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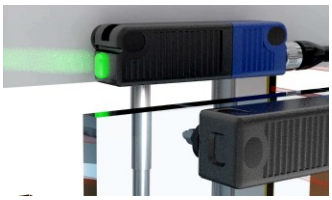
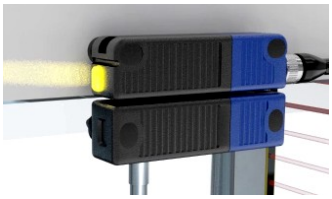
SCHMERSAL Tech Briefs:
RSS36 RFID Safety Sensor

Features

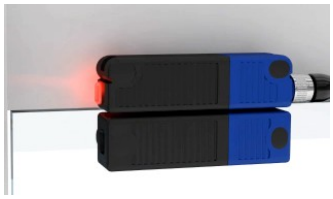
3 Color LED Display



Green: Power, not actuated



Yellow: Actuation



Red: (Flashing) Diagnostic error

Flashing yellow LED signals actuator near switching distance limit.

Overview

The RSS36 uses radio frequency identification (RFID) to detect the actuator and indicate a closed guard. This non-contact operating principle limits wear on components and tolerates misalignments.

The RSS36 is also difficult to by-pass because it has the option of individual coding: The basic version of the sensor responds to any RSS36 target actuator; The “I1” version only accepts the coded ID number of the specific target actuator which is taught in during the first start-up; The “I2” version allows the teach-in process to be repeated, allowing replacement of a lost or damaged actuator.

The RSS36 also features all of the diagnostic advantages of our Pulse Echo sensors. With continuous internal function tests and monitoring of the safety outputs, RSS36 sensors can be wired in series without detriment to the safety levels. The RSS36 comes standard with diagnostic LED’s on the sensor to indicate various errors, mis-alignment and door open/closed signaling. For more advanced indication the RSS36 is also available with serial diagnostics.

The RSS36 housing is made of ECOLAB approved materials and the ST version is sealed to IP69K standards – a viable solution for use in hygienic or outdoor environments where high temperature and high pressure wash downs are typical.

The RSS36 also offers a magnetic latch option which provides a holding force of 5 lbs. The RSS36 can be used as a door stop for small to medium sized guard doors.

The RSS36 sensors meet stringent North American and European Standards, are cULus and CE approved, and can be used in the highest level of machine safety circuits, PLe to ISO13849-1 and SIL 3 to IEC61508.

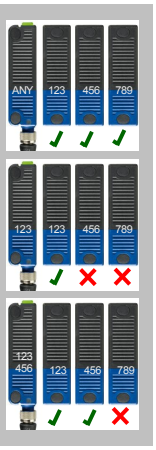
Individual Actuator Coding

Every RST36 actuator has a unique “serial number” code.

Standard coding: The sensor will recognize the RFID coding of any RST36 actuator.

I1 Coding: During the set-up, the sensor is taught to recognize the individual coding of a specific RST36 actuator. Thereafter, any replacement or substitute RST36 actuator is permanently excluded / ignored.

I2 Coding: Like with I1 coding, the coding process enables the teaching of a RST36 actuator at set-up and additional RST36 actuators for service purposes. Any RST36 actuator not taught in will be excluded / ignored.



Applications

- Food processing machinery
- Pharmaceutical machinery
- Medical applications
- Outdoor equipment
- Material handling systems
- Packaging machinery
- Chemical processing equipment
- Robot cells
- Folding or brake presses
- Filter presses
- Punching machines
- Printing machines
- Injection molding
- Palletizers
- Packaging equipment

Available Literature

Pulse Echo Products Catalog
156 pages

Ordering Details

RSS36①-②-③-④

① Actuator Coding
- *blank* Standard version (no coding)
- I1 Individual coding (single)
- I2 Individual coding (multiple)

② Outputs
- D Diagnostic output
- SD Serial Diagnostic

③ Magnetic Latching
- *blank* no latching
- R with magnetic latching (18N)

④ Wiring
- *blank* 2 meter pre-wired cable *(IP67)*
- ST M12, 8 pin connector *(IP69K)*

Accessories

Actuator

RST-36-1	Standard Actuator
RST-36-1-R	Actuator with latching

Mounting / Spacers

ACC RSS36-SK Mounting hole seals

Connector cables

A-K8P-M12-S-G-5M-BK-1-X-A-4
IP69K cable, 5 meter length

A-K8P-M12-S-G-2.5M-BK-1-X-A-2
IP67 cable, 2.5 meter length
A-K8P-M12-S-G-5M-BK-1-X-A-2
IP67 cable, 5 meter length
A-K8P-M12-S-G-10M-BK-1-X-A-2
IP67 cable, 10 meter length

Compatible Safety Controllers

SRB-301MA	**SRB-301MC**
SRB-301ST-24	**SRB-301LCB**
SRB-504ST	SRB-211ST
SRB-324ST	SRB-031MC

Bold part numbers are regularly stocked

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