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Inductive Sensors

2011

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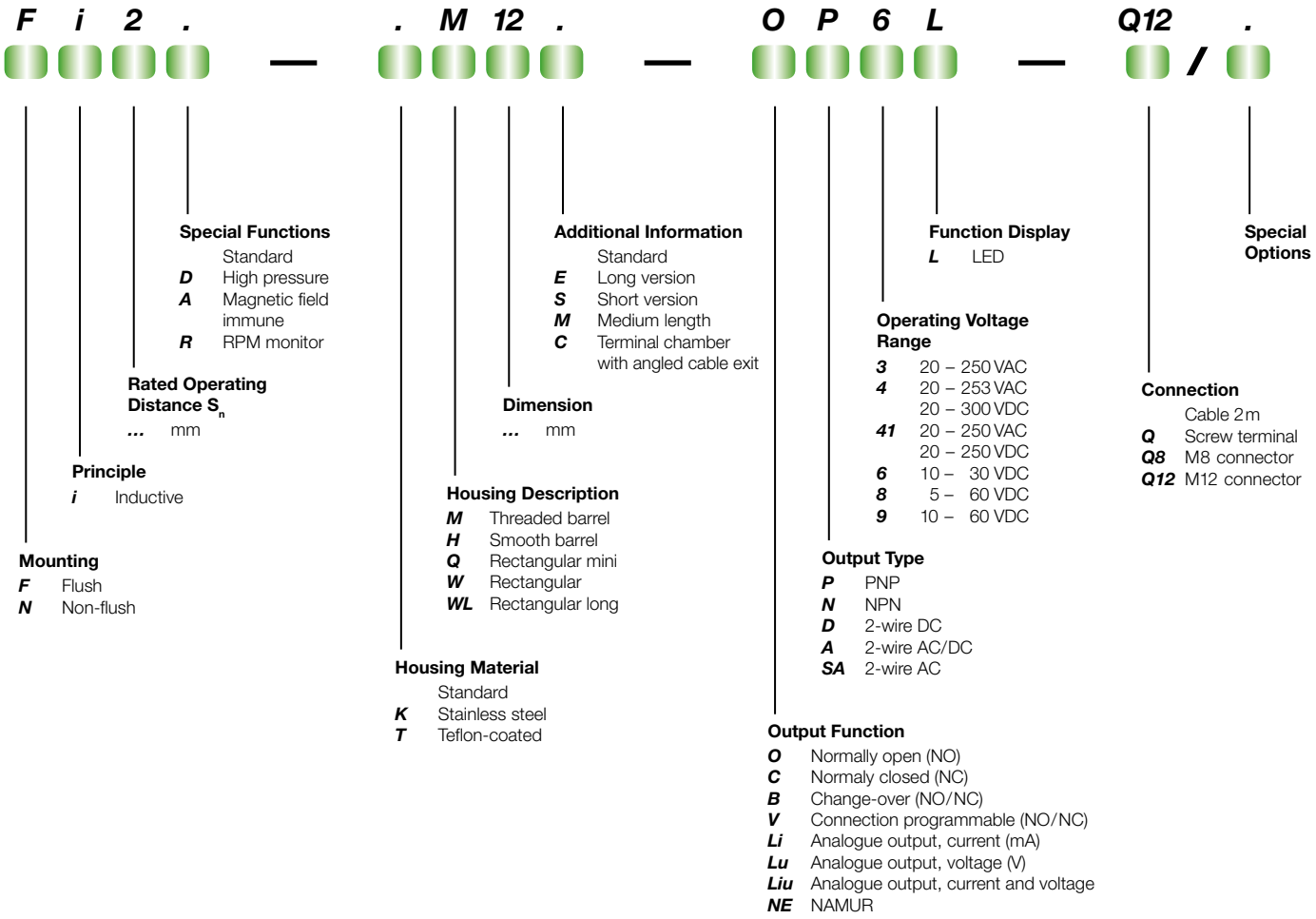
Type Code

Attention:
Only valid for the decoding of sensors who are specified in this catalog.



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This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-H4

General Data

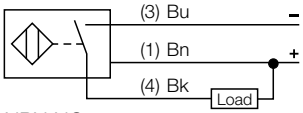
- Stainless steel housing
- Smooth barrel ø 4mm
- DC 3-wire
- High switching frequency
- Function display LED
- Degree of protection IP67

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1-KH04-OP6L	1mm	flush	NO	PNP	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	H4_11
Fi1-KH04-ON6L	1mm	flush	NO	NPN	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	H4_11
Fi1-KH04-CP6L	1mm	flush	NC	PNP	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	H4_11
Fi1-KH04-CN6L	1mm	flush	NC	NPN	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	H4_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8



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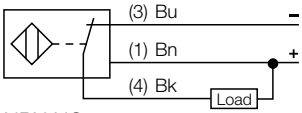

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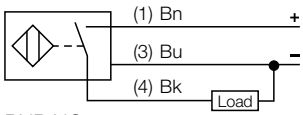

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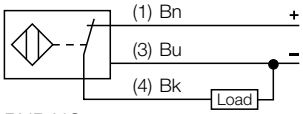
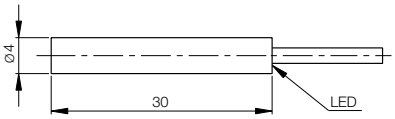


PNP NC

Mechanical Drawing

Drawing H4_11



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M5

General Data

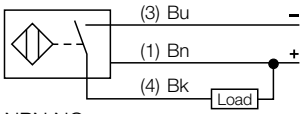
- Stainless steel housing
- Threaded barrel M5x0,5
- DC 3-wire
- Function display LED
- Degree of protection IP67
- High switching frequency

Technical Data

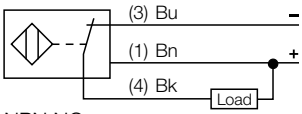
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1-KM05-OP6L	1mm	flush	NO	PNP	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	M5_11
Fi1-KM05-ON6L	1mm	flush	NO	NPN	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	M5_11
Fi1-KM05-CP6L	1mm	flush	NC	PNP	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	M5_11
Fi1-KM05-CN6L	1mm	flush	NC	NPN	10…30VDC	≤100mA	2500Hz	-25…70°C	2m cable	M5_11
Fi1-KM05-OP6L-Q8	1mm	flush	NO	PNP	10…30VDC	≤100mA	2500Hz	-25…70°C	Connector M8	M5_21
Fi1-KM05-ON6L-Q8	1mm	flush	NO	NPN	10…30VDC	≤100mA	2500Hz	-25…70°C	Connector M8	M5_21
Fi1-KM05-CP6L-Q8	1mm	flush	NC	PNP	10…30VDC	≤100mA	2500Hz	-25…70°C	Connector M8	M5_21
Fi1-KM05-CN6L-Q8	1mm	flush	NC	NPN	10…30VDC	≤100mA	2500Hz	-25…70°C	Connector M8	M5_21

Connection Diagram

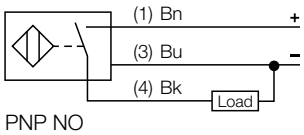
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8



NPN NO



NPN NC



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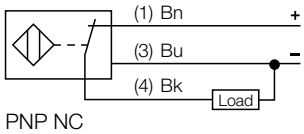
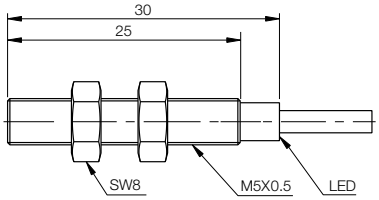


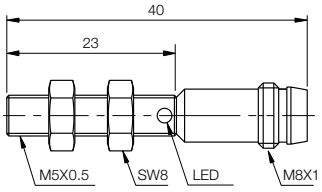
PNP NC

Mechanical Drawing

Drawing M5_11



Drawing M5_21



Approvals Certificates

CE

Metal Barrel-H6.5 Short Version

General Data

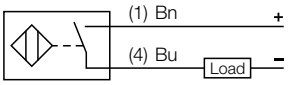
- Stainless steel housing
- Smooth barrel ø 6,5mm
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting

Technical Data

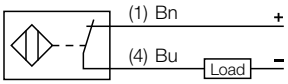
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1.5-KH6.5S-OD6L	1,5mm	flush	NO	DC	10…30VDC	≤100mA	1000Hz	-25…70°C	2m cable	H6.5_11
Fi1.5-KH6.5S-CD6L	1,5mm	flush	NC	DC	10…30VDC	≤100mA	1000Hz	-25…70°C	2m cable	H6.5_11
Ni2-KH6.5S-OD6L	2mm	non flush	NO	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	H6.5_21
Ni2-KH6.5S-CD6L	2mm	non flush	NC	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	H6.5_21
Fi1.5-KH6.5S-OD6L-Q8	1,5mm	flush	NO	DC	10…30VDC	≤100mA	1000Hz	-25…70°C	Connector M8	H6.5_31
Fi1.5-KH6.5S-CD6L-Q8	1,5mm	flush	NC	DC	10…30VDC	≤100mA	1000Hz	-25…70°C	Connector M8	H6.5_31
Ni2-KH6.5S-OD6L-Q8	2mm	non flush	NO	DC	10…30VDC	≤100mA	800Hz	-25…70°C	Connector M8	H6.5_41
Ni2-KH6.5S-CD6L-Q8	2mm	non flush	NC	DC	10…30VDC	≤100mA	800Hz	-25…70°C	Connector M8	H6.5_41

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8



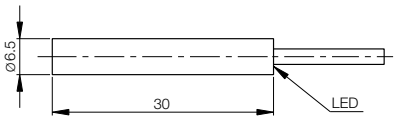
DC-2 wire NO



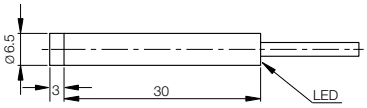
DC-2 wire NC

Mechanical Drawing

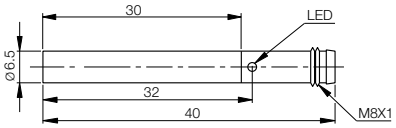
Drawing H6.5_11



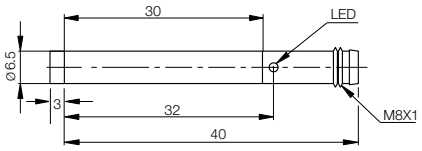
Drawing H6.5_21



Drawing H6.5_31



Drawing H6.5_41



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-H6.5 Short Version

General Data

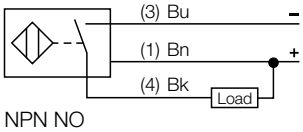
- Stainless steel housing
- Smooth barrel ø 6,5mm
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- High switching frequency

Technical Data

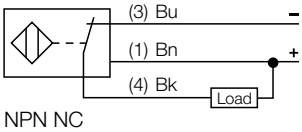
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1.5-KH6.5S-OP6L	1,5mm	flush	NO	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_11
Fi1.5-KH6.5S-ON6L	1,5mm	flush	NO	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_11
Fi1.5-KH6.5S-CP6L	1,5mm	flush	NC	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_11
Fi1.5-KH6.5S-CN6L	1,5mm	flush	NC	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_11
Ni2-KH6.5S-OP6L	2mm	non flush	NO	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_21
Ni2-KH6.5S-ON6L	2mm	non flush	NO	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_21
Ni2-KH6.5S-CP6L	2mm	non flush	NC	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_21
Ni2-KH6.5S-CN6L	2mm	non flush	NC	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_21
Fi1.5-KH6.5S-OP6L-Q8	1,5mm	flush	NO	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_31
Fi1.5-KH6.5S-ON6L-Q8	1,5mm	flush	NO	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_31
Fi1.5-KH6.5S-CP6L-Q8	1,5mm	flush	NC	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_31
Fi1.5-KH6.5S-CN6L-Q8	1,5mm	flush	NC	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_31
Ni2-KH6.5S-OP6L-Q8	2mm	non flush	NO	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_41
Ni2-KH6.5S-ON6L-Q8	2mm	non flush	NO	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_41
Ni2-KH6.5S-CP6L-Q8	2mm	non flush	NC	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_41
Ni2-KH6.5S-CN6L-Q8	2mm	non flush	NC	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_41

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8



NPN NO



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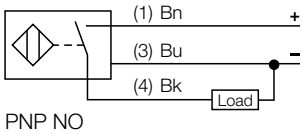

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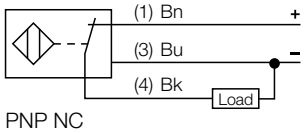
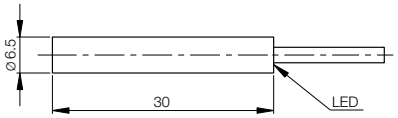


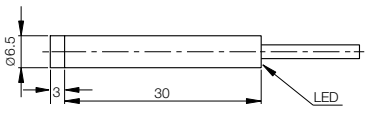
PNP NC

Mechanical Drawing

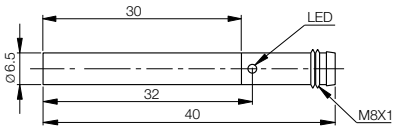
Drawing H6.5_11



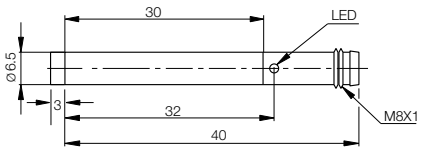
Drawing H6.5_21



Drawing H6.5_31



Drawing H6.5_41



Approvals Certificates

CE

Metal Barrel-H6.5

General Data

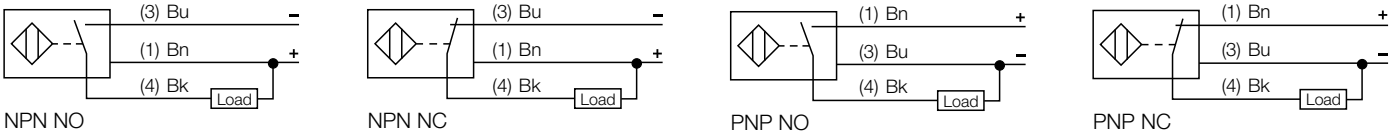
- Stainless steel housing
- Smooth barrel ø 6,5mm
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- High switching frequency

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1.5-KH6.5-OP6L	1,5mm	flush	NO	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_12
Fi1.5-KH6.5-ON6L	1,5mm	flush	NO	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_12
Fi1.5-KH6.5-CP6L	1,5mm	flush	NC	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_12
Fi1.5-KH6.5-CN6L	1,5mm	flush	NC	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	H6.5_12
Ni2-KH6.5-OP6L	2mm	non flush	NO	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_22
Ni2-KH6.5-ON6L	2mm	non flush	NO	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_22
Ni2-KH6.5-CP6L	2mm	non flush	NC	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_22
Ni2-KH6.5-CN6L	2mm	non flush	NC	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	H6.5_22
Fi1.5-KH6.5-OP6L-Q8	1,5mm	flush	NO	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_32
Fi1.5-KH6.5-ON6L-Q8	1,5mm	flush	NO	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_32
Fi1.5-KH6.5-CP6L-Q8	1,5mm	flush	NC	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_32
Fi1.5-KH6.5-CN6L-Q8	1,5mm	flush	NC	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	H6.5_32
Ni2-KH6.5-OP6L-Q8	2mm	non flush	NO	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_42
Ni2-KH6.5-ON6L-Q8	2mm	non flush	NO	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_42
Ni2-KH6.5-CP6L-Q8	2mm	non flush	NC	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_42
Ni2-KH6.5-CN6L-Q8	2mm	non flush	NC	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	H6.5_42

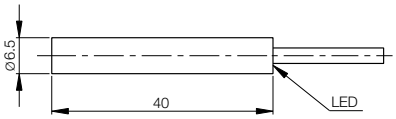
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8

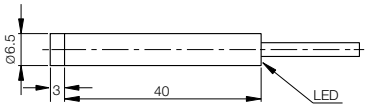


Mechanical Drawing

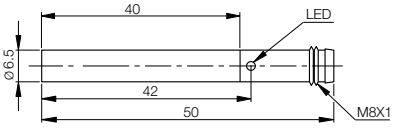
Drawing H6.5_12



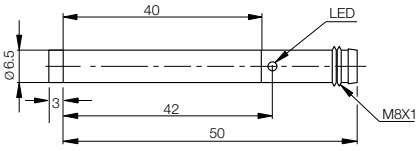
Drawing H6.5_22



Drawing H6.5_32



Drawing H6.5_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-H6.5 Long Version

General Data

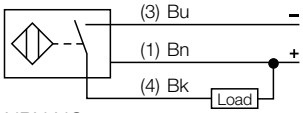
- Stainless steel housing
- Smooth barrel ø 6,5 mm
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- High switching frequency

Technical Data

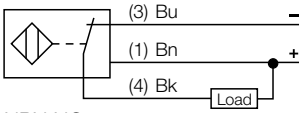
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1.5-KH6.5E-OP6L	1,5 mm	flush	NO	PNP	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	2 m cable	H6.5_13
Fi1.5-KH6.5E-ON6L	1,5 mm	flush	NO	NPN	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	2 m cable	H6.5_13
Fi1.5-KH6.5E-CP6L	1,5 mm	flush	NC	PNP	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	2 m cable	H6.5_13
Fi1.5-KH6.5E-CN6L	1,5 mm	flush	NC	NPN	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	2 m cable	H6.5_13
Ni2-KH6.5E-OP6L	2 mm	non flush	NO	PNP	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	2 m cable	H6.5_23
Ni2-KH6.5E-ON6L	2 mm	non flush	NO	NPN	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	2 m cable	H6.5_23
Ni2-KH6.5E-CP6L	2 mm	non flush	NC	PNP	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	2 m cable	H6.5_23
Ni2-KH6.5E-CN6L	2 mm	non flush	NC	NPN	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	2 m cable	H6.5_23
Fi1.5-KH6.5E-OP6L-Q8	1,5 mm	flush	NO	PNP	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	Connector M8	H6.5_33
Fi1.5-KH6.5E-ON6L-Q8	1,5 mm	flush	NO	NPN	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	Connector M8	H6.5_33
Fi1.5-KH6.5E-CP6L-Q8	1,5 mm	flush	NC	PNP	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	Connector M8	H6.5_33
Fi1.5-KH6.5E-CN6L-Q8	1,5 mm	flush	NC	NPN	10…30 VDC	≤150 mA	2000 Hz	-25…70 °C	Connector M8	H6.5_33
Ni2-KH6.5E-OP6L-Q8	2 mm	non flush	NO	PNP	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	Connector M8	H6.5_43
Ni2-KH6.5E-ON6L-Q8	2 mm	non flush	NO	NPN	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	Connector M8	H6.5_43
Ni2-KH6.5E-CP6L-Q8	2 mm	non flush	NC	PNP	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	Connector M8	H6.5_43
Ni2-KH6.5E-CN6L-Q8	2 mm	non flush	NC	NPN	10…30 VDC	≤150 mA	1500 Hz	-25…70 °C	Connector M8	H6.5_43

Connection Diagram

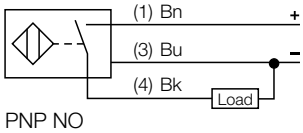
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8



NPN NO



NPN NC



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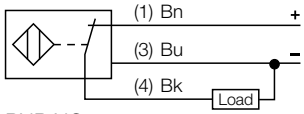
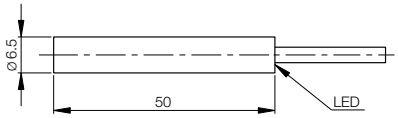


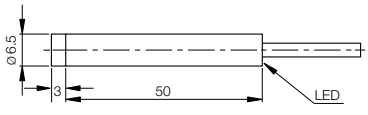
PNP NC

Mechanical Drawing

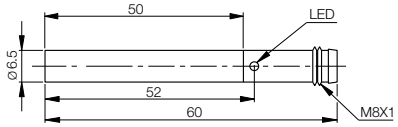
Drawing H6.5_13



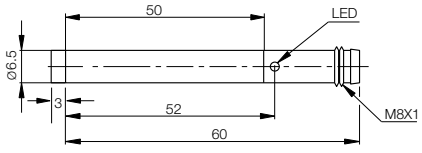
Drawing H6.5_23



Drawing H6.5_33



Drawing H6.5_43



Approvals Certificates

CE

Metal Barrel-M8

General Data

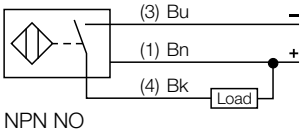
- Stainless steel housing
- Threaded barrel M8x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- High switching frequency

Technical Data

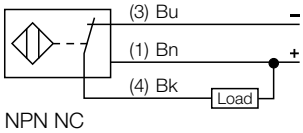
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-KM08-OP6L	2mm	flush	NO	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	M8_11
Fi2-KM08-ON6L	2mm	flush	NO	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	M8_11
Fi2-KM08-CP6L	2mm	flush	NC	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	M8_11
Fi2-KM08-CN6L	2mm	flush	NC	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	2m cable	M8_11
Ni3-KM08-OP6L	3mm	non flush	NO	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	M8_21
Ni3-KM08-ON6L	3mm	non flush	NO	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	M8_21
Ni3-KM08-CP6L	3mm	non flush	NC	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	M8_21
Ni3-KM08-CN6L	3mm	non flush	NC	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	2m cable	M8_21
Fi2-KM08-OP6L-Q8	2mm	flush	NO	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	M8_31
Fi2-KM08-ON6L-Q8	2mm	flush	NO	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	M8_31
Fi2-KM08-CP6L-Q8	2mm	flush	NC	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	M8_31
Fi2-KM08-CN6L-Q8	2mm	flush	NC	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	Connector M8	M8_31
Ni3-KM08-OP6L-Q8	3mm	non flush	NO	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	M8_41
Ni3-KM08-ON6L-Q8	3mm	non flush	NO	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	M8_41
Ni3-KM08-CP6L-Q8	3mm	non flush	NC	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	M8_41
Ni3-KM08-CN6L-Q8	3mm	non flush	NC	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	Connector M8	M8_41

Connection Diagram

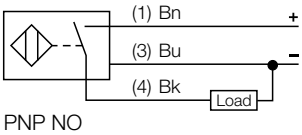
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8



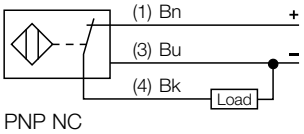
NPN NO



NPN NC



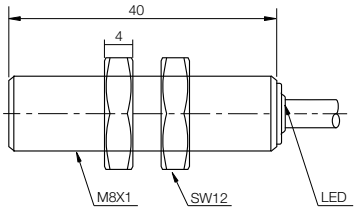
PNP NO



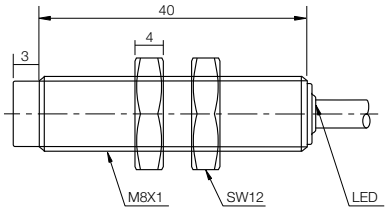
PNP NC

Mechanical Drawing

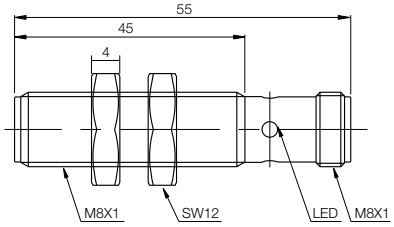
Drawing M8_11



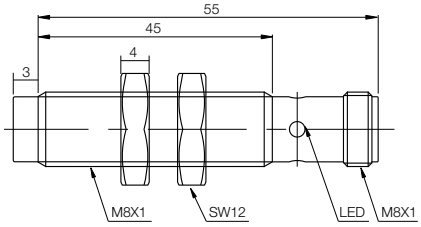
Drawing M8_21



Drawing M8_31



Drawing M8_41



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M8 With M12 Connector

General Data

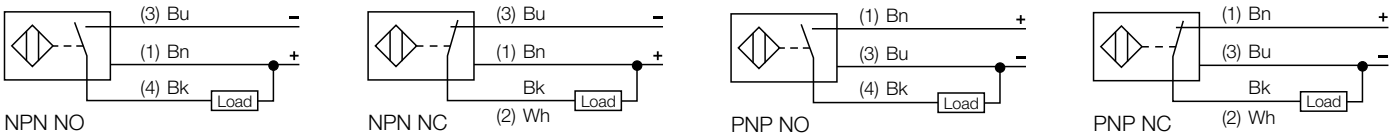
- Stainless steel housing
- Threaded barrel M8x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- High switching frequency

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-KM08-OP6L-Q12	2mm	flush	NO	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	M12 connector	M8_32
Fi2-KM08-ON6L-Q12	2mm	flush	NO	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	M12 connector	M8_32
Fi2-KM08-CP6L-Q12	2mm	flush	NC	PNP	10…30VDC	≤150mA	2000Hz	-25…70°C	M12 connector	M8_32
Fi2-KM08-CN6L-Q12	2mm	flush	NC	NPN	10…30VDC	≤150mA	2000Hz	-25…70°C	M12 connector	M8_32
Ni3-KM08-OP6L-Q12	3mm	non flush	NO	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	M12 connector	M8_42
Ni3-KM08-ON6L-Q12	3mm	non flush	NO	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	M12 connector	M8_42
Ni3-KM08-CP6L-Q12	3mm	non flush	NC	PNP	10…30VDC	≤150mA	1500Hz	-25…70°C	M12 connector	M8_42
Ni3-KM08-CN6L-Q12	3mm	non flush	NC	NPN	10…30VDC	≤150mA	1500Hz	-25…70°C	M12 connector	M8_42

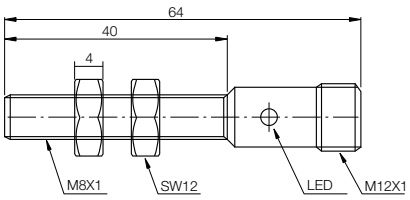
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

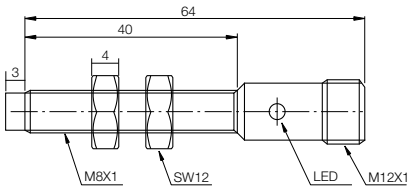


Mechanical Drawing

Drawing M8_32



Drawing M8_42



Approvals Certificates

CE

Metal Barrel-M12

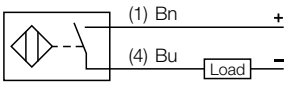
General Data
- Metal housing
- Threaded barrel M12x1
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

Technical Data

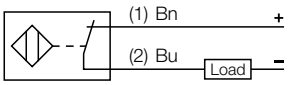
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-M12-OD6L	2mm	flush	NO	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	M12_11
Fi2-M12-CD6L	2mm	flush	NC	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	M12_11
Ni4-M12-OD6L	4mm	non flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M12_21
Ni4-M12-CD6L	4mm	non flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M12_21
Fi2-M12-OD6L-Q12	2mm	flush	NO	DC	10…30VDC	≤100mA	800Hz	-25…70°C	M12 connector	M12_31
Fi2-M12-CD6L-Q12	2mm	flush	NC	DC	10…30VDC	≤100mA	800Hz	-25…70°C	M12 connector	M12_31
Ni4-M12-OD6L-Q12	4mm	non flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M12_41
Ni4-M12-CD6L-Q12	4mm	non flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M12_41

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



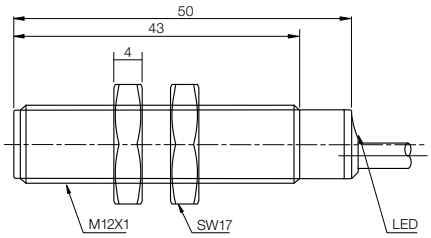
DC-2 wire NO



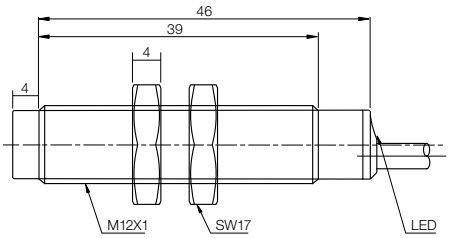
DC-2 wire NC

Mechanical Drawing

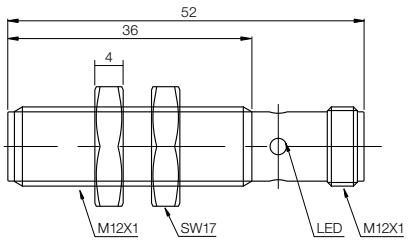
Drawing M12_11



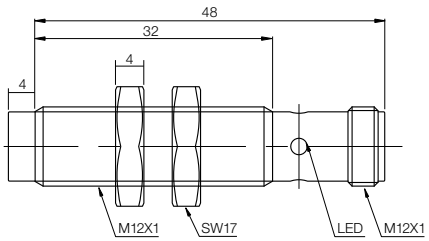
Drawing M12_21



Drawing M12_31



Drawing M12_41



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M12

General Data

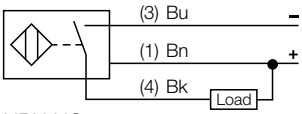
- Metal housing
- Threaded barrel M12x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

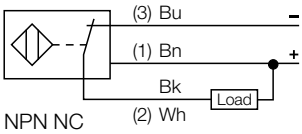
Technical Data

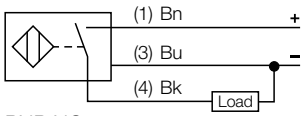
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-M12-OP6L	2mm	flush	NO	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_11
Fi2-M12-ON6L	2mm	flush	NO	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_11
Fi2-M12-CP6L	2mm	flush	NC	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_11
Fi2-M12-CN6L	2mm	flush	NC	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_11
Ni4-M12-OP6L	4mm	non flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_21
Ni4-M12-ON6L	4mm	non flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_21
Ni4-M12-CP6L	4mm	non flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_21
Ni4-M12-CN6L	4mm	non flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_21
Fi2-M12-OP6L-Q12	2mm	flush	NO	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_31
Fi2-M12-ON6L-Q12	2mm	flush	NO	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_31
Fi2-M12-CP6L-Q12	2mm	flush	NC	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_31
Fi2-M12-CN6L-Q12	2mm	flush	NC	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_31
Ni4-M12-OP6L-Q12	4mm	non flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_41
Ni4-M12-ON6L-Q12	4mm	non flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_41
Ni4-M12-CP6L-Q12	4mm	non flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_41
Ni4-M12-CN6L-Q12	4mm	non flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_41

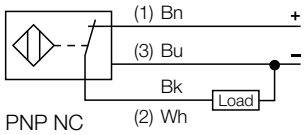
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



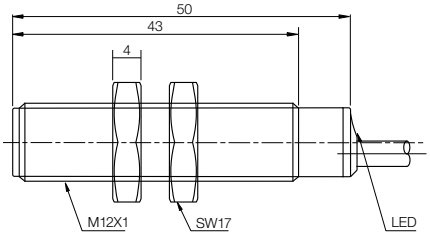




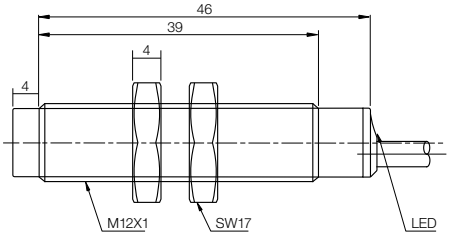


Mechanical Drawing

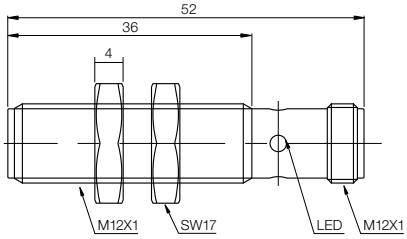
Drawing M12_11



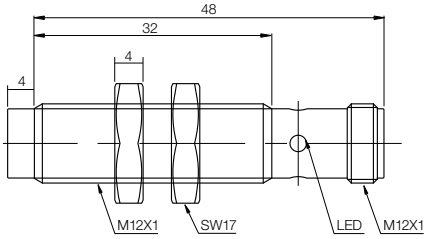
Drawing M12_21



Drawing M12_31



Drawing M12_41



Approvals Certificates

CE

Metal Barrel-M12 Long Version

General Data

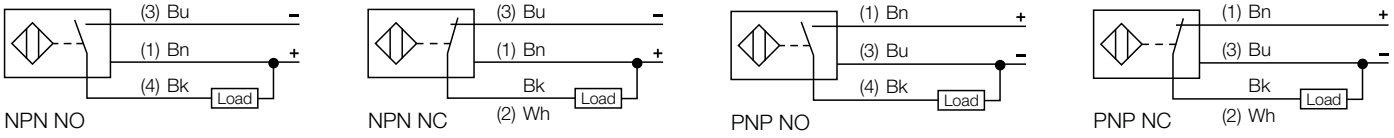
- Metal housing
- Threaded barrel M12x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- High switching frequency

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-M12E-OP6L	2mm	flush	NO	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_12
Fi2-M12E-ON6L	2mm	flush	NO	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_12
Fi2-M12E-CP6L	2mm	flush	NC	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_12
Fi2-M12E-CN6L	2mm	flush	NC	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_12
Ni4-M12E-OP6L	4mm	non flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_22
Ni4-M12E-ON6L	4mm	non flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_22
Ni4-M12E-CP6L	4mm	non flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_22
Ni4-M12E-CN6L	4mm	non flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M12_22
Fi2-M12E-OP6L-Q12	2mm	flush	NO	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_32
Fi2-M12E-ON6L-Q12	2mm	flush	NO	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_32
Fi2-M12E-CP6L-Q12	2mm	flush	NC	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_32
Fi2-M12E-CN6L-Q12	2mm	flush	NC	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_32
Ni4-M12E-OP6L-Q12	4mm	non flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_42
Ni4-M12E-ON6L-Q12	4mm	non flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_42
Ni4-M12E-CP6L-Q12	4mm	non flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_42
Ni4-M12E-CN6L-Q12	4mm	non flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M12_42

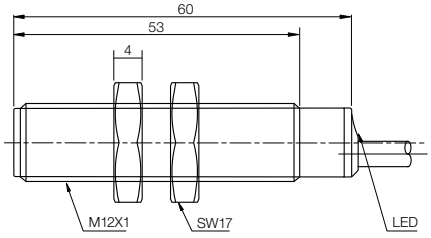
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

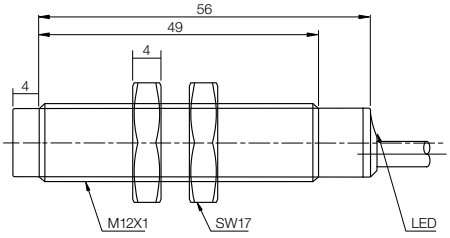


Mechanical Drawing

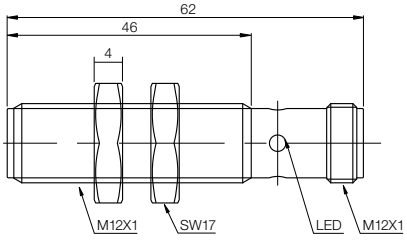
Drawing M12_12



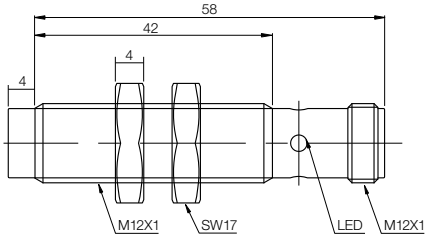
Drawing M12_22



Drawing M12_32



Drawing M12_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M12

General Data

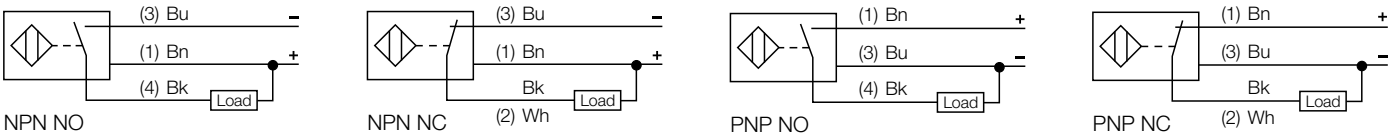
- Metal housing
- Threaded barrel M12x1
- Extended operating distance
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Standard size

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Ni5-M12-OP6L	5mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_21
Ni5-M12-ON6L	5mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_21
Ni5-M12-CP6L	5mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_21
Ni5-M12-CN6L	5mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_21
Ni5-M12-OP6L-Q12	5mm	non flush	NO	PNP	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_41
Ni5-M12-ON6L-Q12	5mm	non flush	NO	NPN	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_41
Ni5-M12-CP6L-Q12	5mm	non flush	NC	PNP	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_41
Ni5-M12-CN6L-Q12	5mm	non flush	NC	NPN	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_41

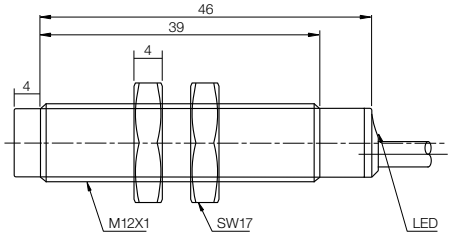
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

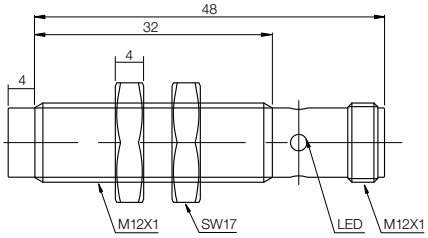


Mechanical Drawing

Drawing M12_21



Drawing M12_41



Approvals Certificates

CE

Metal Barrel-M12

General Data

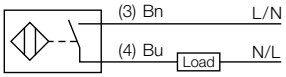
- Metal housing
- Threaded barrel M12x1
- AC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting
- Wide voltage range

Technical Data

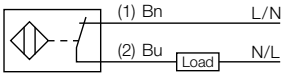
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-M12-OSA3L	2mm	flush	NO	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	M12_12
Fi2-M12-CSA3L	2mm	flush	NC	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	M12_12
Ni4-M12-OSA3L	4mm	non flush	NO	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	M12_23
Ni4-M12-CSA3L	4mm	non flush	NC	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	M12_23
Fi2-M12-OSA3L-Q12	2mm	flush	NO	AC	20…250VAC	≤200mA	20Hz	-25…70°C	M12 connector	M12_33
Fi2-M12-CSA3L-Q12	2mm	flush	NC	AC	20…250VAC	≤200mA	20Hz	-25…70°C	M12 connector	M12_33
Ni4-M12-OSA3L-Q12	4mm	non flush	NO	AC	20…250VAC	≤200mA	20Hz	-25…70°C	M12 connector	M12_43
Ni4-M12-CSA3L-Q12	4mm	non flush	NC	AC	20…250VAC	≤200mA	20Hz	-25…70°C	M12 connector	M12_43

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



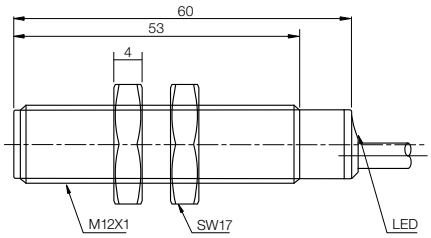
AC-2 wire NO



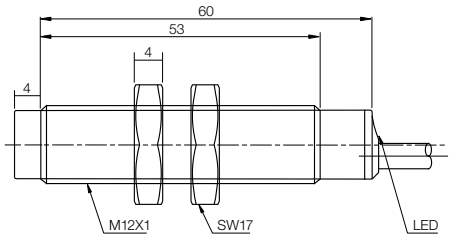
AC-2 wire NC

Mechanical Drawing

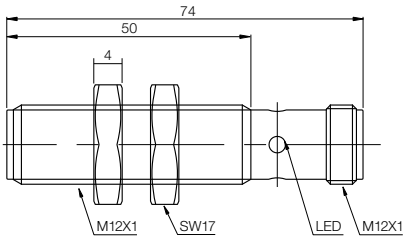
Drawing M12_12



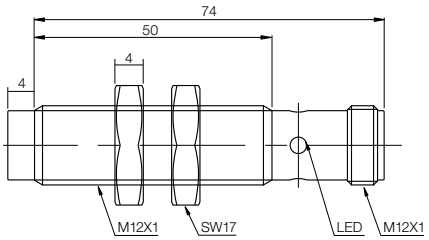
Drawing M12_23



Drawing M12_33



Drawing M12_43



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M18 Short Version

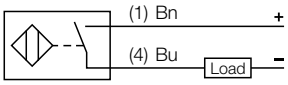
General Data

- Metal housing
- Threaded barrel M18x1
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting

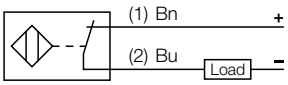
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18S-OD6L	5mm	flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M18_11
Fi5-M18S-CD6L	5mm	flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M18_11
Ni8-M18S-OD6L	8mm	non flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M18_21
Ni8-M18S-CD6L	8mm	non flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M18_21
Fi5-M18S-OD6L-Q12	5mm	flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M18_31
Fi5-M18S-CD6L-Q12	5mm	flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M18_31
Ni8-M18S-OD6L-Q12	8mm	non flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M18_41
Ni8-M18S-CD6L-Q12	8mm	non flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M18_41

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



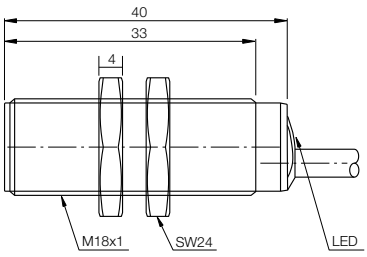
DC-2 wire NO



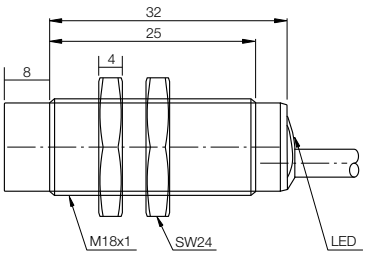
DC-2 wire NC

Mechanical Drawing

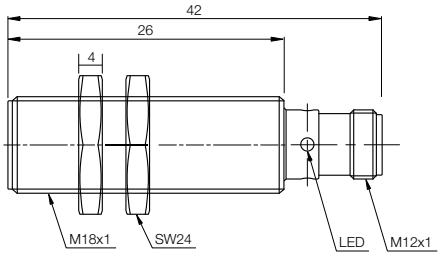
Drawing M18_11



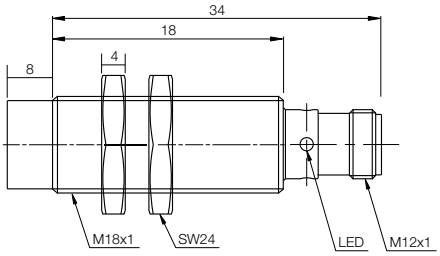
Drawing M18_21



Drawing M18_31



Drawing M18_41



Approvals Certificates

CE

Metal Barrel-M18

General Data

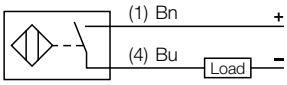
- Metal housing
- Threaded barrel M18x1
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

Technical Data

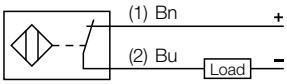
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18-OD6L	5mm	flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M18_12
Fi5-M18-CD6L	5mm	flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M18_12
Ni8-M18-OD6L	8mm	non flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M18_22
Ni8-M18-CD6L	8mm	non flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M18_22
Fi5-M18-OD6L-Q12	5mm	flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M18_32
Fi5-M18-CD6L-Q12	5mm	flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M18_32
Ni8-M18-OD6L-Q12	8mm	non flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M18_42
Ni8-M18-CD6L-Q12	8mm	non flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M18_42

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



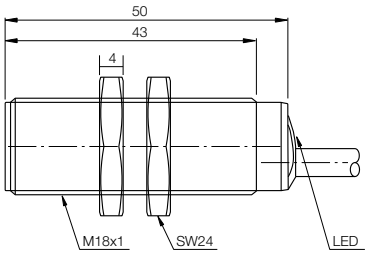
DC-2 wire NO



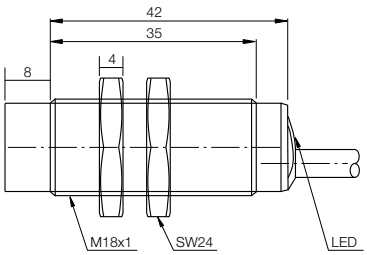
DC-2 wire NC

Mechanical Drawing

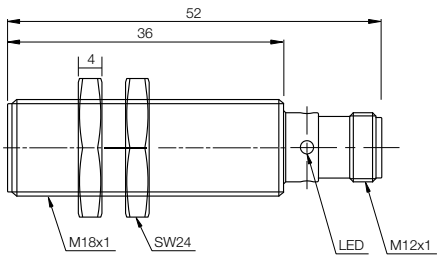
Drawing M18_12



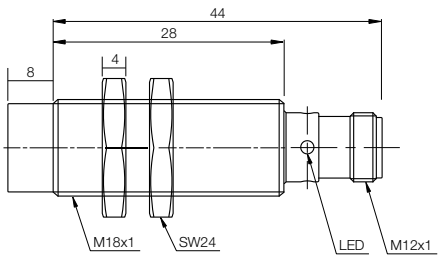
Drawing M18_22



Drawing M18_32



Drawing M18_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M18 Short Version

General Data

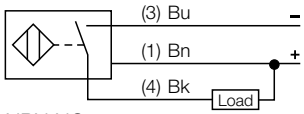
- Metal housing
- Threaded barrel M18x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting

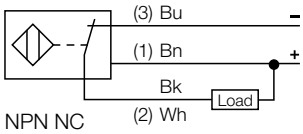
Technical Data

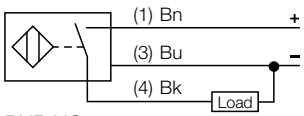
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18S-OP6L	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_11
Fi5-M18S-ON6L	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_11
Fi5-M18S-CP6L	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_11
Fi5-M18S-CN6L	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_11
Ni8-M18S-OP6L	8mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_21
Ni8-M18S-ON6L	8mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_21
Ni8-M18S-CP6L	8mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_21
Ni8-M18S-CN6L	8mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_21
Fi5-M18S-OP6L-Q12	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_31
Fi5-M18S-ON6L-Q12	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_31
Fi5-M18S-CP6L-Q12	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_31
Fi5-M18S-CN6L-Q12	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_31
Ni8-M18S-OP6L-Q12	8mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_41
Ni8-M18S-ON6L-Q12	8mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_41
Ni8-M18S-CP6L-Q12	8mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_41
Ni8-M18S-CN6L-Q12	8mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_41

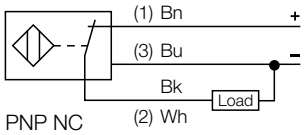
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



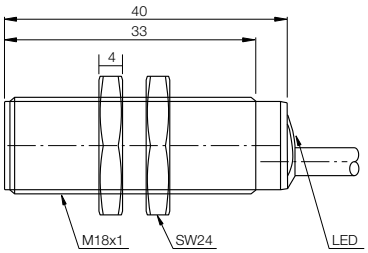




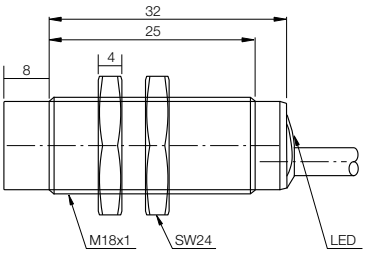


Mechanical Drawing

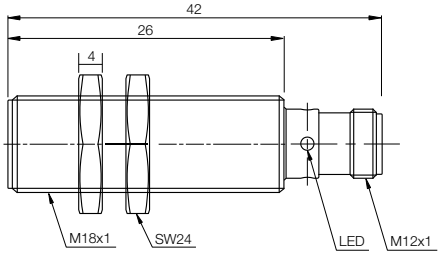
Drawing M18_11



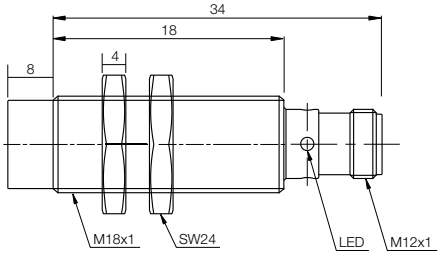
Drawing M18_21



Drawing M18_31



Drawing M18_41



Approvals Certificates

CE

Metal Barrel-M18

General Data

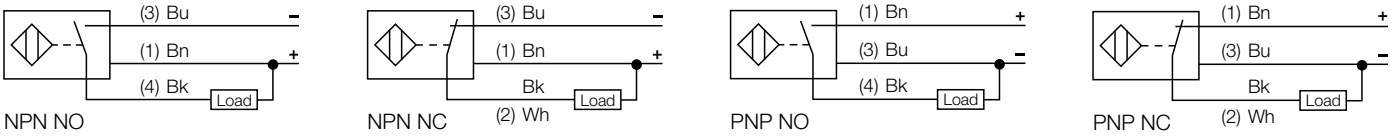
- Metal housing
- Threaded barrel M18x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18-OP6L	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-M18-ON6L	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-M18-CP6L	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-M18-CN6L	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Ni8-M18-OP6L	8mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_22
Ni8-M18-ON6L	8mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_22
Ni8-M18-CP6L	8mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_22
Ni8-M18-CN6L	8mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_22
Fi5-M18-OP6L-Q12	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32
Fi5-M18-ON6L-Q12	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32
Fi5-M18-CP6L-Q12	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32
Fi5-M18-CN6L-Q12	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32
Ni8-M18-OP6L-Q12	8mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_42
Ni8-M18-ON6L-Q12	8mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_42
Ni8-M18-CP6L-Q12	8mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_42
Ni8-M18-CN6L-Q12	8mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_42

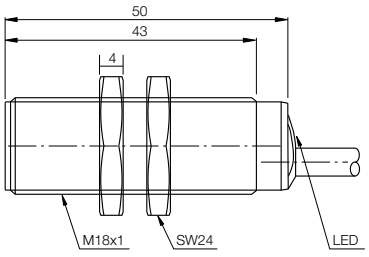
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

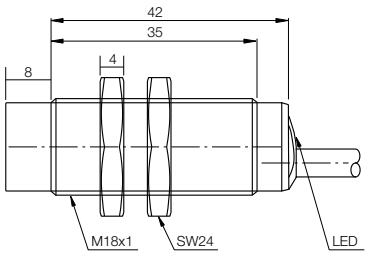


Mechanical Drawing

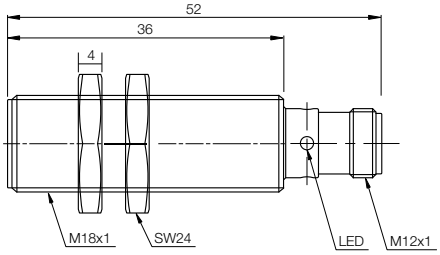
Drawing M18_12



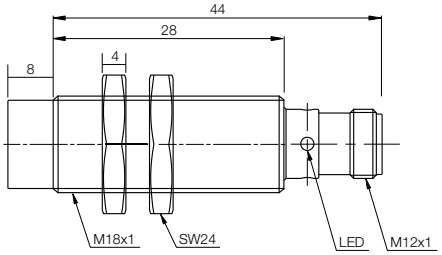
Drawing M18_22



Drawing M18_32



Drawing M18_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M18

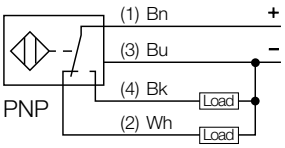
General Data

- Metal housing
- Threaded barrel M18x1
- DC 4-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

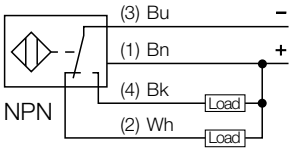
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18-BP6L	5mm	flush	NO+NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-M18-BN6L	5mm	flush	NO+NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Ni8-M18-BP6L	8mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_22
Ni8-M18-BN6L	8mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_22
Fi5-M18-BP6L-Q12	5mm	flush	NO+NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_33
Fi5-M18-BN6L-Q12	5mm	flush	NO+NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_33
Ni8-M18-BP6L-Q12	8mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_43
Ni8-M18-BN6L-Q12	8mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_43

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



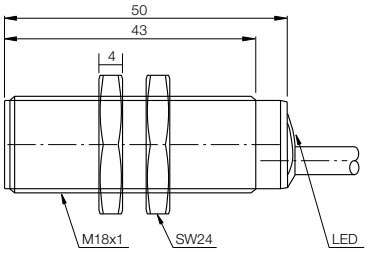
2 NC/4 NO



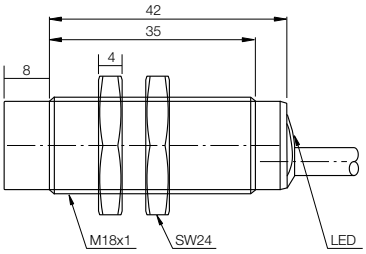
2 NC/4 NO

Mechanical Drawing

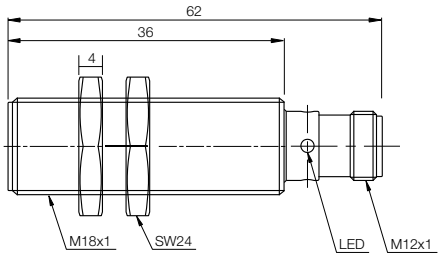
Drawing M18_12



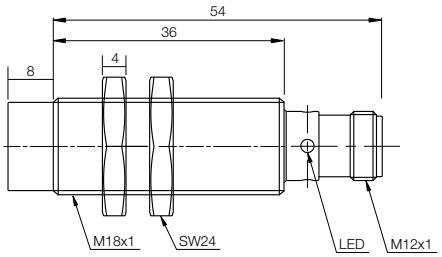
Drawing M18_22



Drawing M18_33



Drawing M18_43



Approvals Certificates

CE

Metal Barrel-M18 Long Version

General Data

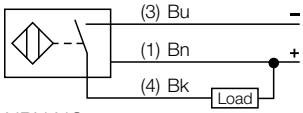
- Metal housing
- Threaded barrel M18x1
- DC 3/4-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting

Technical Data

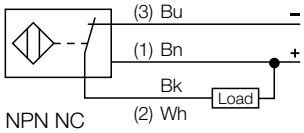
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18E-OP6L	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_13
Fi5-M18E-ON6L	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_13
Fi5-M18E-CP6L	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_13
Fi5-M18E-CN6L	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_13
Fi5-M18E-BP6L	5mm	flush	NO+NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_13
Fi5-M18E-BN6L	5mm	flush	NO+NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_13
Ni8-M18E-OP6L	8mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_23
Ni8-M18E-ON6L	8mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_23
Ni8-M18E-CP6L	8mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_23
Ni8-M18E-CN6L	8mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_23
Ni8-M18E-BP6L	8mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_23
Ni8-M18E-BN6L	8mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M18_23

Connection Diagram

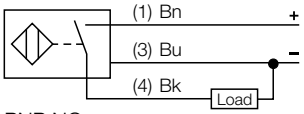
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



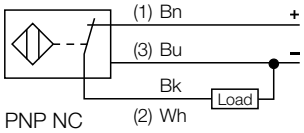
NPN NO



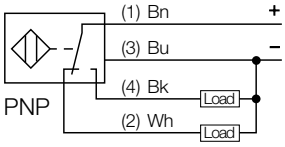
NPN NC



PNP NO

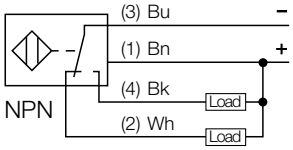


PNP NC



PNP

2 NC/4 NO

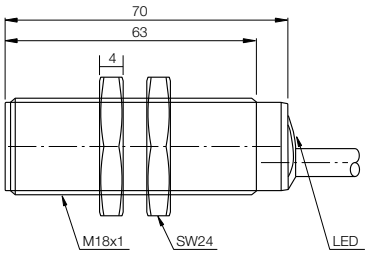


NPN

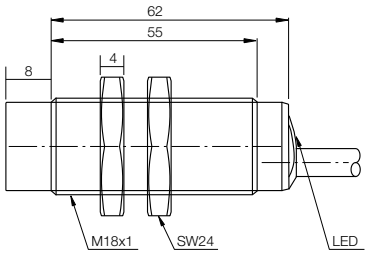
2 NC/4 NO

Mechanical Drawing

Drawing M18_13



Drawing M18_23



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M18 Long Version

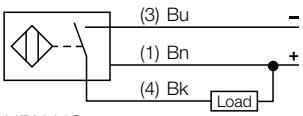
General Data

- Metal housing
- Threaded barrel M18x1
- DC 3/4-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting

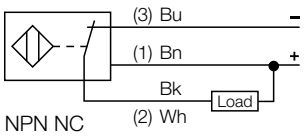
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18E-OP6L-Q12	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_34
Fi5-M18E-ON6L-Q12	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_34
Fi5-M18E-CP6L-Q12	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_34
Fi5-M18E-CN6L-Q12	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_34
Fi5-M18E-BP6L-Q12	5mm	flush	NO+NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_34
Fi5-M18E-BN6L-Q12	5mm	flush	NO+NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_34
Ni8-M18E-OP6L-Q12	8mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_44
Ni8-M18E-ON6L-Q12	8mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_44
Ni8-M18E-CP6L-Q12	8mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_44
Ni8-M18E-CN6L-Q12	8mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_44
Ni8-M18E-BP6L-Q12	8mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_44
Ni8-M18E-BN6L-Q12	8mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M18_44

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



NPN NO



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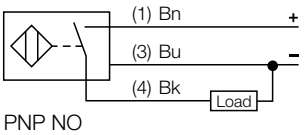

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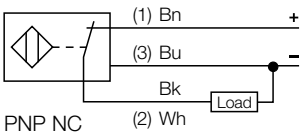

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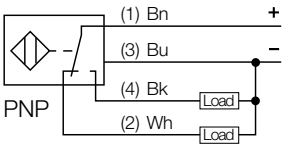
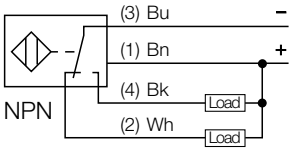


PNP

2 NC/4 NO

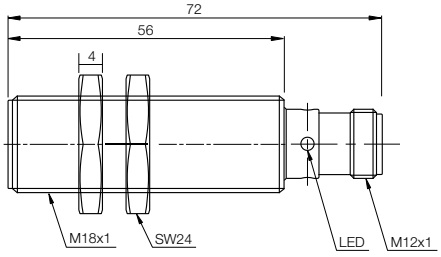


NPN

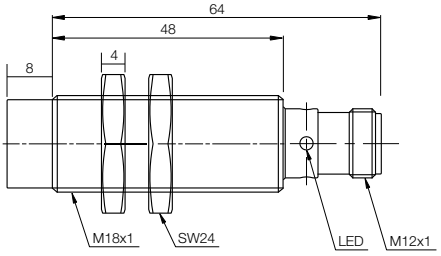
2 NC/4 NO

Mechanical Drawing

Drawing M18_34



Drawing M18_44



Approvals Certificates

CE

Metal Barrel-M18

General Data

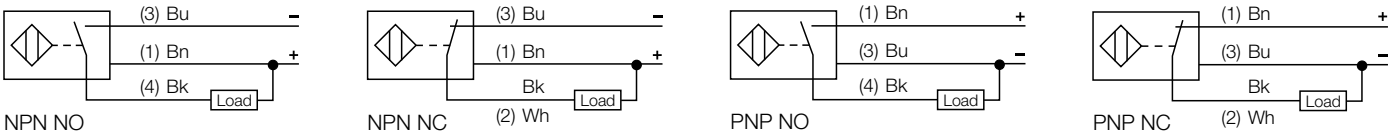
- Metal housing
- Threaded barrel M18x1
- Extended operating distance
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Standard size

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Ni10-M18-OP6L	10mm	non flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_22
Ni10-M18-ON6L	10mm	non flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_22
Ni10-M18-CP6L	10mm	non flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_22
Ni10-M18-CN6L	10mm	non flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_22
Ni10-M18-OP6L-Q12	10mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_42
Ni10-M18-ON6L-Q12	10mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_42
Ni10-M18-CP6L-Q12	10mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_42
Ni10-M18-CN6L-Q12	10mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_42

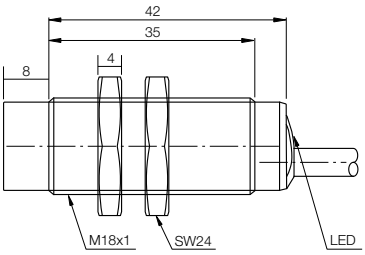
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

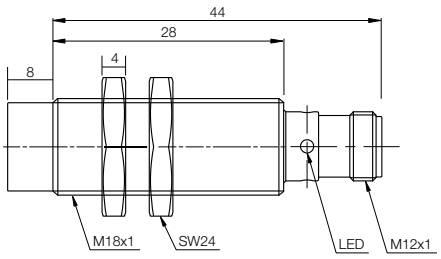


Mechanical Drawing

Drawing M18_22



Drawing M18_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M18

General Data

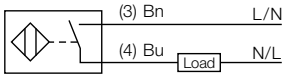
- Metal housing
- Threaded barrel M18x1
- AC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting
- Wide voltage range

Technical Data

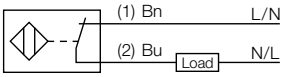
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18-OSA3L	5mm	flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M18_14
Fi5-M18-CSA3L	5mm	flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M18_14
Ni8-M18-OSA3L	8mm	non flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M18_24
Ni8-M18-CSA3L	8mm	non flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M18_24
Fi5-M18-OSA3L-Q12	5mm	flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M18_35
Fi5-M18-CSA3L-Q12	5mm	flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M18_35
Ni8-M18-OSA3L-Q12	8mm	non flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M18_45
Ni8-M18-CSA3L-Q12	8mm	non flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M18_45

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



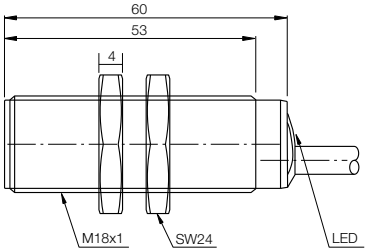
AC-2 wire NO



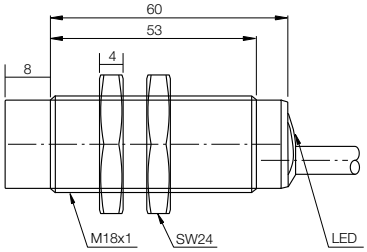
AC-2 wire NC

Mechanical Drawing

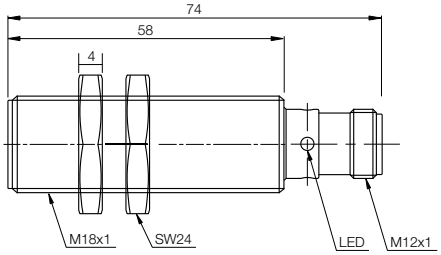
Drawing M18_14



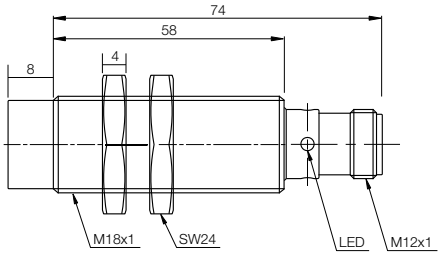
Drawing M18_24



Drawing M18_35



Drawing M18_45



Approvals Certificates

CE

Metal Barrel-M18

General Data

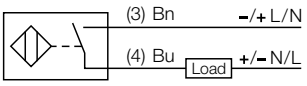
- Metal housing
- Threaded barrel M18x1
- AC/DC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting
- Wide voltage range

Technical Data

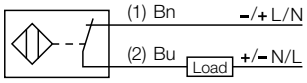
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency AC // DC	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18-OA41L	5mm	flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M18_14
Fi5-M18-CA41L	5mm	flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M18_14
Ni8-M18-OA41L	8mm	non flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M18_24
Ni8-M18-CA41L	8mm	non flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M18_24
Fi5-M18-OA41L-Q12	5mm	flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M18_35
Fi5-M18-CA41L-Q12	5mm	flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M18_35
Ni8-M18-OA41L-Q12	8mm	non flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M18_45
Ni8-M18-CA41L-Q12	8mm	non flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M18_45

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



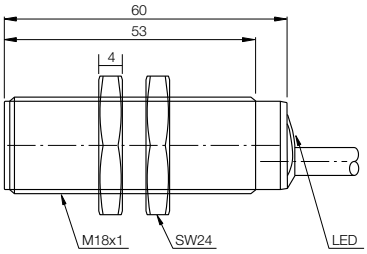
AC/DC-2 wire NO



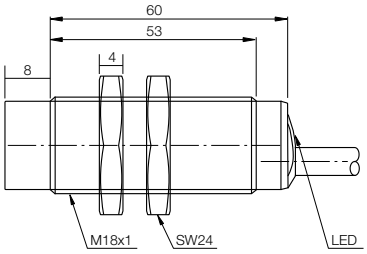
AC/DC-2 wire NC

Mechanical Drawing

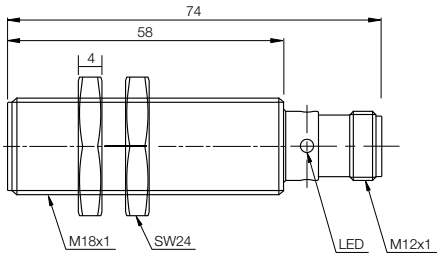
Drawing M18_14



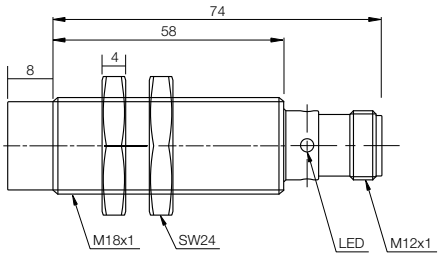
Drawing M18_24



Drawing M18_35



Drawing M18_45



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M30 Short Version

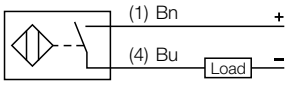
General Data

- Metal housing
- Threaded barrel M30x1,5
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting

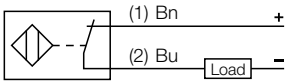
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30S-OD6L	10mm	flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M30_11
Fi10-M30S-CD6L	10mm	flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M30_11
Ni15-M30S-OD6L	15mm	non flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M30_21
Ni15-M30S-CD6L	15mm	non flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M30_21
Fi10-M30S-OD6L-Q12	10mm	flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M30_31
Fi10-M30S-CD6L-Q12	10mm	flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M30_31
Ni15-M30S-OD6L-Q12	15mm	non flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M30_41
Ni15-M30S-CD6L-Q12	15mm	non flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M30_41

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



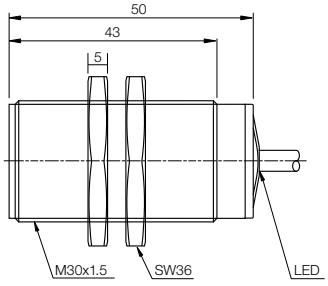
DC-2 wire NO



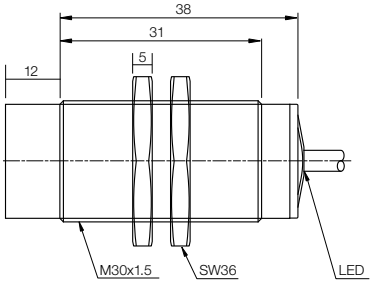
DC-2 wire NC

Mechanical Drawing

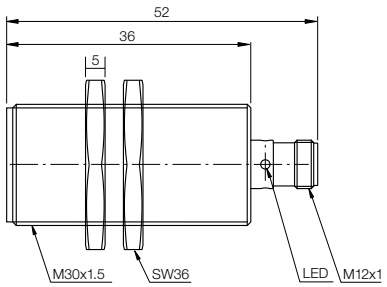
Drawing M30_11



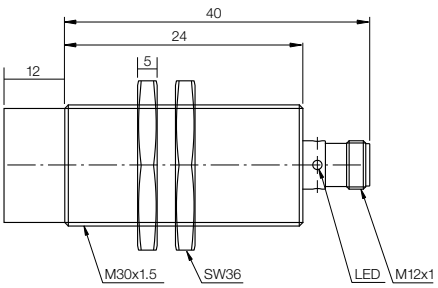
Drawing M30_21



Drawing M30_31



Drawing M30_41



Approvals Certificates

CE

Metal Barrel-M30

General Data

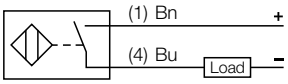
- Metal housing
- Threaded barrel M30x1,5
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

Technical Data

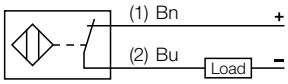
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30-OD6L	10mm	flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M30_12
Fi10-M30-CD6L	10mm	flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M30_12
Ni15-M30-OD6L	15mm	non flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M30_22
Ni15-M30-CD6L	15mm	non flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M30_22
Fi10-M30-OD6L-Q12	10mm	flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M30_32
Fi10-M30-CD6L-Q12	10mm	flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M30_32
Ni15-M30-OD6L-Q12	15mm	non flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M30_42
Ni15-M30-CD6L-Q12	15mm	non flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M30_42

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



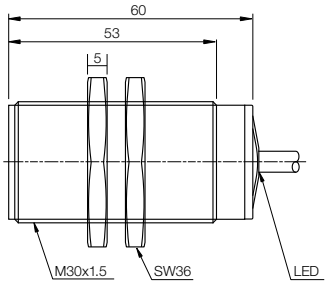
DC-2 wire NO



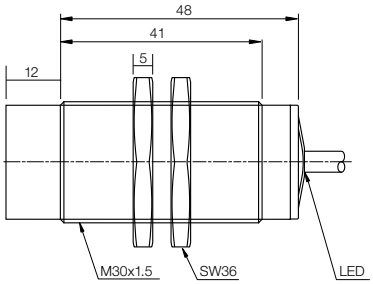
DC-2 wire NC

Mechanical Drawing

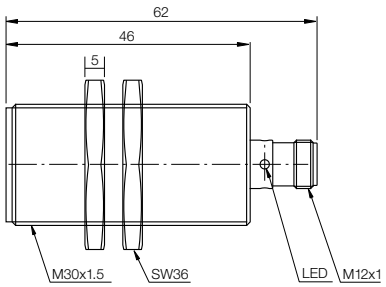
Drawing M30_12



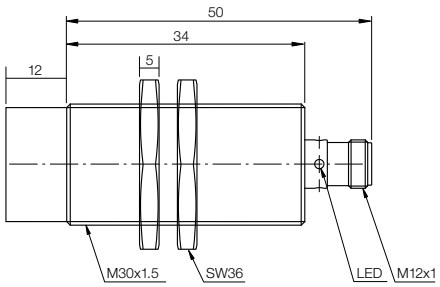
Drawing M30_22



Drawing M30_32



Drawing M30_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M30 Short Version

General Data

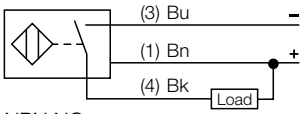
- Metal housing
- Threaded barrel M30x1,5
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting

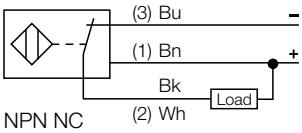
Technical Data

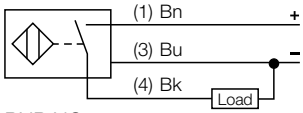
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30S-OP6L	10mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_11
Fi10-M30S-ON6L	10mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_11
Fi10-M30S-CP6L	10mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_11
Fi10-M30S-CN6L	10mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_11
Ni15-M30S-OP6L	15mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_21
Ni15-M30S-ON6L	15mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_21
Ni15-M30S-CP6L	15mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_21
Ni15-M30S-CN6L	15mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_21
Fi10-M30S-OP6L-Q12	10mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_31
Fi10-M30S-ON6L-Q12	10mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_31
Fi10-M30S-CP6L-Q12	10mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_31
Fi10-M30S-CN6L-Q12	10mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_31
Ni15-M30S-OP6L-Q12	15mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_41
Ni15-M30S-ON6L-Q12	15mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_41
Ni15-M30S-CP6L-Q12	15mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_41
Ni15-M30S-CN6L-Q12	15mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_41

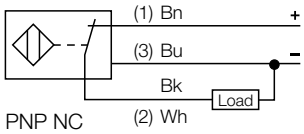
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



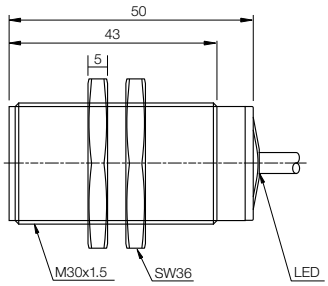




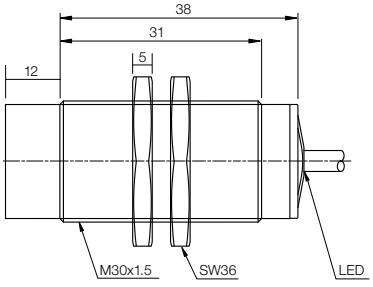


Mechanical Drawing

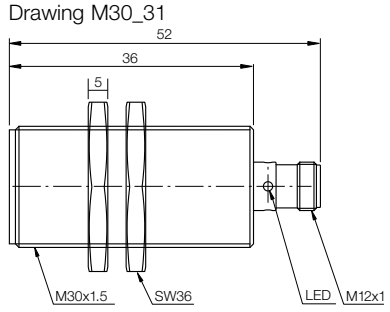
Drawing M30_11



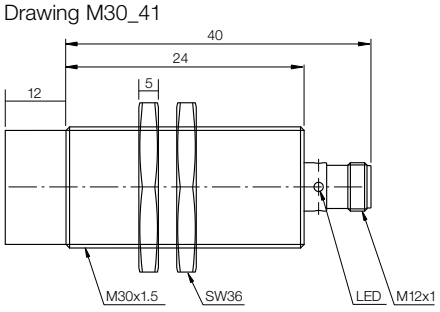
Drawing M30_21



Drawing M30_31



Drawing M30_41



Approvals Certificates

CE

Metal Barrel-M30

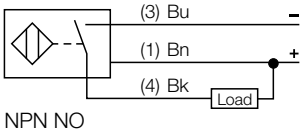
General Data
- Metal housing
- Threaded barrel M30x1,5
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

Technical Data

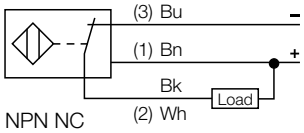
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30-OP6L	10mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_12
Fi10-M30-ON6L	10mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_12
Fi10-M30-CP6L	10mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_12
Fi10-M30-CN6L	10mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_12
Ni15-M30-OP6L	15mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_22
Ni15-M30-ON6L	15mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_22
Ni15-M30-CP6L	15mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_22
Ni15-M30-CN6L	15mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_22
Fi10-M30-OP6L-Q12	10mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_32
Fi10-M30-ON6L-Q12	10mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_32
Fi10-M30-CP6L-Q12	10mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_32
Fi10-M30-CN6L-Q12	10mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_32
Ni15-M30-OP6L-Q12	15mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_42
Ni15-M30-ON6L-Q12	15mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_42
Ni15-M30-CP6L-Q12	15mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_42
Ni15-M30-CN6L-Q12	15mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_42

Connection Diagram

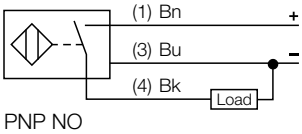
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



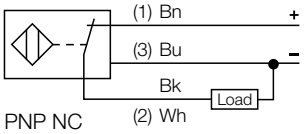
NPN NO



NPN NC



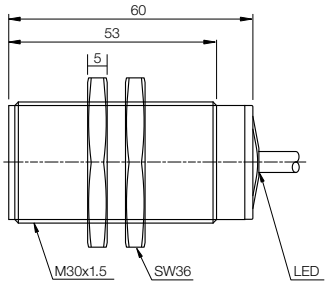
PNP NO



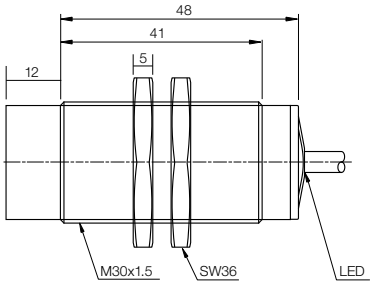
PNP NC

Mechanical Drawing

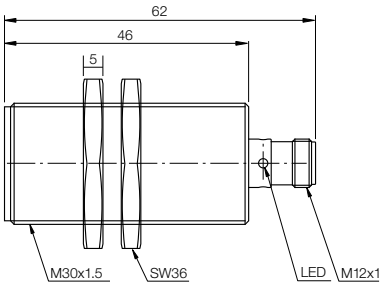
Drawing M30_12



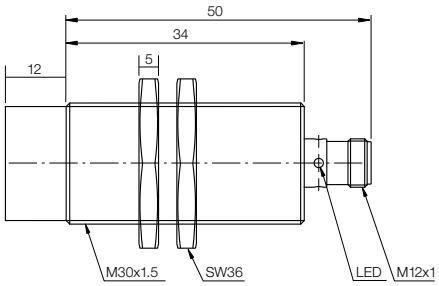
Drawing M30_22



Drawing M30_32



Drawing M30_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M30

General Data

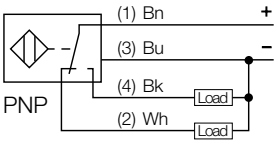
- Metal housing
- Threaded barrel M30x1,5
- DC 4-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting

Technical Data

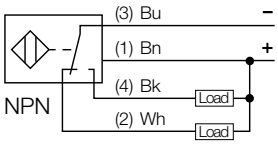
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30-BP6L	10mm	flush	NO+NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_12
Fi10-M30-BN6L	10mm	flush	NO+NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M30_12
Ni15-M30-BP6L	15mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_22
Ni15-M30-BN6L	15mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M30_22
Fi10-M30-BP6L-Q12	10mm	flush	NO+NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_32
Fi10-M30-BN6L-Q12	10mm	flush	NO+NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M30_32
Ni15-M30-BP6L-Q12	15mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_42
Ni15-M30-BN6L-Q12	15mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M30_42

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



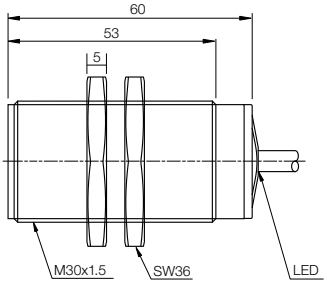
2 NC/4 NO



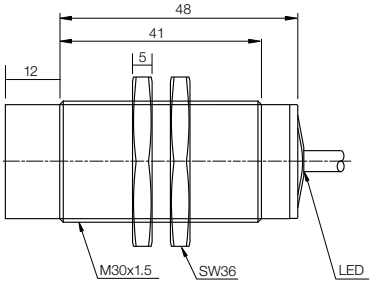
2 NC/4 NO

Mechanical Drawing

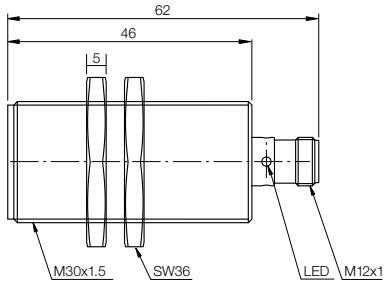
Drawing M30_12



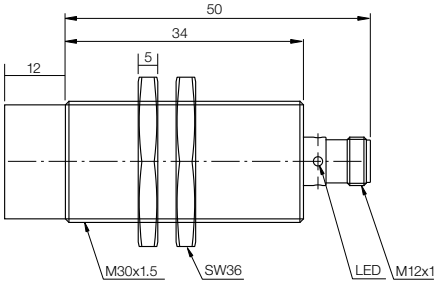
Drawing M30_22



Drawing M30_32



Drawing M30_42



Approvals Certificates

CE

Metal Barrel-M30

General Data

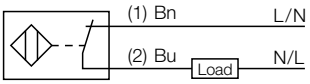
- Metal housing
- Threaded barrel M30x1,5
- AC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting
- Wide voltage range

Technical Data

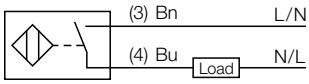
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30-OSA3L	10mm	flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M30_12
Fi10-M30-CSA3L	10mm	flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M30_12
Ni15-M30-OSA3L	15mm	non flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M30_23
Ni15-M30-CSA3L	15mm	non flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	M30_23
Fi10-M30-OSA3L-Q12	10mm	flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M30_33
Fi10-M30-CSA3L-Q12	10mm	flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M30_33
Ni15-M30-OSA3L-Q12	15mm	non flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M30_43
Ni15-M30-CSA3L-Q12	15mm	non flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	M12 connector	M30_43

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



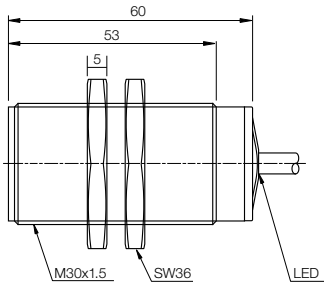
AC-2 wire NC



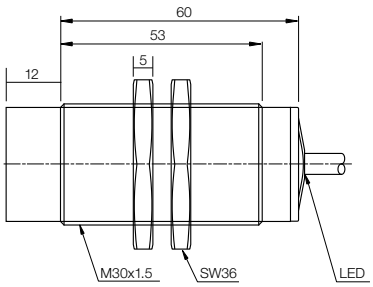
AC-2 wire NO

Mechanical Drawing

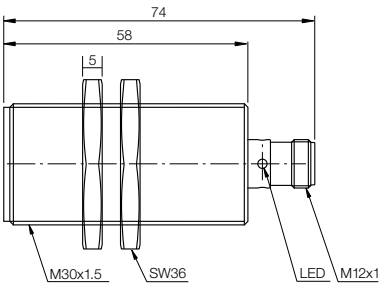
Drawing M30_12



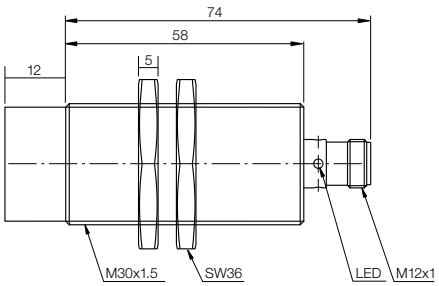
Drawing M30_23



Drawing M30_33



Drawing M30_43



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Metal Barrel-M30

General Data

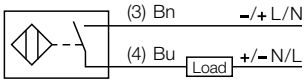
- Metal housing
- Threaded barrel M30x1,5
- AC/DC 2-wire
- Function display LED
- Degree of protection IP67
- Standard size
- Flush/non flush mounting
- Wide voltage range

Technical Data

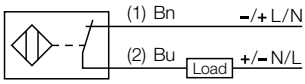
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency AC // DCz	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30-0A41L	10mm	flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M30_12
Fi10-M30-CA41L	10mm	flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M30_12
Ni15-M30-0A41L	15mm	non flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M30_23
Ni15-M30-CA41L	15mm	non flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	2m cable	M30_23
Fi10-M30-0A41L-Q12	10mm	flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M30_33
Fi10-M30-CA41L-Q12	10mm	flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M30_33
Ni15-M30-0A41L-Q12	15mm	non flush	NO	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M30_43
Ni15-M30-CA41L-Q12	15mm	non flush	NC	AC/DC	20…250VAC/DC	≤300mA	15Hz//50Hz	-25…85°C	M12 connector	M30_43

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



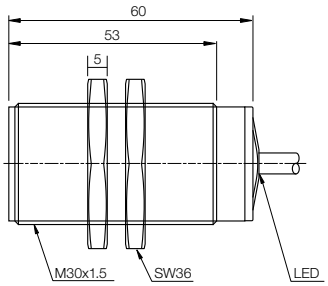
AC/DC-2 wire NO



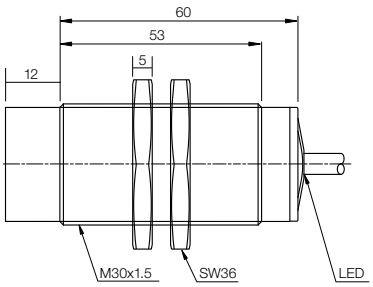
AC/DC-2 wire NC

Mechanical Drawing

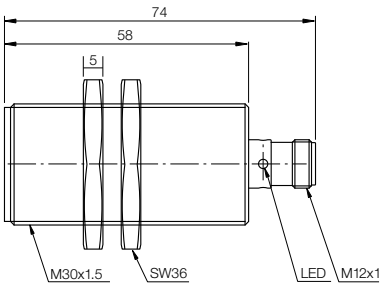
Drawing M30_12



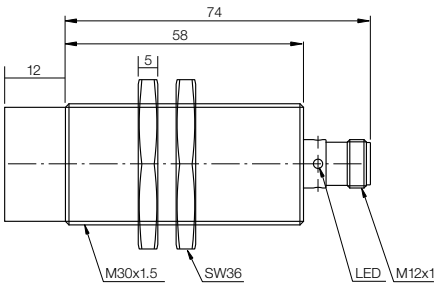
Drawing M30_23



Drawing M30_33



Drawing M30_43



Approvals Certificates

CE

Plastic Rectangular-Q18

General Data

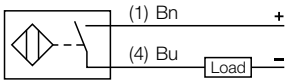
- Plastic housing
- Miniature rectangular 18x18mm
- DC/AC 2-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Slot hole mounting
- Wide voltage range

Technical Data

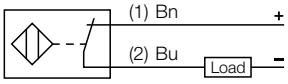
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-Q18-OD6L	5mm	flush	NO	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	Q18_11
Fi5-Q18-CD6L	5mm	flush	NC	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	Q18_11
Fi5-Q18-OSA3L	5mm	flush	NO	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	Q18_11
Fi5-Q18-CSA3L	5mm	flush	NC	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-OD6L	8mm	non flush	NO	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-CD6L	8mm	non flush	NC	DC	10…30VDC	≤100mA	800Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-OSA3L	8mm	non flush	NO	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-CSA3L	8mm	non flush	NC	AC	20…250VAC	≤200mA	20Hz	-25…70°C	2m cable	Q18_11

Connection Diagram

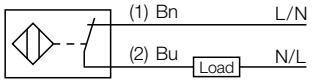
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



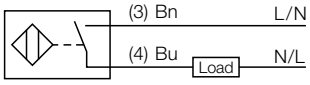
DC-2 wire NO



DC-2 wire NC



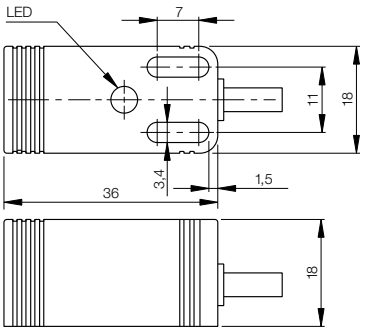
AC-2 wire NC



AC-2 wire NO

Mechanical Drawing

Drawing Q18_11



Approvals Certificates

CE

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Plastic Rectangular-Q18

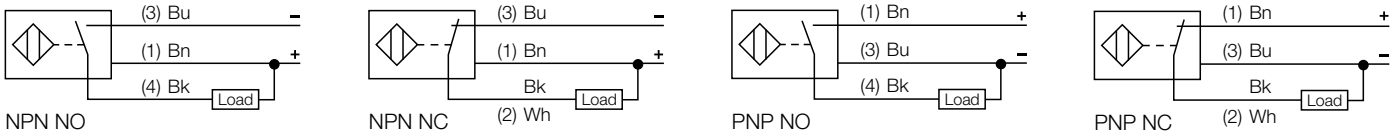
General Data

- Plastic housing
- Miniature rectangular 18x18mm
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Slot hole mounting

Technical Data

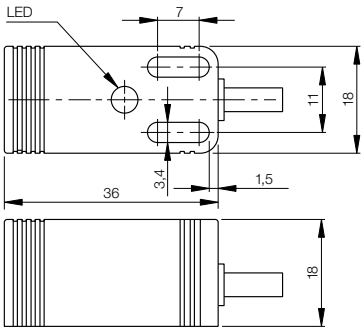
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-Q18-OP6L	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11
Fi5-Q18-ON6L	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11
Fi5-Q18-CP6L	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11
Fi5-Q18-CN6L	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-OP6L	8mm	non flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-ON6L	8mm	non flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-CP6L	8mm	non flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11
Ni8-Q18-CN6L	8mm	non flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	Q18_11

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



Mechanical Drawing

Drawing Q18_11



Approvals Certificates

CE

Plastic Rectangular-Q25

General Data

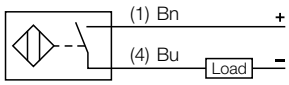
- Plastic housing
- Miniature rectangular 25x25mm
- DC/AC 2-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Large sensing range
- Wide voltage range

Technical Data

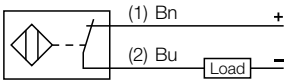
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi7-Q25-OD6L	7mm	flush	NO	DC	10…30VDC	≤100mA	600Hz	-25…70°C	2m cable	Q25_11
Fi7-Q25-CD6L	7mm	flush	NC	DC	10…30VDC	≤100mA	600Hz	-25…70°C	2m cable	Q25_11
Fi7-Q25-OSA3L	7mm	flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q25_11
Fi7-Q25-CSA3L	7mm	flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-OD6L	10mm	non flush	NO	DC	10…30VDC	≤100mA	600Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-CD6L	10mm	non flush	NC	DC	10…30VDC	≤100mA	600Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-OSA3L	10mm	non flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-CSA3L	10mm	non flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q25_11

Connection Diagram

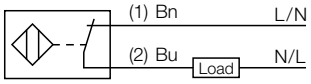
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



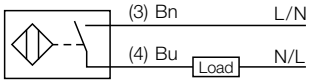
DC-2 wire NO



DC-2 wire NC



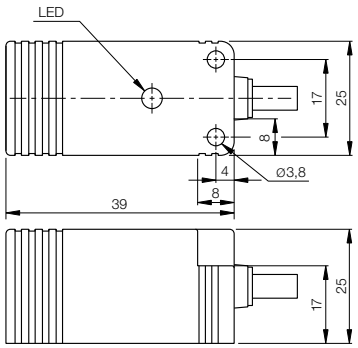
AC-2 wire NC



AC-2 wire NO

Mechanical Drawing

Drawing Q25_11



Approvals Certificates

CE

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Plastic Rectangular-Q25

General Data

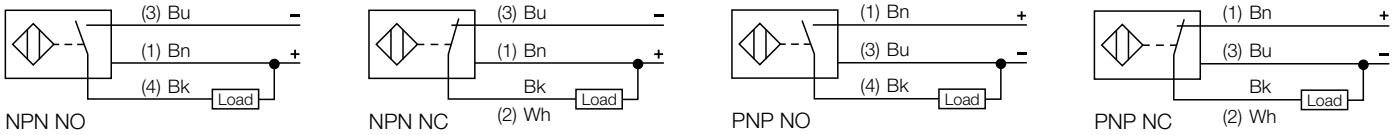
- Plastic housing
- Miniature rectangular 25x25mm
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Large sensing range

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi7-Q25-OP6L	7mm	flush	NO	PNP	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11
Fi7-Q25-ON6L	7mm	flush	NO	NPN	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11
Fi7-Q25-CP6L	7mm	flush	NC	PNP	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11
Fi7-Q25-CN6L	7mm	flush	NC	NPN	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-OP6L	10mm	non flush	NO	PNP	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-ON6L	10mm	non flush	NO	NPN	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-CP6L	10mm	non flush	NC	PNP	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11
Ni10-Q25-CN6L	10mm	non flush	NC	NPN	10…30VDC	≤200mA	700Hz	-25…70°C	2m cable	Q25_11

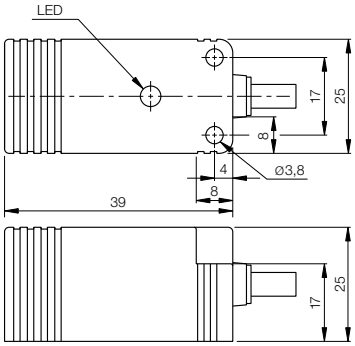
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



Mechanical Drawing

Drawing Q25_11



Approvals Certificates

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Plastic Rectangular-Q30

General Data

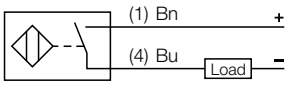
- Plastic housing
- Miniature rectangular 30x30mm
- DC/AC 2-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Large sensing range
- Wide voltage range

Technical Data

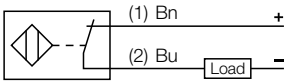
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-Q30-OD6L	10mm	flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	Q30_11
Fi10-Q30-CD6L	10mm	flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	Q30_11
Fi10-Q30-OSA3L	10mm	flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q30_11
Fi10-Q30-CSA3L	10mm	flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-OD6L	15mm	non flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-CD6L	15mm	non flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-OSA3L	15mm	non flush	NO	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-CSA3L	15mm	non flush	NC	AC	20…250VAC	≤300mA	20Hz	-25…70°C	2m cable	Q30_11

Connection Diagram

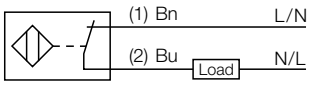
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



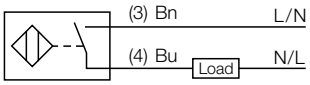
DC-2 wire NO



DC-2 wire NC



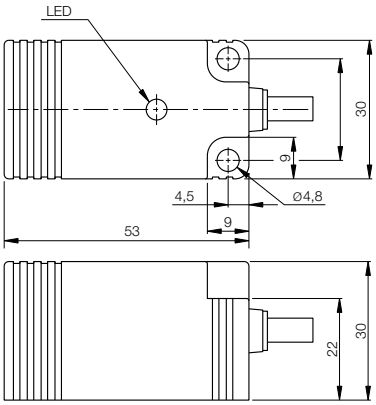
AC-2 wire NC



AC-2 wire NO

Mechanical Drawing

Drawing Q30_11



Approvals Certificates

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Plastic Rectangular-Q30

General Data

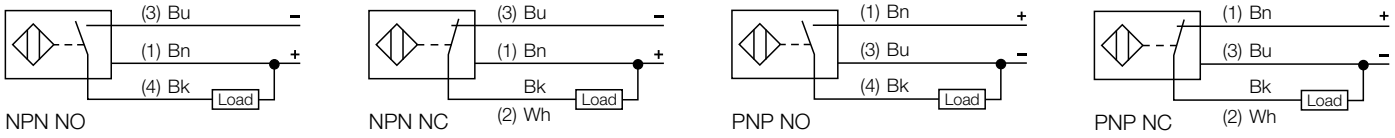
- Plastic housing
- Miniature rectangular 30x30mm
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Large sensing range

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-Q30-OP6L	10mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11
Fi10-Q30-ON6L	10mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11
Fi10-Q30-CP6L	10mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11
Fi10-Q30-CN6L	10mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-OP6L	15mm	non flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-ON6L	15mm	non flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-CP6L	15mm	non flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11
Ni15-Q30-CN6L	15mm	non flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	Q30_11

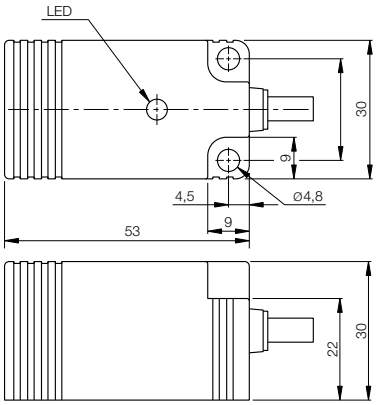
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



Mechanical Drawing

Drawing Q30_11



Approvals Certificates

CE

Plastic Rectangular-W40

General Data

- Plastic housing
- Rectangular 40 x 40 mm
- DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Unified connection
- Standardized mounting hole arrangement

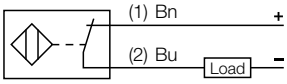
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-W40-OD9L-Q12	15 mm	flush	NO	DC	10…60 VDC	≤ 200 mA	150 Hz	-25…70 °C	M12 connector	W40_11
Ni20-W40-OD9L-Q12	20 mm	non flush	NO	DC	10…60 VDC	≤ 200 mA	150 Hz	-25…70 °C	M12 connector	W40_11
Fi15-W40-CD9L-Q12	15 mm	flush	NC	DC	10…60 VDC	≤ 200 mA	150 Hz	-25…70 °C	M12 connector	W40_11
Ni20-W40-CD9L-Q12	20 mm	non flush	NC	DC	10…60 VDC	≤ 200 mA	150 Hz	-25…70 °C	M12 connector	W40_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

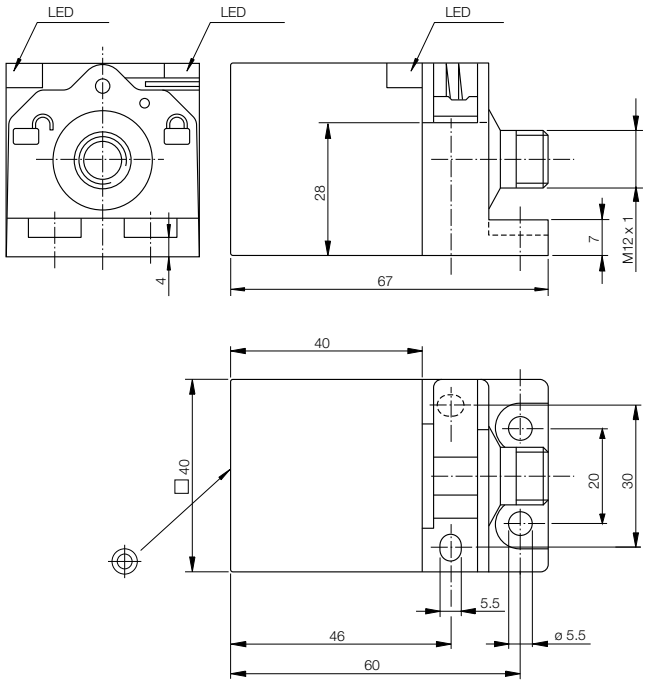
DC-2 wire NO



DC-2 wire NC

Mechanical Drawing

Drawing W40_11



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Plastic Rectangular-W40

General Data

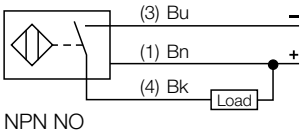
- Plastic housing
- Rectangular 40x40mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Standardized mounting hole arrangement
- normally open / normally closed / change-over

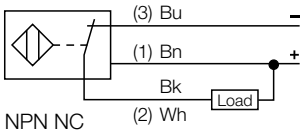
Technical Data

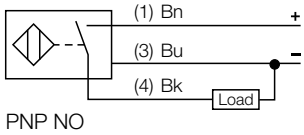
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-W40-ON6L-Q12	15mm	flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi15-W40-CN6L-Q12	15mm	flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi15-W40-BN6L-Q12	15mm	flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi15-W40-OP6L-Q12	15mm	flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi15-W40-CP6L-Q12	15mm	flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi15-W40-BP6L-Q12	15mm	flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni20-W40-ON6L-Q12	20mm	non flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni20-W40-CN6L-Q12	20mm	non flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni20-W40-BN6L-Q12	20mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni20-W40-OP6L-Q12	20mm	non flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni20-W40-CP6L-Q12	20mm	non flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni20-W40-BP6L-Q12	20mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11

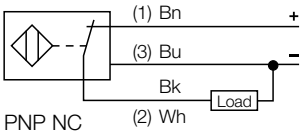
Connection Diagram

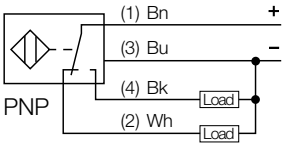
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



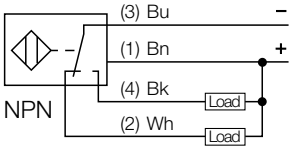








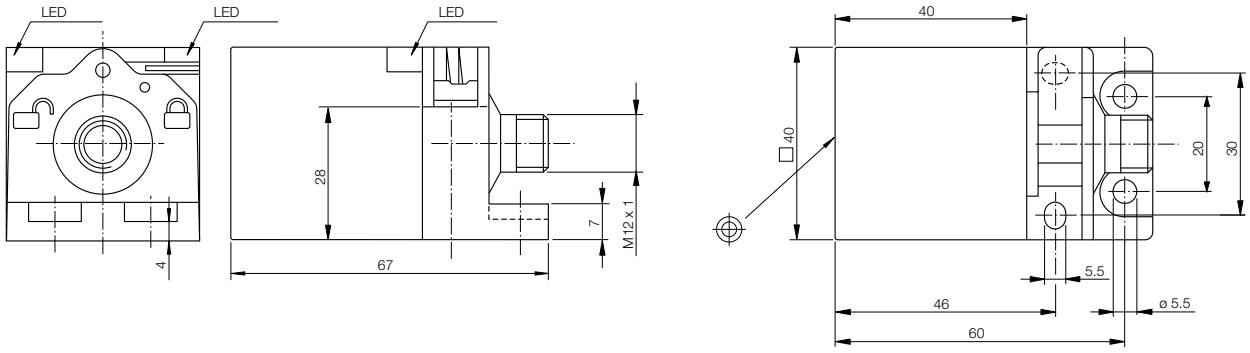
2 NC/4 NO



2 NC/4 NO

Mechanical Drawing

Drawing W40_11



Approvals Certificates

CE

Plastic Rectangular-W40

General Data

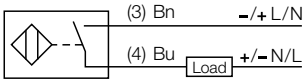
- Plastic housing
- Rectangular 40x40mm
- AC/DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Unified connection
- Standardized mounting hole arrangement

Technical Data

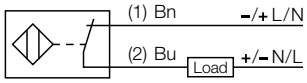
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-W40-0A41L-Q12	15mm	flush	NO	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	M12 connector	W40_11
Ni20-W40-CA41L-Q12	20mm	non flush	NC	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	M12 connector	W40_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



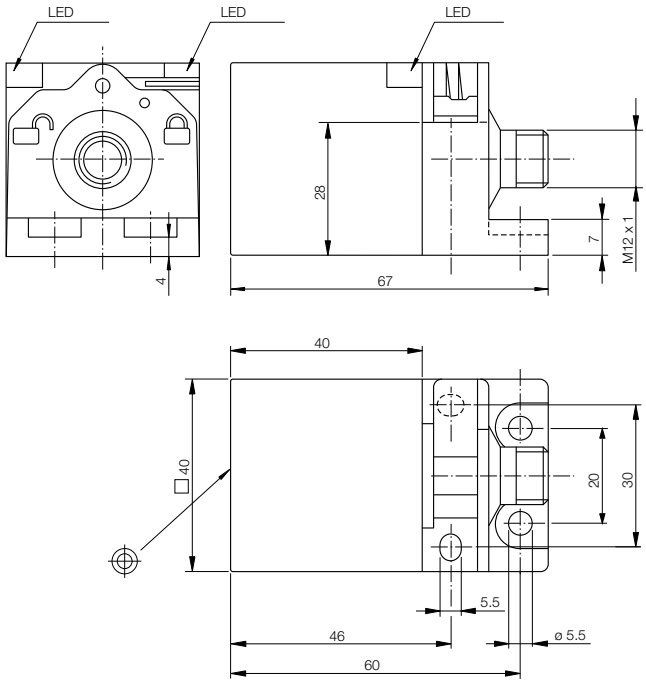
AC/DC-2 wire NO



AC/DC-2 wire NC

Mechanical Drawing

Drawing W40_11



Approvals Certificates

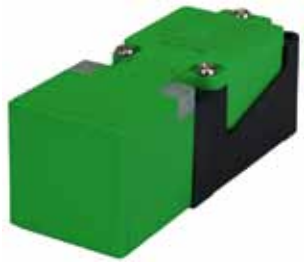
CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Plastic Rectangular-WL40

General Data

- Plastic housing
- Rectangular 40x40x118mm
- DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Variable orientation of the active
- Standardized mounting hole arrangement

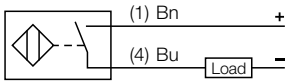


Technical Data

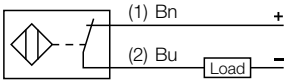
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-WL40-OD9L-Q	15mm	flush	NO	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-OD9L-Q	20mm	non flush	NO	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi15-WL40-CD9L-Q	15mm	flush	NC	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-CD9L-Q	20mm	non flush	NC	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Terminals Nr.



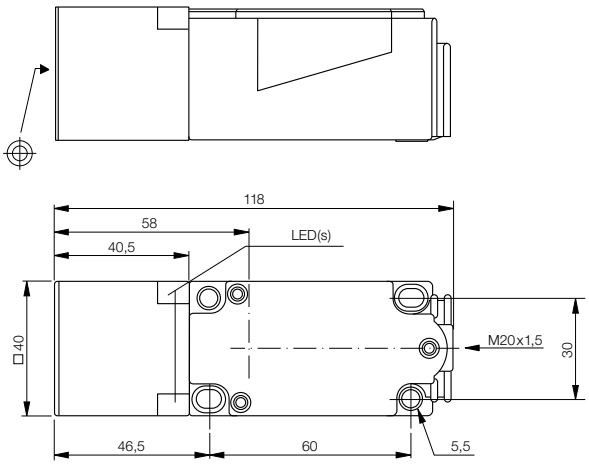
DC-2 wire NO



DC-2 wire NC

Mechanical Drawing

Drawing WL40_11



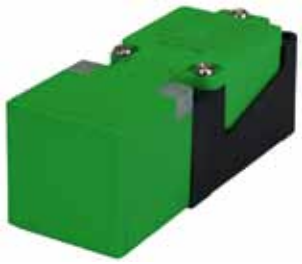
Approvals Certificates

CE

Plastic Rectangular-WL40

General Data

- Plastic housing
- Rectangular 40x40x118mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Variable orientation of the active
- Standardized mounting hole arrangement
- normally open / normally closed / change-over

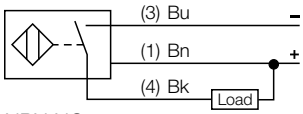


Technical Data

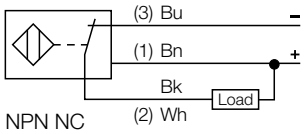
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-WL40-ON6L-Q	15mm	flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi15-WL40-CN6L-Q	15mm	flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi15-WL40-BN6L-Q	15mm	flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi15-WL40-OP6L-Q	15mm	flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi15-WL40-CP6L-Q	15mm	flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi15-WL40-BP6L-Q	15mm	flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-ON6L-Q	20mm	non flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-CN6L-Q	20mm	non flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-BN6L-Q	20mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-OP6L-Q	20mm	non flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-CP6L-Q	20mm	non flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-BP6L-Q	20mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11

Connection Diagram

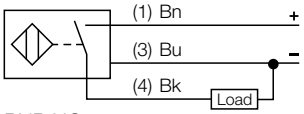
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Terminals Nr.



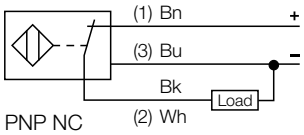
NPN NO



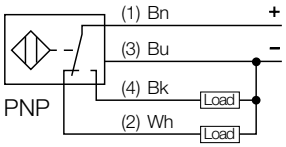
NPN NC



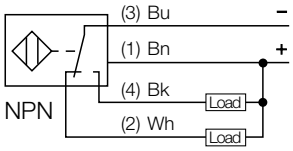
PNP NO



PNP NC



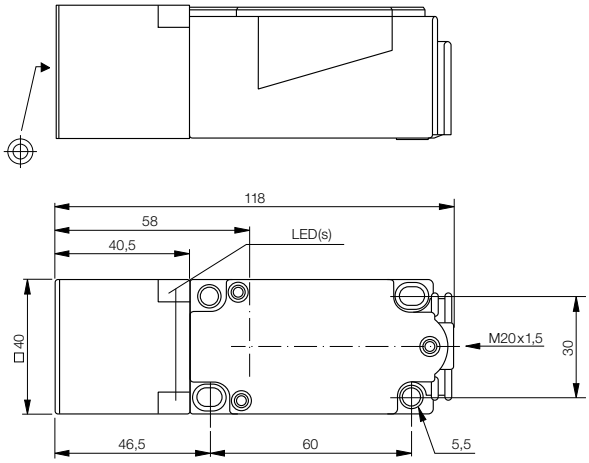
2 NC/4 NO



2 NC/4 NO

Mechanical Drawing

Drawing WL40_11



Approvals Certificates

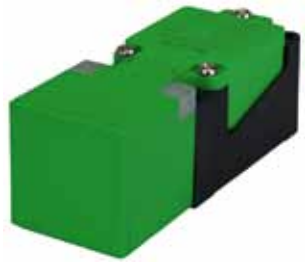
CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Plastic Rectangular-WL40

General Data

- Plastic housing
- Rectangular 40x40x118mm
- AC/DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Variable orientation of the active
- Standardized mounting hole arrangement
- Wide voltage range

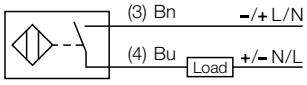


Technical Data

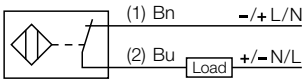
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-WL40-OA41L-Q	15mm	flush	NO	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-CA41L-Q	20mm	non flush	NC	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11
Fi15-WL40-VA41L-Q	15mm	flush	NO / NC	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11
Ni20-WL40-VA41L-Q	20mm	non flush	NO / NC	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Terminal Nr.



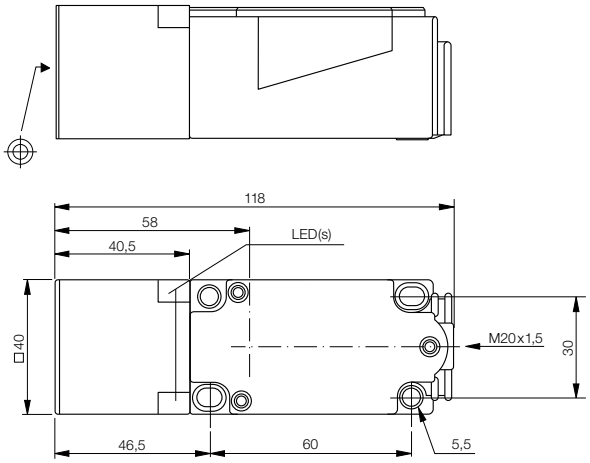
AC/DC-2 wire NO



AC/DC-2 wire NC

Mechanical Drawing

Drawing WL40_11



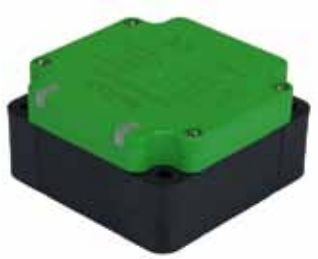
Approvals Certificates

CE

Plastic Rectangular-W80

General Data

- Plastic housing
- Rectangular 80x80mm
- DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Standardized mounting hole arrangement
- Wide voltage range

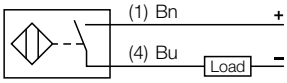


Technical Data

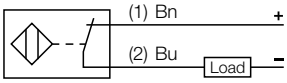
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi40-W80-OD9L-Q	40mm	flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni50-W80-OD9L-Q	50mm	non flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi40-W80-CD9L-Q	40mm	flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni50-W80-CD9L-Q	50mm	non flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi40-W80-OD9L-Q12	40mm	flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21
Ni50-W80-OD9L-Q12	50mm	non flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21
Fi40-W80-CD9L-Q12	40mm	flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21
Ni50-W80-CD9L-Q12	50mm	non flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



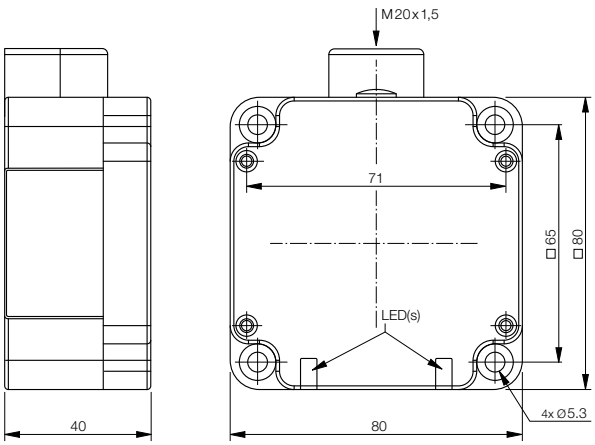
DC-2 wire NO



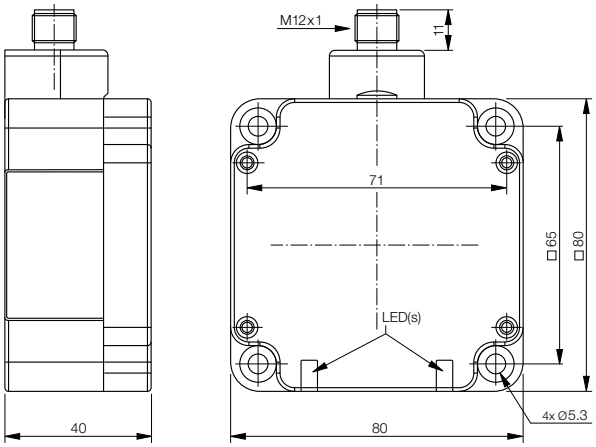
DC-2 wire NC

Mechanical Drawing

Drawing W80_11



Drawing W80_21



Approvals Certificates

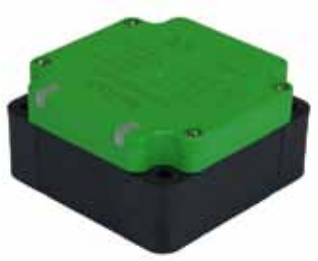
CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Plastic Rectangular-W80

General Data

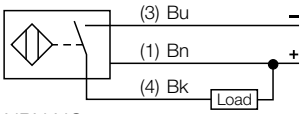
- Plastic housing
- Rectangular 80 x 80 mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Standardized mounting hole arrangement



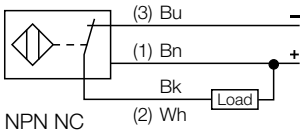
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi40-W80-ON6L-Q	40 mm	flush	NO	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Fi40-W80-CN6L-Q	40 mm	flush	NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Fi40-W80-BN6L-Q	40 mm	flush	NO+NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Fi40-W80-OP6L-Q	40 mm	flush	NO	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Fi40-W80-CP6L-Q	40 mm	flush	NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Fi40-W80-BP6L-Q	40 mm	flush	NO+NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-ON6L-Q	50 mm	non flush	NO	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-CN6L-Q	50 mm	non flush	NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-BN6L-Q	50 mm	non flush	NO+NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-OP6L-Q	50 mm	non flush	NO	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-CP6L-Q	50 mm	non flush	NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-BP6L-Q	50 mm	non flush	NO+NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	Screw terminals	W80_11

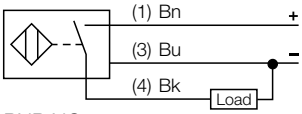
Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



NPN NO



NPN NC



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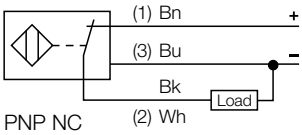
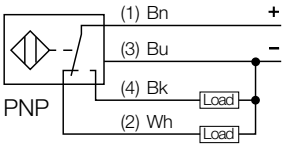
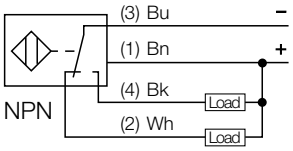


PNP NC



PNP

2 NC/4 NO

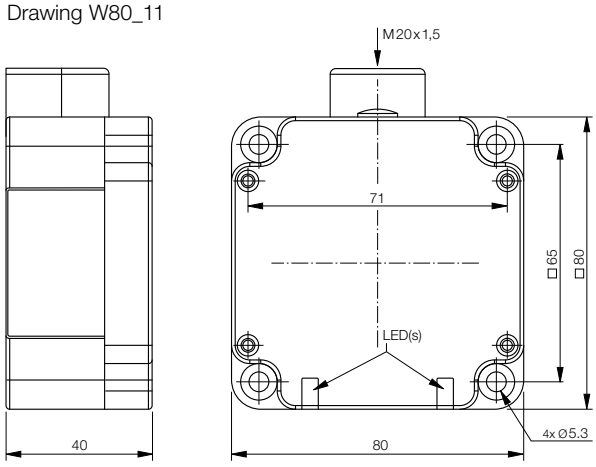


NPN

2 NC/4 NO

Mechanical Drawing

Drawing W80_11



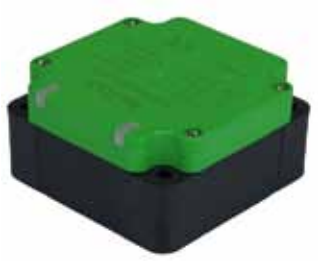
Approvals Certificates

CE

Plastic Rectangular-W80

General Data

- Plastic housing
- Rectangular 80 x 80 mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Standardized mounting hole arrangement

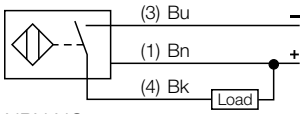


Technical Data

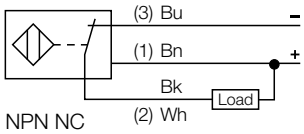
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi40-W80-ON6L-Q12	40 mm	flush	NO	NPN	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi40-W80-CN6L-Q12	40 mm	flush	NC	NPN	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi40-W80-BN6L-Q12	40 mm	flush	NO + NC	NPN	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi40-W80-OP6L-Q12	40 mm	flush	NO	PNP	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi40-W80-CP6L-Q12	40 mm	flush	NC	PNP	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi40-W80-BP6L-Q12	40 mm	flush	NO + NC	PNP	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-ON6L-Q12	50 mm	non flush	NO	NPN	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-CN6L-Q12	50 mm	non flush	NC	NPN	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-BN6L-Q12	50 mm	non flush	NO + NC	NPN	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-OP6L-Q12	50 mm	non flush	NO	PNP	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-CP6L-Q12	50 mm	non flush	NC	PNP	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-BP6L-Q12	50 mm	non flush	NO + NC	PNP	10…30 VDC	≤ 200 mA	100 Hz	-25…70 °C	M12 connector	W80_21

Connection Diagram

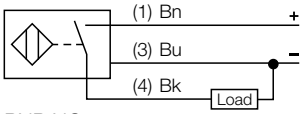
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



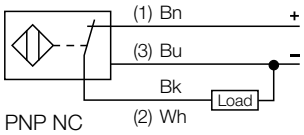
NPN NO



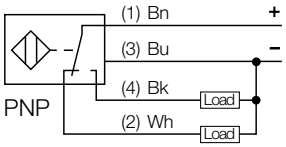
NPN NC



PNP NO

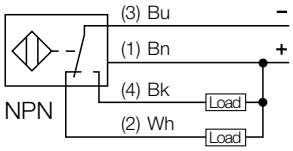


PNP NC



PNP

2 NC / 4 NO

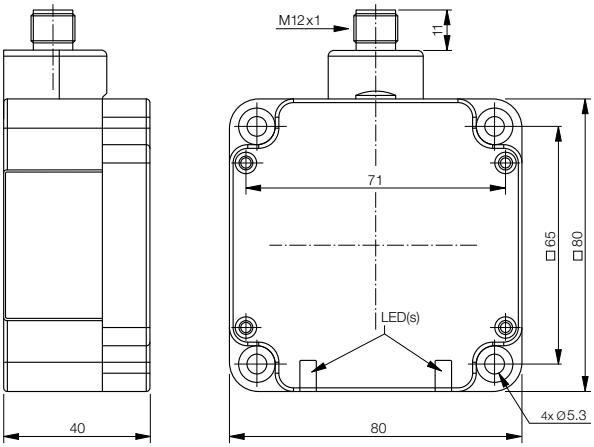


NPN

2 NC / 4 NO

Mechanical Drawing

Drawing W80_21



Approvals Certificates

CE

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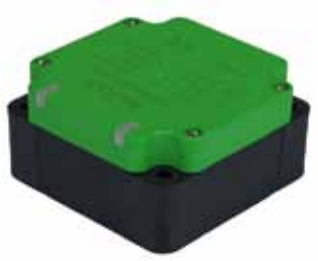
Plastic Rectangular-W80

General Data

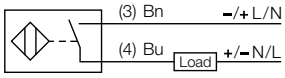
- Plastic housing
- Rectangular 80 x 80 mm
- AC/DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Standardized mounting hole arrangement
- Wide voltage range



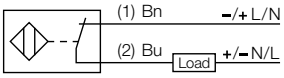
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi40-W80-OA41L-Q	40 mm	flush	NO	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-CA41L-Q	50 mm	non flush	NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Fi40-W80-VA41L-Q	40 mm	flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Ni50-W80-VA41L-Q	50 mm	non flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Fi40-W80-OA41L-Q12	40 mm	flush	NO	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-CA41L-Q12	50 mm	non flush	NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21
Fi40-W80-VA41L-Q12	40 mm	flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21
Ni50-W80-VA41L-Q12	50 mm	non flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



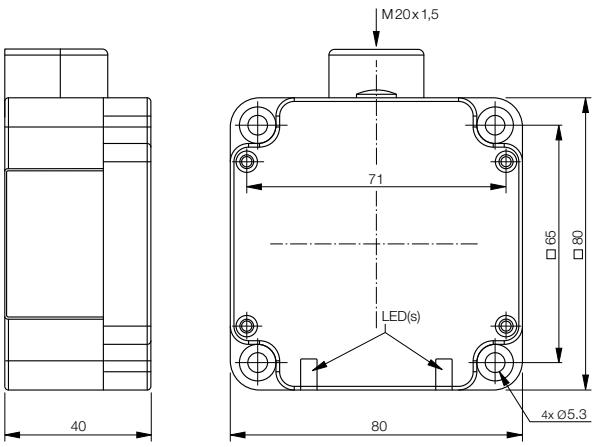
AC/DC-2 wire NO



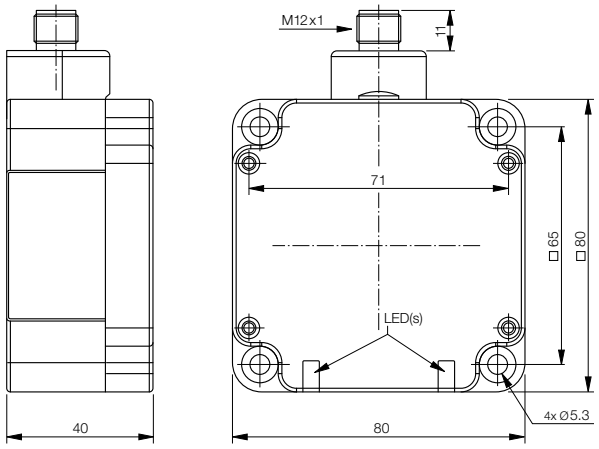
AC/DC-2 wire NC

Mechanical Drawing

Drawing W80_11



Drawing W80_21



Approvals Certificates

CE

Extended Operating Distance Metal Barrel-M8

General Data

- Stainless steel housing
- Threaded barrel M8x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Standard size

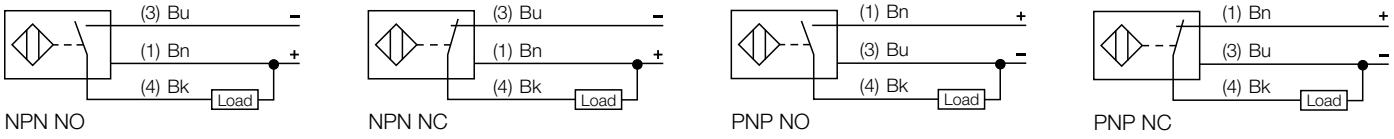
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Ni4-KM08-OP6L	4mm	non flush	NO	PNP	10…30VDC	≤200mA	600Hz	-25…70°C	2m cable	M8_23
Ni4-KM08-ON6L	4mm	non flush	NO	NPN	10…30VDC	≤200mA	600Hz	-25…70°C	2m cable	M8_23
Ni4-KM08-CP6L	4mm	non flush	NC	PNP	10…30VDC	≤200mA	600Hz	-25…70°C	2m cable	M8_23
Ni4-KM08-CN6L	4mm	non flush	NC	NPN	10…30VDC	≤200mA	600Hz	-25…70°C	2m cable	M8_23
Ni4-KM08-OP6L-Q8	4mm	non flush	NO	PNP	10…30VDC	≤200mA	600Hz	-25…70°C	Connector M8	M8_41
Ni4-KM08-ON6L-Q8	4mm	non flush	NO	NPN	10…30VDC	≤200mA	600Hz	-25…70°C	Connector M8	M8_41
Ni4-KM08-CP6L-Q8	4mm	non flush	NC	PNP	10…30VDC	≤200mA	600Hz	-25…70°C	Connector M8	M8_41
Ni4-KM08-CN6L-Q8	4mm	non flush	NC	NPN	10…30VDC	≤200mA	600Hz	-25…70°C	Connector M8	M8_41
Ni4-KM08-OP6L-Q12	4mm	non flush	NO	PNP	10…30VDC	≤200mA	600Hz	-25…70°C	M12 connector	M8_42
Ni4-KM08-ON6L-Q12	4mm	non flush	NO	NPN	10…30VDC	≤200mA	600Hz	-25…70°C	M12 connector	M8_42
Ni4-KM08-CP6L-Q12	4mm	non flush	NC	PNP	10…30VDC	≤200mA	600Hz	-25…70°C	M12 connector	M8_42
Ni4-KM08-CN6L-Q12	4mm	non flush	NC	NPN	10…30VDC	≤200mA	600Hz	-25…70°C	M12 connector	M8_42

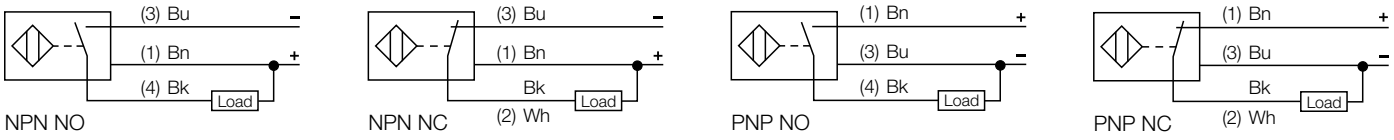
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M8 & M12

M8 Connector / Cable

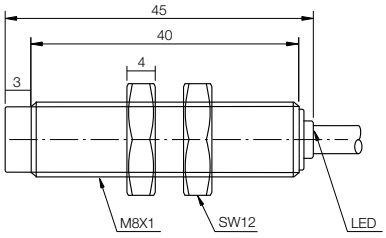


M12 connector / Cable

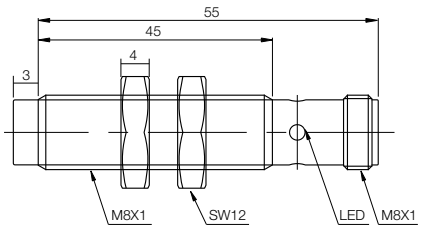


Mechanical Drawing

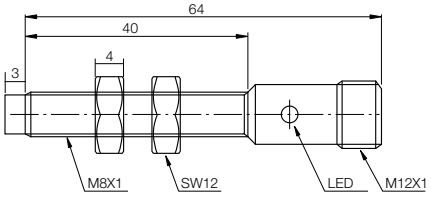
Drawing M8_23



Drawing M8_41



Drawing M8_42



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Extended Operating Distance Metal Barrel-M12

General Data

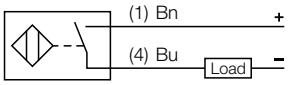
- Metal housing
- Threaded barrel M12x1
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Standard size
- Flush/non flush mounting

Technical Data

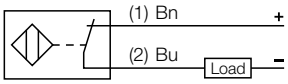
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi4-M12-OD6L	4mm	flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M12_11
Fi4-M12-CD6L	4mm	flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	2m cable	M12_11
Ni8-M12-OD6L	8mm	non flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M12_25
Ni8-M12-CD6L	8mm	non flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M12_25
Fi4-M12-OD6L-Q12	4mm	flush	NO	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M12_31
Fi4-M12-CD6L-Q12	4mm	flush	NC	DC	10…30VDC	≤100mA	500Hz	-25…70°C	M12 connector	M12_31
Ni8-M12-OD6L-Q12	8mm	non flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M12_45
Ni8-M12-CD6L-Q12	8mm	non flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M12_45

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



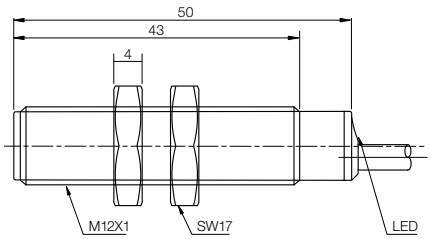
DC-2 wire NO



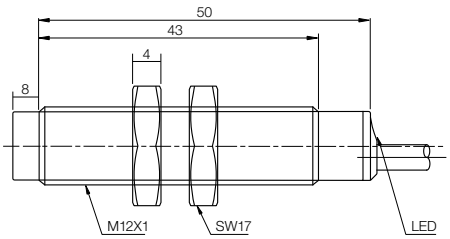
DC-2 wire NC

Mechanical Drawing

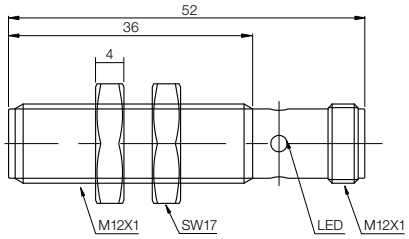
Drawing M12_11



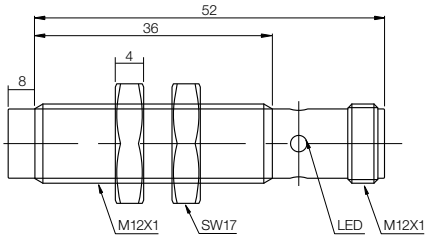
Drawing M12_25



Drawing M12_31



Drawing M12_45



Approvals Certificates

CE

Extended Operating Distance Metal Barrel-M12

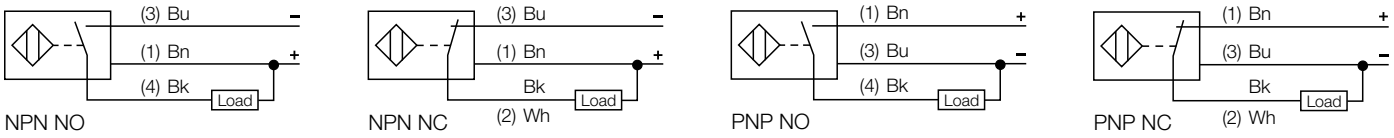
General Data

- Metal housing
- Threaded barrel M12x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Standard size
- Flush/non flush mounting

Technical Data

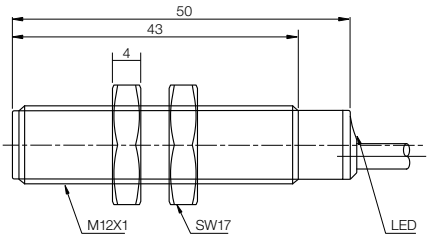
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi4-M12-OP6L	4mm	flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Fi4-M12-ON6L	4mm	flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Fi4-M12-CP6L	4mm	flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Fi4-M12-CN6L	4mm	flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Ni8-M12-OP6L	8mm	non flush	NO	PNP	10…30VDC	≤200mA	400Hz	-25…70°C	2m cable	M12_25
Ni8-M12-ON6L	8mm	non flush	NO	NPN	10…30VDC	≤200mA	400Hz	-25…70°C	2m cable	M12_25
Ni8-M12-CP6L	8mm	non flush	NC	PNP	10…30VDC	≤200mA	400Hz	-25…70°C	2m cable	M12_25
Ni8-M12-CN6L	8mm	non flush	NC	NPN	10…30VDC	≤200mA	400Hz	-25…70°C	2m cable	M12_25
Fi4-M12-OP6L-Q12	4mm	flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31
Fi4-M12-ON6L-Q12	4mm	flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31
Fi4-M12-CP6L-Q12	4mm	flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31
Fi4-M12-CN6L-Q12	4mm	flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31
Ni8-M12-OP6L-Q12	8mm	non flush	NO	PNP	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_45
Ni8-M12-ON6L-Q12	8mm	non flush	NO	NPN	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_45
Ni8-M12-CP6L-Q12	8mm	non flush	NC	PNP	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_45
Ni8-M12-CN6L-Q12	8mm	non flush	NC	NPN	10…30VDC	≤200mA	400Hz	-25…70°C	M12 connector	M12_45

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

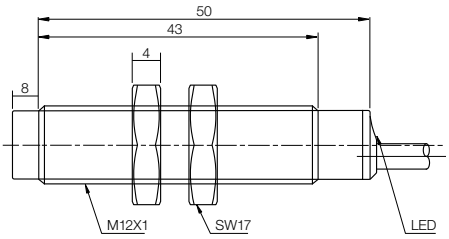


Mechanical Drawing

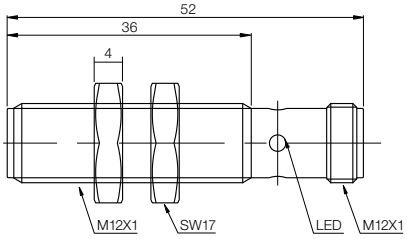
Drawing M12_11



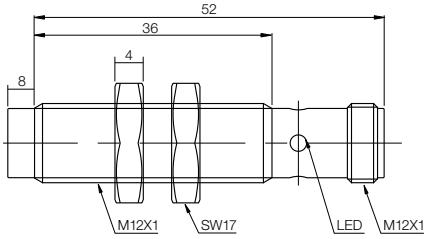
Drawing M12_25



Drawing M12_31



Drawing M12_45



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Extended Operating Distance Metal Barrel-M18

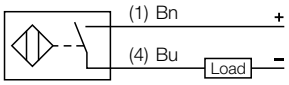
General Data

- Metal housing
- Threaded barrel M18x1
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Standard size
- Flush/non flush mounting

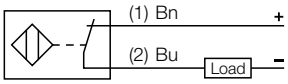
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi8-M18-OD6L	8mm	flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M18_12
Fi8-M18-CD6L	8mm	flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	2m cable	M18_12
Ni12-M18-OD6L	12mm	non flush	NO	DC	10…30VDC	≤100mA	150Hz	-25…70°C	2m cable	M18_26
Ni12-M18-CD6L	12mm	non flush	NC	DC	10…30VDC	≤100mA	150Hz	-25…70°C	2m cable	M18_26
Fi8-M18-OD6L-Q12	8mm	flush	NO	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M18_32
Fi8-M18-CD6L-Q12	8mm	flush	NC	DC	10…30VDC	≤100mA	300Hz	-25…70°C	M12 connector	M18_32
Ni12-M18-OD6L-Q12	12mm	non flush	NO	DC	10…30VDC	≤100mA	150Hz	-25…70°C	M12 connector	M18_46
Ni12-M18-CD6L-Q12	12mm	non flush	NC	DC	10…30VDC	≤100mA	150Hz	-25…70°C	M12 connector	M18_46

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



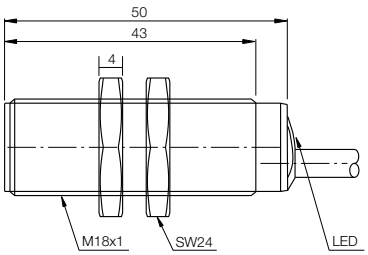
DC-2 wire NO



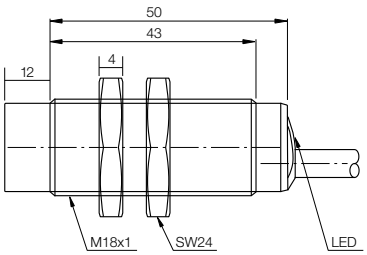
DC-2 wire NC

Mechanical Drawing

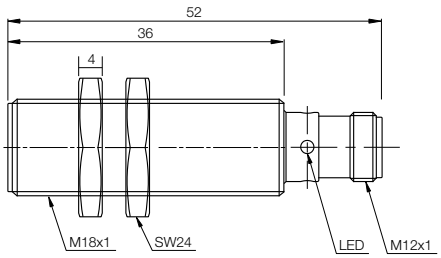
Drawing M18_12



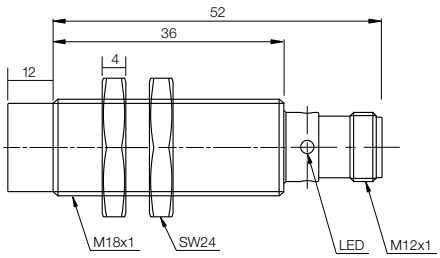
Drawing M18_26



Drawing M18_32



Drawing M18_46



Approvals Certificates

CE

Extended Operating Distance Metal Barrel-M18

General Data

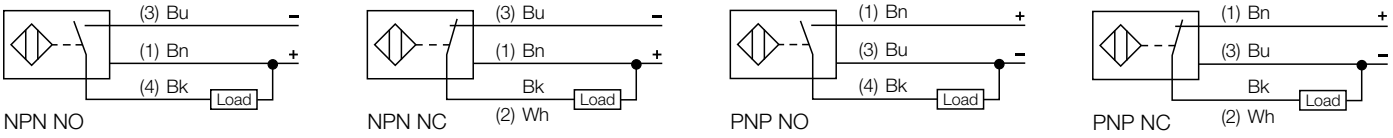
- Metal housing
- Threaded barrel M18x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Standard size
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi8-M18-OP6L	8mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_12
Fi8-M18-ON6L	8mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_12
Fi8-M18-CP6L	8mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_12
Fi8-M18-CN6L	8mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	2m cable	M18_12
Ni12-M18-OP6L	12mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M18_26
Ni12-M18-ON6L	12mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M18_26
Ni12-M18-CP6L	12mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M18_26
Ni12-M18-CN6L	12mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	2m cable	M18_26
Fi8-M18-OP6L-Q12	8mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M18_32
Fi8-M18-ON6L-Q12	8mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M18_32
Fi8-M18-CP6L-Q12	8mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M18_32
Fi8-M18-CN6L-Q12	8mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…70°C	M12 connector	M18_32
Ni12-M18-OP6L-Q12	12mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_46
Ni12-M18-ON6L-Q12	12mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_46
Ni12-M18-CP6L-Q12	12mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_46
Ni12-M18-CN6L-Q12	12mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…70°C	M12 connector	M18_46

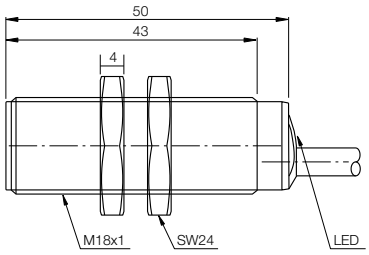
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

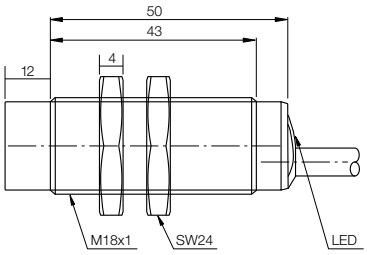


Mechanical Drawing

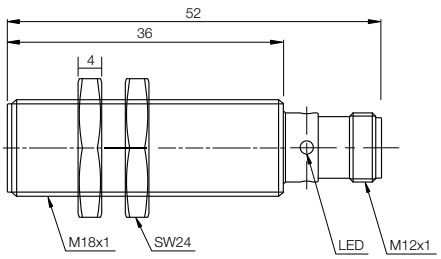
Drawing M18_12



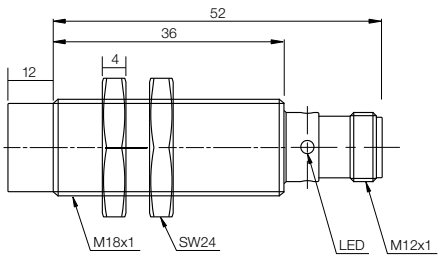
Drawing M18_26



Drawing M18_32



Drawing M18_46



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Extended Operating Distance Metal Barrel-M18

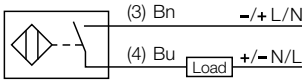
General Data

- Metal housing
- Threaded barrel M18x1
- AC/DC 2-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Flush/non flush mounting
- Wide voltage range

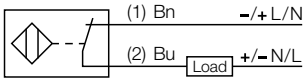
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi8-M18-0A41L	8mm	flush	NO	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M18_16
Fi8-M18-CA41L	8mm	flush	NC	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M18_16
Ni12-M18-0A41L	12mm	non flush	NO	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M18_26a
Ni12-M18-CA41L	12mm	non flush	NC	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M18_26a

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



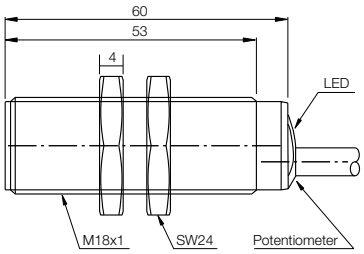
AC/DC-2 wire NO



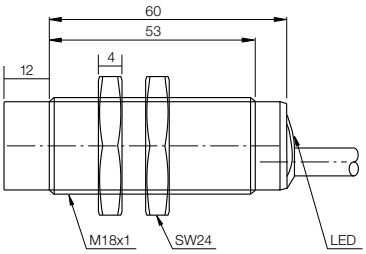
AC/DC-2 wire NC

Mechanical Drawing

Drawing M18_16



Drawing M18_26a



Approvals Certificates

CE

Extended Operating Distance Metal Barrel-M30

General Data

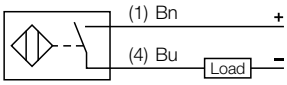
- Metal housing
- Threaded barrel M30x1,5
- DC 2-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Standard size
- Flush/non flush mounting

Technical Data

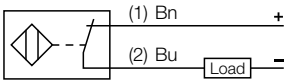
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-M30-OD6L	15mm	flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M30_11
Fi15-M30-CD6L	15mm	flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	2m cable	M30_11
Ni22-M30-OD6L	22mm	non flush	NO	DC	10…30VDC	≤100mA	100Hz	-25…70°C	2m cable	M30_24
Ni22-M30-CD6L	22mm	non flush	NC	DC	10…30VDC	≤100mA	100Hz	-25…70°C	2m cable	M30_24
Fi15-M30-OD6L-Q12	15mm	flush	NO	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M30_32
Fi15-M30-CD6L-Q12	15mm	flush	NC	DC	10…30VDC	≤100mA	200Hz	-25…70°C	M12 connector	M30_32
Ni22-M30-OD6L-Q12	22mm	non flush	NO	DC	10…30VDC	≤100mA	100Hz	-25…70°C	M12 connector	M30_44
Ni22-M30-CD6L-Q12	22mm	non flush	NC	DC	10…30VDC	≤100mA	100Hz	-25…70°C	M12 connector	M30_44

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



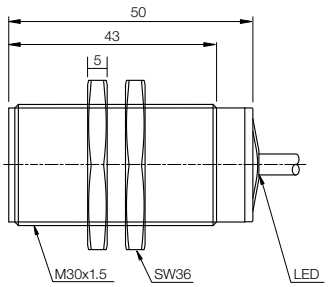
DC-2 wire NO



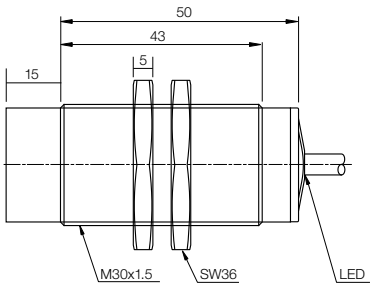
DC-2 wire NC

Mechanical Drawing

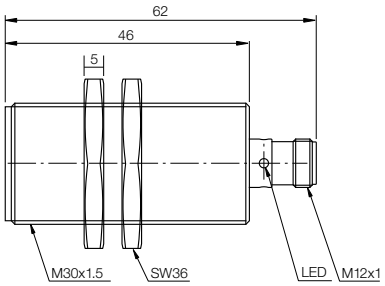
Drawing M30_11



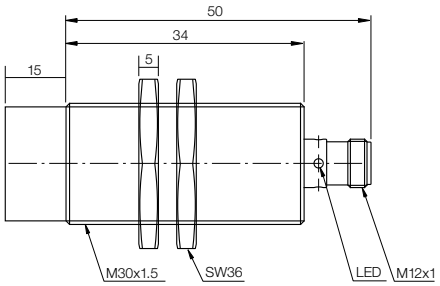
Drawing M30_24



Drawing M30_32



Drawing M30_44



Approvals Certificates

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This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Extended Operating Distance Metal Barrel-M30

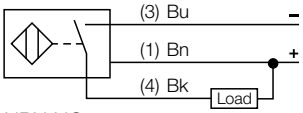
General Data

- Metal housing
- Threaded barrel M30 x1,5
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Standard size
- Flush/non flush mounting

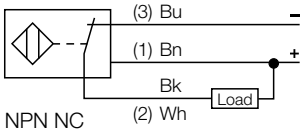
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-M30-OP6L	15 mm	flush	NO	PNP	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	2 m cable	M30_12
Fi15-M30-ON6L	15 mm	flush	NO	NPN	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	2 m cable	M30_12
Fi15-M30-CP6L	15 mm	flush	NC	PNP	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	2 m cable	M30_12
Fi15-M30-CN6L	15 mm	flush	NC	NPN	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	2 m cable	M30_12
Ni22-M30-OP6L	22 mm	non flush	NO	PNP	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	2 m cable	M30_25
Ni22-M30-ON6L	22 mm	non flush	NO	NPN	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	2 m cable	M30_25
Ni22-M30-CP6L	22 mm	non flush	NC	PNP	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	2 m cable	M30_25
Ni22-M30-CN6L	22 mm	non flush	NC	NPN	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	2 m cable	M30_25
Fi15-M30-OP6L-Q12	15 mm	flush	NO	PNP	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	M12 connector	M30_32
Fi15-M30-ON6L-Q12	15 mm	flush	NO	NPN	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	M12 connector	M30_32
Fi15-M30-CP6L-Q12	15 mm	flush	NC	PNP	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	M12 connector	M30_32
Fi15-M30-CN6L-Q12	15 mm	flush	NC	NPN	10…30 VDC	≤200 mA	400 Hz	-25…70 °C	M12 connector	M30_32
Ni22-M30-OP6L-Q12	22 mm	non flush	NO	PNP	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	M12 connector	M30_45
Ni22-M30-ON6L-Q12	22 mm	non flush	NO	NPN	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	M12 connector	M30_45
Ni22-M30-CP6L-Q12	22 mm	non flush	NC	PNP	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	M12 connector	M30_45
Ni22-M30-CN6L-Q12	22 mm	non flush	NC	NPN	10…30 VDC	≤200 mA	200 Hz	-25…70 °C	M12 connector	M30_45

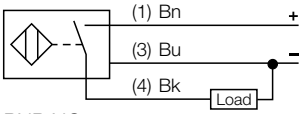
Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



NPN NO



NPN NC



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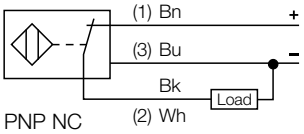
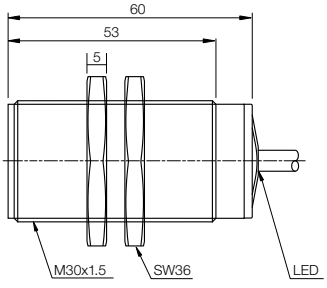


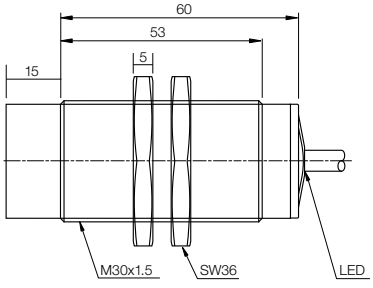
PNP NC

Mechanical Drawing

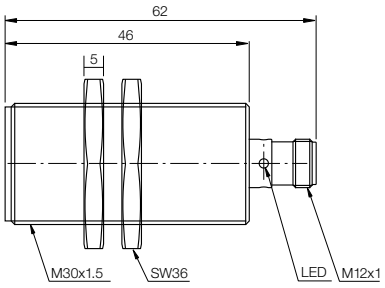
Drawing M30_12



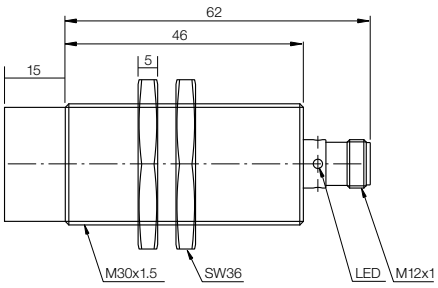
Drawing M30_25



Drawing M30_32



Drawing M30_45



Approvals Certificates

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Extended Operating Distance Metal Barrel-M30

General Data

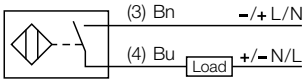
- Metal housing
- Threaded barrel M30x1,5
- AC/DC 2-wire
- Function display LED
- Degree of protection IP67
- Extended operating distance
- Flush/non flush mounting
- Wide voltage range

Technical Data

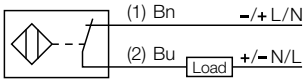
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi15-M30-0A41L	15mm	flush	NO	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M30_12
Fi15-M30-CA41L	15mm	flush	NC	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M30_12
Ni22-M30-0A41L	22mm	non flush	NO	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M30_25
Ni22-M30-CA41L	22mm	non flush	NC	AC/DC	20…250VAC/DC	≤300mA (AC) ≤100mA (DC)	20Hz (AC) 50Hz (DC)	-25…70°C	2m cable	M30_25

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



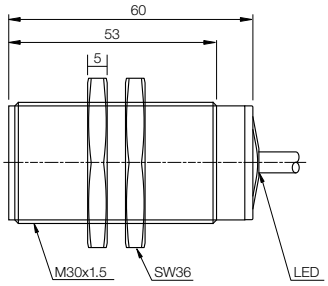
AC/DC-2 wire NO



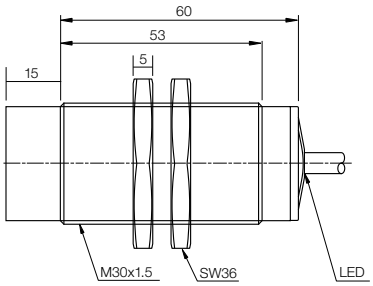
AC/DC-2 wire NC

Mechanical Drawing

Drawing M30_12



Drawing M30_25



Approvals Certificates

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Extended Operating Distance Plastic Rectangular-W40

General Data

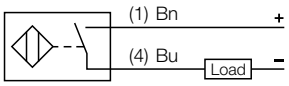
- Plastic housing
- Rectangular 40 x 40 mm
- DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Extended operating distance
- Standardized mounting hole arrangement

Technical Data

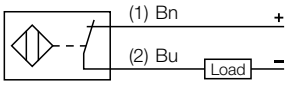
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi25-W40-OD9L-Q12	25 mm	flush	NO	DC	10…60 VDC	≤200 mA	150 Hz	-25…70 °C	M12 connector	W40_11
Ni40-W40-OD9L-Q12	40 mm	non flush	NO	DC	10…60 VDC	≤200 mA	150 Hz	-25…70 °C	M12 connector	W40_11
Fi25-W40-CD9L-Q12	25 mm	flush	NC	DC	10…60 VDC	≤200 mA	150 Hz	-25…70 °C	M12 connector	W40_11
Ni40-W40-CD9L-Q12	40 mm	non flush	NC	DC	10…60 VDC	≤200 mA	150 Hz	-25…70 °C	M12 connector	W40_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



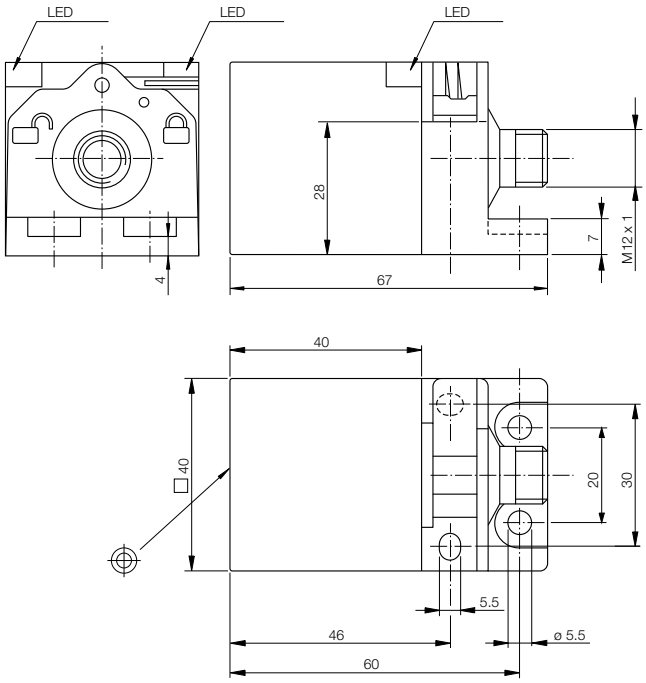
DC-2 wire NO



DC-2 wire NC

Mechanical Drawing

Drawing W40_11



Approvals Certificates

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Extended Operating Distance Plastic Rectangular-W40

General Data

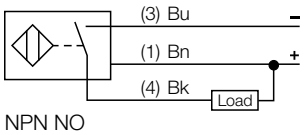
- Plastic housing
- Rectangular 40x40mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Extended operating distance
- Standardized mounting hole arrangement

Technical Data

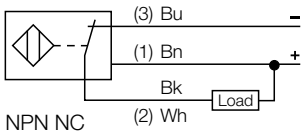
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi25-W40-ON6L-Q12	25mm	flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi25-W40-CN6L-Q12	25mm	flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi25-W40-BN6L-Q12	25mm	flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi25-W40-OP6L-Q12	25mm	flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi25-W40-CP6L-Q12	25mm	flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Fi25-W40-BP6L-Q12	25mm	flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni40-W40-ON6L-Q12	40mm	non flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni40-W40-CN6L-Q12	40mm	non flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni40-W40-BN6L-Q12	40mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni40-W40-OP6L-Q12	40mm	non flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni40-W40-CP6L-Q12	40mm	non flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11
Ni40-W40-BP6L-Q12	40mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	M12 connector	W40_11

Connection Diagram

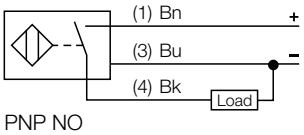
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



NPN NO



NPN NC



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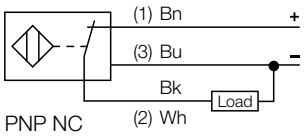
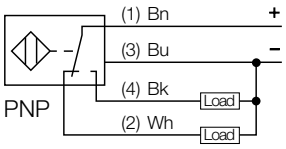
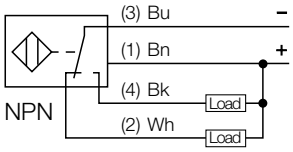


PNP NC



PNP

2 NC/4 NO

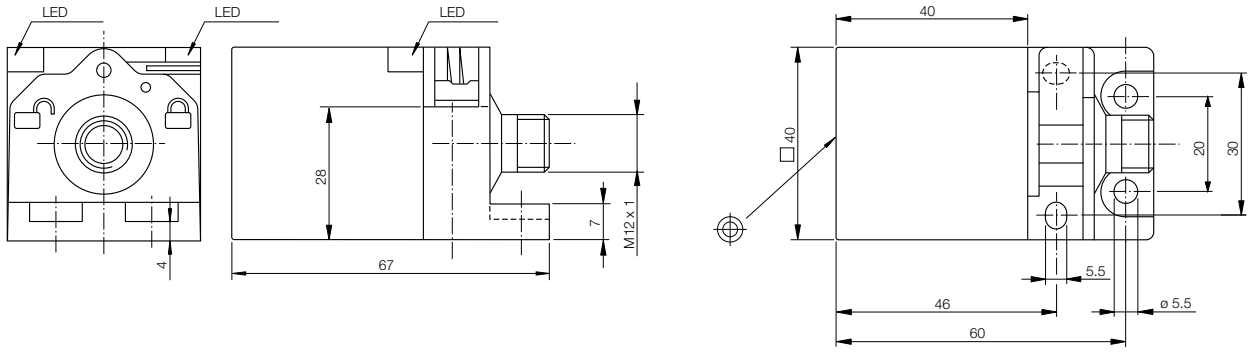


NPN

2 NC/4 NO

Mechanical Drawing

Drawing W40_11



Approvals Certificates

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Extended Operating Distance Plastic Rectangular-W40

General Data

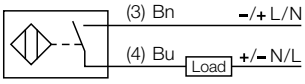
- Plastic housing
- Rectangular 40 x 40 mm
- AC/DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Extended operating distance
- Standardized mounting hole arrangement

Technical Data

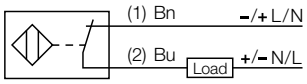
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi25-W40-OA41L-Q12	25 mm	flush	NO	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W40_11
Ni40-W40-CA41L-Q12	40 mm	non flush	NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W40_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



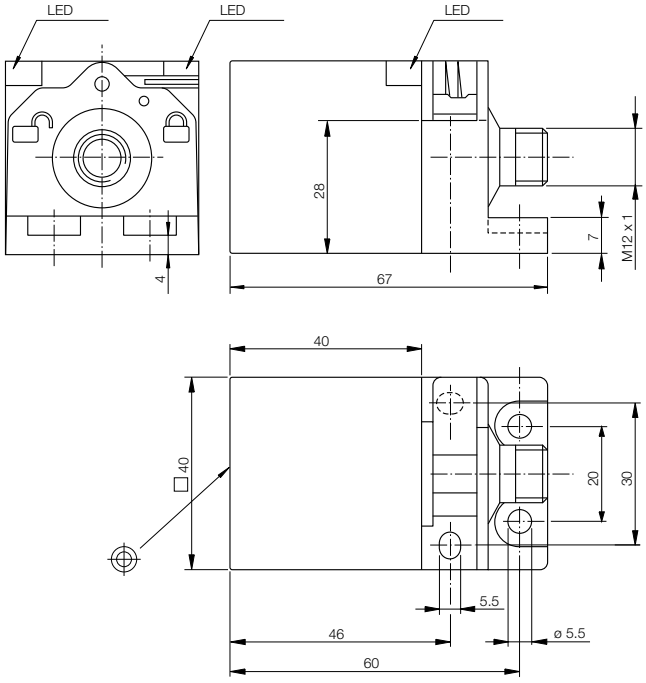
AC/DC-2 wire NO



AC/DC-2 wire NC

Mechanical Drawing

Drawing W40_11



Approvals Certificates

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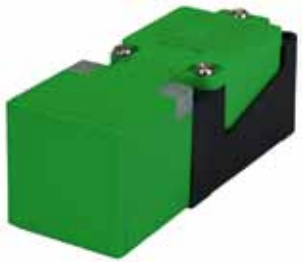
Extended Operating Distance Plastic Rectangular-WL40

General Data

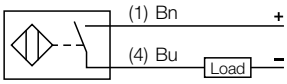
- Plastic housing
- Rectangular 40x40x118mm
- DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Variable orientation of the active
- Extended operating distance
- Standardized mounting hole arrangement



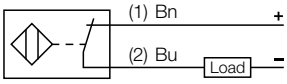
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi25-WL40-OD9L-Q	25mm	flush	NO	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-OD9L-Q	40mm	non flush	NO	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi25-WL40-CD9L-Q	25mm	flush	NC	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-CD9L-Q	40mm	non flush	NC	DC	10…60VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



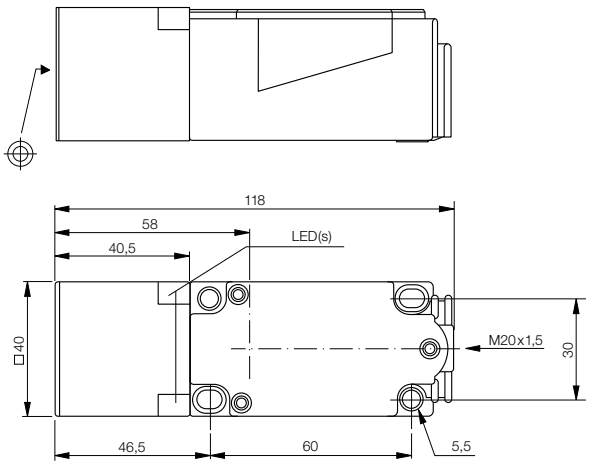
DC-2 wire NO



DC-2 wire NC

Mechanical Drawing

Drawing WL40_11



Approvals Certificates

CE

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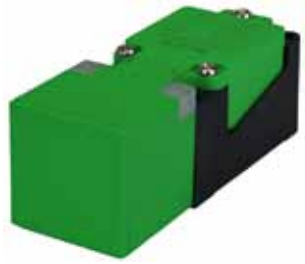
Extended Operating Distance Plastic Rectangular-WL40

General Data

- Plastic housing; Rectangular 40x40x118mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Variable orientation of the active
- Extended operating distance
- Standardized mounting hole arrangement
- normally open / normally closed / change-over

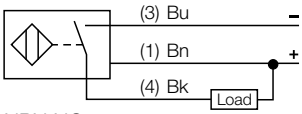


Technical Data

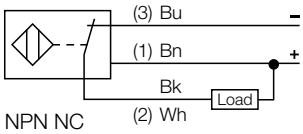
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi25-WL40-ON6L-Q	25mm	flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi25-WL40-CN6L-Q	25mm	flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi25-WL40-BN6L-Q	25mm	flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi25-WL40-OP6L-Q	25mm	flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi25-WL40-CP6L-Q	25mm	flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Fi25-WL40-BP6L-Q	25mm	flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-ON6L-Q	40mm	non flush	NO	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-CN6L-Q	40mm	non flush	NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-BN6L-Q	40mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-OP6L-Q	40mm	non flush	NO	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-CP6L-Q	40mm	non flush	NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-BP6L-Q	40mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	150Hz	-25…70°C	Screw terminals	WL40_11

Connection Diagram

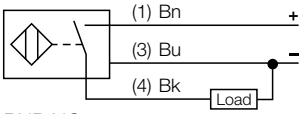
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



NPN NO



NPN NC



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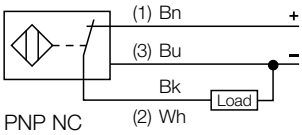
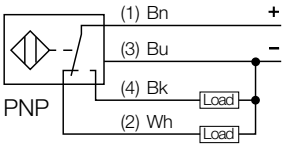
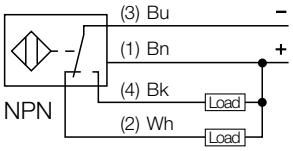


PNP NC



PNP

2 NC/4 NO

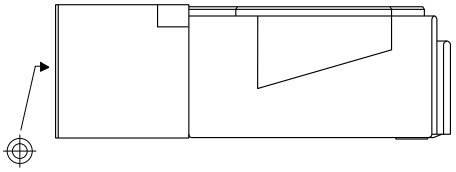


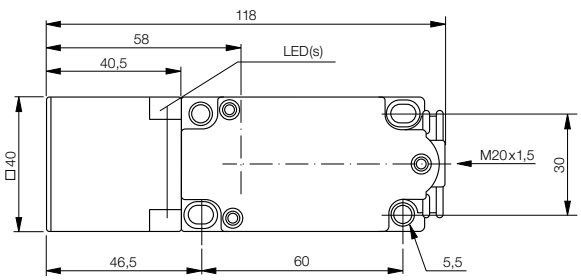
NPN

2 NC/4 NO

Mechanical Drawing

Drawing WL40_11





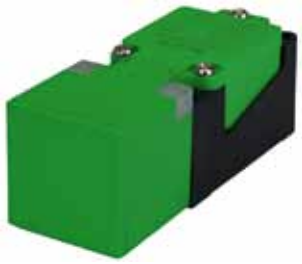
Approvals Certificates

CE

Extended Operating Distance Plastic Rectangular-WL40

General Data

- Plastic housing; Rectangular 40x40x118mm
- AC/DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Variable orientation of the active
- Extended operating distance
- Standardized mounting hole arrangement

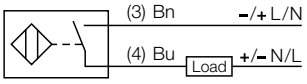


Technical Data

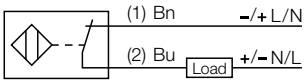
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi25-WL40-0A41L-Q	25mm	flush	NO	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-CA41L-Q	40mm	non flush	NC	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11
Fi25-WL40-VA41L-Q	25mm	flush	NO / NC	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11
Ni40-WL40-VA41L-Q	40mm	non flush	NO / NC	AC/DC	20…240VAC/DC	≤200mA	20Hz	-25…70°C	Screw terminals	WL40_11

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



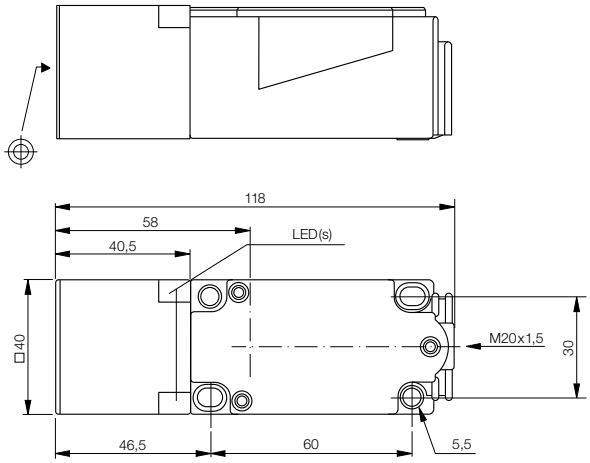
AC/DC-2 wire NO



AC/DC-2 wire NC

Mechanical Drawing

Drawing WL40_11



Approvals Certificates

CE

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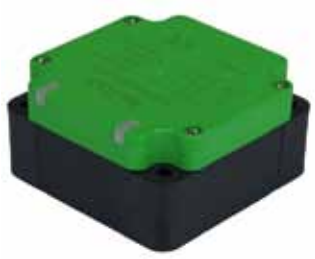
Extended Operating Distance Plastic Rectangular-W80

General Data

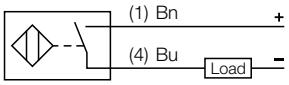
- Plastic housing; Rectangular 80x80mm
- DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Extended operating distance
- Standardized mounting hole arrangement



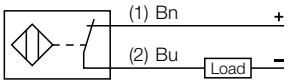
Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi50-W80-OD9L-Q	50mm	flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-OD9L-Q	70mm	non flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi50-W80-CD9L-Q	50mm	flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-CD9L-Q	70mm	non flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi50-W80-OD9L-Q12	50mm	flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21
Ni70-W80-OD9L-Q12	70mm	non flush	NO	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21
Fi50-W80-CD9L-Q12	50mm	flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21
Ni70-W80-CD9L-Q12	70mm	non flush	NC	DC	10…60VDC	≤200mA	100Hz	-25…70°C	M12 connector	W80_21

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



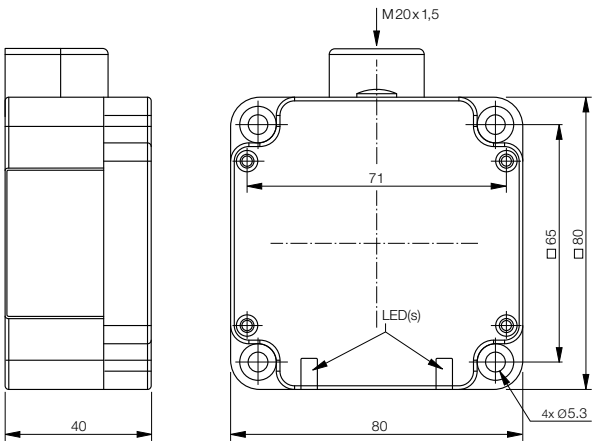
DC-2 wire NO



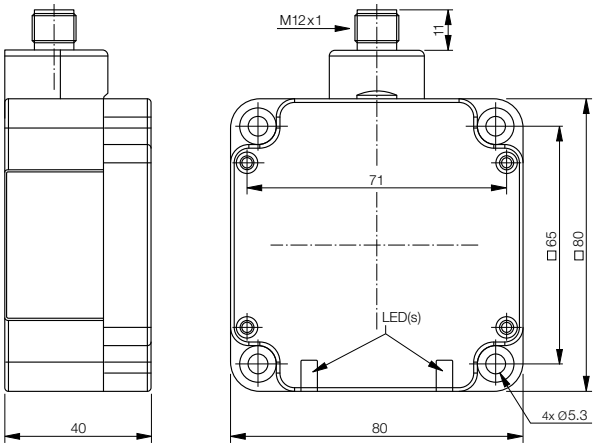
DC-2 wire NC

Mechanical Drawing

Drawing W80_11



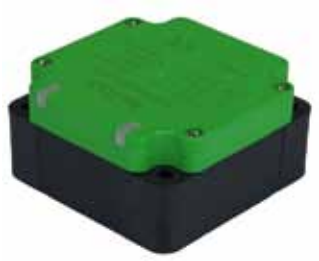
Drawing W80_21



Approvals Certificates

CE

Extended Operating Distance Plastic Rectangular-W80



General Data

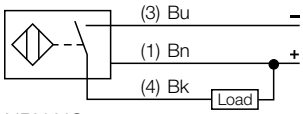
- Plastic housing
- Rectangular 80x80mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Extended operating distance
- Standardized mounting hole arrangement
- normally open / normally closed / change-over

Technical Data

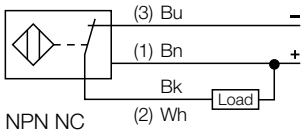
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi50-W80-ON6L-Q	50mm	flush	NO	NPN	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi50-W80-CN6L-Q	50mm	flush	NC	NPN	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi50-W80-BN6L-Q	50mm	flush	NO+NC	NPN	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi50-W80-OP6L-Q	50mm	flush	NO	PNP	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi50-W80-CP6L-Q	50mm	flush	NC	PNP	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Fi50-W80-BP6L-Q	50mm	flush	NO+NC	PNP	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-ON6L-Q	70mm	non flush	NO	NPN	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-CN6L-Q	70mm	non flush	NC	NPN	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-BN6L-Q	70mm	non flush	NO+NC	NPN	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-OP6L-Q	70mm	non flush	NO	PNP	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-CP6L-Q	70mm	non flush	NC	PNP	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11
Ni70-W80-BP6L-Q	70mm	non flush	NO+NC	PNP	10…30VDC	≤200mA	100Hz	-25…70°C	Screw terminals	W80_11

Connection Diagram

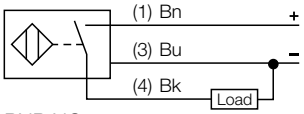
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



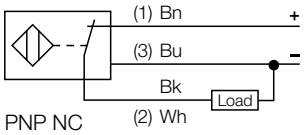
NPN NO



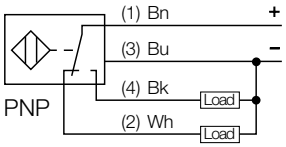
NPN NC



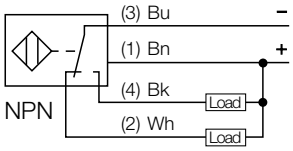
PNP NO



PNP NC



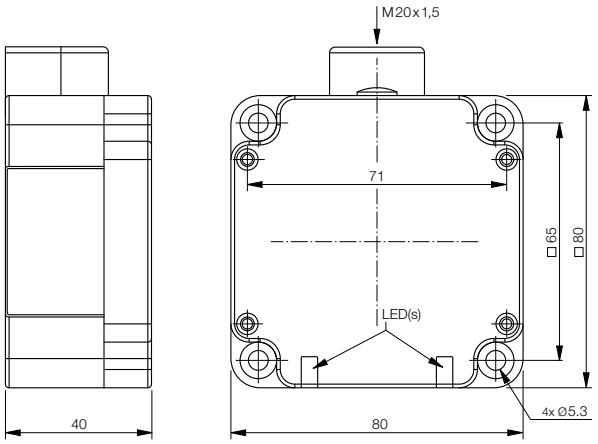
2 NC/4 NO



2 NC/4 NO

Mechanical Drawing

Drawing W80_11



Approvals Certificates

CE

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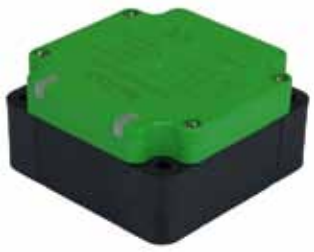
Extended Operating Distance Plastic Rectangular-W80



General Data

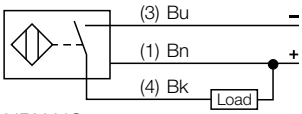
- Plastic housing
- Rectangular 80 x 80 mm
- DC 3/4-wire
- 2 function display LED's
- Degree of protection IP67
- Extended operating distance
- Standardized mounting hole arrangement
- normally open / normally closed / change-over

Technical Data

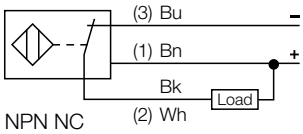
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi50-W80-ON6L-Q12	50 mm	flush	NO	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi50-W80-CN6L-Q12	50 mm	flush	NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi50-W80-BN6L-Q12	50 mm	flush	NO+NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi50-W80-OP6L-Q12	50 mm	flush	NO	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi50-W80-CP6L-Q12	50 mm	flush	NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Fi50-W80-BP6L-Q12	50 mm	flush	NO+NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-ON6L-Q12	70 mm	non flush	NO	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-CN6L-Q12	70 mm	non flush	NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-BN6L-Q12	70 mm	non flush	NO+NC	NPN	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-OP6L-Q12	70 mm	non flush	NO	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-CP6L-Q12	70 mm	non flush	NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-BP6L-Q12	70 mm	non flush	NO+NC	PNP	10…30 VDC	≤200 mA	100 Hz	-25…70 °C	M12 connector	W80_21

Connection Diagram

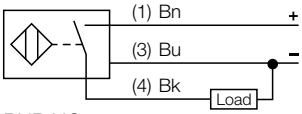
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



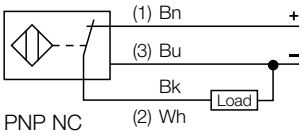
NPN NO



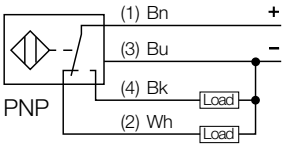
NPN NC



PNP NO

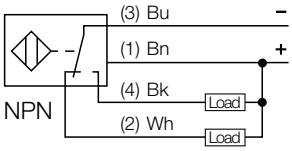


PNP NC



PNP

2 NC/4 NO

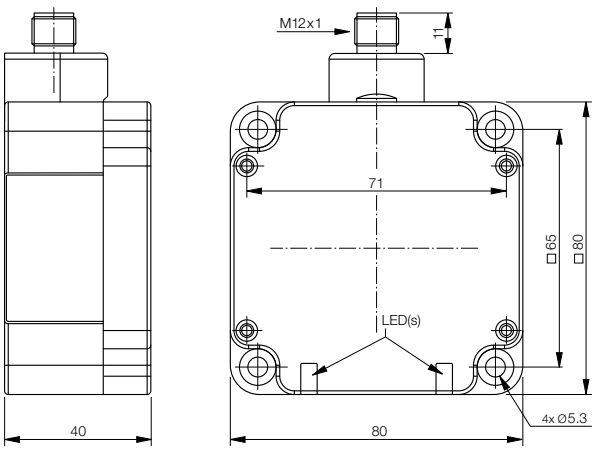


NPN

2 NC/4 NO

Mechanical Drawing

Drawing W80_11



Approvals Certificates

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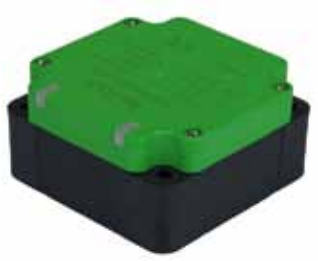
Extended Operating Distance Plastic Rectangular-W80



General Data

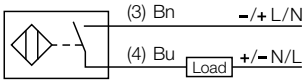
- Plastic housing
- Rectangular 80 x 80 mm
- AC/DC 2-wire
- 2 function display LED's
- Degree of protection IP67
- Extended operating distance
- Standardized mounting hole arrangement
- Wide voltage range

Technical Data

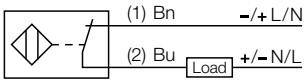
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi50-W80-OA41L-Q	50 mm	flush	NO	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Ni70-W80-CA41L-Q	70 mm	non flush	NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Fi50-W80-VA41L-Q	50 mm	flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Ni70-W80-VA41L-Q	70 mm	non flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	Screw terminals	W80_11
Fi50-W80-OA41L-Q12	50 mm	flush	NO	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-CA41L-Q12	70 mm	non flush	NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21
Fi50-W80-VA41L-Q12	50 mm	flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21
Ni70-W80-VA41L-Q12	70 mm	non flush	NO / NC	AC/DC	20…240 VAC/DC	≤200 mA	20 Hz	-25…70 °C	M12 connector	W80_21

Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12 / Terminals Nr.



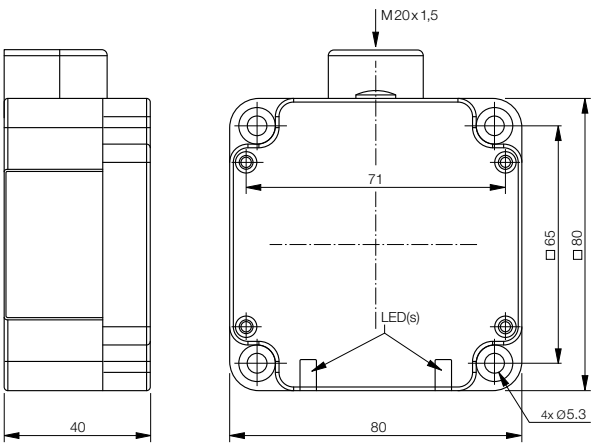
AC/DC-2 wire NO



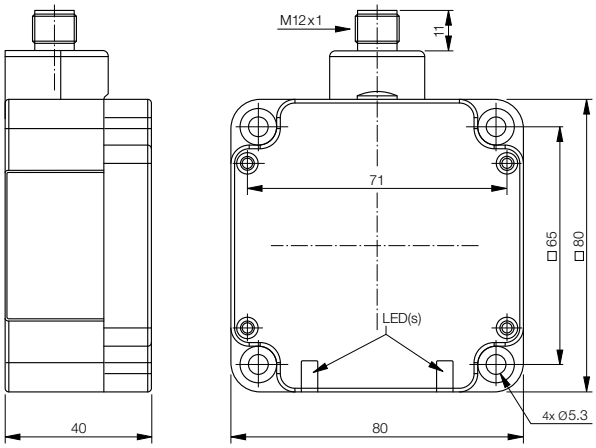
AC/DC-2 wire NC

Mechanical Drawing

Drawing W80_11



Drawing W80_21



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Magnetic Field Immune Metal Barrel-M12

General Data

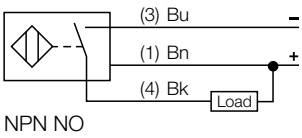
- Metal housing
- Threaded barrel M12x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Standard size

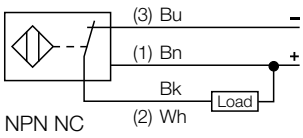
Technical Data

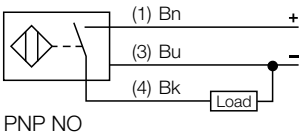
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2A-M12-0P6L	2mm	flush	NO	PNP	10…30VDC	≤200mA	2000Hz	-25…70°C	2m cable	M12_13
Fi2A-M12-CP6L	2mm	flush	NC	PNP	10…30VDC	≤200mA	2000Hz	-25…70°C	2m cable	M12_13
Fi2A-M12-0N6L	2mm	flush	NO	NPN	10…30VDC	≤200mA	2000Hz	-25…70°C	2m cable	M12_13
Fi2A-M12-CN6L	2mm	flush	NC	NPN	10…30VDC	≤200mA	2000Hz	-25…70°C	2m cable	M12_13

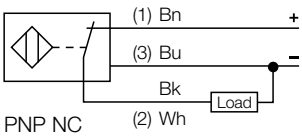
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



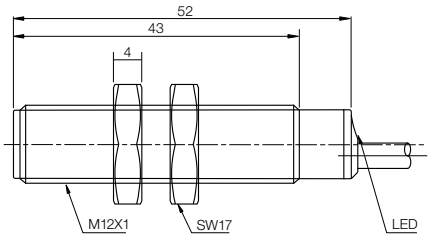






Mechanical Drawing

Drawing M12_13



Approvals Certificates

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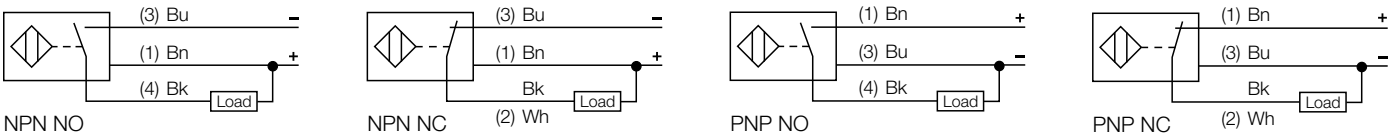
Magnetic Field Immune Metal Barrel-M18

General Data
- Metal housing
- Threaded barrel M18x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Standard size

Technical Data

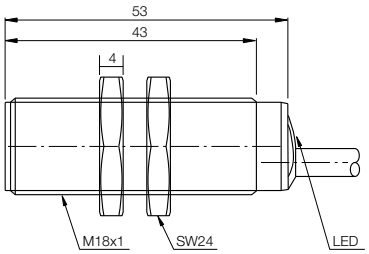
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5A-M18-OP6L	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_15
Fi5A-M18-CP6L	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_15
Fi5A-M18-ON6L	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_15
Fi5A-M18-CN6L	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_15

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12



Mechanical Drawing

Drawing M18_15



Approvals Certificates

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Teflon-Coated Metal Barrel-M12

General Data

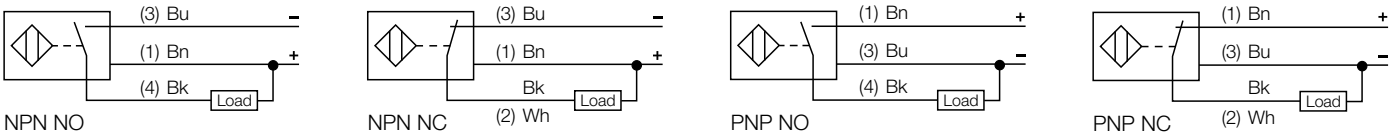
- Metal housing
- Threaded barrel M12x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Resistant against welding sparks
- Acid and alkali resistant
- Standard size

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi3-TM12-OP6L	3mm	flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Fi3-TM12-ON6L	3mm	flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Fi3-TM12-CP6L	3mm	flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Fi3-TM12-CN6L	3mm	flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	2m cable	M12_11
Fi3-TM12-OP6L-Q12	3mm	flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31
Fi3-TM12-ON6L-Q12	3mm	flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31
Fi3-TM12-CP6L-Q12	3mm	flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31
Fi3-TM12-CN6L-Q12	3mm	flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…70°C	M12 connector	M12_31

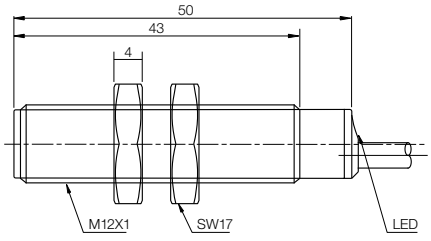
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

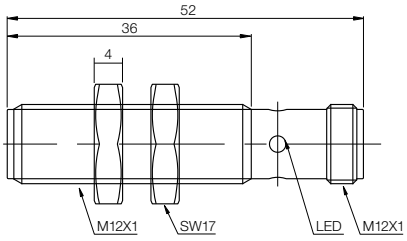


Mechanical Drawing

Drawing M12_11



Drawing M12_31



Approvals Certificates

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Teflon-Coated Metal Barrel-M18

General Data

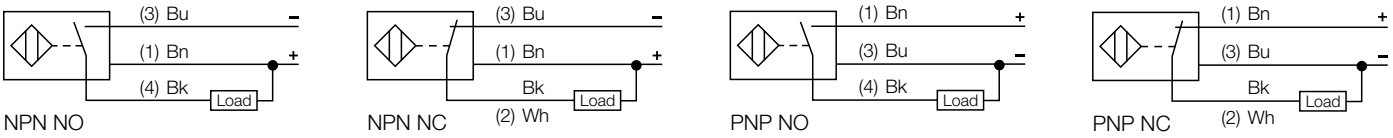
- Metal housing
- Threaded barrel M18x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Resistant against welding sparks
- Acid and alkali resistant
- Standard size

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-TM18-OP6L	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-TM18-ON6L	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-TM18-CP6L	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-TM18-CN6L	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M18_12
Fi5-TM18-OP6L-Q12	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32
Fi5-TM18-ON6L-Q12	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32
Fi5-TM18-CP6L-Q12	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32
Fi5-TM18-CN6L-Q12	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M18_32

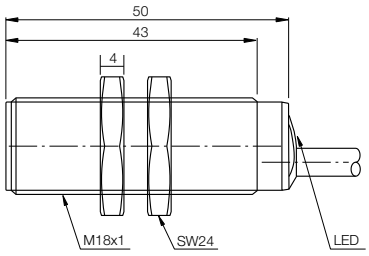
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

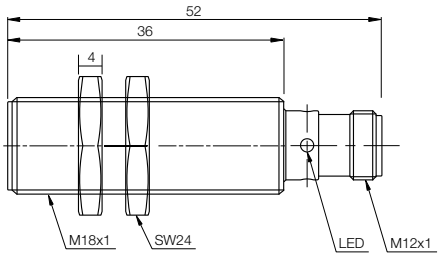


Mechanical Drawing

Drawing M18_12



Drawing M18_32



Approvals Certificates

CE

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Teflon-Coated Metal Barrel-M30

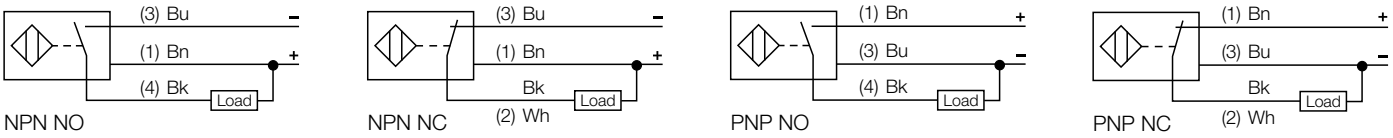
General Data

- Metal housing
- Threaded barrel M30x1,5
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Resistant against welding sparks
- Acid and alkali resistant
- Standard size

Technical Data

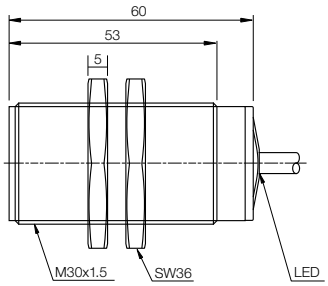
Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-TM30-OP6L	10 mm	flush	NO	PNP	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	2 m cable	M30_12
Fi10-TM30-ON6L	10 mm	flush	NO	NPN	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	2 m cable	M30_12
Fi10-TM30-CP6L	10 mm	flush	NC	PNP	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	2 m cable	M30_12
Fi10-TM30-CN6L	10 mm	flush	NC	NPN	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	2 m cable	M30_12
Fi10-TM30-OP6L-Q12	10 mm	flush	NO	PNP	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	M12 connector	M30_32
Fi10-TM30-ON6L-Q12	10 mm	flush	NO	NPN	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	M12 connector	M30_32
Fi10-TM30-CP6L-Q12	10 mm	flush	NC	PNP	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	M12 connector	M30_32
Fi10-TM30-CN6L-Q12	10 mm	flush	NC	NPN	10…30 VDC	≤200 mA	500 Hz	-25…70 °C	M12 connector	M30_32

Connection Diagram Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

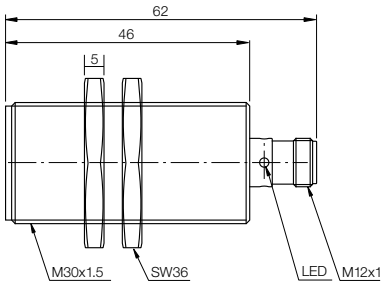


Mechanical Drawing

Drawing M30_12



Drawing M30_32



Approvals Certificates

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NAMUR Metal Barrel-M8

General Data

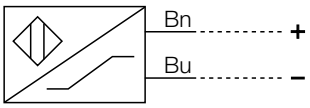
- Stainless steel housing
- Threaded barrel M8x1
- Short version
- Standard operating voltage for explosion-proof applications
- To be connected to a switch amplifier
- Degree of protection IP67
- High switching frequency
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1.5-KM08S-NE	1,5mm	flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	2500Hz	-25…70°C	2m cable	M8_12
Ni2-KM08S-NE	2mm	non flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	2000Hz	-25…70°C	2m cable	M8_22

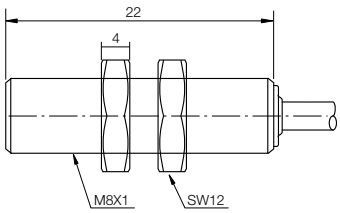
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white

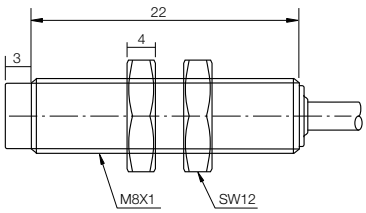


Mechanical Drawing

Drawing M8_12



Drawing M8_22



Approvals Certificates

CE

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NAMUR Metal Barrel-M12

General Data

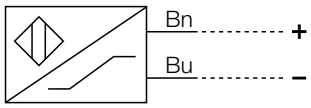
- Metal housing
- Threaded barrel M12x1
- Short version
- Standard operating voltage for explosion-proof applications
- To be connected to a switch amplifier
- Degree of protection IP67
- High switching frequency
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-M12S-NE	2mm	flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	2000Hz	-25…70°C	2m cable	M12_14
Ni4-M12S-NE	4mm	non flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	1500Hz	-25…70°C	2m cable	M12_26

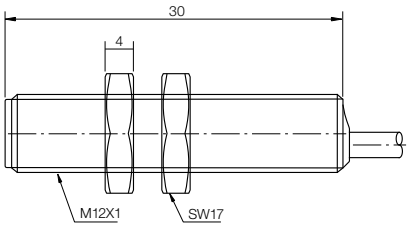
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white

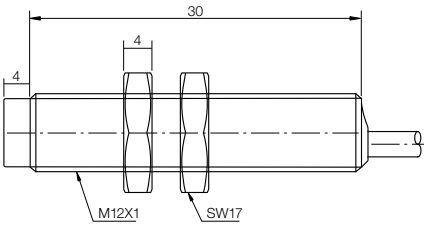


Mechanical Drawing

Drawing M12_14



Drawing M12_26



Approvals Certificates

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NAMUR Metal Barrel-M18

General Data

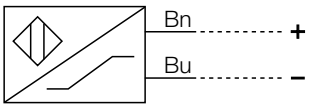
- Metal housing
- Threaded barrel M18x1
- Short version
- Standard operating voltage for explosion-proof applications
- To be connected to a switch amplifier
- Degree of protection IP67
- High switching frequency
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18S-NE	5mm	flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	1500Hz	-25…70°C	2m cable	M18_17
Ni8-M18S-NE	8mm	non flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	1000Hz	-25…70°C	2m cable	M18_28

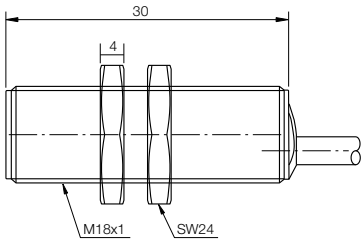
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white

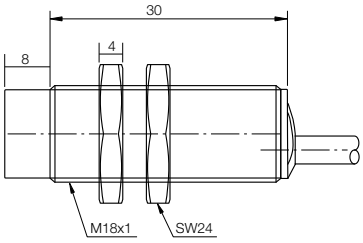


Mechanical Drawing

Drawing M18_17



Drawing M18_28



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

NAMUR Metal Barrel-M30

General Data

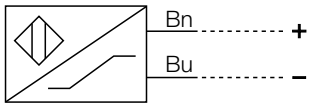
- Metal housing
- Threaded barrel M30x1
- Short version
- Standard operating voltage for explosion-proof applications
- To be connected to a switch amplifier
- Degree of protection IP67
- High switching frequency
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30S-NE	10mm	flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	1000Hz	-25…70°C	2m cable	M30_14
Ni15-M30S-NE	15mm	non flush	NAMUR	7,7…9VDC	≥2,2mA (non-triggered) ≤1mA (triggered)	800Hz	-25…70°C	2m cable	M30_28

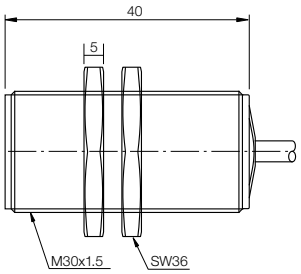
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white

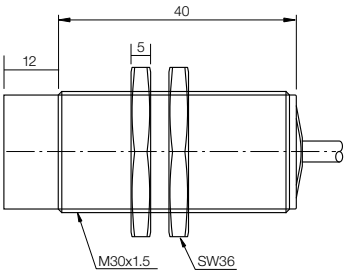


Mechanical Drawing

Drawing M30_14



Drawing M30_28



Approvals Certificates

CE

Analogue Output Metal Barrel-M12

General Data

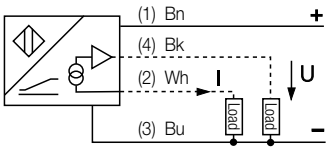
- Metal housing
- Threaded barrel M12 x1
- Current or voltage output or both
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Current output 4-20mA, on request

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Output	Linearity	Ambient temperature	Connection	Mechanical Drawing
Fi2-M12-LU	0,4-2mm	flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	2m cable	M12_15
Fi2-M12-LI	0,4-2mm	flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	2m cable	M12_15
Fi2-M12-LIU	0,4-2mm	flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	2m cable	M12_15
Ni4-M12-LU	0,8-4mm	non flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	2m cable	M12_27
Ni4-M12-LI	0,8-4mm	non flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	2m cable	M12_27
Ni4-M12-LIU	0,8-4mm	non flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	2m cable	M12_27
Fi2-M12-LU-Q12	0,4-2mm	flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	M12 connector	M12_34
Fi2-M12-LI-Q12	0,4-2mm	flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	M12 connector	M12_34
Fi2-M12-LIU-Q12	0,4-2mm	flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	M12 connector	M12_34
Ni4-M12-LU-Q12	0,8-4mm	non flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	M12 connector	M12_44
Ni4-M12-LI-Q12	0,8-4mm	non flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	M12 connector	M12_44
Ni4-M12-LIU-Q12	0,8-4mm	non flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	M12 connector	M12_44

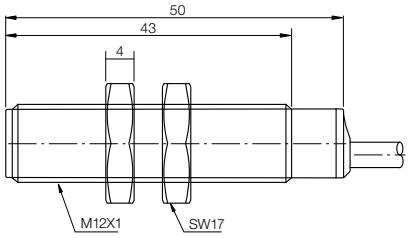
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

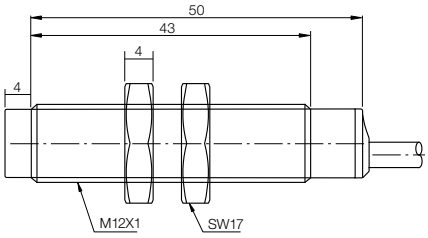


Mechanical Drawing

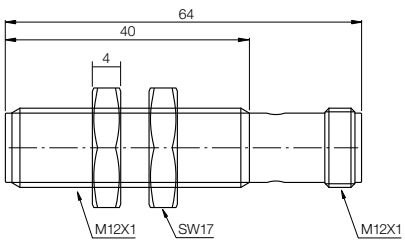
Drawing M12_15



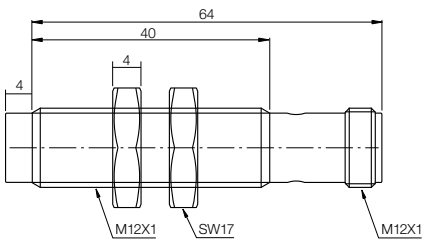
Drawing M12_27



Drawing M12_34



Drawing M12_44



Approvals Certificates

CE

This edition replaces all previous issues. Availability, errors and specification subject to change without notice.

Analogue Output Metal Barrel-M18

General Data

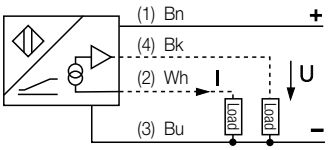
- Metal housing
- Threaded barrel M18x1
- Current or voltage output or both
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Current output 4-20mA, on request

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Output	Linearity	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18-LU	1-5mm	flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	2m cable	M18_18
Fi5-M18-LI	1-5mm	flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	2m cable	M18_18
Fi5-M18-LIU	1-5mm	flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	2m cable	M18_18
Ni8-M18-LU	1,6-8mm	non flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	2m cable	M18_29
Ni8-M18-LI	1,6-8mm	non flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	2m cable	M18_29
Ni8-M18-LIU	1,6-8mm	non flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	2m cable	M18_29
Fi5-M18-LU-Q12	1-5mm	flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	M12 connector	M18_36
Fi5-M18-LI-Q12	1-5mm	flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	M12 connector	M18_36
Fi5-M18-LIU-Q12	1-5mm	flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	M12 connector	M18_36
Ni8-M18-LU-Q12	1,6-8mm	non flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	M12 connector	M18_47
Ni8-M18-LI-Q12	1,6-8mm	non flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	M12 connector	M18_47
Ni8-M18-LIU-Q12	1,6-8mm	non flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	M12 connector	M18_47

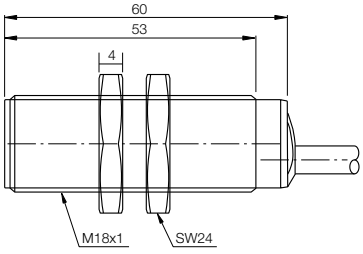
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

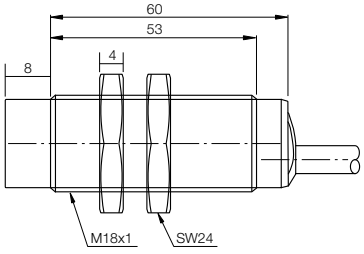


Mechanical Drawing

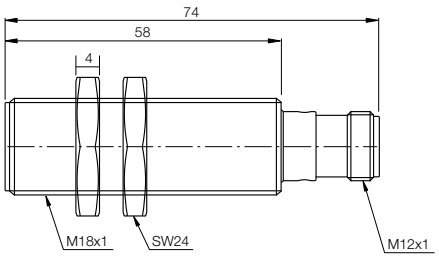
Drawing M18_18



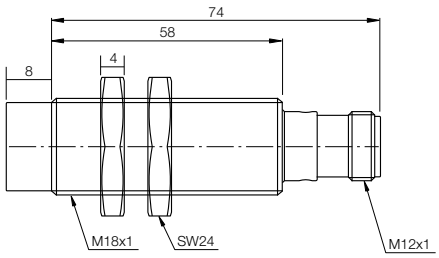
Drawing M18_29



Drawing M18_36



Drawing M18_47



Approvals Certificates

CE

Analogue Output Metal Barrel-M30

General Data

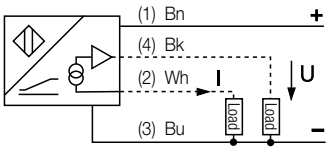
- Metal housing
- Threaded barrel M30x1,5
- Current or voltage output or both
- Function display LED
- Degree of protection IP67
- Flush/non flush mounting
- Current output 4-20mA, on request

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Output	Linearity	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30-LU	2-10mm	flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	2m cable	M30_12
Fi10-M30-LI	2-10mm	flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	2m cable	M30_12
Fi10-M30-LIU	2-10mm	flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	2m cable	M30_12
Ni15-M30-LU	3-15mm	non flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	2m cable	M30_23
Ni15-M30-LI	3-15mm	non flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	2m cable	M30_23
Ni15-M30-LIU	3-15mm	non flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	2m cable	M30_23
Fi10-M30-LU-Q12	2-10mm	flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	M12 connector	M30_33
Fi10-M30-LI-Q12	2-10mm	flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	M12 connector	M30_33
Fi10-M30-LIU-Q12	2-10mm	flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	M12 connector	M30_33
Ni15-M30-LU-Q12	3-15mm	non flush	Analogue	Voltage	15…30VDC	0…10VDC	≤3%	-25…70°C	M12 connector	M30_43
Ni15-M30-LI-Q12	3-15mm	non flush	Analogue	Current	15…30VDC	0…20mA	≤3%	-25…70°C	M12 connector	M30_43
Ni15-M30-LIU-Q12	3-15mm	non flush	Analogue	Voltage Current	15…30VDC	0…10VDC 0…20mA	≤3%	-25…70°C	M12 connector	M30_43

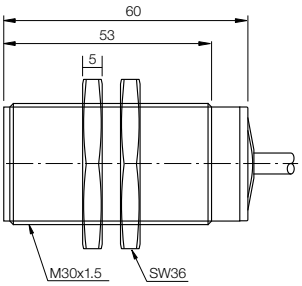
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

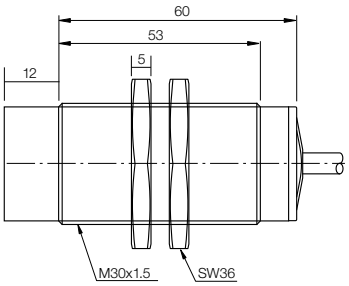


Mechanical Drawing

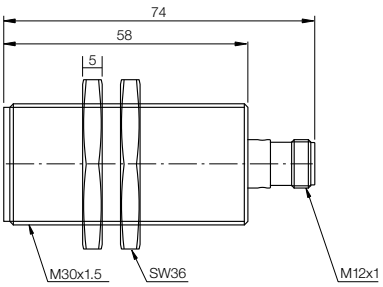
Drawing M30_12



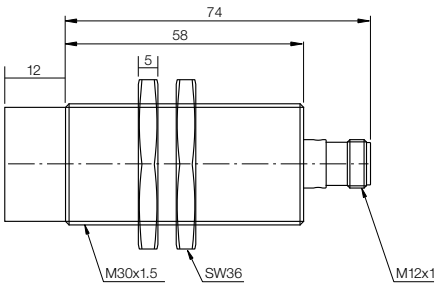
Drawing M30_29



Drawing M30_34



Drawing M30_46



Approvals Certificates

CE

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RPM Monitor Metal Barrel-M18

General Data

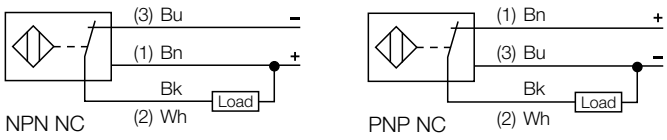
- Metal housing
- Threaded barrel M18x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Inhibition at start: 9s
- Sensitivity adjustment by potentiometer
- Output NC to ensure safety (fail-safe)

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Range of speed adjustment	Ambient temperature	Connection	Mechanical Drawing
Fi5R-M18-CP6L	5 mm	flush	NC	PNP	10…30 VDC	≤ 200 mA	3…3000 RPM	-25…70 °C	2 m cable	M18_16
Fi5R-M18-CN6L	5 mm	flush	NC	NPN	10…30 VDC	≤ 200 mA	3…3000 RPM	-25…70 °C	2 m cable	M18_16
Ni8R-M18-CP6L	8 mm	non flush	NC	PNP	10…30 VDC	≤ 200 mA	3…3000 RPM	-25…70 °C	2 m cable	M18_25
Ni8R-M18-CN6L	8 mm	non flush	NC	NPN	10…30 VDC	≤ 200 mA	3…3000 RPM	-25…70 °C	2 m cable	M18_25

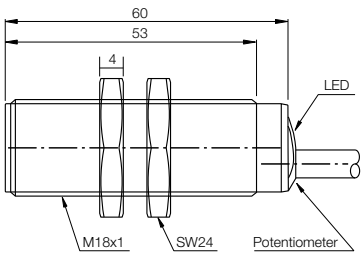
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

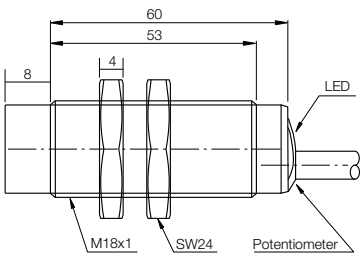


Mechanical Drawing

Drawing M18_16



Drawing M18_25



Approvals Certificates

CE

RPM Monitor Metal Barrel-M30

General Data

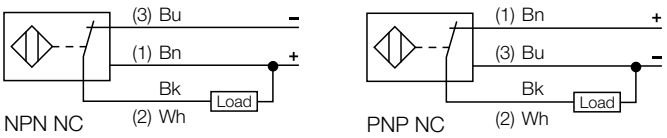
- Metal housing
- Threaded barrel M30x1,5
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Inhibition at start: 9s
- Sensitivity adjustment by potentiometer
- Output NC to ensure safety (fail-safe)

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Range of speed adjustment	Ambient temperature	Connection	Mechanical Drawing
Fi10R-M30-CP6L	10mm	flush	NC	PNP	10…30VDC	≤200mA	3…3000RPM	-25…70°C	2m cable	M30_13
Fi10R-M30-CN6L	10mm	flush	NC	NPN	10…30VDC	≤200mA	3…3000RPM	-25…70°C	2m cable	M30_13
Ni15R-M30-CP6L	15mm	non flush	NC	PNP	10…30VDC	≤200mA	3…3000RPM	-25…70°C	2m cable	M30_27
Ni15R-M30-CN6L	15mm	non flush	NC	NPN	10…30VDC	≤200mA	3…3000RPM	-25…70°C	2m cable	M30_27

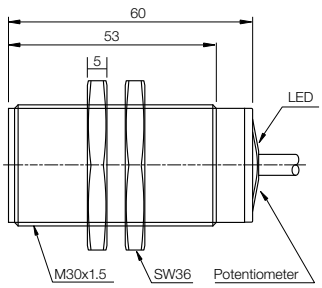
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

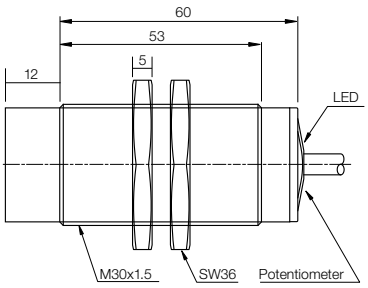


Mechanical Drawing

Drawing M30_13



Drawing M30_27



Approvals Certificates

CE

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RPM Monitor Metal Barrel-M30

General Data

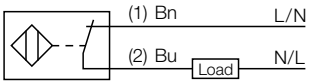
- Metal housing
- Threaded barrel M30x1,5
- AC 2-wire
- Function display LED
- Degree of protection IP67
- Inhibition at start: 9s
- Sensitivity adjustment by potentiometer
- Output NC to ensure safety (fail-safe)

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Range of speed adjustment	Ambient temperature	Connection	Mechanical Drawing
Fi10R-M30-CSA3L	10mm	flush	NC	AC	20…250VAC	≤300mA	3…3000RPM	-25…70°C	2m cable	M30_13
Ni15R-M30-CSA3L	15mm	non flush	NC	AC	20…250VAC	≤300mA	3…3000RPM	-25…70°C	2m cable	M30_27

Connection Diagram

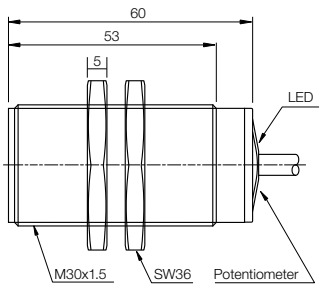
Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin



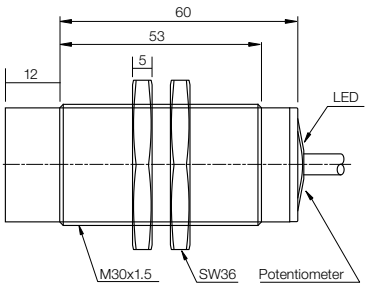
AC-2 wire NC

Mechanical Drawing

Drawing M30_13



Drawing M30_27



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High Temperature Metal Barrel-M12

General Data

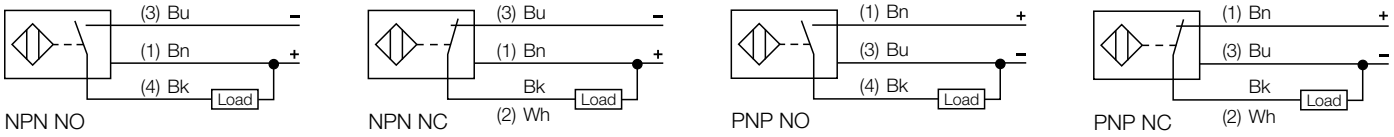
- Metal housing
- Threaded barrel M12x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Temperature range: -25…120°C
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2-M12-OP6L/T120	2mm	flush	NO	PNP	10…30VDC	≤200mA	1500Hz	-25…120°C	2m cable	M12_11
Fi2-M12-ON6L/T120	2mm	flush	NO	NPN	10…30VDC	≤200mA	1500Hz	-25…120°C	2m cable	M12_11
Fi2-M12-CP6L/T120	2mm	flush	NC	PNP	10…30VDC	≤200mA	1500Hz	-25…120°C	2m cable	M12_11
Fi2-M12-CN6L/T120	2mm	flush	NC	NPN	10…30VDC	≤200mA	1500Hz	-25…120°C	2m cable	M12_11
Ni4-M12-OP6L/T120	4mm	non flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M12_24
Ni4-M12-ON6L/T120	4mm	non flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M12_24
Ni4-M12-CP6L/T120	4mm	non flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M12_24
Ni4-M12-CN6L/T120	4mm	non flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M12_24

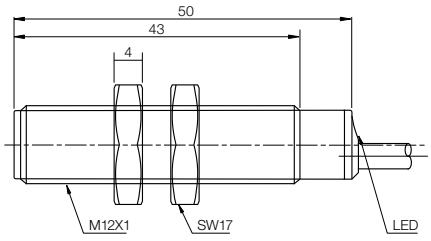
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

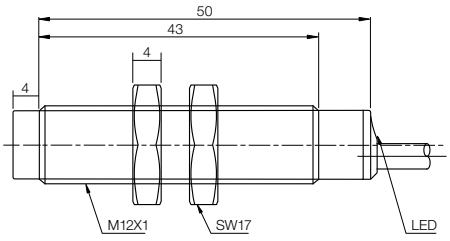


Mechanical Drawing

Drawing M12_11



Drawing M12_24



Approvals Certificates

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High Temperature Metal Barrel-M18

General Data

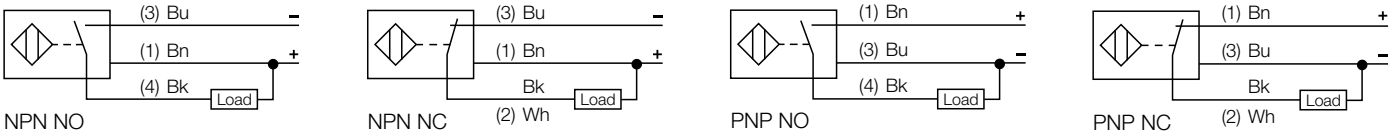
- Metal housing
- Threaded barrel M18x1
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Temperature range: -25…120°C
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi5-M18-OP6L/T120	5mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M18_12
Fi5-M18-ON6L/T120	5mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M18_12
Fi5-M18-CP6L/T120	5mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M18_12
Fi5-M18-CN6L/T120	5mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…120°C	2m cable	M18_12
Ni8-M18-OP6L/T120	8mm	non flush	NO	PNP	10…30VDC	≤200mA	800Hz	-25…120°C	2m cable	M18_27
Ni8-M18-ON6L/T120	8mm	non flush	NO	NPN	10…30VDC	≤200mA	800Hz	-25…120°C	2m cable	M18_27
Ni8-M18-CP6L/T120	8mm	non flush	NC	PNP	10…30VDC	≤200mA	800Hz	-25…120°C	2m cable	M18_27
Ni8-M18-CN6L/T120	8mm	non flush	NC	NPN	10…30VDC	≤200mA	800Hz	-25…120°C	2m cable	M18_27

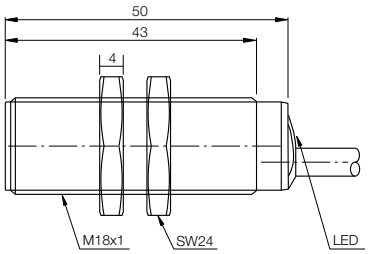
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

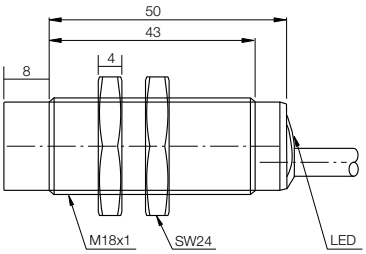


Mechanical Drawing

Drawing M18_12



Drawing M18_27



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High Temperature Metal Barrel-M30

General Data

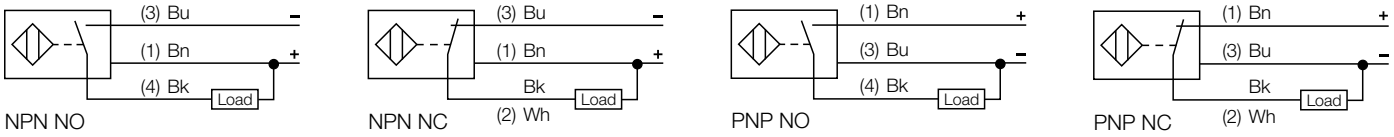
- Metal housing
- Threaded barrel M30x1,5
- DC 3-wire
- Function display LED
- Degree of protection IP67
- Temperature range: -25…120°C
- Flush/non flush mounting

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi10-M30-OP6L/T120	10mm	flush	NO	PNP	10…30VDC	≤200mA	500Hz	-25…120°C	2m cable	M30_12
Fi10-M30-ON6L/T120	10mm	flush	NO	NPN	10…30VDC	≤200mA	500Hz	-25…120°C	2m cable	M30_12
Fi10-M30-CP6L/T120	10mm	flush	NC	PNP	10…30VDC	≤200mA	500Hz	-25…120°C	2m cable	M30_12
Fi10-M30-CN6L/T120	10mm	flush	NC	NPN	10…30VDC	≤200mA	500Hz	-25…120°C	2m cable	M30_12
Ni15-M30-OP6L/T120	15mm	non flush	NO	PNP	10…30VDC	≤200mA	300Hz	-25…120°C	2m cable	M30_23
Ni15-M30-ON6L/T120	15mm	non flush	NO	NPN	10…30VDC	≤200mA	300Hz	-25…120°C	2m cable	M30_23
Ni15-M30-CP6L/T120	15mm	non flush	NC	PNP	10…30VDC	≤200mA	300Hz	-25…120°C	2m cable	M30_23
Ni15-M30-CN6L/T120	15mm	non flush	NC	NPN	10…30VDC	≤200mA	300Hz	-25…120°C	2m cable	M30_23

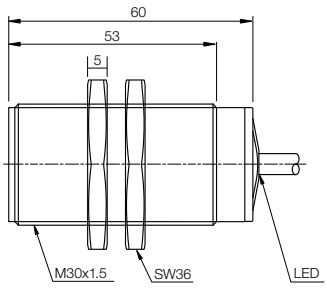
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

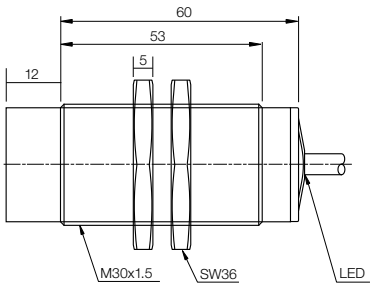


Mechanical Drawing

Drawing M30_12



Drawing M30_23



Approvals Certificates

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High Pressure Resistant Metal Barrel-M12

General Data

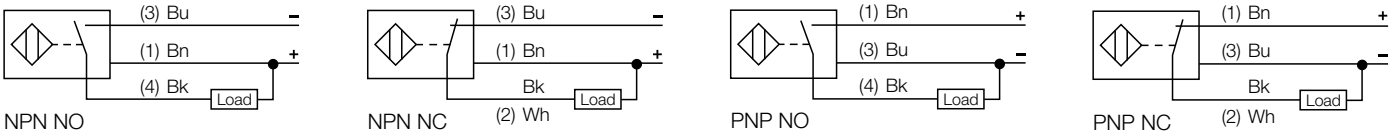
- Stainless steel housing
- Threaded barrel M12x1
- DC 3-wire
- Degree of protection IP68
- Pressure range max. 500 bar

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi1.5D-KM12-OP6	1,5mm	flush	NO	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_1d
Fi1.5D-KM12-ON6	1,5mm	flush	NO	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_1d
Fi1.5D-KM12-CP6	1,5mm	flush	NC	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_1d
Fi1.5D-KM12-CN6	1,5mm	flush	NC	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	2m cable	M12_1d
Fi1.5D-KM12-OP6-Q12	1,5mm	flush	NO	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_2d
Fi1.5D-KM12-ON6-Q12	1,5mm	flush	NO	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_2d
Fi1.5D-KM12-CP6-Q12	1,5mm	flush	NC	PNP	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_2d
Fi1.5D-KM12-CN6-Q12	1,5mm	flush	NC	NPN	10…30VDC	≤200mA	1500Hz	-25…70°C	M12 connector	M12_2d

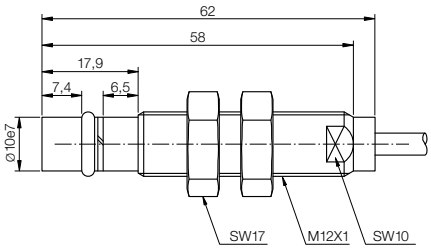
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

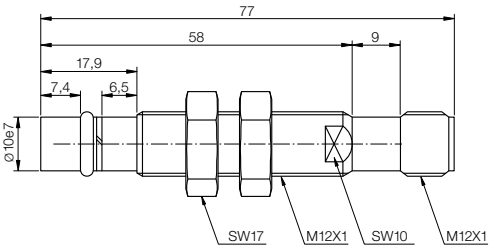


Mechanical Drawing

Drawing M12_1d



Drawing M12_2d



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High Pressure Resistant Metal Barrel-M16

General Data

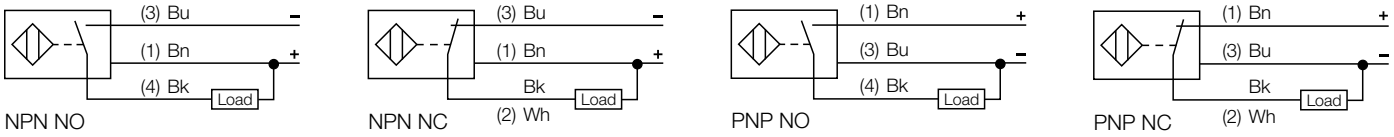
- Stainless steel housing
- Threaded barrel M16x1
- DC 3-wire
- Degree of protection IP68
- Pressure range max. 500 bar

Technical Data

Type	Rated operating distance S_n	Mounting	Output function	Output type	Voltage-range U_B	Rated current	Switching frequency	Ambient temperature	Connection	Mechanical Drawing
Fi2D-KM16-OP6	2mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M16_1d
Fi2D-KM16-ON6	2mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M16_1d
Fi2D-KM16-CP6	2mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M16_1d
Fi2D-KM16-CN6	2mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	2m cable	M16_1d
Fi2D-KM16-OP6-Q12	2mm	flush	NO	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M16_2d
Fi2D-KM16-ON6-Q12	2mm	flush	NO	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M16_2d
Fi2D-KM16-CP6-Q12	2mm	flush	NC	PNP	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M16_2d
Fi2D-KM16-CN6-Q12	2mm	flush	NC	NPN	10…30VDC	≤200mA	1000Hz	-25…70°C	M12 connector	M16_2d

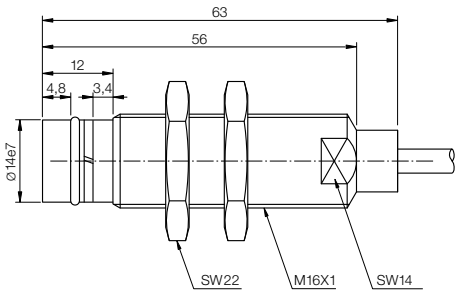
Connection Diagram

Bu = blue; Bn = brown; Bk = black; Wh = white; (1-4) = Connector pin M12

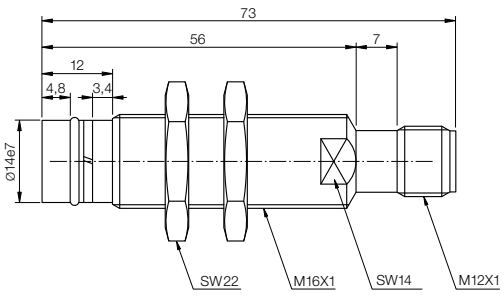


Mechanical Drawing

Drawing M16_1d



Drawing M16_2d



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