



## TV1H 235-11Z-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
- Lever angle adjustable in 10° steps

## Data

### Ordering data

Product type description	TV1H 235-11Z-M20
Article number (order number)	151164167

### Approvals - Standards

Certificates	cULus CCC EAC
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### General data

Standards	BG-GS-ET-15 EN ISO 13849-1 EN IEC 60947-5-1
Housing construction form	Norm construction design
Actuator type to DIN EN 50047	A
Enclosure material	Metal, zinc die-cast
Material of the contacts, electrical	Silver
Lever material	Plastic

Gross weight	200 g
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### General data - Features

Safety functions	Yes
Number of auxiliary contacts	1
Number of safety contacts	1

### Safety classification

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

### Safety classification - Safety outputs

B <sub>10D</sub> Normally-closed contact (NC)	20,000,000 Operations
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### Mechanical data

Actuating element	Roller lever
Roller material	Plastic
Mechanical life, minimum	20,000,000 Operations
Actuating speed, minimum	492 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
Actuating torque, minimum	0.2 Nm
Positive break torque	0.2 Nm

### Mechanical data - Connection technique

Termination	Screw terminals M20 x 1.5
Cable section, minimum	0.75 mm <sup>2</sup>

Cable section, maximum	2.5 mm <sup>2</sup>
Note (Cable section)	All indications including the conductor ferrules.

### Mechanical data - Dimensions

Length of sensor	42.5 mm
Width of sensor	30 mm
Height of sensor	111 mm

### Ambient conditions

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

### Ambient conditions - Insulation values

Rated insulation voltage $U_i$	500 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	230 VAC
Utilisation category AC-15	4 A
Utilisation category DC-13	24 VDC
Utilisation category DC-13	1 A
Switching element	NO contact, NC contact
Switching principle	Slow action
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.

Generated on: 26/08/2022, 12:38