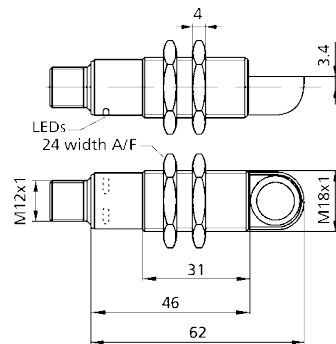


1 Push-Pull switching output + analogue output 0–10 V

# lpc+100



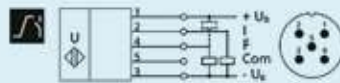
120–1,300 mm



- 120 mm
- 1,000 mm
- 1,300 mm
- please see ⓘ
- 200 kHz
- 0.1 mm
- ± 0.15 %
- ± 1 % (temperature drift internally compensated)
- 10 to 30 V DC, reverse polarity protection
- ≤ 60 mA
- brass sleeve, nickel-plated: PBT, PA;
- ultrasonic transducer: polyurethane foam,
- epoxy resin with glass content
- 5-pin M12 initiator plug
- com input
  - Teach-in via com input on pin 5
  - LCA-2 with LinkControl
  - IO-Link
- LED green: working, LED yellow: switch status
- V 1.1
- yes
- 20 ms
- yes
- 25°C to +70°C
- 40°C to +85°C
- 40 g
- 20 mm
- 10 Hz
- 80 ms
- < 300 ms

## lpc+100/WK/CFI

Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
current output 4–20 mA, switchable rising/falling



1 Push-Pull switching output + analogue output 4–20 mA

## lpc+100/WK/CFI

Push-Pull,  $U_B$ -1 V,  $-U_B$ +1 V,  $I_{max} = 100$  mA  
voltage output 0–10 V (at  $U_B \geq 15$  V)  
short-circuit-proof, switchable rising/falling



1 Push-Pull switching output + analogue output 0–10 V