

Technical data sheet

Energetic diffuse sensor

Part no.: 50140112
ET12/4

Contents

- Technical data
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- Electrical connection
- Operation and display
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For illustration purposes only



Technical data

Basic data

Series	12
Operating principle	Diffuse reflection principle
Application	Detection of small parts

Optical data

Operating range	0.005 ... 0.05 m (guaranteed operating range)
Light source	LED, Red
Wavelength	630 nm
Transmitted-signal shape	Pulsed

Electrical data

Protective circuit	Overvoltage protection
	Polarity reversal protection

Performance data

Supply voltage U_B	11 ... 26 V, DC, Incl. residual ripple
Current consumption, max.	20 mA
Residual ripple	10 %, From U_B

Outputs

Number of digital switching outputs	1 Piece(s)
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Switching outputs

Type	Digital switching output
Voltage type	DC
Switching current, max.	50 mA

Switching output 1

Switching element	Transistor, PNP
Switching principle	Light switching

Time behavior

Response time	0.5 ms
Readiness delay	100 ms

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.08 mm ²

Mechanical data

Dimension (W x H x L)	7.7 mm x 27.8 mm x 14 mm
Housing material	Plastic
Plastic housing	PC-PBT
Lens cover material	Plastic
Net weight	23 g
Housing color	Black

Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)

Environmental data

Ambient temperature, operation	-25 ... 55 °C
Ambient temperature, storage	-25 ... 75 °C

Certifications

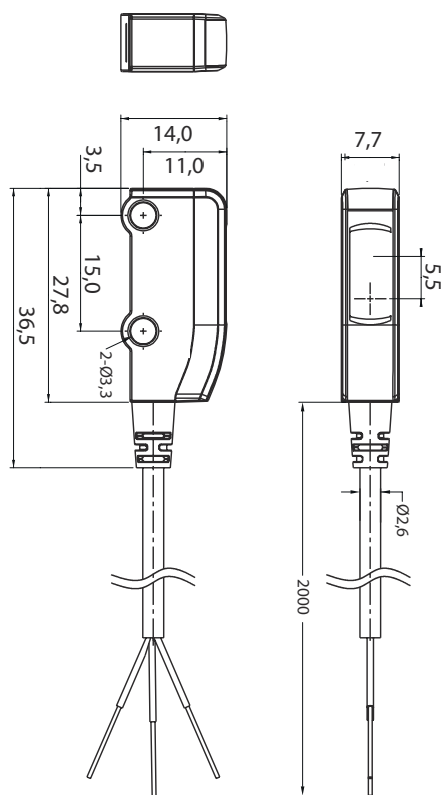
Degree of protection	IP 67
Standards applied	IEC 60947-5-2

Classification

Customs tariff number	85365019
ECLASS 5.1.4	27270903
ECLASS 8.0	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270903
ECLASS 11.0	27270903
ECLASS 12.0	27270903
ECLASS 13.0	27270903
ECLASS 14.0	27270903
ECLASS 15.0	27270903
ECLASS 16.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC001821
ETIM 8.0	EC001821
ETIM 9.0	EC001821
ETIM 10.0	EC001821

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.08 mm ²

Conductor color

Brown
Black
Blue

Conductor assignment

V+
OUT
GND

Operation and display

LED	Display	Meaning
1	Green, continuous light	Operational readiness
2	Orange, continuous light	Object detected
	Orange, flashing	Overcurrent

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.