


MultiPac MultiTask photoelectric sensors

MultiPac – for extreme detection

MultiPac - for extreme detection

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Product description

The MultiPac photoelectric proximity sensor is designed for challenging applications which require detection of very shiny and irregular targets. Some examples are PET Bottles, food & beverage packets, glass or metal surfaces. These surfaces redirect the emitted light away from the sensor causing signal interruption. Using two independent receivers coupled with the newest chip technology, the MultiPac delivers reliable detec-

tion of these targets. Additionally, film wrapped pallets and other targets in the logistics branch can be detected using a higher angle of incidence. This removes the typical mounting restrictions associated with detecting these products. Thanks to its twin detection technology and flexible mounting, the MultiPac eliminates machine downtime due to loss of detection.

At a glance

- Two redundant receiver arrays from SICK
- The newest SICK chip technology
- Intense, visible red HighPower LED
- Sensing distance up to 500 mm
- Fast and precise commissioning thanks to the highly visible light spot

Your benefits

- Redundant receiver arrays provide reliable detection of shiny, gloss, dark, or irregular shaped objects without signal interruptions
- Products can be detected using a higher angle of incidence. This removes the typical mounting restrictions associated with detecting these products.
- In applications involving plastic wrapped bottles, the MultiPac replaces current solutions which require expensive mechanical height adjustment
- Allows overhead detection of product that is transported on a single conveyor belt but separated into multiple lanes

→ www.mysick.com/en/MultiPac

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	Background suppression
Dimensions (W x H x D)	24.6 mm x 80.6 mm x 54.8 mm
Housing design (light emission)	Rectangular
Sensing range max. ¹⁾	30 mm ... 500 mm
Sensing range	100 mm ... 500 mm
Type of light	Visible red light
Light source ²⁾	HighPower LED
Light spot (distance)	Ø 12 mm (500 mm)
Wave length	625 nm

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033)

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

Mechanics/electronics

Supply voltage ¹⁾	10 V DC ... 30 V DC
Residual ripple ²⁾	≤ 5 V _{pp}
Power consumption ³⁾	≤ 55 mA
Switching output	NPN, Light/dark-switching, Complementary PNP, Light/dark-switching, Complementary (depending on type)
Signal voltage PNP HIGH / LOW	Approx. V _S - 2.5 V / 0 V
Signal voltage NPN HIGH / LOW	Approx. VS / < 2.5 V
Output current I_{max.}	≤ 100 mA
Response time ⁴⁾	≤ 5 ms
Switching frequency ⁵⁾	100 Hz
Connection type	Connector
Circuit protection	A ⁶⁾ B ⁷⁾ C ⁸⁾
Protection class ⁹⁾	II
Weight	150 g
Housing material	ABS Plastic
Optics material	PMMA
Enclosure rating	IP 66 / IP 67
Ambient operating temperature	-30 °C ... +60 °C
Ambient storage temperature	-40 °C ... +75 °C
UL File-No.	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

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

²⁾ May not exceed or fall short of V_S.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ B = inputs and output reverse-polarity protected.

⁸⁾ C = interference suppression.

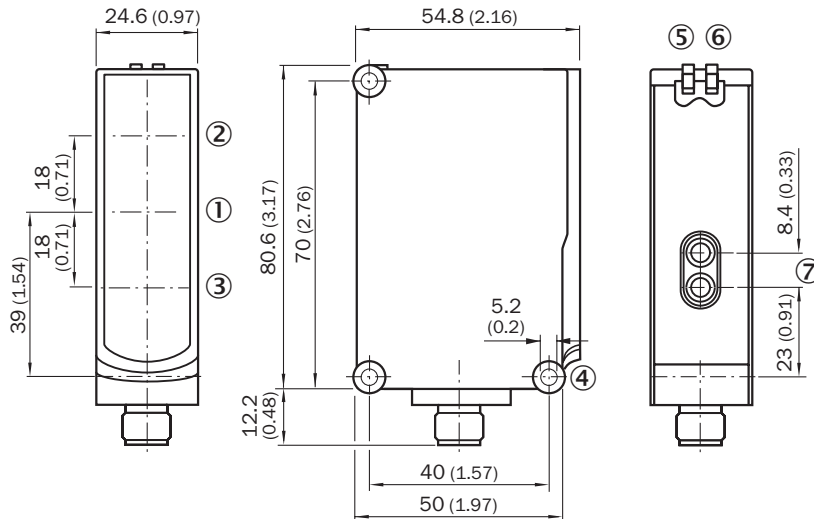
⁹⁾ Reference voltage 50 V DC.

Ordering information

- **Sensor principle:** Photoelectric proximity sensor
- **Detection principle:** Background suppression
- **Sensing range max.:** 30 mm ... 500 mm (Object with 90 % reflectance (referred to standard white DIN 5033))
- **Switching mode:** Light/dark-switching
- **Connection:** Connector M12, 4-pin

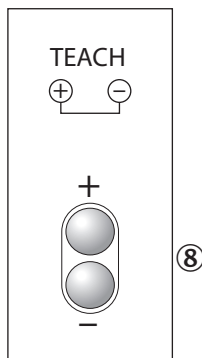
Switching output	Connection diagram	Type	Part no.
NPN	Cd-083	WTB27-3N2483	1056385
PNP	Cd-083	WTB27-3P2483	1056384

Dimensional drawings



- ① Optical axis, sender
- ② Optical axis, receiver 1
- ③ Optical axis, receiver 2
- ④ Mounting hole \varnothing 5.2 mm
- ⑤ Status indicator LED green: power on
- ⑥ Status indicator LED, yellow: Status of received light beam
- ⑦ Sensing distance adjustment, double Teach button

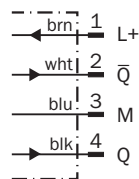
Adjustments



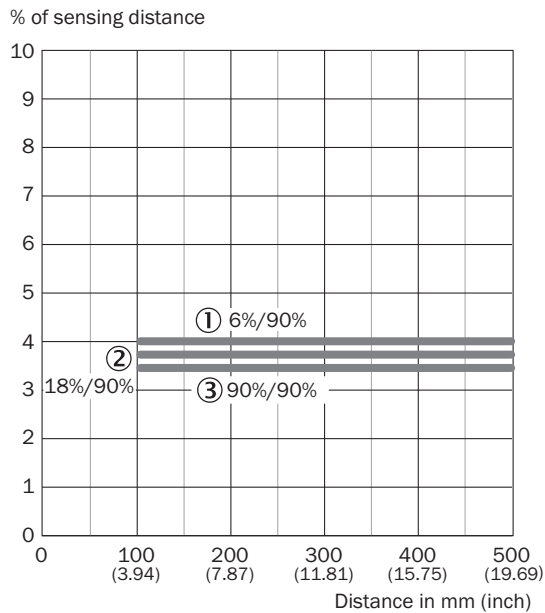
- ⑧ Sensing distance adjustment, double Teach button

Connection diagram

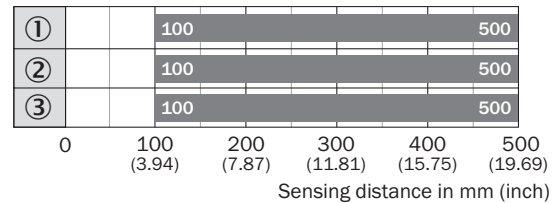
Cd-083



Characteristic curve photoelectric proximity sensors




Bar diagram photoelectric proximity sensors



- ① Sensing distance on black, 6 % remission
- ② Sensing distance on grey, 18 % remission
- ③ Sensing distance on white, 90 % remission

Recommended accessories

Mounting brackets/plates

Figure	Accessory type	Material	Model name	Part no.
	Mounting brackets	Steel, zinc coated	BEF-WN-W27	2009122



Terminal and alignment brackets

Figure	Accessory type	Material	Model name	Part no.
	Universal terminal systems	Steel, zinc coated	BEF-KHS-A01	2022458

Plug connectors and cables

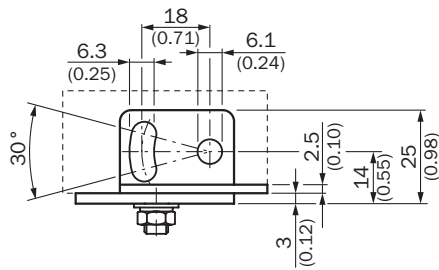
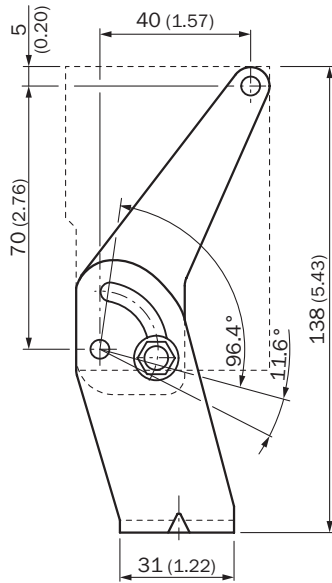
Connector M12, 4-pin

- Connector type: Female connector
- Enclosure rating: IP 67
- Sheath material: PVC

Figure	Flying leads	Cable length	Model name	Part no.
	Straight	2 m	DOL-1204-G02M	6009382
		5 m	DOL-1204-G05M	6009866
		10 m	DOL-1204-G10M	6010543
	Angled	2 m	DOL-1204-W02M	6009383
		5 m	DOL-1204-W05M	6009867
		10 m	DOL-1204-W10M	6010541

Mounting brackets/plates

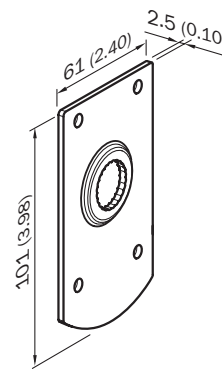
BEF-WN-W27



All dimensions in mm (inch)

Terminal and alignment brackets

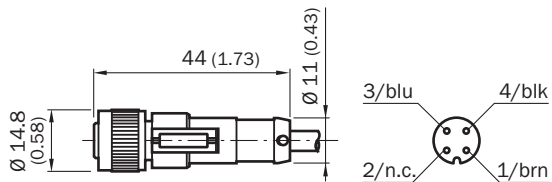
BEF-KHS-A01



All dimensions in mm (inch)

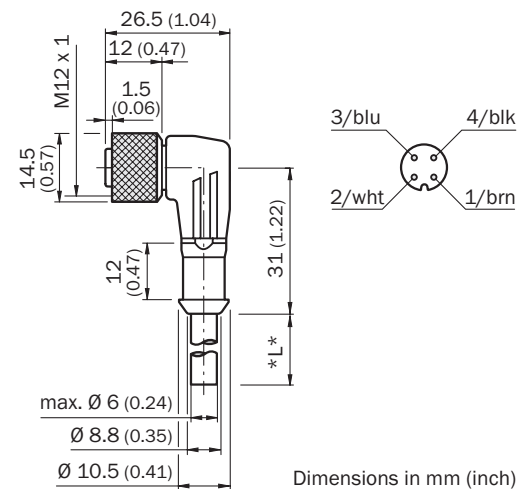
Plug connectors and cables

DOL-1204-G02M
DOL-1204-G05M
DOL-1204-G10M



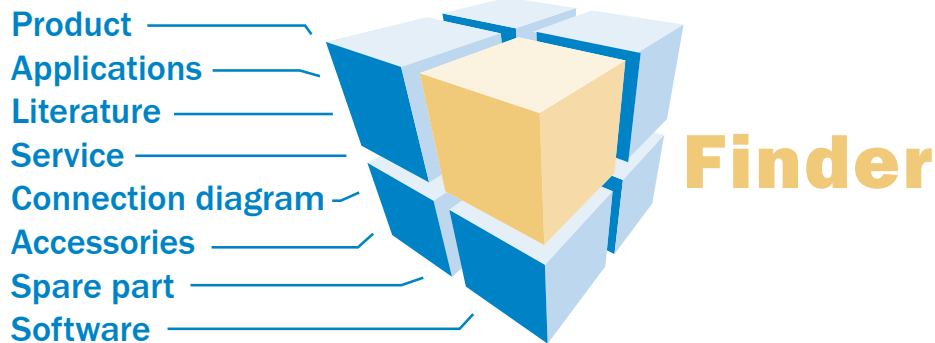
Dimensions in mm (inch)

DOL-1204-W02M
DOL-1204-W05M
DOL-1204-W10M



Dimensions in mm (inch)

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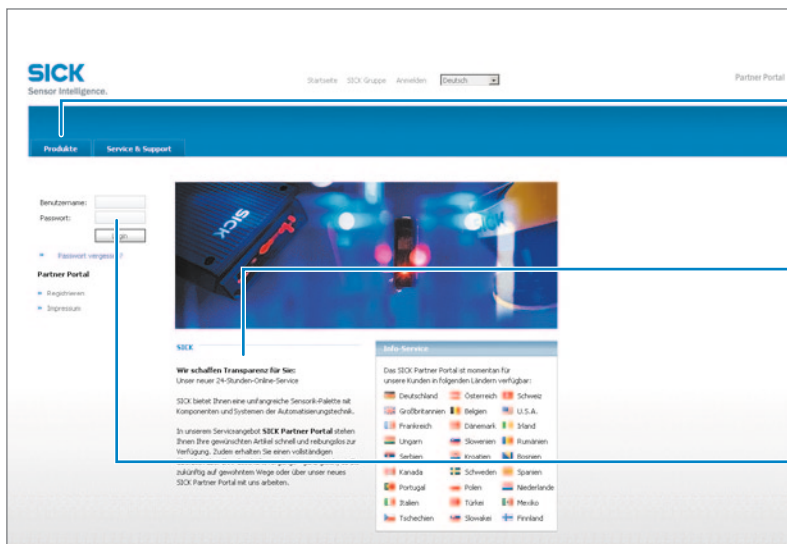
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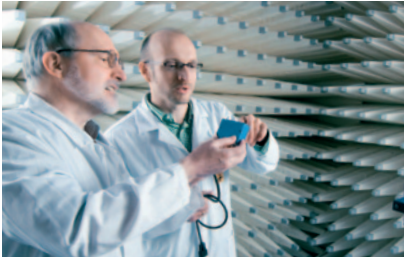
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SICK at a glance



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