REER

Your future's safe!



R.SAFE

RFID safety switches

short form

R-SAFE RFID: next generation sensors for machine safety

The best for series connections

new

R-SAFE RFID allows individual status reading without the need to individually wire the status output of each sensor.

The best in cost-effectiveness

Wear-free technology allows for longer product life time.

Status LED and diagnostic output.

Full mechanical compatibility with Magnus RFID and Magnus MG “S” series.

Can be used as stand-alone or in series.

The best in safety

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

Screw covers prevent easy removal.

Series connection up to PL e/SIL 3.

IP67 and IP69K protection grade for use in harsh environments.

The best in versatility

Triple mounting options.

M12 connector, M12 connector with pigtail or cable.

3 different coding levels.

Extension cables for series connection.



CE TÜV SÜD cULus LISTED Pending

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

R-SAFE RFID next generation

RFID

The application of R-SAFE 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 and RFID sensors “S” series, make this product extremely valuable for users.

The RFID technology enables R-SAFE RFID sensors to be coded in three different ways to allow the appropriate tampering protection in all applications.

The highest level of coding allow the sensors to be paired only with the assigned actuators.

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

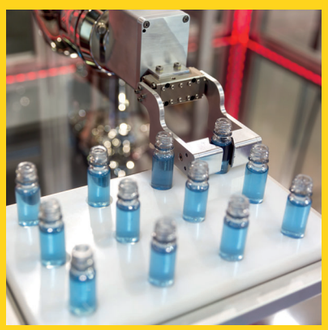
As a result, R-SAFE RFID sensors can be simply integrated in existing safety scenarios, offering a cost-effective solution for modifying and upgrading machines.

Typical applications

R-SAFE 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 ...





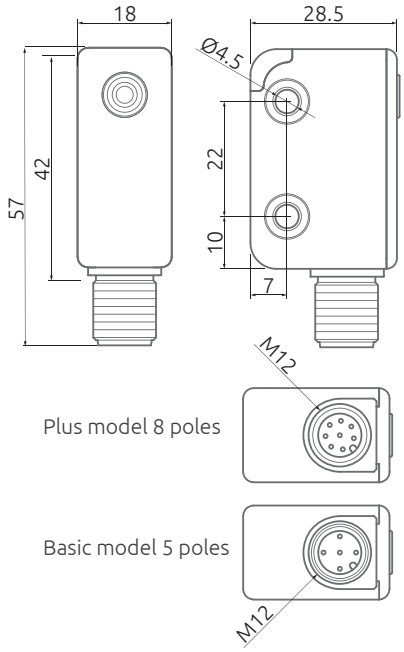




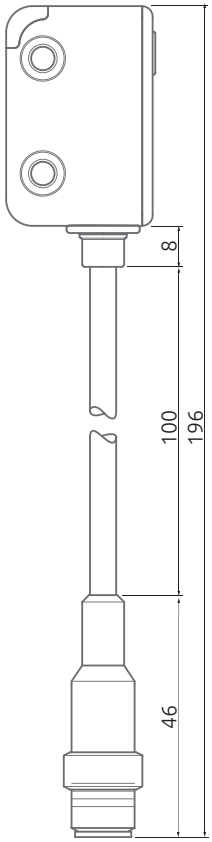
Outstanding technical specifications

Technical drawings

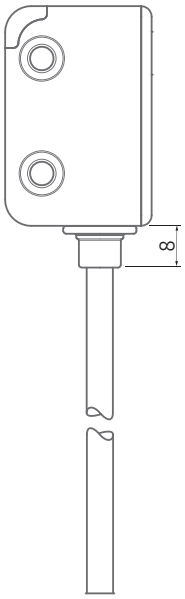
Sensor with connector



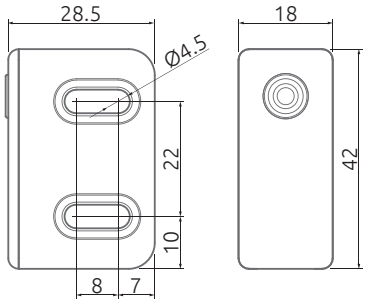
Sensor with pigtail



Sensor with cable

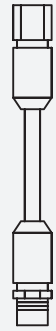


Actuator

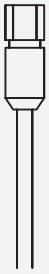


Accessories

Cables

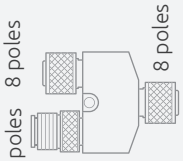


Male - Female extension cable
M12 connector (straight)
Lenght: 3, 5, 10 m
Poles: 5 or 8

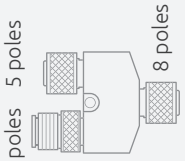


Standard cable
Female M12 connector
Lenght: 3, 5, 10 m
Poles/wires: 5 or 8

Splitter connectors

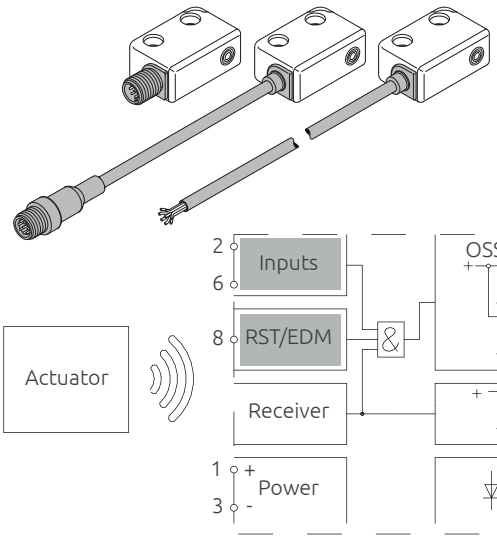


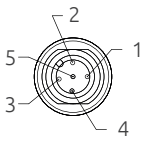
Type S1



Type S2

Circuit diagram

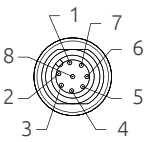




Basic model pin-out

Pin	Function
1	24 VDC
2	Safety output 1
3	GND
4	Safety output 2
5	Diagnostic output

Inputs available on Plus model only



Plus model pin-out

Pin	Function
1	24 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

New RFID safety sensors

www.reersafety.com

Ordering information

Combo[1] (Sensor + Actuator)

RRFID PLUS 8 poles model

RRFID BASIC 5 poles model

C	S	T	C
C	S	G	C

- C Combo
- S Small
- T Teach-in coding (RRFID PLUS only)
- U Unique coding
- G Generic coding

- C M12 connector
- P Pigtail
- 1 Cable 1 m
- 3 Cable 3 m
- 5 Cable 5 m
- X Cable 10 m

Sensor

RRFID PLUS 8 poles model

RRFID BASIC 5 poles model

S	S	T	C
S	S	G	C

- S Sensor
- S Small
- T Teach-in coding (RRFID PLUS only)
- G Generic coding

- C M12 connector
- P Pigtail
- 1 Cable 1 m
- 3 Cable 3 m
- 5 Cable 5 m
- X Cable 10 m

Actuator

RRFID A S G

- C Actuator
- S Small

- G Generic coding
- T Teach-in coding (Sensor RRFID Plus only)

Extension cables
(for series connection)

CFM 5P 3

- 5P 5 poles
- 8P 8 poles

- 3 Cable 3 m
- 5 Cable 5 m
- 10 Cable 10 m

Cables
(For models with C and P connector)

CD 3

- 3 Cable 3 m
- 5 Cable 5 m
- 10 Cable 10 m

CF8 3

- 3 Cable 3 m
- 5 Cable 5 m
- 10 Cable 10 m

Splitter connectors
(for series connection)

CRY12-885 TYPE S1 connector, for the 1st sensor of the serie

CRY12-855 TYPE S2 connector, for subsequent sensors of the serie

Technical data

Electrical specifications

Supply voltage	24 VDC ± 20%
Power consumption	0,5 W
Switching current safety output	Max. 300 mA
Switching current status output	Max. 50 mA
Safety outputs	2 OSSD active high
Safety inputs	2 inputs active high
Status output	1 output active high
Restart	Monitored normally open Restart input in series with EDM

Operating characteristics

Functioning operating distance	12 mm
Assured release distance (Sar)	25 mm
Operating temperature	- 25 ... + 70 °C
Storage temperature	- 25 ... + 70 °C
Umidity	50% @ 70 °C ... 90% @ 20 °C
Protection class	IP65/IP67 (IP69K)
Shock resistance	30 g / 11 ms IEC 60068
Vibration resistance	10 ... 55 Hz, amplitude 1 mm
Switch-on delay	10s typical, 15s max.
Standalone Risk time Δ Rt	≤ 55 ms
Operating direction	Any direction
Switching principle	Electronic
Series connection	Max. 16 sensors
Technology	RFID

Mechanical data

Material	Polyketone (POK)
Housing	Rectangular
Connector type	M12 8 or 5 poles
Cable	PVC 8 or 5 wires
Cross-section of wire	0,25 mm²
Temp. range cable	- 25 ... 80° C
Dimensions (height x width x depth)	28,5 x 57 x 18 mm
Mounting type	M4 screws (countersunk)

Approvals and safety characteristics

PL	PL e	ISO 13849-1
Categoria	4	ISO 13849-1
PFHd	3,58E-9	IEC 61508-1
SFF	90%... 99%	IEC 61508-1
SIL	3	IEC 61508-1
SIL max.	3	EN 62061
Hardware fault tolerance	1	EN ISO 13849-1 / EN 62061
Low level coding	Yes - Generic	ISO 14119-1
High level coding	Yes - Teach-in / Unique	ISO 14119-1

Notes

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

Quality, reliability and an extensive r

Cost-effective and reliable solutions

Multiple options of actuation technology

Teach-in coding (Plus model only)
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)

Generic coding
The actuator is free and not specifically assigned to the sensor (one actuator can work with multiple generic sensors)



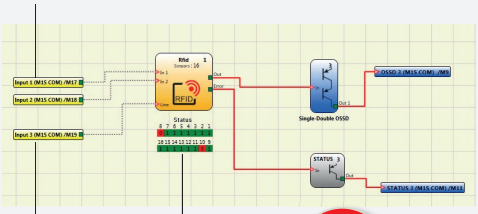
Series connection with maximum safety

Allows individual status reading without individual status output wiring

new

Example of connection with Mosaic

OSSD outputs from the first sensor of the series



Status output from first sensor of the series

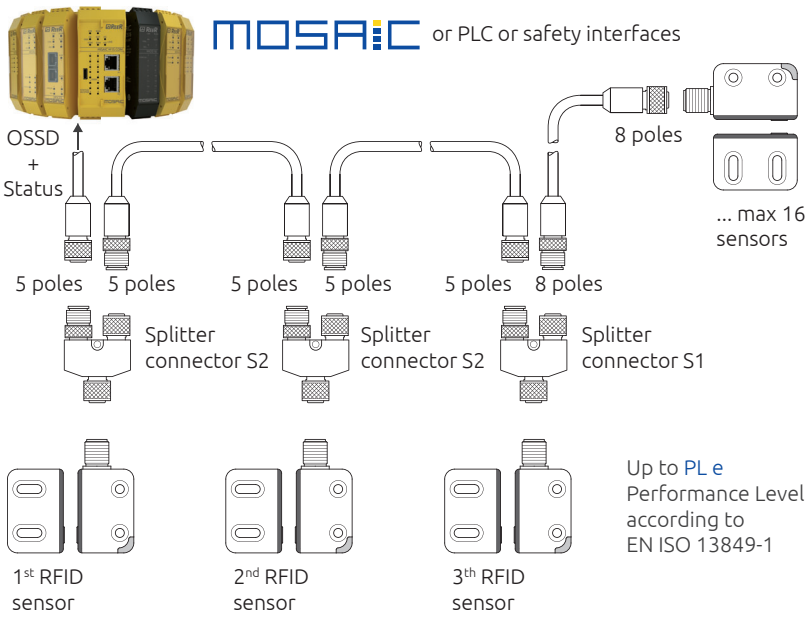
Status of each single sensor

new

The signal status contains the individual status of each sensor in the series.

A simple logic signal readable by any PLC or directly with Mosaic M1S.

The status of each single sensor is also available on fieldbus data information.



ange to fit all applications

Basic and Plus models operative modes

Basic model (5 poles)

- Automatic restart

Plus model (8 poles)

- Automatic restart
- Manual restart
- Teach-in coding
- Automatic restart (without EDM)
- Serial connection

Note: The operative mode is set by wire connections

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.

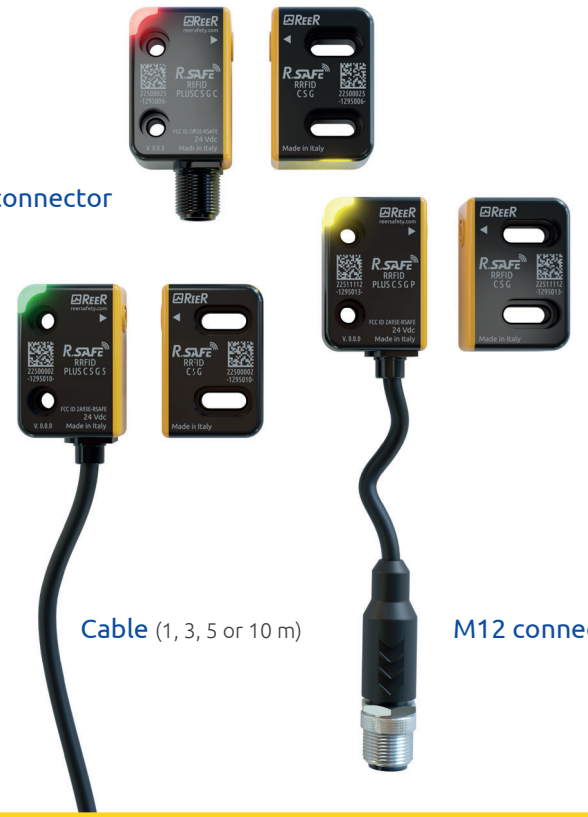


Resistant to aggressive elements, e.g. cleaning agents used in the food industry



Waterproof housing compliant with IP67 and IP69K requirements

Connectivity



M12 connector

Cable (1, 3, 5 or 10 m)

M12 connector with pigtail (15 cm)

M12 connector, M12 connector with Pigtail, Cable

R-SAFE RFID satisfies all connection requirements. 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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