



# FTNG131...



## LIMIT SWITCH WITH Ø9 METAL END PLUNGER

40 mm thermoplastic limit switches for heavy applications  
Head and lid fixed by threaded inserts and metric screws  
Vertical action  
Electrically independent contacts (Zb)  
IP rating: IP67  
Compliance: EN 50041, IEC/EN 60947-5-1, UL 508, up to SIL3  
Marking: CE, CCC, UL, EAC, UKCA

F T N G

**Series**

**FTNG** 40 mm thermoplastic limit switches for heavy applications

1

**Type**

**1** standard

3 1

**Head and actuator**

**31** Ø9 metal end plunger

**Contact type**

**X11** 1NO/1NC slow action Zb  
**W02** 2NC slow action Zb  
**W20** 2NO slow action Zb  
**Z11** 1NO/1NC snap action Zb  
**Z02** 2NC snap action Zb  
**W12** 1NO/2NC slow action Zb  
**W03** 3NC slow action Zb

**Lead exit dimension or type**

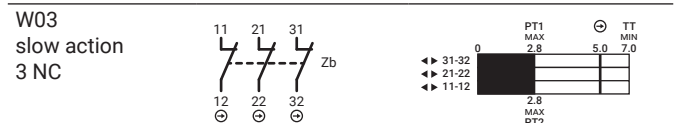
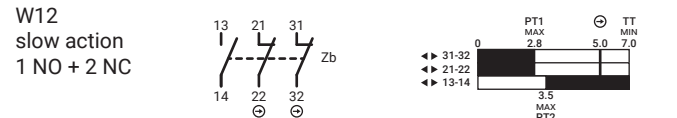
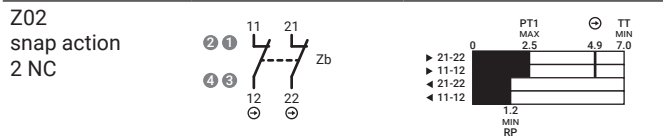
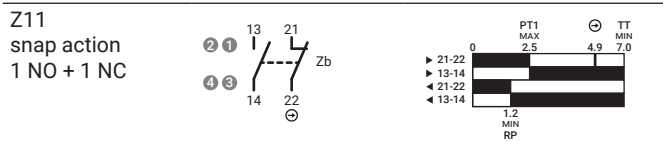
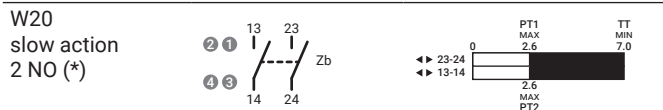
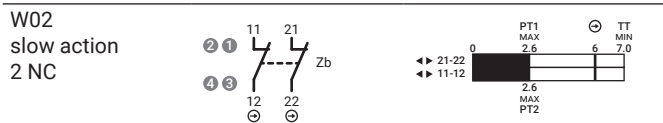
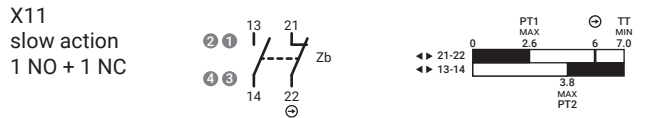
blank M20 (standard)  
**N** 1/2NPT  
**G3** PG13.5  
**C** male connector

Positive opening operation		NC contact ⊖
Minimum current		5 mA - 5 V DC
Thermal current	I <sub>th</sub>	10 A
Rated insulation voltage	U <sub>i</sub>	500 V
Rated impulse withstand voltage	U <sub>imp</sub>	6 kV
Insulation resistance	min	100 MΩ (DC 500 V)
Contact resistance	max	25 mΩ (initial)
Switching speed	max	250 mm/s
Switching frequency	max	6000 operations per hour
Enclosure material		glass filled PBT (UL approved)
Enclosure IP rating		IP67
Operating temperature		-25 ... +80°C (-13 ... +176°F)
Pollution degree		3
Protection against electric shock		class II (double insulation) ▣
Mechanical life expectancy	min	1×10 <sup>7</sup> cycles
Electrical life expectancy	min	150000 cycles
Vibration	IEC 68-2-6	10-55 ±1 Hz
	excursion	0.35 mm, 1 octave/min
Fixing		4 × M4 screws

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Contact types	Categories *	Ratings **	PT1	PT2 / RP	OF	POT ⊖	POF	TT
X11 1NO 1NC	A600 - Q600	AC15: 400 V - 4 A	2.6 mm	3.8 mm	11.6 N	6.0 mm	28 N	
W02 2NC			2.6 mm	-	11.6 N	6.0 mm	28 N	
W20 2NO	B600 - Q600	DC13: 24 V - 6 A	2.6 mm	-	11.4 N	-	-	
Z11 1NO 1NC			2.5 mm	1.2 mm	10.4 N	4.9 mm	22 N	7.0 mm
Z02 2NC			2.5 mm	1.2 mm	8.6 N	4.9 mm	22 N	
W12 1NO 2NC	A300 - Q300		2.8 mm	3.5 mm	9.4 N	5.0 mm	10 N	
W03 3NC			2.8 mm	-	9.4 N	5.0 mm	10 N	

\* UL 508 / CSA C22-2 n° 14 \*\* IEC/EN 60947-1



(\*) Not suitable for safety applications.

- PT1 Operating travel
- PT2 Second operating travel (slow action)
- RP Release position (snap action)
- OF Operating force
- POT Positive opening travel ⊖
- POF Positive opening force
- TT Total travel



M12 Connector pin arrangement - on request

## (1) Mounting holes

Dimensions in mm / illustrations NOT in scale

