# SCHMERSAL Tech Briefs:

## **RSS260 Compact RFID Safety Sensor**





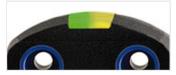


ECOLAB CE

#### **Features**



2 actuator approach directions



3 Color LED Display Green: Power, not actuated Yellow: Actuation Red: (Flashing) Diagnostic error



Optional prewired 10" cable with M12, 8 pin connector end

### **Actuator options**



RST-260-1 (39 mm x 29.5 mm x 18 mm)



RST-16-1 (60 mm x 16 mm x 6.8 mm)



RST-U-2 (23 mm x 9 mm x 7 mm)

#### Overview

Schmersal has applied Radio-frequency identification (RFID) technology in the RSS260 series non-contact safety sensor. The RSS260 is designed for application in safety circuits monitoring the position of hinged, sliding or removable guards using a specifically coded, passive RFID tag in the

The clear advantage of using RFID technology is enhanced tamper resistance. Since the RSS260 uses a special frequency, the sensor will disregard non-actuator RFID signals, and the passive RFID tag in the actuator will not interfere with other RFID systems such as product trackers. The RSS260 is also difficult to by-pass because it has the option of individual coding: The basic version of the sensor responds to any RST 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 I1 and I2 options also fulfill the High level coding requirements of ISO 14119.

The non-contact sensing allows for longer switch life - Since there are no moving parts there is little to no wear on the components. As safety guard panels age, the sensor will also tolerate misalignments, up to 10 mm.

The RSS260 series has several actuator targets and accepts two approach directions which allow for mounting flexibility. The standard actuator (RST-260-1) matches the body profile of the switch which fits to regular aluminum profile systems, the RST-16-1 has a flat elongated profile with a discrete appearance for mounting on clear plastic doors, and the RST-U-1 is an extremely compact rectangular target designed for integration into the surrounding construction of the guard door. Any of these targets can approach the sensor from either the front face or the long side.

The RSS260 also features all of the diagnostic advantages of our other electronic safety sensors and solenoid interlocks. It comes standard with LEDs to indicate various errors. For more advanced indication the RSS260 is also available with serial diagnostics to communicate its status via serial data packages for use in various network protocols. Because of an integrated dual monitoring microprocessor, only one switch is required to meet PLe per ISO 13849-1 and SIL3 per IEC 62061. The RSS260 can be connected in series with other electronic sensors and locking switches, up to 31 devices, without loss of signal or safety level when monitored with a standard Schmersal safety controller.

#### Flexible mounting options



Available Literature

S SCHMERSAL

Electronic Safety Sensors and

Solenoid Interlocks Catalog

### **Applications**

- 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

#### RSS260①-2-ST

Ordering Details

① Actuator Coding

blank Standard version (no coding)

- Individual coding (single)
- Individual coding (multiple)
- ② Outputs
  - Diagnostic output
  - SD Serial Diagnostic

#### RSS260-D-LSTM12-8-0.25M RSS260-I2-D-LSTM12-8-0.25M

(Prewired cable with M12, 8 pin connector)

Regularly stocked models: RSS260-D-ST RSS260-SD-ST

RSS260-I2-D-ST

RSS260-D-LSTM12-8-0,25M

#### Accessories

#### **Actuators**

RST-260-1 Standard Actuator RST-16-1 Flat Actuator RST-U-2 Compact Actuator

#### **Mounting / Spacers**

ACC RSS260-SK Mounting hole seal ACC RSS260-MK Mounting set

#### Connector cables

M8, 8 pole with straight connector 103003638 2 m cable 103003639 5 m cable 103003640 10 m cable

M8, 8 pole with right angled connector

103003641 2 m cable 103003642 5 m cable 10 m cable 103003643 CSS-Y-8P Y adapter

CSS-Y-A-8P Chain end 103003645 1 m cable M8 fem to M12 male cable

for Y adapter connection

#### **Compatible Safety Controllers**

SRB-E-201LC SRB-E-322ST SRB-E-201ST SRB-E-402ST SRB-E-301ST SRB-301MC SRB-E-212ST

Bold part numbers are regularly stocked

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