Technical data sheet
Fork photoelectric sensor
Part no.: 50153545
GSM06/4.R0

For Illustration purposes only

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IP 40

Technical data

Basic data

Series	06
Mounting type	R-type
Principle of physics	Optical
Application	Detection of small parts (opaque)

Characteristic parameters

MTTF	942 years

Optical data

Light source	LED, Infrared
Wavelength	940 nm
Transmitted-signal shape	Pulsed

Measurement data

Repeatability	< 0.01 mm
Minimum object size	0,8 mm x 1,2 mm

Electrical data

Protective circuit	Polarity reversal protection

Performance data

Supply voltage U_B	5 ... 24 V, DC
Residual ripple	0 ... 10 %, From U_B
Open-circuit current	0 ... 15 mA
Switching hysteresis	50 µm

Outputs

Number of digital switching outputs	1 Piece(s)

Switching outputs

Type	Digital switching output
Voltage type	DC
Switching current, max.	50 mA
Switching voltage	high: ≥(U_B-2V)
	low: ≤ 2 V

Switching output 1

Assignment	Connection 1, pin 3
Switching element	Transistor, PNP
Switching principle	Light/dark switchable

Time behavior

Switching frequency	3,000 Hz
Response time with interrupted light beam	20 µs
Response time with uninterrupted light beam	80 µs

Connection

Number of connections	1 Piece(s)

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Connector (2 mm pitch)

Mechanical data

Design	Fork
Mouth width	6 mm
Mouth depth	8.5 mm
Dimension (W x H x L)	13.4 mm x 13 mm x 21.9 mm
Housing material	Plastic
Plastic housing	PC-ABS
Lens cover material	Plastic
Net weight	15 g
Housing color	Black
Type of fastening	Through-hole mounting

Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)

Environmental data

Ambient temperature, operation	-25 ... 55 °C
Ambient temperature, storage	-30 ... 80 °C

Certifications

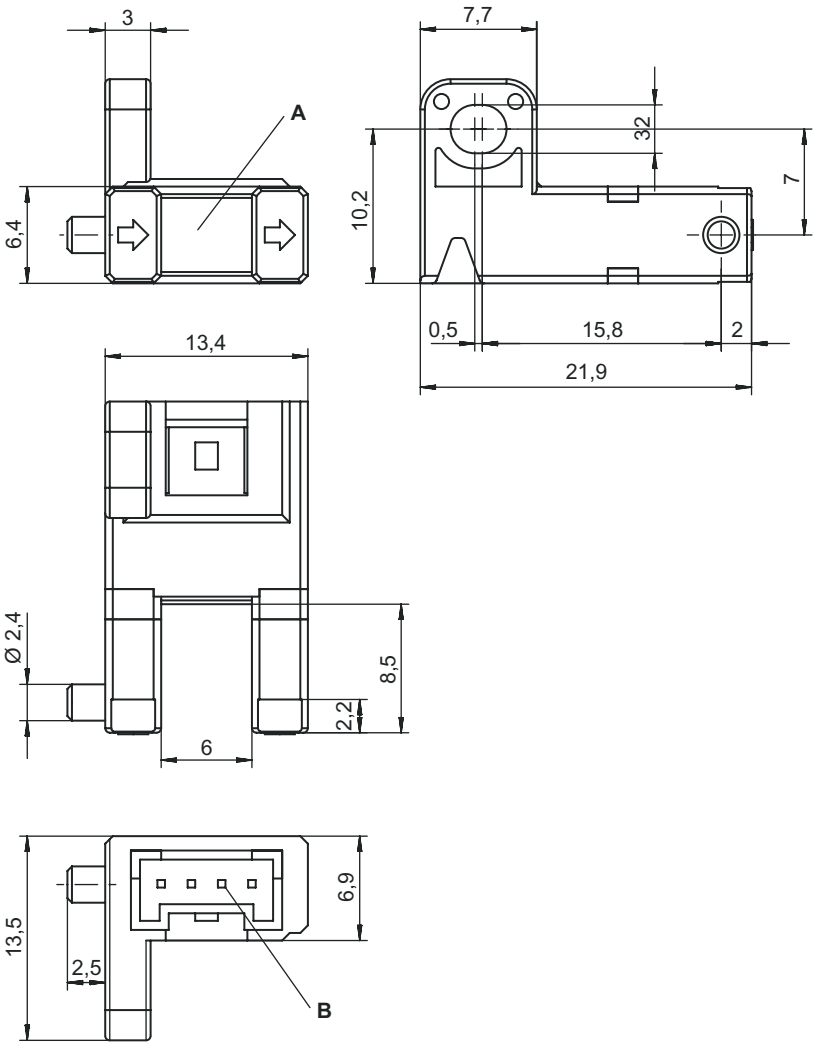
Degree of protection	IP 40
Protection class	III
Standards applied	IEC 60947-5-2

Classification

Customs tariff number	85365019
ECLASS 5.1.4	27270909
ECLASS 8.0	27270909
ECLASS 9.0	27270909
ECLASS 10.0	27270909
ECLASS 11.0	27270909
ECLASS 12.0	27270909
ECLASS 13.0	27270909
ECLASS 14.0	27270909
ECLASS 15.0	27270909
ECLASS 16.0	27270909
ETIM 5.0	EC002720
ETIM 6.0	EC002720
ETIM 7.0	EC002720
ETIM 8.0	EC002720
ETIM 9.0	EC002720
ETIM 10.0	EC002720

Dimensioned drawings

All dimensions in millimeters



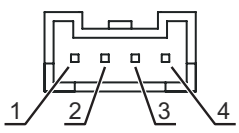
A Optical axis
B Connector (2 mm pitch)

Electrical connection

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Connector (2 mm pitch)
No. of pins	4 -pin
Type	Male

Pin	Pin assignment
1	V+
2	OUT
3	IN
4	GND



Operation and display

LED	Display	Meaning
1	Red, continuous light	Light beam interrupted (light switching)
	Off	Light beam not interrupted (light switching)
	Off	Light beam not interrupted (dark switching)
	Red, continuous light	Light beam interrupted (dark switching)

Part number code

Part designation: **AAAAA/BCC.DE-FFFF**

AAAAA	**Operating principle / construction** GSM02: miniature fork through-beam photoelectric sensor, aperture 6 mm, aperture depth 5.7 mm GSM04: miniature fork through-beam photoelectric sensor, aperture 6 mm, aperture depth 8.5 mm GSM06: Miniature fork throughbeam photoelectric sensor, slot width 6 mm, slot depth 8.5 (integrated connector)
CC	**Switching output / Function** 4: PNP transistor output, light switching (input = U_B)/dark switching (input = open) 2: NPN transistor output, light switching (input = U_B)/dark switching (input = open)
D	**Assembly type** L: L-Type F: F-Type T: T-Type R: R-Type K: K-Type Y: Y-Type U: U-Type
E	**LED display when the light beam is not interrupted** 1: Red continuous light 0: Off
FFFF	**Electrical connection** N/a: Connector (2 mm pitch), 4-pin 1000: PVC cable, standard length 1000 mm, 4-wire

Note

- A list with all available device types can be found on the Leuze website at www.leuze.com.

Notes

Observe intended use!

- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.

NOTE

- Do not connect the input (IN) to ground (GND) in dark switching mode
- Max. tightening torque for nuts 0.5 Nm.

Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50154367	KB 4AC1 010	Connection cable	Suitable for interface: RS 232 Connection 1: JST ZHR connector Connector, LED: No Connection 2: Open end Shielded: No Cable length: 1,000 mm Sheathing material: PVC
	50154368	KB 4AC1 030	Connection cable	Suitable for interface: RS 232 Connection 1: JST ZHR connector Connector, LED: No Connection 2: Open end Shielded: No Cable length: 3,000 mm Sheathing material: PVC
	50154369	KB 4AC1 050	Connection cable	Suitable for interface: RS 232 Connection 1: JST ZHR connector Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
	50154364	KB 4AV1 010	Connection cable	Suitable for interface: RS 232 Connection 1: JST ZHR connector Connector, LED: No Connection 2: Open end Shielded: No Cable length: 1,000 mm Sheathing material: PVC
	50154365	KB 4AV1 030	Connection cable	Suitable for interface: RS 232 Connection 1: JST ZHR connector Connector, LED: No Connection 2: Open end Shielded: No Cable length: 3,000 mm Sheathing material: PVC
	50154366	KB 4AV1 050	Connection cable	Suitable for interface: RS 232 Connection 1: JST ZHR connector Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

Note

A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.