

Technical data sheet

Safety transponder

Part no.: 63002020
RD800-MP-M12R

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Figure can vary



Technical data

Basic data

Series	RD800
Application	Individual use
	Series use
Code type	Flexible programming

Characteristic parameters

SIL	Up to 3, IEC 61508
SILCL	Up to 3, IEC/EN 62061
Performance Level (PL)	Up to and including e, EN ISO 13849-1
MTTF _d	4,077 years, EN ISO 13849-1
PFH _D	1.45E-09 per hour
Mission time T _M	20 years, EN ISO 13849-1
Category	Up to and including 4, EN ISO 13849
DC	High

Electrical data

Protective circuit	Cross circuit protection
	Short circuit protected
Pulse resistance	1,500 V
Usage category at DC 12	Ue 24 V, Ie 0.25 A, EN 60947-5-1

Performance data

Supply voltage U _B	24 V, DC, -15 ... 10 %
Current consumption, max.	250 mA
Power consumption, max.	1 W
Nominal current, min.	0.5 mA
Overvoltage category	III
Fuse, external	1 A
Fuse, internal	0.75 A polyfuse (O1 + O2 + O3)
Rated insulation voltage	32 V DC
Conventional thermal current, max.	0.25 A

Inputs

Number of digital switching inputs	2 Piece(s)
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Switching inputs

Type	Digital switching input
Switching voltage, typ.	24 V
Voltage type	DC
Current consumption, max.	5 mA

Outputs

Number of safety-related switching outputs (OSSDs)	2 Piece(s)
Number of digital switching outputs	1 Piece(s)
Switching power, max.	6 W

Safety-related switching outputs

Type	Safety-related switching output OSSD
Switching voltage, typ.	24 V
Voltage type	DC
Test-pulse length, max.	0.3 ms
Output current, max.	250 mA
Capacitance, max. between an output and GND	200 nF
Capacitance, max. between two outputs	200 nF

Safety-related switching output 1

Switching element	Transistor, PNP
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Safety-related switching output 2

Switching element	Transistor, PNP
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Switching outputs

Type	Digital switching output
Switching voltage, typ.	24 V
Voltage type	DC
Switching current, max.	100 mA

Switching output 1

Switching element	Transistor, PNP
Function	Signal output

Timing

Reaction time after removing the actuator, min.	80 ms
Reaction time after removing the actuator, max.	150 ms
Reaction time after shutdown, input, min.	7 ms
Reaction time after shutdown, input, max.	12 ms

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal OUT
Type of connection	Connector
Thread size	M12
Material	Metal
No. of pins	8 -pin
Plug outlet	On right side

Cable properties

Length of connection cable, max.	50 m
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Mechanical data

Dimension (W x H x L)	25 mm x 18 mm x 72 mm
Housing material	Plastic, PA 66
Net weight	57 g
Housing color	Black
Type of fastening	Through-hole mounting
Switching hysteresis, max.	2.4 mm
Assured cut-out distance (Sar), min.	16 mm
Assured cut-in distance (Sao), max.	10 mm
Nominal switch-off distance, max.	14 mm
Nominal operating distance, max.	12 mm
Distance between two systems (sensor, actuator), min.	50 mm
Repeatability, max.	1.2 mm
Screw tightening torque	0.8 ... 2 N·m

Operation and display

Type of display	LED
Number of LEDs	4 Piece(s)

Environmental data

Ambient temperature, operation	-25 ... 70 °C
Ambient temperature, storage	-25 ... 85 °C
Degree of contamination	3, EN 60947-1

Technical data

Certifications

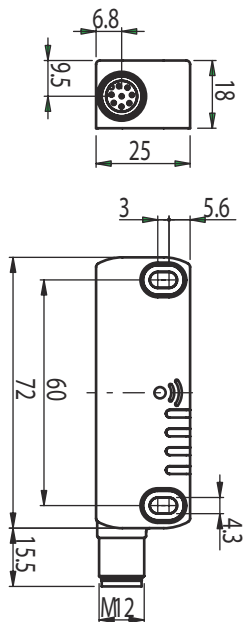
Degree of protection	IP 67
	IP 69K
Certifications	c UL US
	TÜV Süd
Test procedure for shock in accordance with standard	EN 60068-2-27
Test procedure for vibration in accordance with standard	EN 60068-2-6

Classification

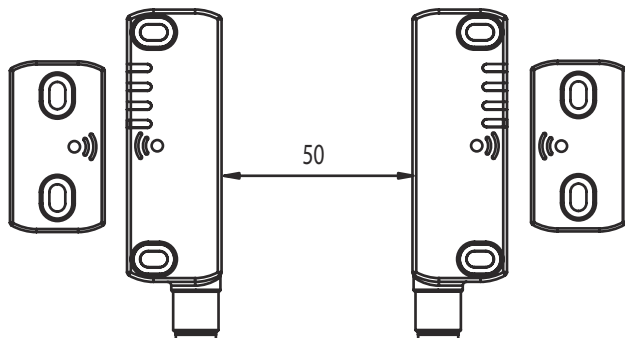
Customs tariff number	85369095
eCl@ss 8.0	27272403
eCl@ss 9.0	27272403
ETIM 5.0	EC001526
ETIM 6.0	EC001526

Dimensioned drawings

All dimensions in millimeters

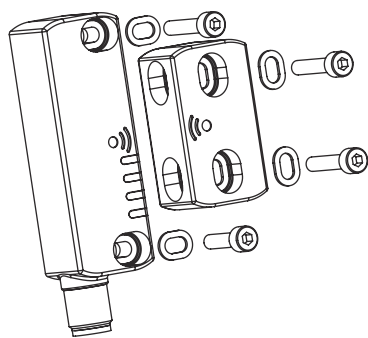


Minimum distance in mm



Dimensioned drawings

Fastening

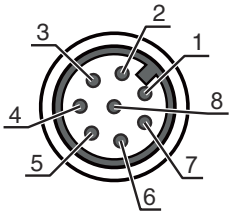


Electrical connection

Connection 1

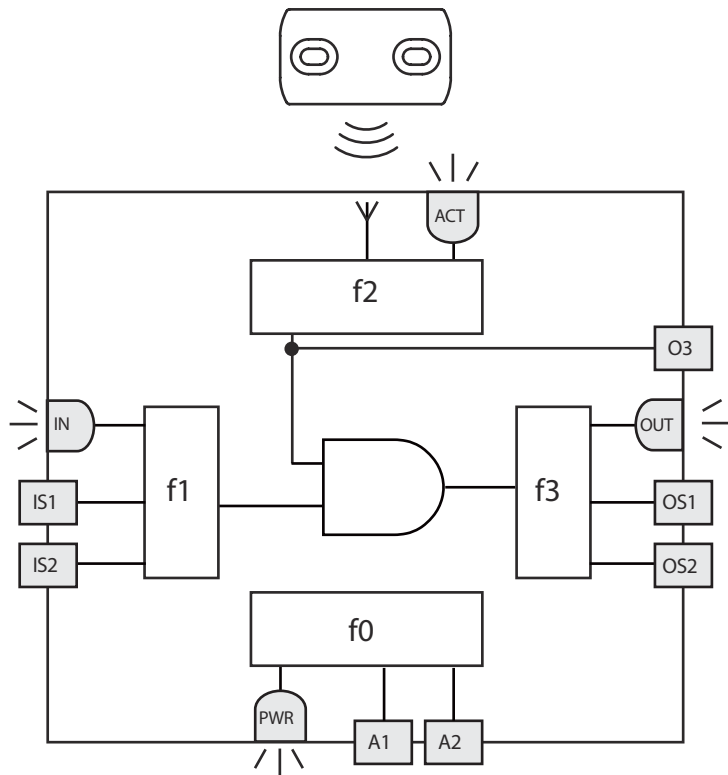
Function	Signal OUT
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Plug outlet	On right side

Pin	Pin assignment
1	A1
2	IS1
3	A2
4	OS1
5	O3
6	IS2
7	OS2
8	I3



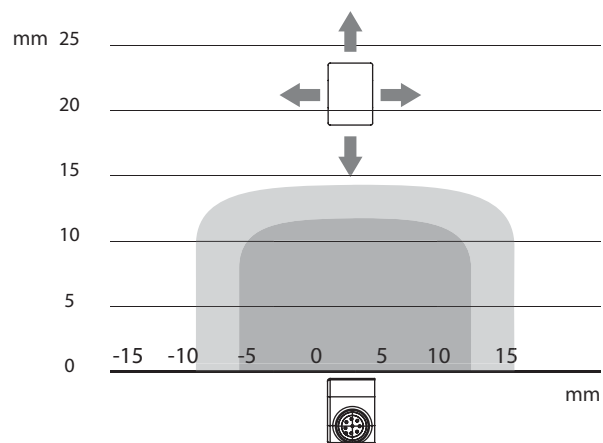
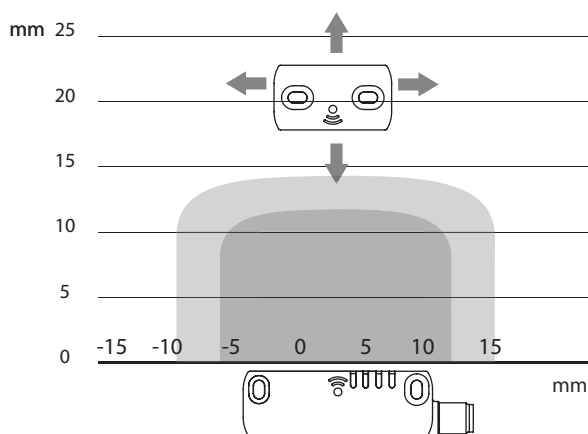
Circuit diagrams

Internal circuit diagram



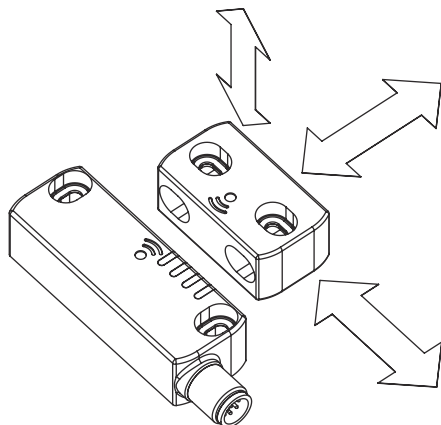
Diagrams

Safety-related distances



Diagrams

Approach directions



Notes



Observe intended use!



- ⚠ The product may only be put into operation by competent persons.
- ⚠ Only use the product in accordance with its intended use.

Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50135128	KD S-M12-8A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Actuator

	Part no.	Designation	Article	Description
	63002100 *	RD800-x-SCA	Actuator	Application: Individual use, Series use Code type: Standard code Certifications: c UL US, TÜV Süd
	63002101 *	RD800-x-UCA	Actuator	Application: Individual use, Series use Code type: Unique code Certifications: c UL US, TÜV Süd

Accessories

Part no.	Designation	Article	Description
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* Necessary accessories, please order separately

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