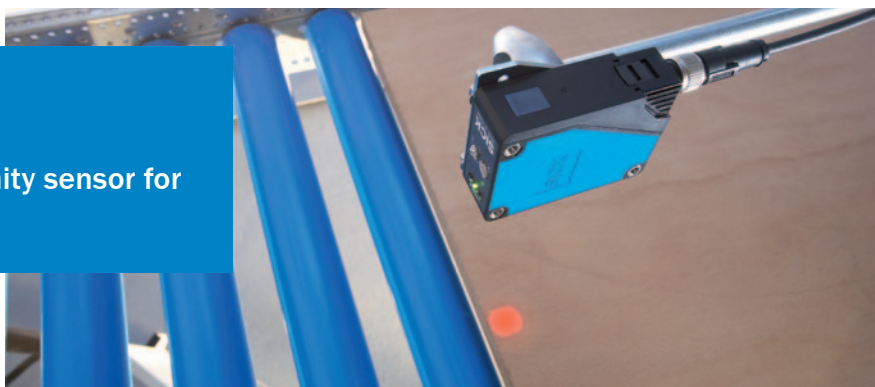




## W280-2 Photoelectric sensors

Sensor kit with mounting bracket and reflector

Energetic photoelectric proximity sensor for basic applications









**Additional information**

Detailed technical data . . . . . 3

Ordering information . . . . . 4

Dimensional drawings . . . . . 5

Adjustments . . . . . 6

Connection diagram . . . . . 6

Operating reserve . . . . . 7

Sensing range . . . . . 7

**Product description**

The WT280 energetic proximity sensor is available with a rotatable connector, cable connector or terminal connector. Versions with the rotatable connector are ideal for applications with limited mounting space. These easy-to-operate sensors feature a potentiometer and light/dark switching. The highly-visible

red light of the BrightLight LED simplifies adjustment to the object and reduces commissioning time.

**At a glance**

- Highly visible red light spot thanks to the BrightLight LED
- Potentiometer for adjusting sensing range
- Light/dark switching (DC devices only)
- Rotatable connector, cable connection or terminal chamber
- Versions for 10 – 30 V DC or 24 – 240 V DC/AC voltage supply
- Stainless steel mounting bracket included in delivery

**Your benefits**

- Simple and fast commissioning with the highly visible light spot of the BrightLight LED
- Simple operation via potentiometer
- Light/dark switching provides application flexibility
- All necessary mounting and operating accessories are included in delivery, enabling quick and easy setup: since mounting bracket (stainless steel 1.4301) is included in delivery scope
- DC devices and AC/DC devices available in the same housing, allowing electrical flexibility

→ [www.mysick.com/en/WTE280-2](http://www.mysick.com/en/WTE280-2)  
 For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



## Detailed technical data

### Features

Sensor principle	Photoelectric proximity sensor
Detection principle	Energetic
Dimensions (W x H x D)	23.5 mm x 74.5 mm x 63 mm
Housing design (light emission)	Rectangular
Sensing range max. <sup>1)</sup>	10 mm ... 2,000 mm
Sensing range	10 mm ... 1,700 mm
Type of light	Visible red light
Light source <sup>2)</sup>	BrightLight LED
Light spot (distance)	Ø 45 mm (1,500 mm)
Sensing distance adjustment	Potentiometer

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033).

<sup>2)</sup> Average service life 100,000 h at Ta = +25 °C.

### Mechanics/electronics

	DC	AC
Supply voltage	10 V DC ... 30 V DC <sup>1)</sup>	24 V DC ... 240 V DC <sup>2)</sup> 24 V AC ... 240 V AC <sup>2)</sup>
Residual ripple <sup>3)</sup>	≤ 5 V <sub>pp</sub>	–
Power consumption	≤ 20 mA <sup>4)</sup>	≤ 5 VA
Switching output	PNP, light/dark-switching, selectable via light/dark rotary switch, open collector NPN, light/dark-switching, selectable via light/dark rotary switch, open collector (depending on type)	Relay, light switching, change-over contacts, electrically isolated <sup>5)</sup>
Output current I <sub>max.</sub>	100 mA	–
Switching current (switching voltage)	–	3 A (240 V AC) 3 A (30 V DC)
Response time	≤ 0.5 ms <sup>6)</sup>	≤ 15 ms
Switching frequency <sup>7)</sup>	1,000 Hz	33 Hz
Connection type	Cable, 2 m, 0.18 mm <sup>2</sup> <sup>8)</sup> Connector Cable gland (depending on type)	Cable, 2 m, 0.76 mm <sup>2</sup> <sup>8)</sup> Cable gland (depending on type)
Circuit protection	A <sup>9)</sup> B <sup>10)</sup> C <sup>11)</sup> D <sup>12)</sup>	A <sup>9)</sup> C <sup>11)</sup>
Protection class	⊕	□ <sup>13)</sup>
Weight	Cable, 3-wire, 2 m 200 g Cable, 5-wire, 2 m – Connector M12, 4-pin 150 g Cable gland 190 g	– 310 g – 200 g
Overvoltage category	–	-2Hxxx: 2 -2Rxxx: 3

	DC	AC
Housing material	ABS Plastic	
Optics material	PMMA	
Enclosure rating	IP 66, IP 67	
Items supplied	Mounting bracket BEF-W280	
Usage category	-	AC-15, DC-13, according to EN 60947-1
Interference emission	-	EN 61000-6-3 (only -2Hxxxx) <sup>14)</sup>
EMC <sup>15)</sup>	EN 60947-5-2	
Ambient operating temperature	-25 °C ... +55 °C	
Ambient storage temperature	-40 °C ... +70 °C	

<sup>1)</sup> Limit values, operation in short-circuit protected network max. 8 A.

<sup>2)</sup> ± 10 %.

<sup>3)</sup> May not exceed or fall short of  $V_S$ .

<sup>4)</sup> Without load.

<sup>5)</sup> Provide suitable spark suppression for inductive or capacitive loads.

<sup>6)</sup> Signal transit time with resistive load.

<sup>7)</sup> With light/dark ratio 1:1.

<sup>8)</sup> Do not bend below 0 °C.

<sup>9)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>10)</sup> B = inputs and output reverse-polarity protected.

<sup>11)</sup> C = interference suppression.

<sup>12)</sup> D = outputs overcurrent and short-circuit protected.

<sup>13)</sup> Rated voltage 250 V AC/DC.

<sup>14)</sup> In the case of a DC supply (relating to EN 61000-6-3) the length of cable between the supply source and the sensor must be < 30 m

<sup>15)</sup> The AC/DC devices (only -2Rxxxx) meet the interference suppression requirements for industrial use (interference suppression class A). When used in residential areas it can cause interference.

## Ordering information

### DC

Sensing range max. <sup>1)</sup>	Output type	Switching mode	Connection	Model name	Part no.
10 mm ... 2,000 mm	PNP	Light/dark-switching	Cable, 3-wire, 2 m	WTE280-2P1131	6044726
			Connector M12, 4-pin	WTE280-2P2431	6044728
			Cable gland	WTE280-2P4331	6044724
	NPN	Light/dark-switching	Cable, 3-wire, 2 m	WTE280-2N1131	6044727
			Connector M12, 4-pin	WTE280-2N2431	6044729
			Cable gland	WTE280-2N4331	6044725

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033).

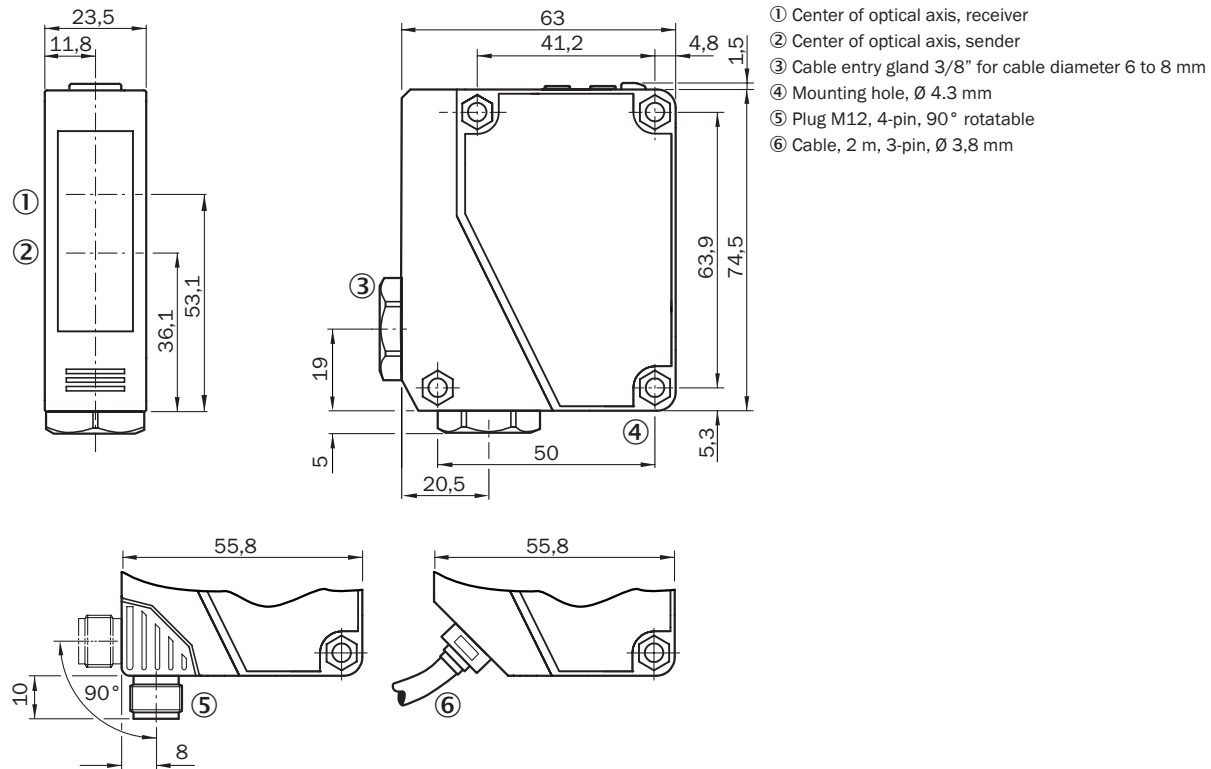
### AC/DC

Sensing range max. <sup>1)</sup>	Output type	Switching mode	Connection	Model name	Part no.
10 mm ... 2,000 mm	Relay	Light switching	Cable, 5-wire, 2 m	WTE280-2H1531	6044731
				WTE280-2R1531	6044759
			Cable gland	WTE280-2H4331	6044730
				WTE280-2R4331	6044758

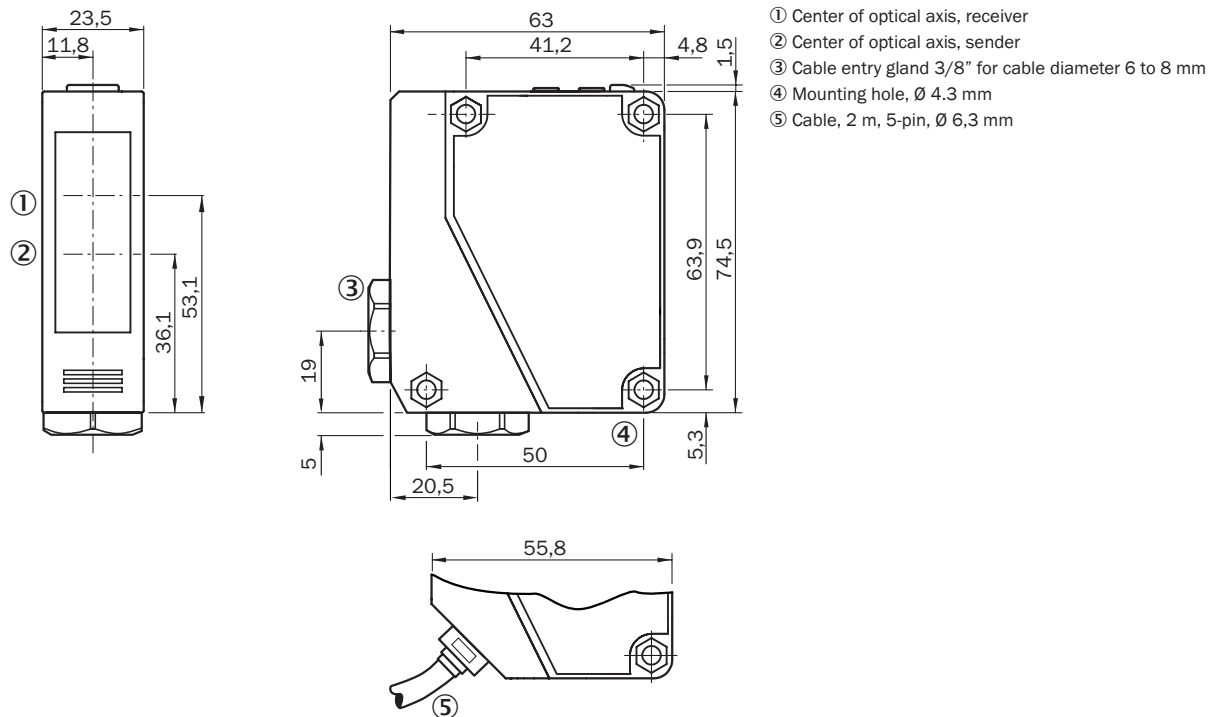
<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033).

## Dimensional drawings

### WTE280-2P/-2N, DC

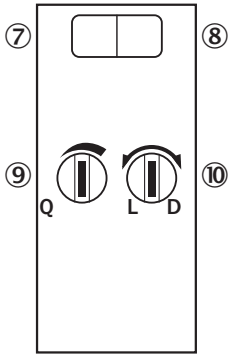


### WTE280-2H/-2R, AC/DC



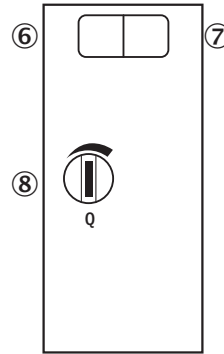
## Adjustments

### WTE280-2P/-2N, DC



- ⑦ Status indicator LED green: Stability indicator
- ⑧ Status indicator LED, yellow: Status of received light beam
- ⑨ Sensing distance adjustment: Potentiometer
- ⑩ Light/dark selector

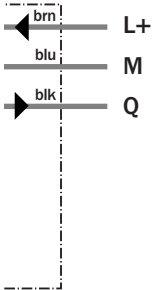
### WTE280-2H/-2R, AC/DC



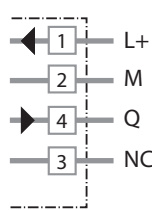
- ⑥ Status indicator LED green: Stability indicator
- ⑦ Status indicator LED, yellow: Status of received light beam
- ⑧ Sensing distance adjustment: Potentiometer

## Connection diagram

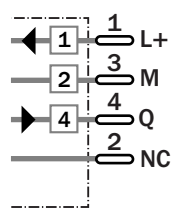
### WTE280-2x1131, DC, Cable



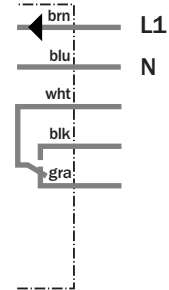
### WTE280-2x4331, DC, Cable gland



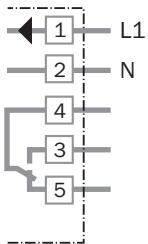
### WTE280-2x2431, DC, Connector M12, 4-pin



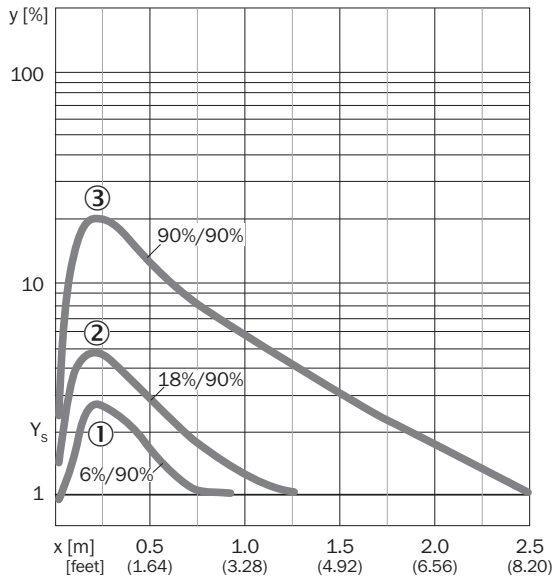
### WTE280-2x1531, AC/DC, Cable



### WTE280-2x4331, AC/DC, Cable gland

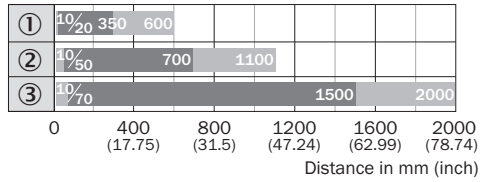


### Operating reserve



- ① Sensing range on black, 6 % remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90 % remission

### Sensing range



■ Operating distance    ■ Sensing distance typ.max.

- ① Sensing range on black, 6 % remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90 % remission

Photoelectric retro-reflective sensor that provides easy installation due to installation kit









**Additional information**

Detailed technical data . . . . . 9

Ordering information . . . . . 10

Dimensional drawings . . . . . 11

Adjustments . . . . . 12

Connection diagram . . . . . 12

Operating reserve . . . . . 13

Sensing range . . . . . 13

**Product description**

The WL280-2 retro-reflective sensors feature a ready-to-mount installation kit that includes a cable pre-connected to a sensor, a mounting bracket and a reflector. This is particularly useful for quick and easy installation in doorways and gates. These sensors feature a variant with a rotatable connector, which is ideal

for applications with limited mounting space. A variant with a terminal chamber is also available for individual wiring. A large sensing range and a high operating reserve ensure detection reliability during use. In addition, DC and AC/DC devices are available in the same housing, which allows electrical flexibility.

**At a glance**

- Highly visible red light spot thanks to the BrightLight LED
- Potentiometer for sensitivity control
- Light/dark switching (DC devices)
- Rotatable connector, cable connector or terminal chamber
- Versions for 10 – 30 V DC or 24 – 240 V DC/AC voltage supply
- Stainless steel mounting bracket and P250 reflector are included in delivery
- AC/DC devices (-2Hxxxx) are compliant with EN 61000-6-3 (electromagnetic interference for “residential, commercial and light-industrial environments”)

**Your benefits**

- Less contamination due to high operating reserves, reducing downtime
- Simple and fast commissioning with the highly visible light spot of the BrightLight LED
- DC and AC/DC devices available in the same housing, allowing electrical flexibility
- Potentiometer adjustment for application-specific operation
- Light/dark switching provides application flexibility
- All necessary mounting and operating accessories are included in delivery, enabling quick and easy setup: since mounting bracket (stainless steel 1.4301) and reflector are included in delivery scope
- Polarizing filter ensures reliable detection, even with shiny targets

→ [www.mysick.com/en/WL280-2](http://www.mysick.com/en/WL280-2)  
 For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





## Detailed technical data

### Features

	DC	AC
Sensor principle	Photoelectric retro-reflective sensor	
Dimensions (W x H x D)	23.5 mm x 74.5 mm x 63 mm	
Housing design (light emission)	Rectangular	
Sensing range max.	0.01 m ... 15 m <sup>1)</sup> 0.01 m ... 12 m <sup>2)</sup>	
Sensing range	0.01 m ... 13 m <sup>1)</sup> 0.01 m ... 11 m <sup>2)</sup>	
Type of light	Visible red light	
Light source <sup>3)</sup>	BrightLight LED	
Light spot (distance)	Ø 260 mm (8 m)	
Sensitivity adjustment	Potentiometer	

<sup>1)</sup> PL80A.

<sup>2)</sup> P250.

<sup>3)</sup> Average service life 100,000 h at Ta = +25 °C.

### Mechanics/electronics

	DC	AC
Supply voltage	10 V DC ... 30 V DC <sup>1)</sup>	24 V DC ... 240 V DC <sup>2)</sup> 24 V AC ... 240 V AC <sup>2)</sup>
Residual ripple <sup>3)</sup>	≤ 5 V <sub>pp</sub>	–
Power consumption	≤ 20 mA <sup>4)</sup>	≤ 5 VA
Switching output	PNP, light/dark-switching, selectable via light/dark rotary switch, open collector NPN, light/dark-switching, selectable via light/dark rotary switch, open collector (depending on type)	Relay, light switching, change-over contacts, electrically isolated <sup>5)</sup>
Output current I <sub>max.</sub>	100 mA	–
Switching current (switching voltage)	–	3 A (240 V AC) 3 A (30 V DC)
Response time	≤ 0.5 ms <sup>6)</sup>	≤ 15 ms
Switching frequency <sup>7)</sup>	1,000 Hz	33 Hz
Connection type	Cable, 2 m, 0.18 mm <sup>2</sup> <sup>8)</sup> Connector Cable gland (depending on type)	Cable, 5 m, 0.76 mm <sup>2</sup> <sup>8)</sup> Cable, 2 m, 0.76 mm <sup>2</sup> <sup>8)</sup> Cable gland (depending on type)
Circuit protection	A <sup>9)</sup> B <sup>10)</sup> C <sup>11)</sup> D <sup>12)</sup>	A <sup>9)</sup> C <sup>11)</sup>
Protection class	⊕	⊠ <sup>13)</sup>
Weight	Cable, 3-wire, 2 m 200 g Cable, 5-wire, 2 m – Cable, 5-wire, 5 m – Connector M12, 4-pin 150 g Cable gland 190 g	– 310 g 450 g – 200 g
Polarisation filter	✓	

	DC	AC
Overvoltage category	-	-2Hxxxx: 2 -2Rxxxx: 3
Housing material	ABS Plastic	
Optics material	PMMA	
Enclosure rating	IP 66, IP 67	
Items supplied	Mounting bracket BEF-W280, Reflector P250	Mounting bracket BEF-W280, Reflector P250, Mounting bracket BEF-W280, Reflector C110A (only for WL280-H4331P01)
Usage category	-	AC-15, DC-13, according to EN 60947-1
Interference emission	-	EN 61000-6-3 (only -2Hxxxx) <sup>14)</sup>
EMC <sup>15)</sup>	EN 60947-5-2	
Ambient operating temperature	-25 °C ... +55 °C	
Ambient storage temperature	-40 °C ... +70 °C	

<sup>1)</sup> Limit values, operation in short-circuit protected network max. 8 A.

<sup>2)</sup> ± 10 %.

<sup>3)</sup> May not exceed or fall short of  $V_S$ .

<sup>4)</sup> Without load.

<sup>5)</sup> Provide suitable spark suppression for inductive or capacitive loads.

<sup>6)</sup> Signal transit time with resistive load.

<sup>7)</sup> With light/dark ratio 1:1.

<sup>8)</sup> Do not bend below 0 °C.

<sup>9)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>10)</sup> B = inputs and output reverse-polarity protected.

<sup>11)</sup> C = interference suppression.

<sup>12)</sup> D = outputs overcurrent and short-circuit protected.

<sup>13)</sup> Rated voltage 250 V AC/DC.

<sup>14)</sup> In the case of a DC supply (relating to EN 61000-6-3) the length of cable between the supply source and the sensor must be < 30 m

<sup>15)</sup> The AC/DC (only -2Rxxxx) devices meet the interference suppression requirements for industrial use (interference suppression class A). When used in residential areas it can cause interference.

## Ordering information

### DC

Sensing range max.	Output type	Switching mode	Connection	Model name	Part no.
0.01 m ... 15 m <sup>1)</sup> 0.01 m ... 12 m <sup>2)</sup>	PNP	Light/dark-switching	Cable, 3-wire, 2 m	WL280-2P1131	6044734
			Connector M12, 4-pin	WL280-2P2431	6044736
			Cable gland	WL280-2P4331	6044732
	NPN	Light/dark-switching	Cable, 3-wire, 2 m	WL280-2N1131	6044735
			Connector M12, 4-pin	WL280-2N2431	6044737
			Cable gland	WL280-2N4331	6044733

<sup>1)</sup> PL80A, C110.

<sup>2)</sup> P250.

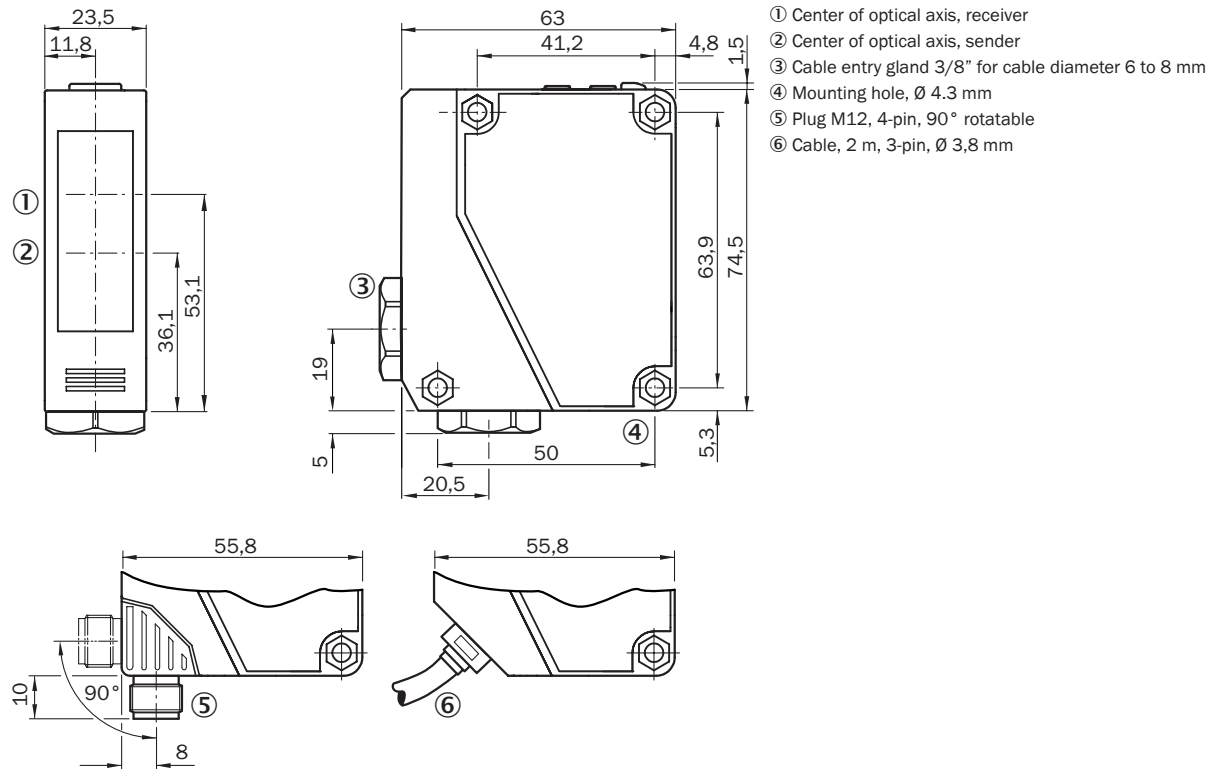
### AC/DC

Sensing range max. <sup>1)</sup>	Output type	Switching mode	Connection	Model name	Part no.
0.01 m ... 15 m	Relay	Light switching	Cable, 5-wire, 5 m	WL280-2H1631	6044740
			Cable, 5-wire, 2 m	WL280-2H1531	6044739
				WL280-2R1531	6044761
				WL280-2H4331	6044738
			Cable gland	WL280-2R4331	6044760
				WL280-2H4331P01	1054629

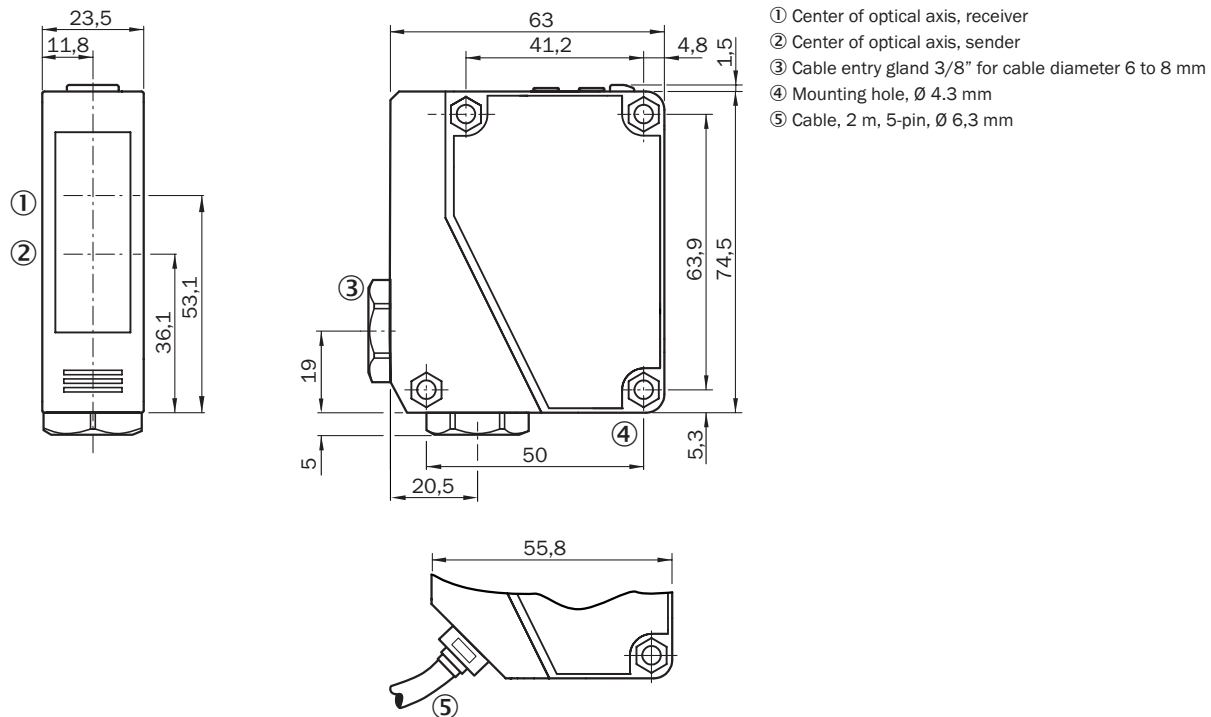
<sup>1)</sup> PL80A, C110.

## Dimensional drawings

### WL280-2P/-2N, DC

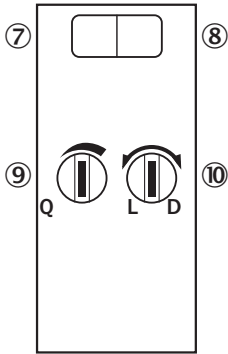


### WL280-2H/-2R, AC/DC



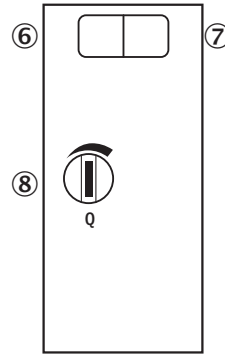
### Adjustments

#### WL280-2P/-2N, DC



- ⑦ Status indicator LED green: Stability indicator
- ⑧ Status indicator LED, yellow: Status of received light beam
- ⑨ Sensitivity adjustment: Potentiometer
- ⑩ Light/dark selector

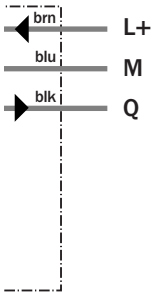
#### WL280-2H/-2R, AC/DC



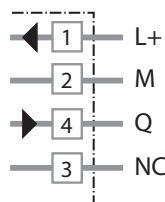
- ⑥ Status indicator LED green: Stability indicator
- ⑦ Status indicator LED, yellow: Status of received light beam
- ⑧ Sensitivity adjustment: Potentiometer

### Connection diagram

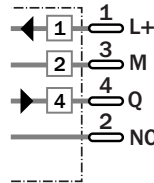
#### WL280-2x1131, DC, Cable



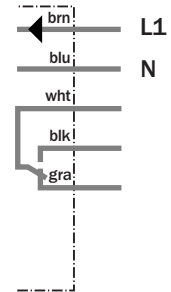
#### WL280-2x4331, DC, Cable gland



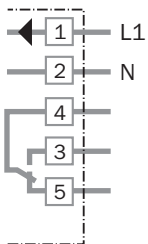
#### WL280-2x2431, DC, Connector M12, 4-pin



#### WL280-2x1x31, AC/DC, Cable

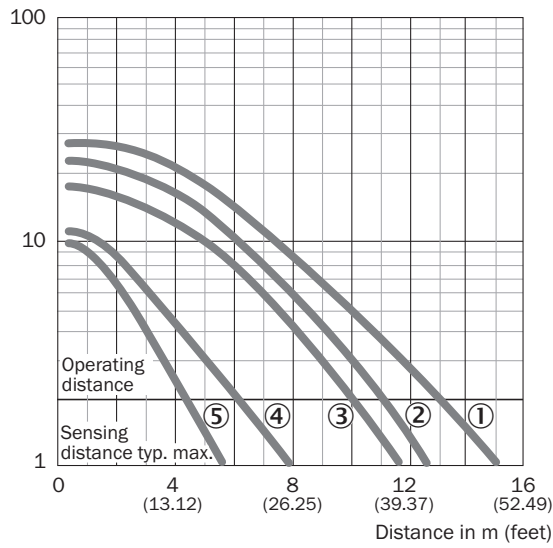


#### WL280-2x4331, AC/DC, Cable gland



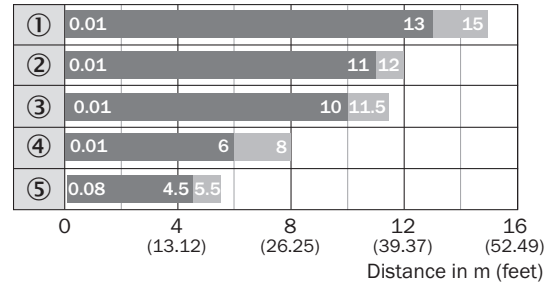
## Operating reserve

Function reserve



- ① Reflector type PL80A, C110A
- ② Reflector type P250
- ③ Reflector type PL50A, PL40A, PL30A, PL31A
- ④ Reflector type PL20A
- ⑤ Reflective tape Diamond Grade (100 mm x 100 mm/3.94 inch x 3.94 inch)

## Sensing range



- Operating distance
- Sensing range max. typ.
- ① Reflector type PL80A, C110A
- ② Reflector type P250
- ③ Reflector type PL50A, PL40A, PL30A, PL31A
- ④ Reflector type PL20A
- ⑤ Reflective tape Diamond Grade (100 mm x 100 mm/3.94 inch x 3.94 inch)

Through-beam photoelectric sensor with mounting brackets ensures quick and easy installation









### Additional information

Detailed technical data . . . . .	15
Ordering information . . . . .	16
Dimensional drawings . . . . .	17
Adjustments . . . . .	18
Connection diagram . . . . .	18
Operating reserve . . . . .	19
Sensing range . . . . .	19

### Product description

The WSE280-2 through-beam sensors feature a ready-to-mount installation kit that includes a cable pre-connected to a sensor and a mounting bracket. This is particularly useful for quick and easy installation in doorways and gates. These sensors offer a variant with a rotatable connector, which is ideal for

applications with limited mounting space. A variant with a terminal chamber is also available for individual wiring. A large sensing range and a high operating reserve ensure reliable detection during use. In addition, DC and AC/DC devices are available in the same housing, which allows electrical flexibility.

### At a glance

- Highly visible red light spot thanks to the BrightLight LED
- Large sensing range and high operating reserve
- Light/dark switching (DC devices only)
- Rotatable connector, cable connection or terminal chamber
- Versions for 10 – 30 V DC or 24 – 240 V DC/AC voltage supply
- Stainless steel mounting bracket (1.4301) is included in delivery
- AC/DC devices (-2Hxxxx) are compliant with EN 61000-6-3 (electromagnetic interference for “residential, commercial and light-industrial environments”)

### Your benefits

- Less contamination due to high operating reserves, reducing downtime
- DC and AC/DC devices available in the same housing allow electrical flexibility
- Light/dark switching provides application flexibility and reduces the number of devices needed
- All necessary mounting and operating accessories are included in delivery, enabling quick and easy setup: since mounting bracket (stainless steel 1.4301) is included in delivery scope

→ [www.mysick.com/en/WSE280-2](http://www.mysick.com/en/WSE280-2)  
 For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



## Detailed technical data

### Features

Sensor principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	23.5 mm x 74.5 mm x 63 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 60 m
Sensing range	0 m ... 50 m
Type of light	Visible red light
Light source <sup>1)</sup>	BrightLight LED
Light spot (distance)	Ø 0.6 m (20 m)
Sensitivity adjustment	Potentiometer

<sup>1)</sup> Average service life 100,000 h at Ta = +25 °C.

### Mechanics/electronics

	DC	AC
Supply voltage	10 V DC ... 30 V DC <sup>1)</sup>	24 V DC ... 240 V DC <sup>2)</sup> 24 V AC ... 240 V AC <sup>2)</sup>
Residual ripple <sup>3)</sup>	≤ 5 V <sub>pp</sub>	–
Power consumption, sender	20 mA <sup>4)</sup>	≤ 3.5 VA
Power consumption, receiver	20 mA <sup>4)</sup>	≤ 3.5 VA
Switching output	PNP, light/dark-switching, selectable via light/dark rotary switch, open collector NPN, light/dark-switching, selectable via light/dark rotary switch, open collector (depending on type)	Relay, light switching, change-over contacts, electrically isolated <sup>5)</sup>
Output current I <sub>max.</sub>	100 mA	–
Switching current (switching voltage)	–	3 A (240 V AC) 3 A (30 V DC)
Response time	≤ 0.5 ms <sup>6)</sup>	≤ 15 ms
Switching frequency <sup>7)</sup>	1,000 Hz	33 Hz
Connection type	Cable, 2 m, 0.18 mm <sup>2</sup> <sup>8)</sup> Connector Cable gland (depending on type)	Cable, 5 m, 0.76 mm <sup>2</sup> <sup>8)</sup> Cable, 2 m, 0.76 mm <sup>2</sup> <sup>8)</sup> Cable gland (depending on type)
Circuit protection	A <sup>9)</sup> B <sup>10)</sup> C <sup>11)</sup> D <sup>12)</sup>	A <sup>9)</sup> C <sup>11)</sup>
Protection class	⚡	□ <sup>13)</sup>
Weight	Cable, 3-wire, 2 m 400 g Cable, 5-wire, 2 m – Cable, 5-wire, 5 m – Connector M12, 4-pin 300 g Cable gland 380 g	– 620 g 900 g – 400 g
Overvoltage category	–	-2Hxxx: 2 -2Rxxx: 3

	DC	AC
Housing material	ABS Plastic	
Optics material	PMMA	
Enclosure rating	IP 66, IP 67	
Items supplied	Mounting bracket BEF-W280	
Usage category	-	AC-15, DC-13, according to EN 60947-1
Interference emission	-	EN 61000-6-3 (only -2Hxxxx) <sup>14)</sup>
EMC <sup>15)</sup>	EN 60947-5-2	
Ambient operating temperature	-25 °C ... +55 °C	
Ambient storage temperature	-40 °C ... +70 °C	

<sup>1)</sup> Limit values, operation in short-circuit protected network max. 8 A.

<sup>2)</sup> ± 10 %.

<sup>3)</sup> May not exceed or fall short of  $V_S$ .

<sup>4)</sup> Without load.

<sup>5)</sup> Provide suitable spark suppression for inductive or capacitive loads.

<sup>6)</sup> Signal transit time with resistive load.

<sup>7)</sup> With light/dark ratio 1:1.

<sup>8)</sup> Do not bend below 0 °C.

<sup>9)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>10)</sup> B = inputs and output reverse-polarity protected.

<sup>11)</sup> C = interference suppression.

<sup>12)</sup> D = outputs overcurrent and short-circuit protected.

<sup>13)</sup> Rated voltage 250 V AC/DC.

<sup>14)</sup> In the case of a DC supply (relating to EN 61000-6-3) the length of cable between the supply source and the sensor must be < 30 m

<sup>15)</sup> The AC/DC (only -2Rxxxx) devices meet the interference suppression requirements for industrial use (interference suppression class A). When used in residential areas it can cause interference.

## Ordering information

### DC

Sensing range max.	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 60 m	PNP	Light/dark-switching	Cable, 3-wire, 2 m	WSE280-2P1131	6044743
			Connector M12, 4-pin	WSE280-2P2431	6044745
			Cable gland	WSE280-2P4331	6044741
	NPN	Light/dark-switching	Cable, 3-wire, 2 m	WSE280-2N1131	6044744
			Connector M12, 4-pin	WSE280-2N2431	6044746
			Cable gland	WSE280-2N4331	6044742

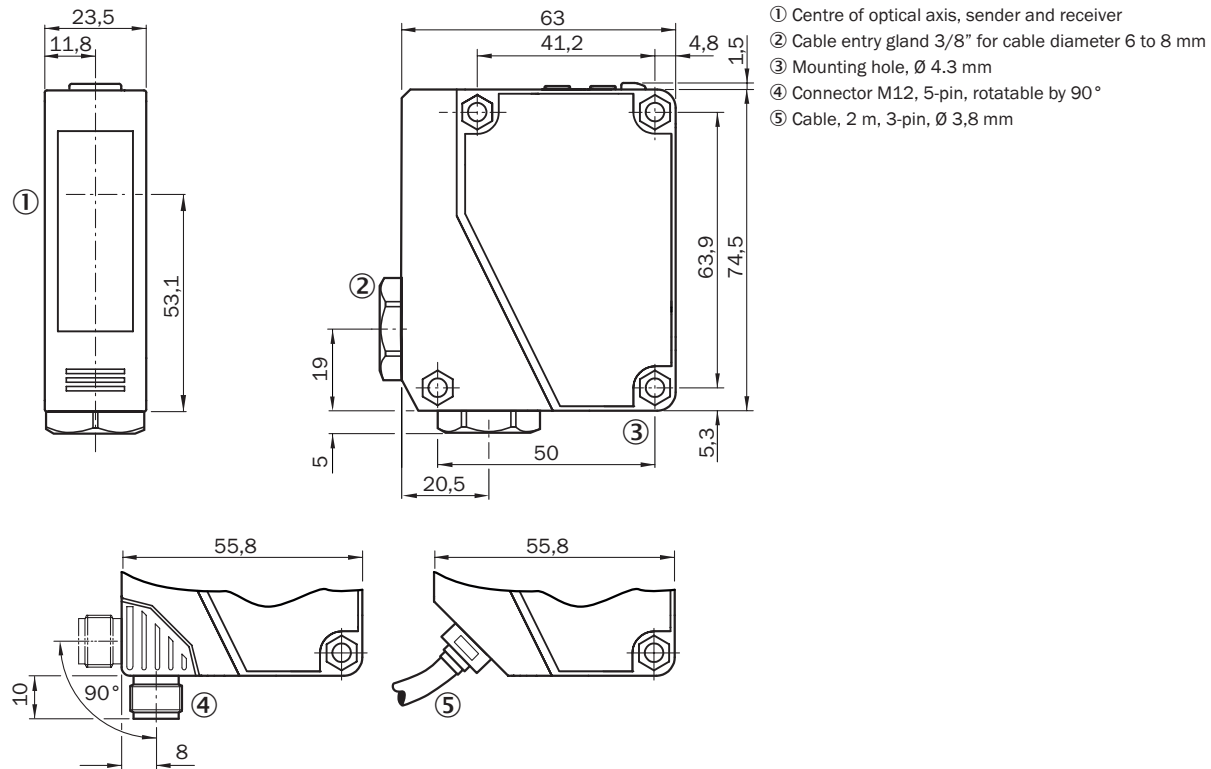
### AC/DC

Sensing range max.	Output type	Switching mode	Connection	Model name	Part no.
0 m ... 60 m	Relay	Light switching	Cable, 5-wire, 5 m	WSE280-2H1631	6044749
			Cable, 5-wire, 2 m	WSE280-2H1531	6044748
				WSE280-2R1531	6044763
			Cable gland	WSE280-2H4331	6044747
				WSE280-2R4331	6044762

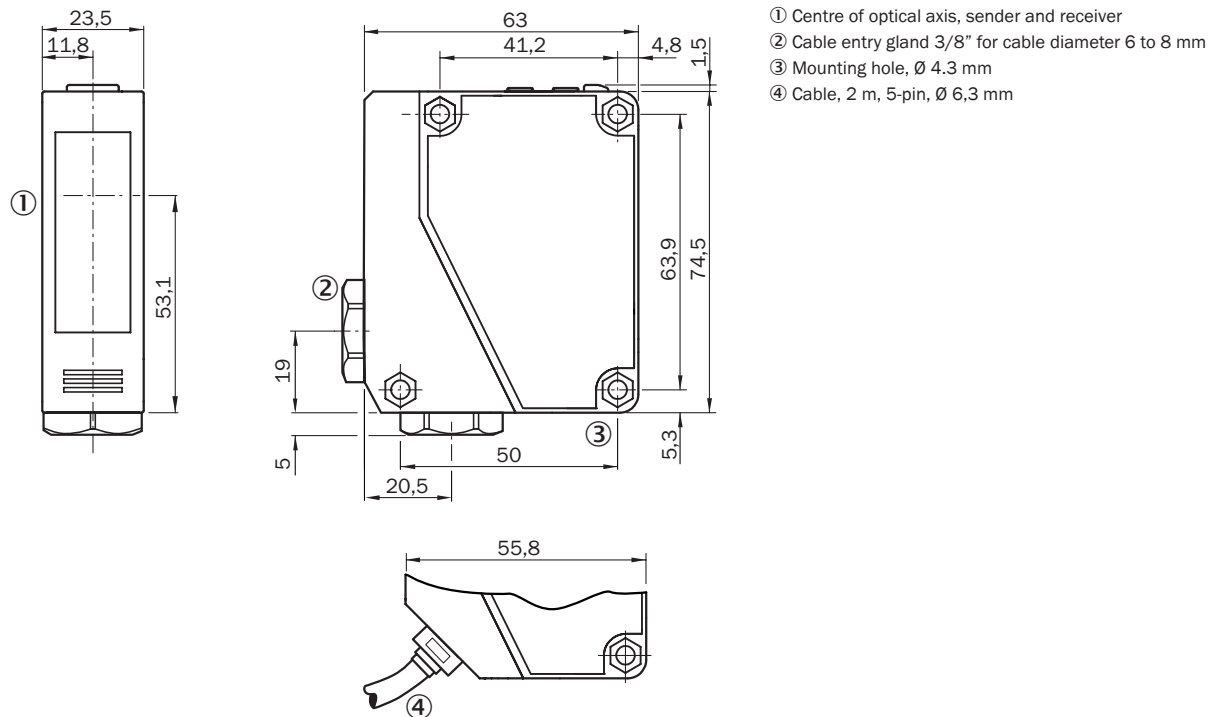


## Dimensional drawings

### WSE280-2P/-2N, DC

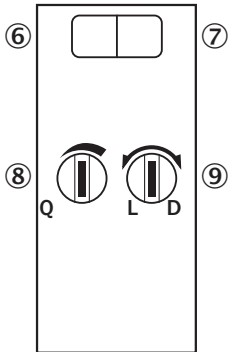


### WSE280-2H/-2R, AC/DC



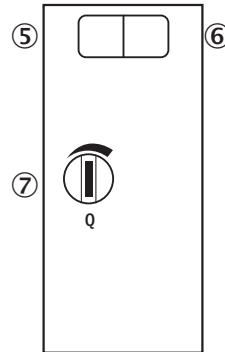
## Adjustments

### WSE280-2P/-2N, DC



- ⑥ LED indicator green: Stability indicator
- ⑦ Status indicator LED, yellow: Status of received light beam (only receiver WE)
- ⑧ Sensitivity adjustment: Potentiometer (only receiver WE)
- ⑨ Light/dark selector (only receiver WE)

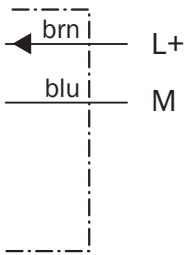
### WSE280-2H/-2R, AC/DC



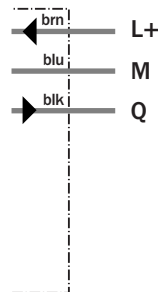
- ⑤ Status indicator LED green: Stability indicator
- ⑥ Status indicator LED, yellow: Status of received light beam (only receiver WE)
- ⑦ Sensitivity adjustment: Potentiometer (only receiver WE)

## Connection diagram

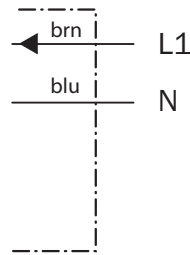
### WSE280-2x1131 Sender, DC Cable



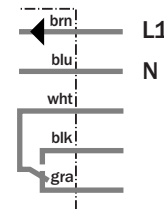
### WSE280-2x1131 Receiver, DC Cable



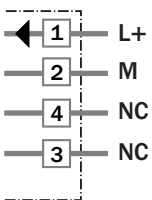
### WSE280-2x1x31 Sender, AC/DC Cable



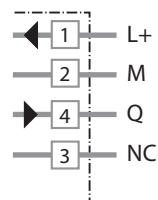
### WSE280-2x1x31 Receiver, AC/DC Cable



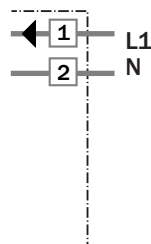
### WSE280-2x4331 Sender, DC Cable gland



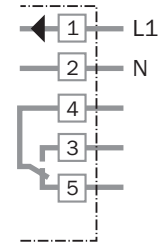
### WSE280-2x4331 Receiver, DC Cable gland



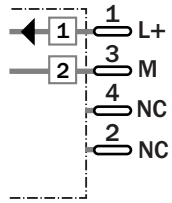
### WSE280-2x4331 Sender, AC/DC Cable gland



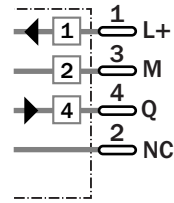
### WSE280-2x4331 Receiver, AC/DC Cable gland



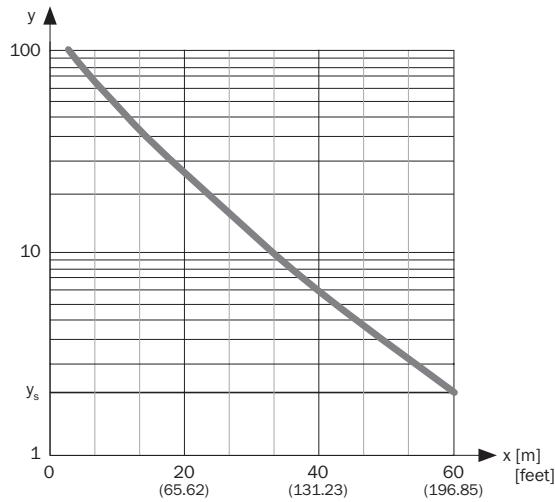
**WSE280-2x2431**  
Sender, DC  
Connector M12, 5-pin



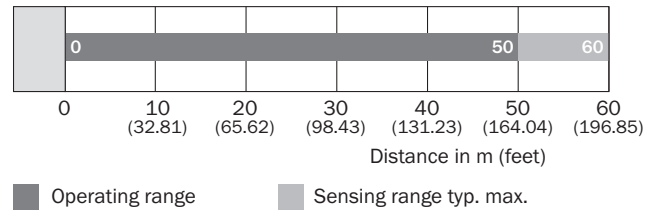
**WSE280-2x2431**  
Receiver, DC  
Connector M12, 5-pin



### Operating reserve



### Sensing range









W280-2

Mounting brackets/plates





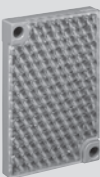
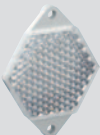


Figure	Accessory type	Material	Model name	Part no.	WTE280-2	WL280-2	WSE280-2
	Mounting brackets	Stainless steel 1.4301	BEF-W280	5313885	●	●	●

Terminal and alignment brackets

- Accessory type: Universal terminal systems







Figure	Material	Model name	Part no.	WTE280-2	WL280-2	WSE280-2
	Steel, zinc coated	BEF-KHS-F01	2022463	●	●	●
	Zinc plated steel (sheet), Diecast zinc (clamp)	BEF-KHS-N04	2051610	●	●	●
	Steel, zinc coated	BEF-MS12G-A	4056054	●	●	●
		BEF-MS12G-B	4056055	●	●	●
		BEF-MS12L-A	4056052	●	●	●
		BEF-MS12L-B	4056053	●	●	●
		BEF-MS12Z-A	4056056	●	●	●
		BEF-MS12Z-B	4056057	●	●	●
	Aluminum	BEF-RMC-D12	5321878	●	●	●

Reflectors

Figure	Accessory type	Dimensions (L x W x H)	Material	Model name	Part no.	WTE280-2	WL280-2	WSE280-2		
	Angular	47 mm x 47 mm	PMMA/ABS	P250	5304812	-	●	-		
		15 mm x 38 mm	PMMA/ABS	PL20A	1012719	-	●	-		
		28 mm x 56 mm	PMMA/ABS	PL30A	1002314	-	●	-		
				PL31A	1002315	-	●	-		
				37 mm x 56 mm	PMMA/ABS	PL40A	1012720	-	●	-
				-	PMMA/ABS	PL50A	1000132	-	●	-
		80 mm x 80 mm	PMMA/ABS	PL80A	1003865	-	●	-		
		Round	Ø 80 mm	PMMA/ABS	C110A	5304549	●	●	●	
	Reflective tape	91.4 cm x 74.9 cm	-	REF-DG-K	4019634	-	●	-		

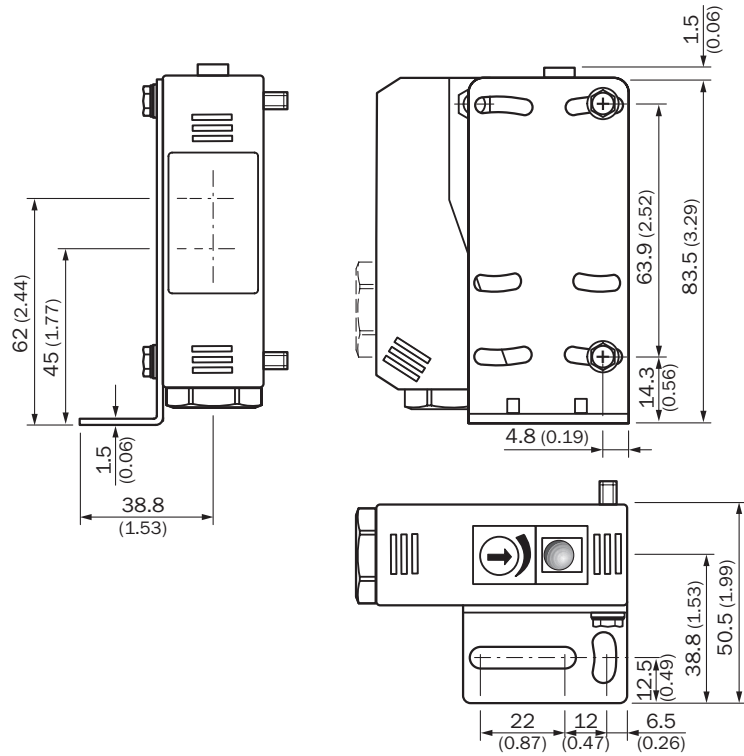
Plug connectors and cables

- Connector M12, 4-pin
- Connector type: Female connector

Figure	Flying leads	Enclosure rating	Sheath material	Cable length	Model name	Part no.	WTE280-2	WL280-2	WSE280-2	
	Straight	IP 67	PVC	2 m	DOL-1204-G02M	6009382	●	●	●	
				5 m	DOL-1204-G05M	6009866	●	●	●	
				10 m	DOL-1204-G10M	6010543	●	●	●	
				15 m	DOL-1204-G15M	6010753	●	●	●	
		IP 68	PUR halogen free	2 m	DOL-1204-G02MC	6025900	●	●	●	
				5 m	DOL-1204-G05MC	6025901	●	●	●	
				10 m	DOL-1204-G10MC	6025902	●	●	●	
				15 m	DOL-1204-G15MC	6034749	●	●	●	
	Angled	IP 67	PVC	2 m	DOL-1204-W02M	6009383	●	●	●	
				5 m	DOL-1204-W05M	6009867	●	●	●	
				10 m	DOL-1204-W10M	6010541	●	●	●	
					IP 68	PUR halogen free	2 m	DOL-1204-W02MC	6025903	●
5 m		DOL-1204-W05MC	6025904				●	●	●	
10 m		DOL-1204-W10MC	6025905				●	●	●	
		Straight	IP 67				PBT	-	DOS-1204-G	6007302
					Angled	PBT		-	DOS-1204-W	6007303

Dimensional drawings Mounting brackets/plates

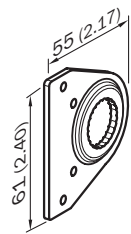
**BEF-W280**



All dimensions in mm (inch)

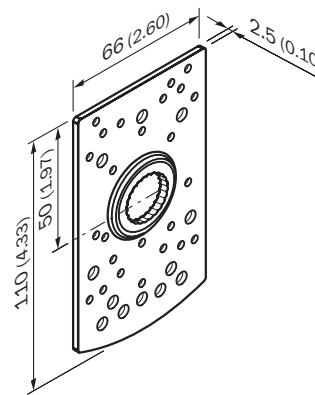
Dimensional drawings Terminal and alignment brackets

**BEF-KHS-F01**



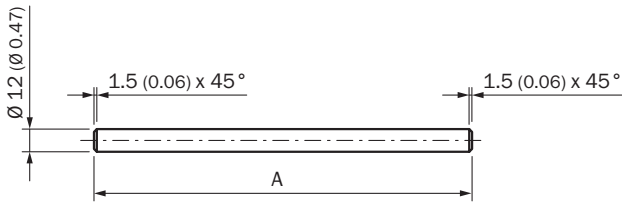
All dimensions in mm (inch)

**BEF-KHS-N04**



All dimensions in mm (inch)

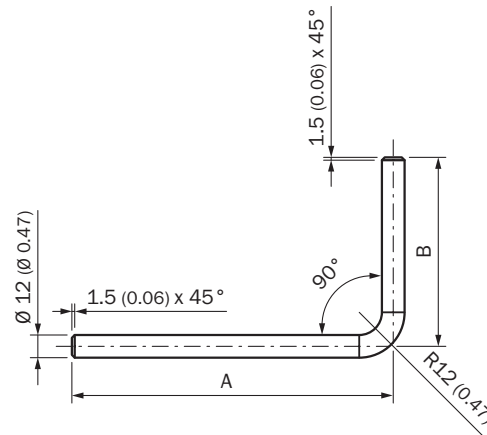
**BEF-MS12G-A**  
**BEF-MS12G-B**



All dimensions in mm (inch)

A = 200 mm (BEF-MS12G-A)  
A = 300 mm (BEF-MS12G-B)

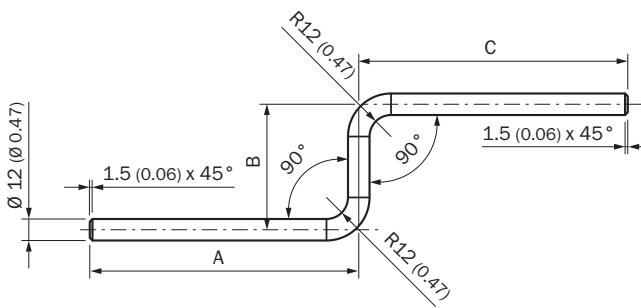
**BEF-MS12L-A**  
**BEF-MS12L-B**



All dimensions in mm (inch)

A = 150 mm, B = 150 mm (BEF-MS12L-A)  
A = 250 mm, B = 250 mm (BEF-MS12L-B)

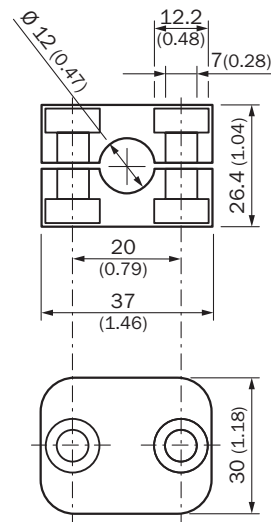
**BEF-MS12Z-A**  
**BEF-MS12Z-B**



All dimensions in mm (inch)

A = 150 mm, B = 70 mm, C = 150 mm (BEF-MS12Z-A)  
A = 150 mm, B = 70 mm, C = 250 mm (BEF-MS12Z-B)

**BEF-RMC-D12**

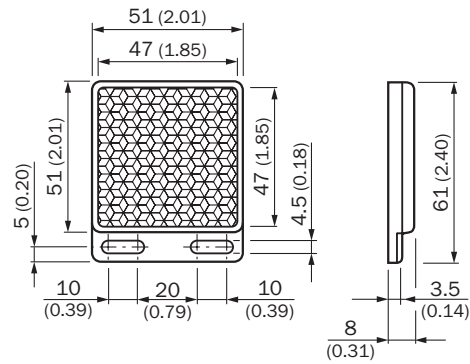


All dimensions in mm (inch)



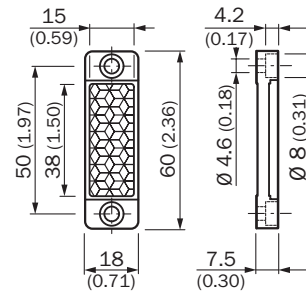
Dimensional drawings Reflectors

**P250**



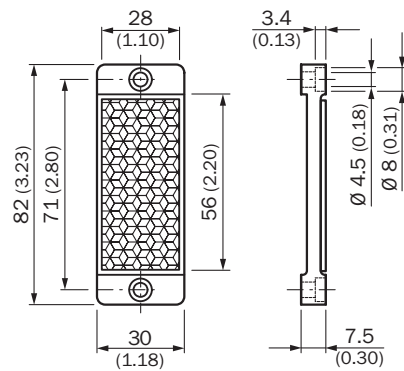
All dimensions in mm (inch)

**PL20A**



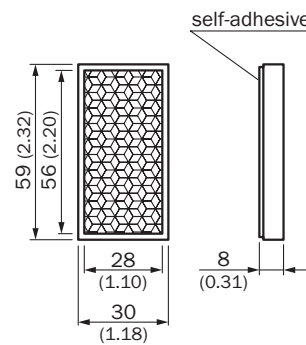
All dimensions in mm (inch)

**PL30A**



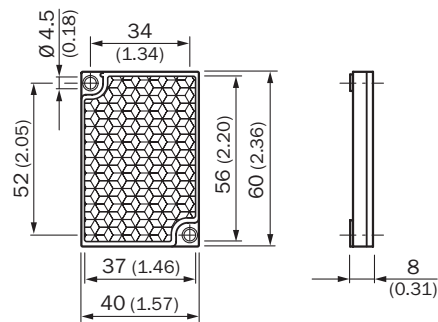
All dimensions in mm (inch)

**PL31A**



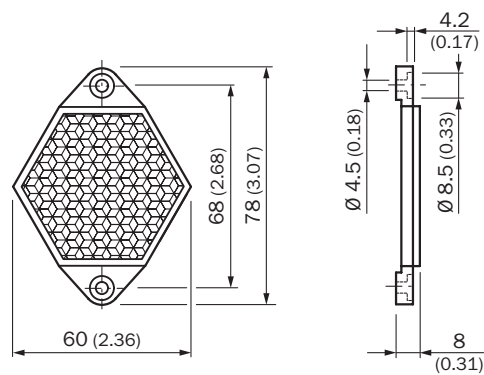
All dimensions in mm (inch)

**PL40A**



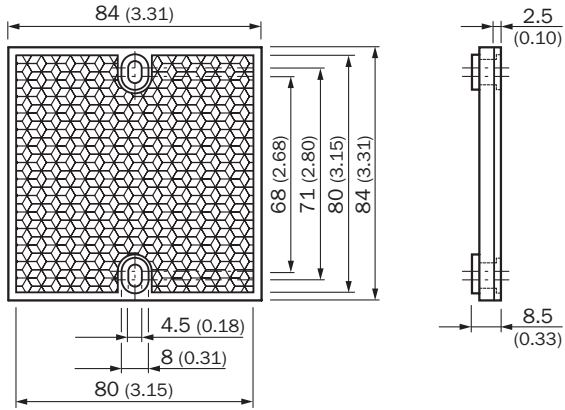
All dimensions in mm (inch)

**PL50A**



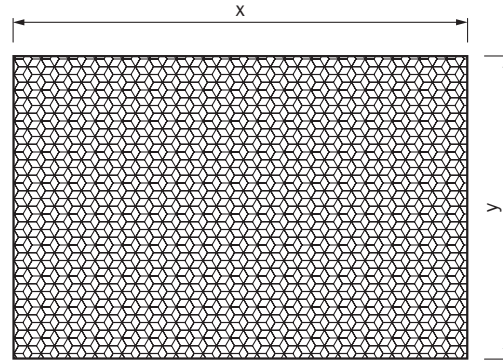
All dimensions in mm (inch)

**PL80A**



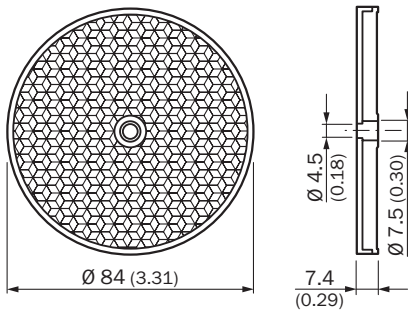
All dimensions in mm (inch)

**REF-DG-K**



x = 74.9 cm  
y = 91.4 cm

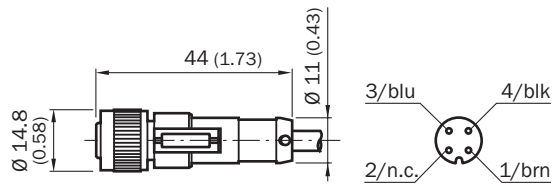
**C110A**



All dimensions in mm (inch)

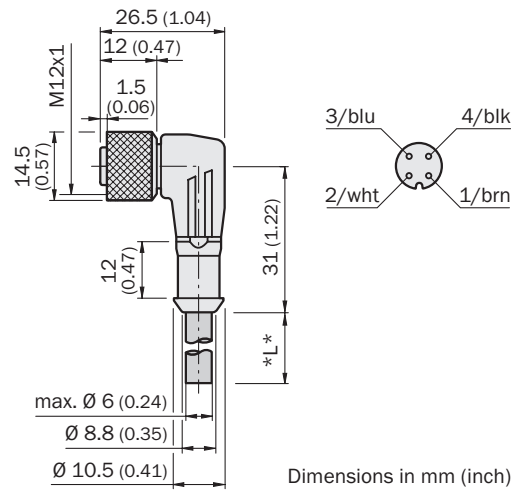
### Dimensional drawings Plug connectors and cables

#### DOL-1204-GxxM, DOL-1204-GxxMC



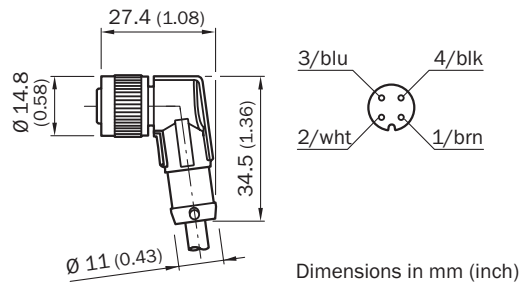
Dimensions in mm (inch)

#### DOL-1204-WxxM



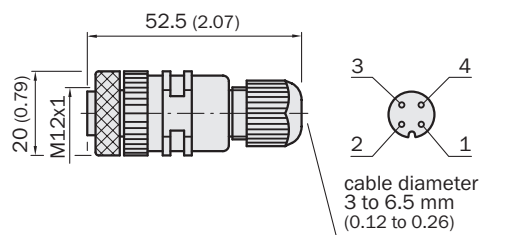
Dimensions in mm (inch)

#### DOL-1204-WxxMC



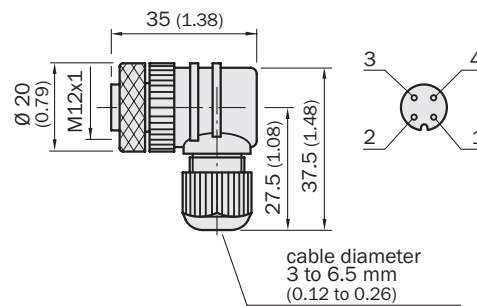
Dimensions in mm (inch)

#### DOS-1204-G



Dimensions in mm (inch)

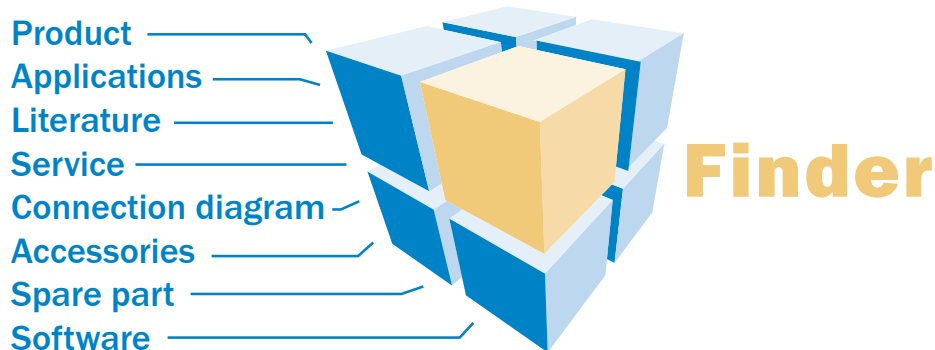
#### DOS-1204-W



Dimensions in mm (inch)



## Search online quickly and safely with the SICK „Finders“



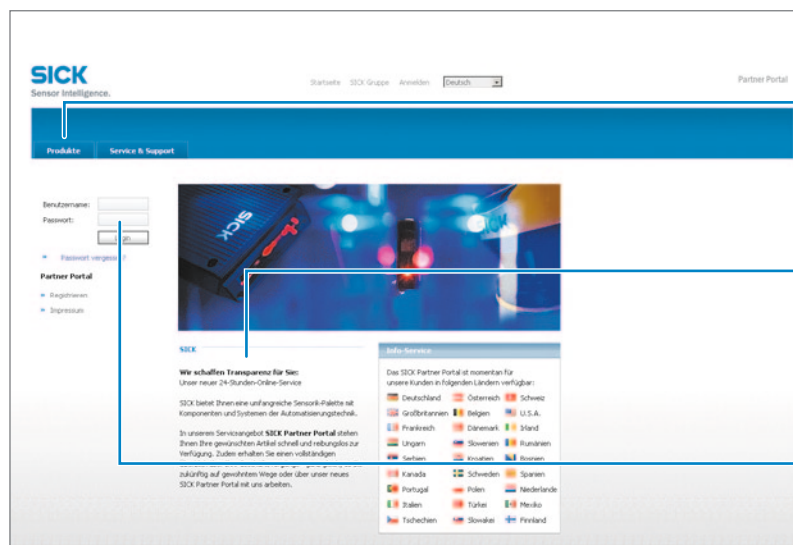
**Product Finder:** We can help you to quickly target the product that best matches your application.

**Applications Finder:** Select the application description on the basis of the challenge posed, industrial sector, or product group.

**Literature Finder:** Go directly to the operating instructions, technical information, and other literature on all aspects of SICK products.

These and other Finders at [www.mysick.com](http://www.mysick.com)

## Efficiency – with SICK e-commerce tools



**Clearly structured:** You can find everything you need for your sensor planning under the menu items Products, Information, and My Account.

**Available 24 hours a day:** Regardless of where you are in the world or what you would like to know – everything is just a click away at [www.mysick.com](http://www.mysick.com).

**Safe:** Your data is password-protected and only visible to you. With the individual user management, you define who can see what data and who can execute what actions.

### Find out prices and availability

Determine the price and possible delivery date of your desired product simply and quickly at any time.

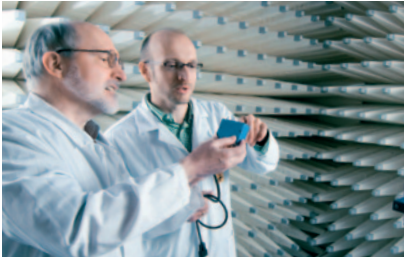
### Order online

You can go through the ordering process in just a few steps.

### Request or view a quote

You can have a quote generated online here. Every quote is confirmed to you via e-mail.

## SICK at a glance



### Leading technologies

With a staff of more than 5,000 and over 50 subsidiaries and representations worldwide, SICK is one of the leading and most successful manufacturers of sensor technology. The power of innovation and solution competency have made SICK the global market leader. No matter what the project and industry may be, talking with an expert from SICK will provide you with an ideal basis for your plans – there is no need to settle for anything less than the best.



### Unique product range

- Non-contact detecting, counting, classifying, positioning and measuring of any type of object or media
- Accident and operator protection with sensors, safety software and services
- Automatic identification with bar code and RFID readers
- Laser measurement technology for detecting the volume, position and contour of people and objects
- Complete system solutions for analysis and flow measurement of gases and liquids



### Comprehensive services

- SICK LifeTime Services – for safety and productivity
- Application centers in Europe, Asia and North America for the development of system solutions under real-world conditions
- E-Business Partner Portal [www.mysick.com](http://www.mysick.com) – price and availability of products, requests for quotation and online orders

Worldwide presence with subsidiaries in the following countries:

Australia  
Belgium/Luxembourg  
Brasil  
Česká Republika  
Canada  
China  
Danmark  
Deutschland  
España  
France  
Great Britain  
India  
Israel  
Italia  
Japan

México  
Nederland  
Norge  
Österreich  
Polska  
România  
Russia  
Schweiz  
Singapore  
Slovenija  
South Africa  
South Korea  
Suomi  
Sverige  
Taiwan  
Türkiye  
United Arab Emirates  
USA

Please find detailed addresses and additional representatives and agencies in all major industrial nations at [www.sick.com](http://www.sick.com)

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Photoelectric Sensors](#) category:*

*Click to view products by [Sick](#) manufacturer:*

Other Similar products are found below :

[E3JM-DS70R4T-US](#) [E3L2DC4](#) [E3RA-DN12 2M](#) [E3RA-DP12 2M](#) [E3S5LE4S](#) [E3S-AD38](#) [E3S-CR11 5M](#) [E3SCT11D5M](#) [E3SCT11M1J03M](#)  
[E3T-CT22S](#) [E3T-FD12R](#) [E3T-SL14R](#) [E3T-SL24 5M](#) [E3T-ST12R](#) [E3T-ST24 2M](#) [E3X-CN02](#) [E3X-CN11 5M](#) [E3X-CN21 10M](#) [E3ZM-B66](#)  
[E3ZM-CL81H 2M](#) [E3Z-T62 2M](#) [NJL5303R-TE1](#) [PB10CNT15PO](#) [PD60CNX20BP](#) [FZS](#) [CX-491-P-J](#) [CX-491-Z](#) [XUM2BKCNL2T](#)  
[XUM2BKCNL2T](#) [XUM2BNANL2R](#) [Y92E-ES30M](#) [Y92E-GS08SS](#) [ZXTDS04T](#) [ZX-XC4A 4M](#) [E3E23Y2US](#) [E3JM-DS70S4-US](#) [E3RA-](#)  
[RN11 2M](#) [E3S5LE42M](#) [E3S-LS20XB4 5M](#) [E3S-LS3PW 2M](#) [E3TFD14N](#) [E3T-FD14R](#) [E3T-SL21 5M](#) [E3T-SL21M](#) [E3T-ST11R](#) [E3T-ST12](#)  
[5M](#) [E3X-DA41-S-M1J 0.3M](#) [E3X-DAB6](#) [E3X-DAG8](#) [E3ZM-B86](#)