REER

Your future's safe!

Magnus RFID

RFID safety switches

short form

Magnus RFID: next generation sensors for machine safety

The best in cost-effectiveness

Wear-free technology allows for longer product life time.

Status LED and diagnostic output.

Smallest design of RFID safety sensors.

Full mechanical compatibility with Magnus MG S and MG B.

Can be used as stand-alone.

The best in safety

Tampering protection in accordance with DIN EN 14119, the highest in its class.

Screw covers prevent easy removal.

Series connection up to PL e/SIL 3.

IP67 and IP6K9K protection grade for use in harsh environments.

Complies with the strict hygiene and cleaning requirements of the food and packaging industry.

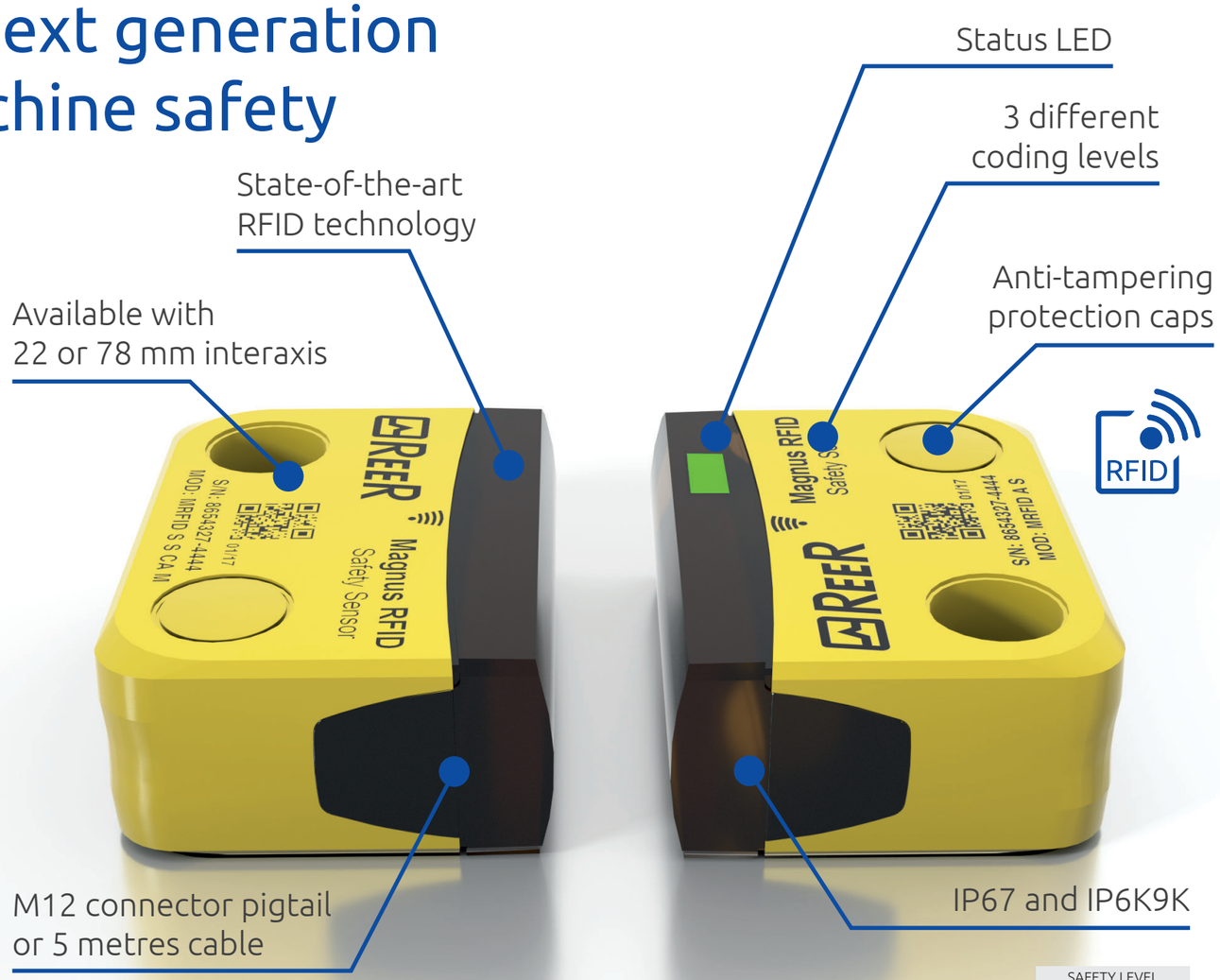
The best in versatility

Dual mounting options.

M12 connector or cable.

3 different coding levels.

Extension cables for series connection.



SAFETY LEVEL
SIL 3
SIL 3 - SILCL 3
PL e - Cat. 4

Magnus RFID – next generation

The application of Magnus RFID sensors can be extremely wide thanks to the compact and versatile design.

The different design and technology options as well as the complete mechanical compatibility with the Magnus MG magnetic sensors series, make this product extremely valuable for users.

The RFID technology enables Magnus RFID sensors to be individually coded in three different ways to allow the appropriate tampering protection in all applications. The highest configurations allow each sensor to be paired with one only assigned actuator.

The RFID technology used allows to reach safety levels up to PL e/SIL 3 also when connecting the sensors in series.

As a result, Magnus RFID sensors can be simply integrated in existing safety scenarios, offering a cost-effective solution for modifying and upgrading machines.

Typical applications

Magnus RFID is the ideal choice for many industrial applications, including ...

... food & beverage, packaging, pharmaceutics, printing, paper, logistics, renewable energies, chemicals, injection moulding and many more ...





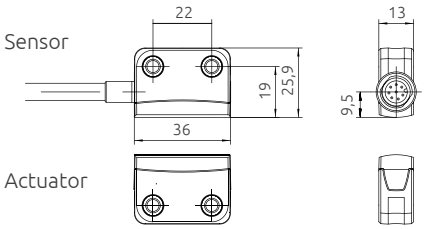


Outstanding technical specifications

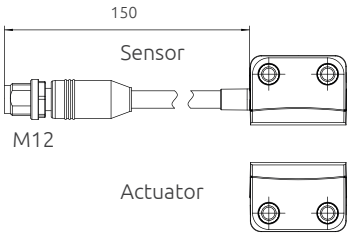
Technical drawings

S series

Cable

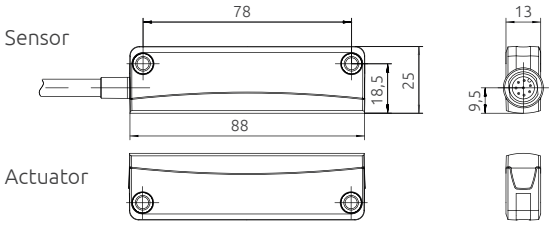


M12 connector

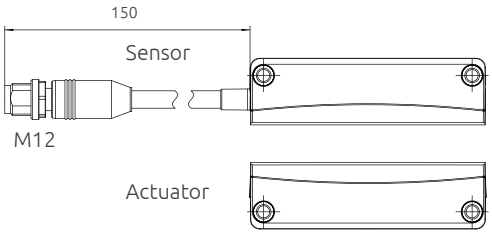


B series

Cable

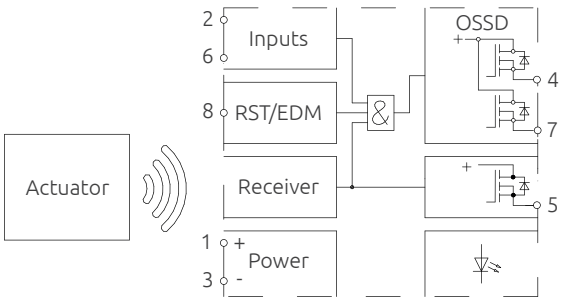


M12 connector



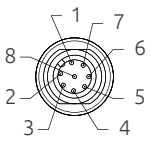
All measures in mm

Circuit diagram



Pin-out

Pin	Function
1	VDC
2	Safety input 1
3	GND
4	Safety output 1
5	Diagnostic output
6	Safety input 2
7	Safety output 2
8	RST/EDM input

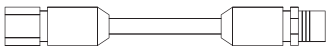


Accessories

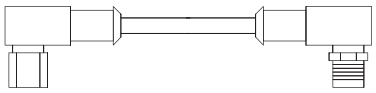
Extension cables

Type

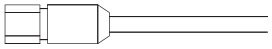
S Male - Female
M12 connector (straight)
Lenght: 1, 3, 5, 10 m
Poles: 4 or 8



L Male - Female
M12 connector (90°)
Lenght: 1, 3, 5, 10 m
Poles: 4

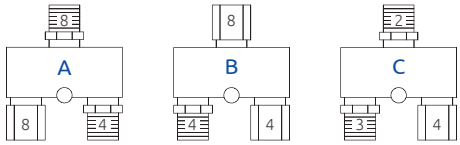


C Female M12 connector
Lenght: 1, 3, 5, 10 m
Poles/wires: 4 or 8



Connectors

Type



Type A To gain status output from the connected sensor
Type B For series connections of 2 or more sensors
Type C To introduce additional power supplies in long series

next generation RFID safety sensor

www.reersafety.com

Ordering information

Sensor + Actuator Combo[1]

M RFID C [S] [I] [A] [5]

- S: S 22 mm interaxis; B 78 mm interaxis
- I: I Individual coding; U Unique coding; C Actuator coded
- A: A Automatic EDM input
- 5: M M12 Connector; 5 5 m cable

Extension cables (for series connection)

M RFID EC [S] [4] [3]

- 3: 1 1 m cable; 3 3 m cable; 5 5 m cable; 10 10 m cable
- 4: 4 4 poles connector / 4 wires cable; 8 8 poles connector / 8 wires cable
- S: S Male - Female M12 connector (straight); L Male - Female M12 connector (90°)[2]; C Female M12 connector cable

T Connectors (for series connection)

M RFID TC [A]

- A: A M12 Type A; B M12 Type B; C M12 Type C

Accessories

M RFID SP Spacers available for S or B series (recommended for mounting on metal surfaces)

M RFID TP Termination plug (to close the last Type B connector in series connections of 2 or more sensors)

Notes

1 Each Combo set is provided with a Sensor and the corresponding Actuator. Sensors and Actuators can be also ordered separately, please enquire within

2 4-pole version available only

Technical data

Electrical specifications	S series	B series
Supply voltage	24 VDC ± 10%	
Max. switching voltage	Supply voltage ± 0,2 V	
Switching current safety output	Max. 400 mA	
Switching current control output	Max. 50 mA	
Contact form	OSSD	
Switching frequency	3 Hz	
Transition time	Input-Output: 3 ms / Sensor-Actuator: 75 ms	
No. of safety outputs electronic	2	
No. of diagnostic outputs electronic	1	
Number of safety inputs	2	
EDM input	Yes	
Start button	Yes	
Functional category	DC-12 / DC-13	
Assured switching distance	8 mm	
Safe distance for switching off	18 mm	
Minimum air-gap	0,5 mm	
Misalignment actuator	Max. 8 mm	
Reverse polarity protection	Yes	
Short-circuit proof outputs	Yes	
Current consumption per input	2,75 mA	
Indication LED	Three-colour	
Operating direction	Any direction	
Switching principle	Electronic	
Repeating accuracy (R)	< 0,5 mm	
Hysteresis	2 mm	
Series connection	Max. 30 sensors	
Technology	RFID	
Possible actuators	M RFID A S	M RFID A B

Environmental features	
Protection class	IP67 (all models) / IP6K9K (only models with cable)
Operating temperature	- 25 ... 70° C
Shock resistance	30 g / 11 ms
Vibration resistance	10 ... 55 Hz, amplitude 1 mm

Mechanical data		
Housing material	PBT / PC	
Housing	Rectangular	
Connector type	Pigtail M12 / 8-pole / 150 mm	
Cable	5 m PVC / 8 wires	
Cross-section of wire	0,25 mm²	
Temp. range cable	- 25 ... 80° C	
Dimensions (height x width x depth)	26 x 36 x 13 mm	26 x 88 x 13 mm
Mounting type	M4 screws (countersunk)	

Approvals	
CE	Yes
UL	Yes
SGL (Ecolab)	Yes
PL	e
SIL	3
SIL CL	3
Category	4

Quality, reliability and an extensive r

Cost-effective and reliable solutions

Multiple options of actuation technology

Individual coding
The actuator is programmed via teach-in and permanently assigned to the sensor during set-up (the process can be repeated if necessary).

Unique coding
The actuator is permanently assigned to the sensor during manufacturing (it cannot be replaced with another actuator).

Actuator coded
The actuator is free and not specifically assigned to the sensor (one actuator can work with multiple sensors).

Series connection with maximum safety

Up to
PL e
Performance Level
according to
EN ISO 13849-1

Reliable evaluation,
e.g. with the modular
safety controller Mosaic ...

MOSAIC

... or with the AD SR1
configurable
safety control unit

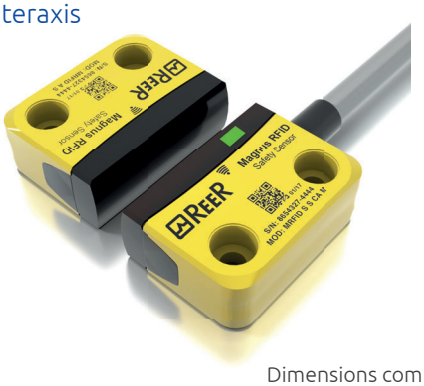
Transition time between Input and Output: 3 ms, the shortest in the market

Magnus RFID

ange to fit all applications

2 series ideal for all applications

S series
22 mm interaxis



Dimensions compatible
with Magnus MG S series

B series
78 mm interaxis

Dimensions compatible
with Magnus MG B series

Ideal also in the most demanding applications

Unique mechanical characteristics allow protection against cleaning agents and washdown processes, a typical requirement of the food industry.

Resistant to aggressive elements, e.g. cleaning agents used in the food industry.

Waterproof housing compliant with IP67 and IP6K9K requirements (SGL according to Ecolab standards).

Connectivity

Cable or **M12 Connector**
Magnus RFID satisfies all requirements with regards to connectivity. Cables and connectors approved for the food industry complete the range of sensors.

Your future's safe!

More than 60 years of quality and innovation

Founded in Turin, Italy in 1959, ReeR distinguished itself for its strong commitment to innovation and technology.

A steady growth throughout the years allowed ReeR to become a point of reference in the safety automation industry at a worldwide level.

The Safety Division is in fact today a world leader in the development and manufacturing of safety optoelectronic sensors and controllers.

ReeR is ISO 9001, ISO 14001 and ISO 45001 certified.

Made in Italy
since 1959

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Carta da fonti gestite in maniera responsabile
FSC® C109382

Issue 2 - Rev. 1.4
June 2020
8946242
Brochure MAGNUS RFID - English

Printed in Italy