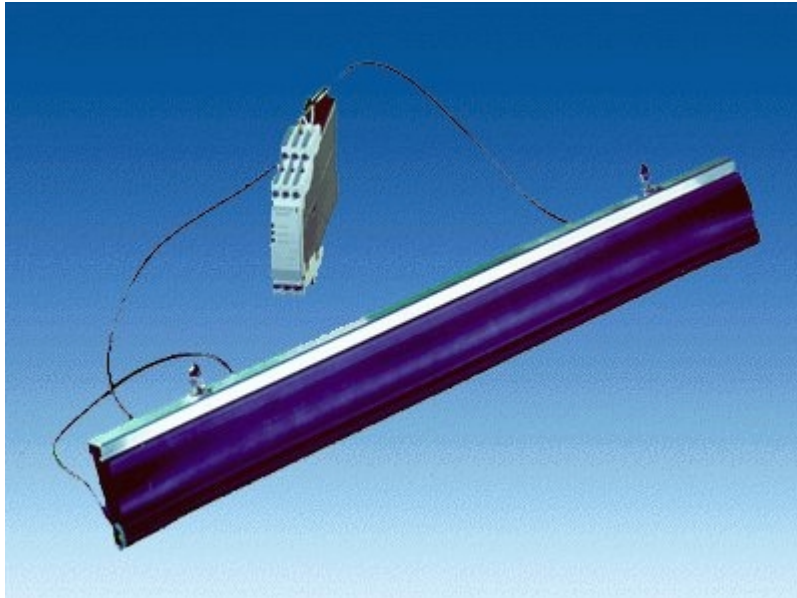


SIGUARD safety systems - SIGUARD 3RG78 5 safety switch strips - Safety Int.



Overview

3RG78 5 SIGUARD safety switch strips – Safety Integrated

The system consisting of the 3RG78 7 evaluation module and 3RG78 5 switch strip meets safety category according to EN 54-1.

The evaluation unit is built into the narrow 22.5 m mounting rail housing. Each unit monitors a safety strip, i.e. the combination of transmitter and receiver.

The brown, green and white leads should be connected to the evaluation unit.

When the switch strip is actuated or if a fault occurs on the switch strip or cable connections, the output circuits drop out and the drive is halted.

The basic unit has two positive opening relay outputs, which are used as enabling circuits. The status of the unit is displayed by two LEDs on the front side (supply voltage, enabling).

Owing to the dynamically structured circuit, every fault is detected. In case of a fault or on actuation of the switch strip, the evaluation module goes into the secure state. A semi-conductor output (signalling output, not safety-relevant) is used for signalling the fault to the control (npn-'open-collector'). The restart has to be acknowledged via an external snubber circuit (e.g. ready ON button).

The switch strip consists of the mounting strip (aluminium section), the sensor strip as well as the transmitter and the receiver.

The mounting strip is cut to the required dimension and fastened to the protective edge. The profile is shortened to the corresponding length and fitted into the strip-mounting. The transmitter and receiver are plugged into the profile and the cable connected according to color. The three-core cable connects the transmitter and receiver to the evaluation unit.

The IR light beam between transmitter and receiver runs in the profile. Reflections can occur on the smooth interior side of the profile. The rubber profile can be bent to a certain extent because of these without causing a cutout.

Technical data

SIGUARD 3RG78 57 – evaluation unit	
Operational voltage	24 V DC (+20%/-10%)
Power consumption	>4
Output contacts	2 NO (fail-safe) / 1 NC (n connection)
Ambient temperature	-20 °C to + 55 °C
Rated uninterrupted current	4 A
Switching current	max. 4
Switching voltage	max. AC 250 V 50/60 Hz
Mechanical endurance	30 mio. make-break operations
AC switching capacity	max. 1500 VA
Function displays	Green LED: power supply Green LED: enable
Supply voltage protection	1 A (slow-blow)
Overvoltage category	3 (4 kV) acc. to DIN VDE 0110
Enclosure mount	Snap-on mounting on 35 mm mounting rail acc. to EN 60721-3-2
Mounting position	any
Degree of protection	IP 20 acc. to DIN EN 60529
Approvals	Cat. 4 acc. to EN 954-1

SIGUARD 3RG78 5 – switch strip (rubber profile)	
Material	EPDM, 80 Shore
Dimensions	W = 25 mm, H = 30 mm
Thermal stability	-40 °C to +150 °C (short-time) -30 °C to +120 °C (long-time)
Stability	Ozone, oils, detergent, acids, fuels