



TR 235-02Z-M20

- 1 Cable entry M 20 x 1.5
- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 30 mm x 63,5 mm x 30 mm
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047

Data

Ordering data

EAN (European Article Number)	4030661221021
eCl@ss number, Version 9.0	27-27-26-01
eCl@ss number, Version 11.0	27-27-26-01
ETIM number, version 6.0	EC000030
ETIM number, version 7.0	EC000030

Approval - Standards

Certificates	cULus cCSAus CCC EAC
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General data

Standards	IEC 60947-5-1 EN ISO 13849-1 BG-GS-ET-15
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Housing construction form	Norm construction design
Actuator type to DIN EN 50047	c
Enclosure material	Zinc die-cast, paint finish
Material of the contacts, electrical	Silver
Gross weight	155 g

General data - Features

Safety functions	Yes
Number of safety contacts	2

Safety appraisal

Standards	EN ISO 13849-1
Mission Time	20 Year(s)

Safety appraisal - Safety outputs

B10d Normally-closed contact (NC)	20,000,000 Operations
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Mechanical data

Actuating element	Roller plunger
Mechanical life, minimum	20,000,000 Operations
Actuating force, minimum	9 N
Positive break force, minimum	19 N
Actuating speed, minimum	120 mm/min
Actuating speed, maximum	1 m/s
Note (Actuating speed)	Actuating speed with actuating angle 30° to switch axis
Note Bounce duration	Bounce duration in accordance with actuating speed
Note (Switchover time)	Switchover time in accordance with actuating speed

Mechanical data - Connection technique

Terminal Connector	Screw terminals M20 x 1.5
Cable section, minimum	0.75 mm ²
Cable section, maximum	2.5 mm ²
Note (Cable section)	All indications about the cable section are including the conductor ferrules.

Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	30 mm
Height of sensor	86 mm

Ambient conditions

Degree of protection	IP65 to EN 60529 IP67 to EN 60529
Ambient temperature, minimum	-30 °C
Ambient temperature, maximum	+80 °C

Ambient conditions - Insulation value

Rated insulation voltage U_i	250 V
Rated impulse withstand voltage U_{imp}	6 kV

Electrical data

Thermal test current	10 A
Required rated short-circuit current to EN 60947-5-1	1,000 A
Utilisation category AC-15	240 VAC
Utilisation category AC-15	4 A
Utilisation category DC-13	24 VDC

Utilisation category DC-13	1 A
Switching element	Opener (NC)
Switching principle	Creep circuit element
Switching frequency	5,000 /h

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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