

RS2R Safety Interlock Switches

RS2R Connector



RS2R—Standard Models

| Outputs | Description | Catalog Number |
|---------|--|-------------------|
| 2NC | 150 mm 4-pin micro connector | RS2R-02-Q4 |
| 1NO-1NC | 150 mm 4-pin micro connector | RS2R-11-Q4 |
| 1NO-2NC | 150 mm 6-pin micro connector, dual key | RS2R-12-Q6 |
| 2NC | 3 m cable length | RS2R-02-C3 |
| 1NO-1NC | 3 m cable length | RS2R-11-C3 |
| 1NO-2NC | 3 m cable length | RS2R-12-C3 |

RS2R SmartWire-DT Compatible Models

RS2R SmartWire-DT Compatible



RS2R—Standard Models, SmartWire-DT Compatible

| Outputs | Description | Catalog Number |
|---------|-------------------------------|-----------------------|
| 2NC | 150 mm SmartWire-DT connector | RS2R-02-Q4-SWD |
| 1NC-1NO | 150 mm SmartWire-DT connector | RS2R-11-Q4-SWD |

RS4 Safety Interlock Switches

RS4 Connector



RS4—Standard Models

| Outputs | Description | Catalog Number |
|---------|--|------------------|
| 2NC | 150 mm 4-pin micro connector | RS4-02-Q4 |
| 1NO-2NC | 150 mm 6-pin micro connector, dual key | RS4-12-Q6 |

RS4 SmartWire-DT Compatible Models

RS4 SmartWire-DT Compatible







RS4—Standard Models, SmartWire-DT Compatible

| Outputs | Description | Catalog Number |
|---------|-------------------------------|----------------------|
| 2NC | 150 mm SmartWire-DT connector | RS4-02-Q4-SWD |



Connectors

Standard Cables ①

| | Current Rating at 600 V | Voltage Style | Number of Pins | Gauge | Length | Pin Configuration/Wire Colors (Face View Female Shown) | PVC Jacket Catalog Number | PUR Jacket Catalog Number | |
|---|-------------------------------------|---------------|----------------|-------------|--|--|---------------------------|---------------------------|--|
| Micro-Style Straight Female  | Micro-Style, Straight Female | | | | | | | | |
| | — | AC | 3-pin, 3-wire | 22 AWG | 6.0 ft (2 m) |  1-Green 2-Red/Black 3-Red/White | CSAS3F3CY2202 ② | CSAS3F3RY2202 ② | |
| | — | DC | 4-pin, 4-wire | 22 AWG | 6.0 ft (2 m) |  1-Brown 2-White 3-Blue 4-Black | CSDS4A4CY2202 ② | CSDS4A4RY2202 ② | |
| — | AC | 6-pin, 6-wire | 22 AWG | 10 ft (3 m) |  1-Brown 2-White 3-Purple 4-Orange 5-Blue 6-Black | CSAS6A6CY2203 ③ | | | |

Notes

- ① For a full selection of connector cables, see **Tab 10, section 10.1**.
- ② Replace **02** suffix with **05** (5 m), **10** (10 m), **20** (20 m) for standard lengths.
- ③ Replace **03** suffix with **05** (5 m), **10** (10 m) for standard lengths.

Recommended Logic Interfaces

ESR5



- Use for the highest safety requirements in accordance with EN ISO 13849-1, IEC 62061 and EC 61508
- Suitable for the global market with UL, cUL certifications and TÜV Rheinland functional safety certifications
- Applicable for EN 60204 stop categories 0 or 1
- Plug-in screw terminals for fast and fault-free replacement
- Multi-voltage versions

ESR5 Safety Relays

| Safety Inputs | Safety Outputs (NO) | Power Supply | Catalog Number |
|---------------|---------------------|----------------|----------------------------|
| 1 | 4 | 24 Vac/Vdc | ESR5-NO-41-24VAC-DC |
| 2 | 2 | 24 Vac/Vdc | ESR5-NO-21-24VAC-DC |
| 2 | 3 | 24 Vac/Vdc | ESR5-NO-31-24VAC-DC |
| 2 | 3 | 240 Vac | ESR5-NO-31-230VAC |
| 2 | 3 | 24–230 Vac/Vdc | ESR5-NO-31-AC-DC |

easySafety



- All-in-one—safety and control functions combined in one device
- Simple configuration through prefabricated and tested safety components
- Direct state display and increased machine availability due to fast error diagnosis through integrated display
- Multistep password concept prevents unwanted manipulation

easySafety

| Safety Inputs | Safety Outputs (NO) | Reset Type | Power Supply | Catalog Number |
|---------------|----------------------------------|------------|--------------|-----------------------|
| 14 | 1 (6 A relay), 4 (transistor) | | 24 Vdc | ES4P-221-DMXD1 |
| 14 | 4 (6 A relay) | | 24 Vdc | ES4P-221-DRXD1 |

Cordset

4-Pin Connectors

| Description | Catalog Number |
|-------------|----------------------|
| 2 m cable | CSDS4A4CY2202 |
| 5 m cable | CSDS4A4CY2205 |
| 10 m cable | CSDS4A4CY2210 |
| 20 m cable | CSDS4A4CY2220 |

6-Pin Connectors

| Description | Catalog Number |
|-------------|----------------------|
| 3 m cable | CSAS6A6CY2203 |
| 5 m cable | CSAS6A6CY2205 |

Accessories

RS Safety Interlock Switches

| Description | Catalog Number |
|--------------------|----------------|
| RS2 spare actuator | RS2-A |

Technical Data and Specifications

RS Safety Interlock Switches

| Description | RS2/RS2R/RS4 Specification |
|--------------------------|--|
| Safety classification | Up to SIL 3, IEC 61508, Type 4 per ISO 14119 |
| Outputs | NO and NC circuit combinations |
| Sensing range | On: 8 mm / Off: 19 mm |
| Enclosure rating | IP67, IP69 |
| Output switching | 300 mA at 24 Vdc |
| Operating voltage | 24 Vdc |
| Temperature range | -10 to +55 °C (14 to 131 °F) |
| Shock | 30 G, 11 ms, 1/2 sine wave |
| Vibration | 1 mm, 0–2000 Hz |
| Radio frequency immunity | IEC 61000-4-3 |
| Repeat accuracy | 10% |
| Housing material | Polyamide |
| Actuator material | Polyamide |
| Color | Black/yellow |
| Connection types | Cable and micro connector (4-pin or 6-pin) |
| Wire size | 22 AWG |
| B10d | 15,000,000 |
| Contact response time | 3 ms |
| Maintenance schedule | ≤6 months |

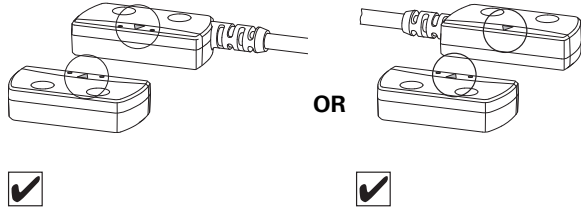
Wire Colors—RS2, RS2R and RS4 Models

| Description | 2NC | 2NC-1NO (SAF3 NO) | 1NC-1NO (SAF2 NO) |
|------------------------|-----|-------------------|-------------------|
| 4-pin micro | | — | |
| 6-pin micro (dual key) | — | | — |
| SmartWire-DT | | — | |
| Cordset (4-pin) | | | |
| Cordset (6-pin) | | | |

Mounting Instructions

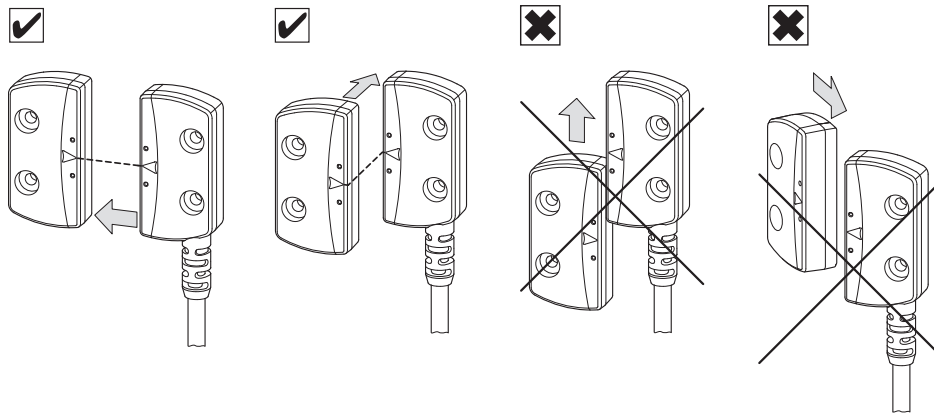
Reversible

The RS family has reversible mounting to adjust to field wiring needs.



Alignment

Direction of approach is perpendicular to the plane of the sensing face.



1.2

Safety Products

RS Safety Interlock Switches

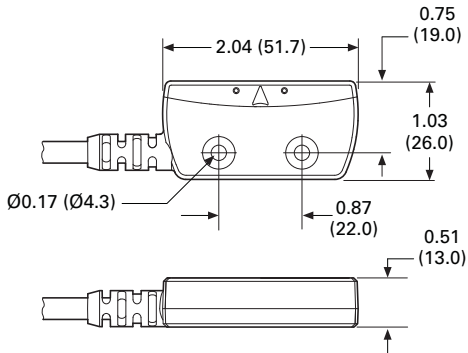
1

Dimensions

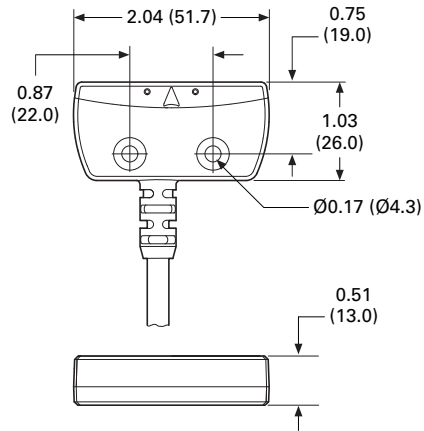
Approximate Dimensions in Inches (mm)

RS Safety Interlock Switches

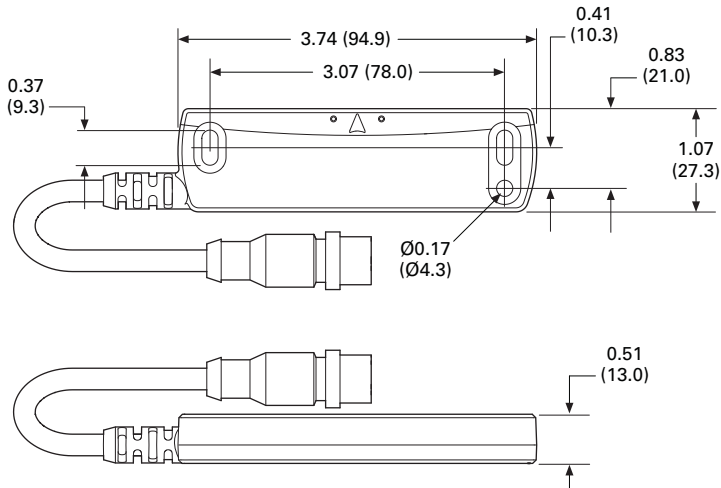
RS2



RS2R



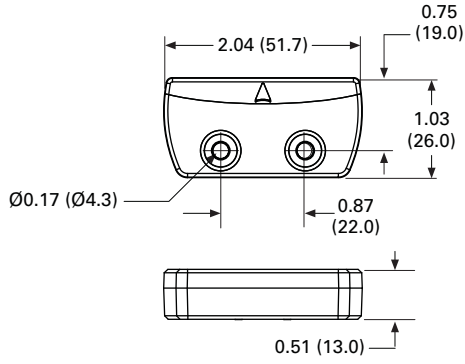
RS4



Approximate Dimensions in Inches (mm)

RS Safety Interlock Actuators

RS2A



RS4A

