

## Technical data sheet

### Energetic diffuse sensor

Part no.: 50140111  
ET12/N

#### Contents

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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
Operating range	Guaranteed operating range
Light source	LED, Red
Wavelength	630 nm
Transmitted-signal shape	Pulsed

### Electrical data

Protective circuit	Overvoltage protection Polarity reversal protection
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### 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

Voltage type	DC
Switching current, max.	50 mA

### Switching output 1

Switching element	Transistor, NPN
Switching principle	Dark switching

### Time behavior

Response time	0.5 ms
Readiness delay	100 ms

### 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 <sup>2</sup>

### 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
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

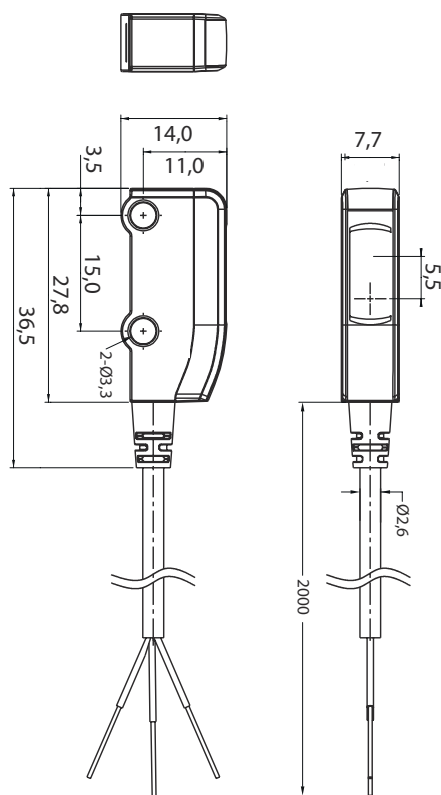
Degree of protection	IP 67
Standards applied	IEC 60947-5-2

### 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
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC001821
ETIM 8.0	EC001821
ETIM 9.0	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 <sup>2</sup>

### 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.