

MultiPac – for extreme detection



E









**Additional information**

Detailed technical data. . . . .E-131

Ordering information. . . . .E-132

Dimensional drawings . . . . .E-132

Adjustments . . . . .E-132

Characteristic curves . . . . .E-132

Connection diagram . . . . .E-133

Recommended accessories. . . .E-133

**Product description**

The MultiPac photoelectric 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 Multi-

Pac delivers reliable detection 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](http://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. <sup>1)</sup>	30 mm ... 500 mm
Sensing range	100 mm ... 500 mm
Type of light	Visible red light
Light source	PinPoint LED <sup>2)</sup>
Light spot size (distance)	Ø 12 mm (500 mm)
Wave length	625 nm
Adjustment	Double teach-in button

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

<sup>2)</sup> Average service life of 100,000 h at  $T_A = +25\text{ °C}$ .

### Mechanics/electronics

Supply voltage <sup>1)</sup>	10 V DC ... 30 V DC
Ripple <sup>2)</sup>	$\leq 5\text{ V}_{pp}$
Power consumption <sup>3)</sup>	$\leq 55\text{ mA}$
Output type	PNP/NPN (depending on type)
Output function	Complementary
Switching mode	Light/dark-switching
Signal voltage PNP HIGH/LOW	Approx. $V_S - 2.5\text{ V} / 0\text{ V}$
Signal voltage NPN HIGH/LOW	Approx. $V_S / < 2.5\text{ V}$
Output current $I_{max}$	$\leq 100\text{ mA}$
Response time <sup>4)</sup>	$\leq 5\text{ ms}$
Switching frequency <sup>5)</sup>	100 Hz
Connection type	Male connector
Circuit protection	A <sup>6)</sup> , B <sup>7)</sup> , C <sup>8)</sup>
Protection class <sup>9)</sup>	II
Weight	150 g
Housing material	ABS
Optics material	PMMA
Enclosure rating	IP 66, IP 67
Ambient operating temperature	$-30\text{ °C} \dots +60\text{ °C}$
Ambient storage temperature	$-40\text{ °C} \dots +75\text{ °C}$

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

<sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>7)</sup> B = inputs and output reverse-polarity protected.

<sup>8)</sup> C = interference suppression.

<sup>9)</sup> Reference voltage: 50 V DC.

Ordering information

Other models available at [www.mysick.com/en/MultiPac](http://www.mysick.com/en/MultiPac)

WTB27-3 MultiPac

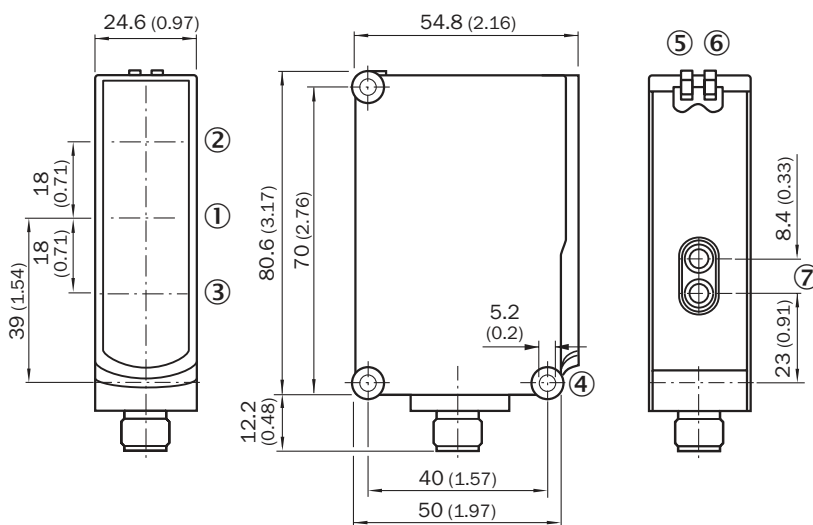
- **Connection:** connector M12, 4-pin

Sensing range max. <sup>1)</sup>	Output type	Connection diagram	Type	Part no.
30 mm ... 500 mm	PNP	Cd-083	WTB27-3P2483	1056384
	NPN	Cd-083	WTB27-3N2483	1056385

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

Dimensional drawings

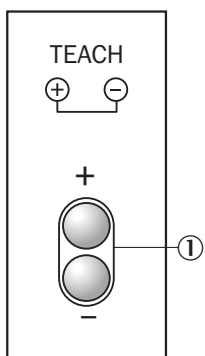
Dimensions in mm (inch)



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

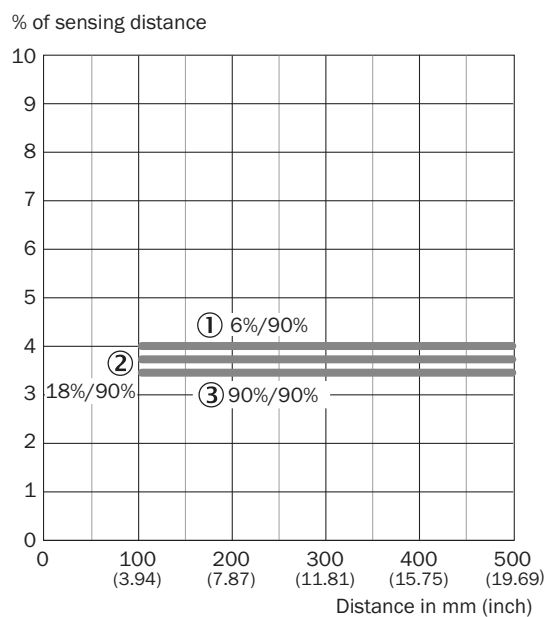
Adjustments

Double teach-in button



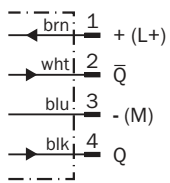
① Double teach-in button

Characteristic curves



## Connection diagram

### Cd-083



## Recommended accessories

### Mounting brackets/plates

#### Mounting brackets

Figure	Material	Description	Model name	Part no.
	Steel, zinc coated	Mounting bracket with hinged arm	BEF-WN-W27	2009122



### Terminal and alignment brackets

Figure	Material	Delivery	Model name	Part no.
	Steel, galvanised (plate) Zinc, die-cast (clamp)	Incl. universal bar clamp and mounting material	BEF-KHS-A01	2022458

### Plug connectors and cables

#### Connecting cable (female connector-open)

- Cable material: PVC
- Connector material: TPU

Figure	Connection type head A	Connection type head B	Connecting cable	Enclosure rating	Model name	Part no.
	Female connector, M12, 4-pin, straight	Cable, open conductor heads	2 m, 4-wire	IP 67	DOL-1204-G02M	6009382
			5 m, 4-wire	IP 67	DOL-1204-G05M	6009866
	Female connector, M12, 4-pin, angled	Cable, open conductor heads	2 m, 4-wire	IP 67	DOL-1204-W02M	6009383
			5 m, 4-wire	IP 67	DOL-1204-W05M	6009867

### Device protection (mechanical)

#### Protective housing/pipes

Figure	Material	Description	Model name	Part no.
	Zinc plated steel (protective housing), Diecast zinc (clamp)	Protective housing for universal clamp	BEF-SG-W27	2039601

→ For additional accessories, please see page L-861