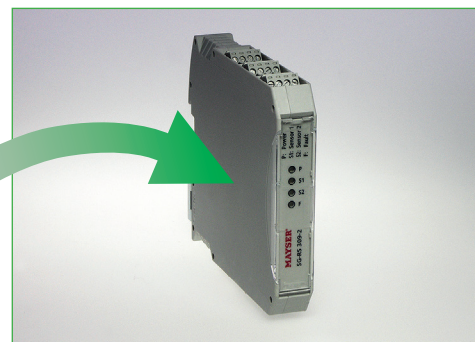


**From SG-RS 204
to SG-RS 309-2**

A simple swap!



Type	SG-RS 204	SG-RS 309-2
Safety classifications ISO 13856: Reset function ISO 13849-1:2015 only control unit as a pressure-sensitive protection device ISO 13856 MTTF _D DC _{avg} B _{10D} [× 10 ⁶]	without Category 1 PL c Category 1 PL c 155 years – 1	with/without Category 3 PL d Category 3 PL d 937 years 92% –
Times Reaction time Re-start time	< 15 ms < 20 ms	< 15 ms < 150 ms
Control unit Inputs Types of sensors Monitoring type Monitoring circuits	SM, SL, MSL, SB Resistor 1k2 2	SM, SP, SL, MSL, SB Resistor 8k2 or 10k 2
Control unit Outputs Switching channels Switching current (min. / max.) Switching capacity (max.) additional outputs	1× 2-channel 10 mA / 2 A 250 VA / 48 W –	2× 2-channel > 0 mA / 100 mA 3.6 W 2 Signal circuits
Mechanical operating conditions Attachment IEC 60529: Degree of protection Operating temperature Dimensions (W × H × D)	Mounting rail IEC 60715 IP20 -25 to +60 °C 22.5 × 75 × 105 mm	Mounting rail IEC 60715 IP20 -25 to +70 °C 17.5 × 99 × 114.5 mm
Variants Part number Connecting voltage U _s	SG-RS 204 1001825 DC 12 V SG-RS 204 1001414 AC/DC 24 V	A power supply unit must be connected upstream with a connecting voltage DC 12 V . Maysер recommends a top-hat rail power supply with an output voltage of 24 V and output power of min. 5 W (e. g. Mean Well DDR-15G-12). SG-RS 309-2 1006747 DC 24 V to 36 V
Connections Supply voltage Sensor 1 Sensor 2 Switching channel (1.1) Switching channel 1.2 Switching channel 2.1 Switching channel 2.2 Reset manual Reset automatic Signal output 1 Signal output 2	A1, A2 Y1, Y2 Y3, Y4 1, 2 – – – – – – – –	A1, A2 Y1, Y2 Y3, Y4 12, A2 32, A2 22, A2 42, A2 S13, S14 Bridges S13, S15 and S14, S15 M1, A2 M2, A2



LED indicators

Until now					Meaning	Now			
SG-RS 204						SG-RS 309-2			
Power	Sensor 1 Fault	Sensor 1 Active	Sensor 2 Fault	Sensor 2 Active	LED off: ○ LED on: ● LED flashing: ⊙	P	S1	S2	F
○	○	○	○	○	No supply voltage	○	○	○	○
●	○	○	○	○	Control unit ready for operation	●	○	○	○
●	○	●	○	○	Sensor 1 activated	●	●	○	○
●	○	○	○	●	Sensor 2 activated	●	○	●	○
●	○	●	○	●	Sensor 1 and 2 activated	●	●	●	○
●	●	○	○	○	Fault at sensor 1	●	⊙	○	⊙
●	○	○	●	○	Fault at sensor 2	●	○	⊙	⊙
●	●	○	●	○	Fault at sensor 1 and 2	●	⊙	⊙	⊙

Successful change: the last few steps

Replacing the sensor

Sensor type /W1k2 needs to be replaced with sensor type /W8k2.

Fuse higher load at the output

The maximum load at the semi-conductor outputs is 0.1 A.

For higher loads, Mayser recommends the use of external relays (e.g. finder S48 or finder S7S).

Check safety function

Until now		Now
SG-RS 204	ISO 13849-1	SG-RS 309-2
1	Category	3
–	DC _{avg}	medium
high	MTTF _D	high
c	achieved PL	d

The change to a higher quality pressure-sensitive protective device now just needs to be documented in your safety assessment under the relevant protective function. Finished!