

# Non-contact monitoring of movable guards using RS-Titan

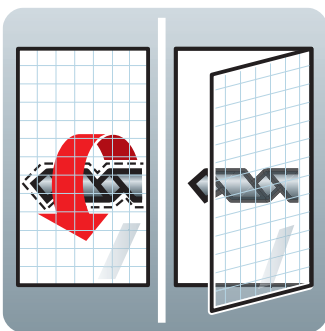


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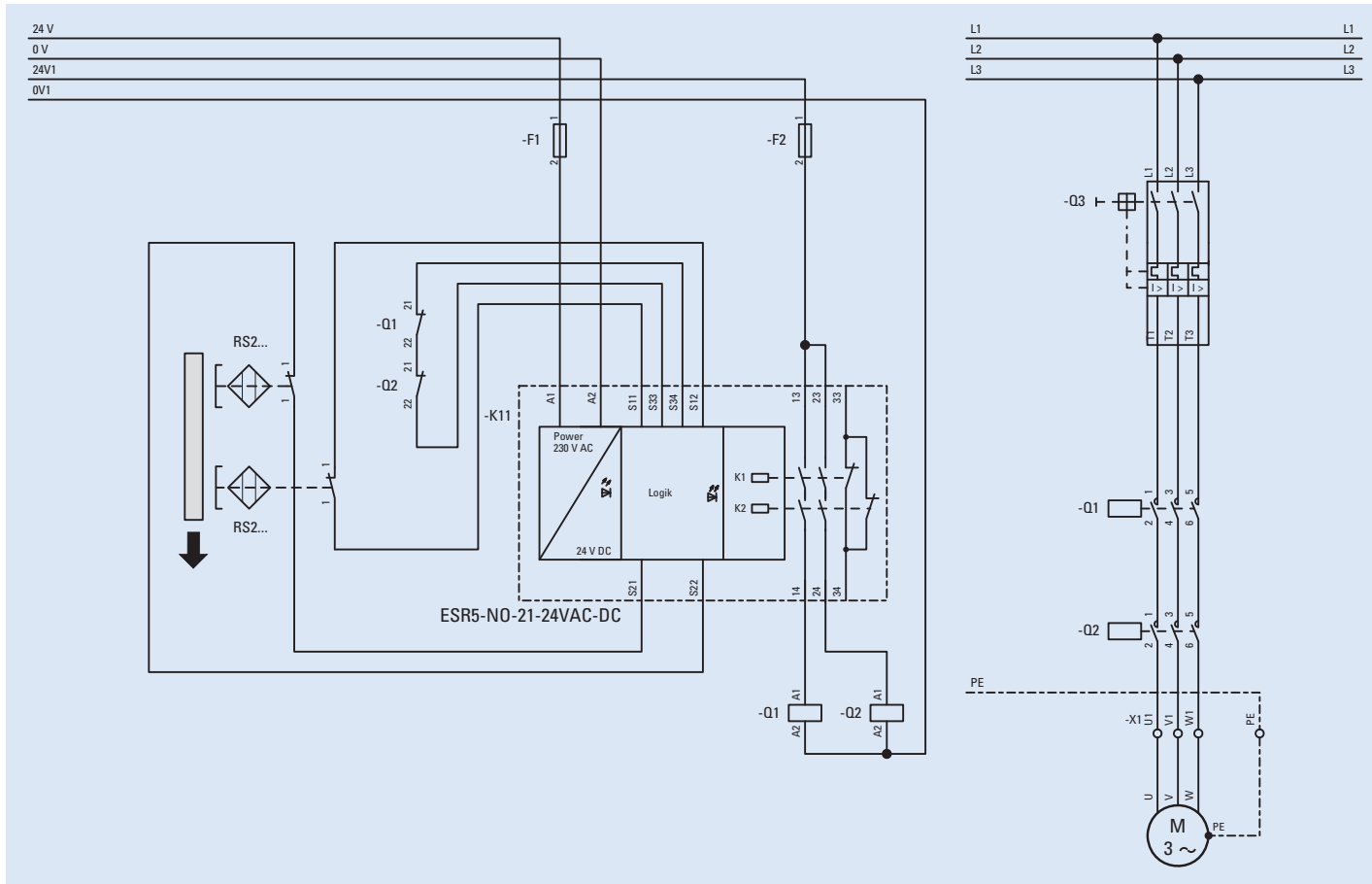
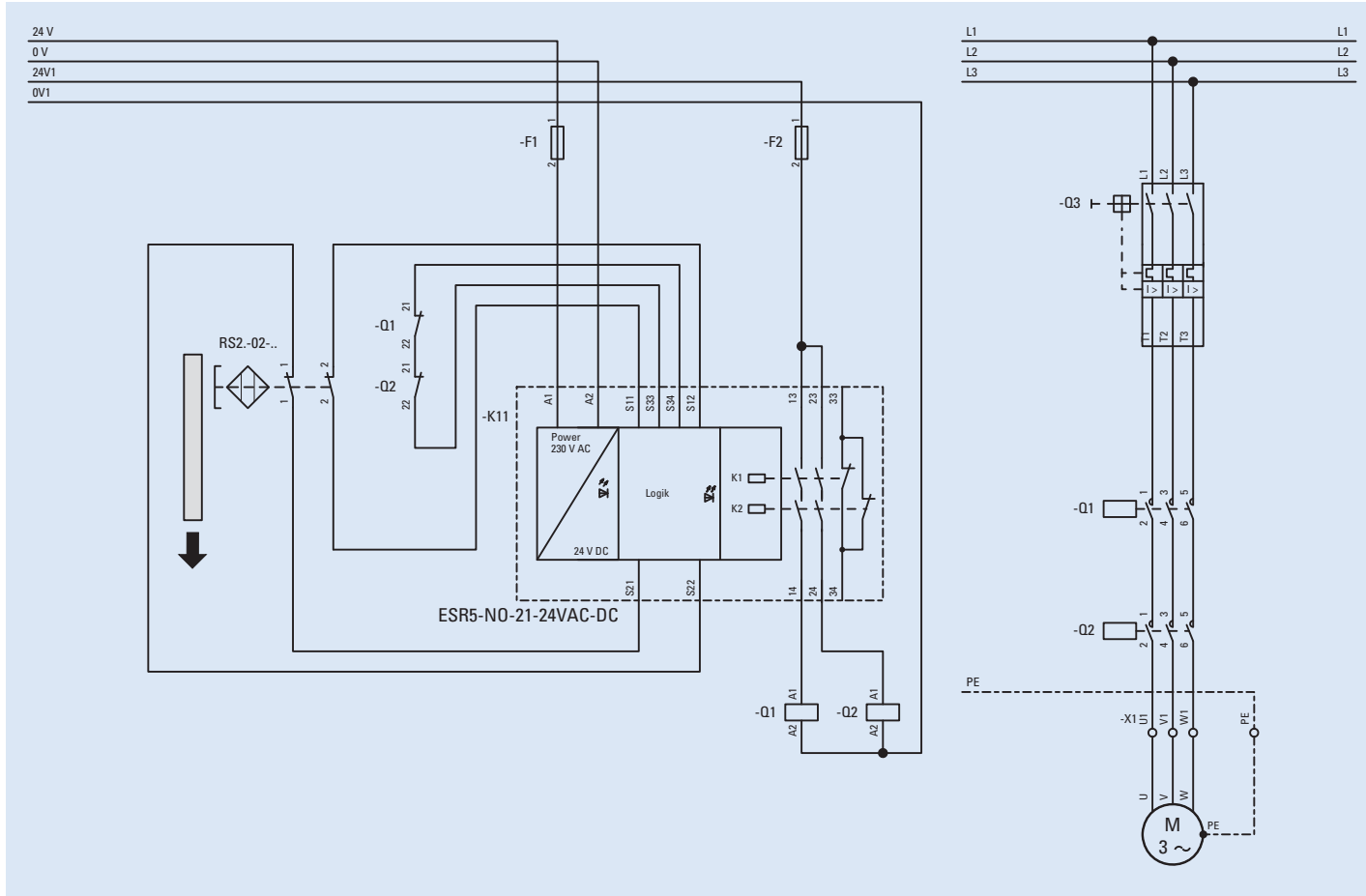
## Reliable machine protection with non-contact RS-Titan safety switches



The non-contact safety switches of the RS-Titan model series from Eaton were specially developed for monitoring of protective coverings, including doors, flaps and covers. The isolated reed contacts are controlled through multiple magnets in the actuator to provide heightened protection against circumvention. They stand out for their robust construction and especially for their high safety standards: EN ISO 13849: PLe and EN IEC 62061: SILCL3. As such, these switches integrate ideally into mechanical engineering projects based on international safety directives.

The switches are available in three versions: RS2, RS2R und RS4. This opens up many more potential installation options, and keeps mounting simple. The actuator is typically mounted onto the moving door. The non-contacting technology prevents mechanical wear, which in turn significantly reduces maintenance for doors and hatches that do not close precisely.

# Example of circuits

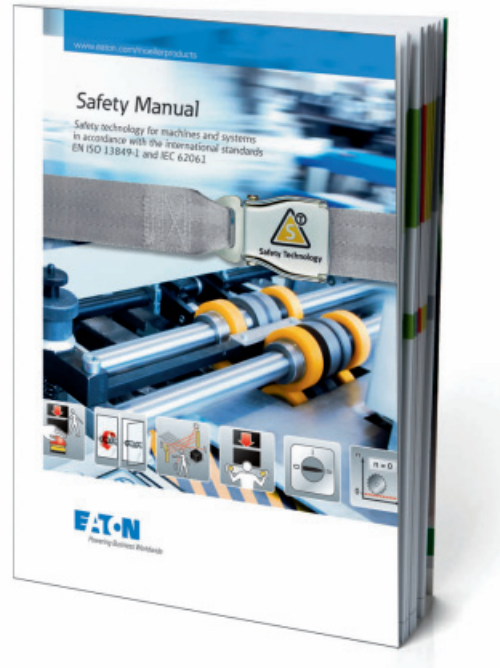


Example:

Movable guards monitored by an RS-Titan safety switch,  
2 N/C → up to PLd as per ISO 13849

Fault exclusion of cable required, protected installing  
of cable is mandatory!

Please observe the notes in  
Chapter 2 of safety manual and in ISO 14119!



### Safety manual

Important notes on our safety switches can be found in our safety manual. Register now at [www.eaton.eu/shb](http://www.eaton.eu/shb) and view the safety manual online or download it for free.

Example:

Movable guards monitored by two RS-Titan safety switches, with 1 N/C → up to PLe as per ISO 13849

Please observe the notes in  
Chapter 2 of safety manual and in ISO 14119!

### Overview of system features

#### Non-contacting

- Long lifespan
- Easy installation
- High tolerance levels for doors and flaps that do not close precisely
- Low maintenance overhead

#### High degree of protection IP67, IP69K

- Simple cleaning
- Rugged and reliable

#### Symmetric housing

- Simple mounting
- Low stock levels

#### 2 or 3 contacts

- Suitable for many applications

#### Isolated contacts

- Easy connection

#### SILCL3, PLe

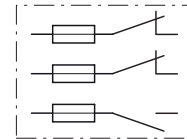
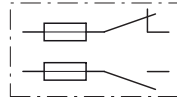
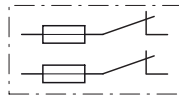
- Safe and reliable




#### M12 plug or cable

- Quick and easy connection

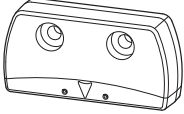
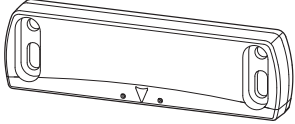
## Non-contact safety switches RS-Titan

**Part no.**  
Article no.



Actuator is included as standard		Cable	M12 plug	Cable	M12 plug	Cable	M12 plug
<b>RS2</b>							
3 m		<b>RS2-02-C3</b> 177286	-	<b>RS2-11-C3</b> 177287	-	<b>RS2-12-C3</b> 177288	-
10 m		<b>RS2-02-C10</b> 177300		<b>RS2-11-C10</b> 177301		<b>RS2-12-C10</b> 177302	
150 mm		-	<b>RS2-02-Q4</b> 177289	-	<b>RS2-11-Q4</b> 177290	-	<b>RS2-12-Q6</b> 177291
<b>RS2R</b>							
3 m		<b>RS2R-02-C3</b> 177292	-	<b>RS2R-11-C3</b> 177293	-	<b>RS2R-12-C3</b> 177294	-
10 m		<b>RS2R-02-C10</b> 177303		<b>RS2R-11-C10</b> 177304		<b>RS2R-12-C10</b> 177305	
150 mm		-	<b>RS2R-02-Q4</b> 177295	-	<b>RS2R-11-Q4</b> 177296	-	<b>RS2R-12-Q6</b> 177297
<b>RS4</b>							
150 mm		-	<b>RS4-02-Q4</b> 177298	-	-	-	<b>RS4-12-Q6</b> 177299

### Accessories

	<b>RS2-A actuator</b>	177309
	<b>RS4-A actuator</b>	177310

### Connection cable 4 pole

M12 coupling, cable end open

	2 m	<b>CSDS4A4CY2202</b>	136292
	5 m	<b>CSDS4A4CY2205</b>	136294
	10 m	<b>CSDS4A4CY2210</b>	136296

### Connection cable 6 pole

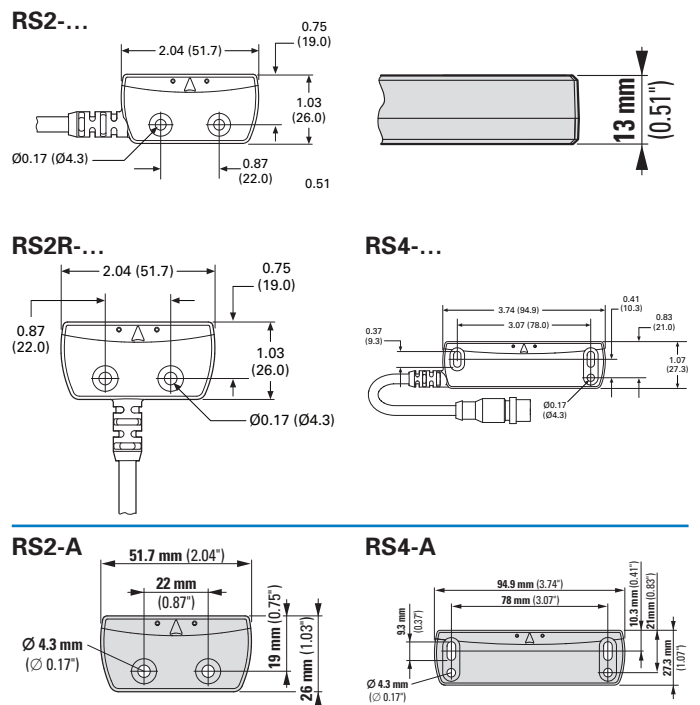
M12 coupling, cable end open

	3 m	<b>CSAS6A6CY2203</b>	177306
	5 m	<b>CSAS6A6CY2205</b>	177307
	10 m	<b>CSAS6A6CY2210</b>	177308

### Technical Data

Standards	IEC 62061, up to SILCL3 ISO 13849, up to Ple ISO 14119 type 3 IEC 60947-5-3 PDDb
Certifications	CE, TÜV, cUL®, RoHS
Outputs	2 or 3 contacts N/C, N/O, combination
Sensing range as per EN 60947-5-2	ON: 8 mm; OFF: 19 mm
Degree of protection	IP67, IP69K
Output switching	300 mA at 24 Vdc DC-13
Temperature range	-10 °C to +55 °C
Mechanical shock resistance	30 g, 11 ms, 1/2 sin
Vibration	1 mm, 0-2000 Hz
EMC	IEC 61000-4-3, 30A/m
Repetition accuracy	10 %
Housing material	Polyamide
Color	Black/yellow
Connection types	Cable or M12 plug
Conductor cross-section	22 AWG
B10d	20,000,000

### Dimensions



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**Eaton Industries GmbH**

Hein-Moeller-Str. 7-11  
D-53115 Bonn/Germany

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