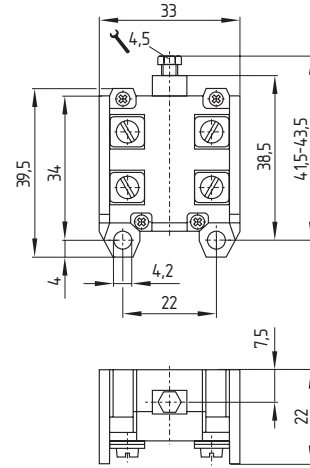


**15. Micro switches**  
**15.10 Z/T 415 range**

**Plunger**



**Features Z 415**

- Thermoplastic enclosure
- Very long life
- 2 contacts
- Snap action: Change-over contact, positive break NC contact ⊖ double break, type Zb
- Galvanically separated contact bridges
- Large contact break
- High resistance to vibration
- Constant contact pressure up to switching point
- Short bounce duration
- Screw terminals

**Features T 415**

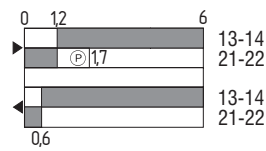
- Thermoplastic enclosure
- Very long life
- 2 contacts
- Slow action: Change-over contact, positive break NC contact ⊖, double break, type Zb
- Galvanically separated contact bridges
- Large contact break
- Screw terminals

**Contacts/ Switch travel**

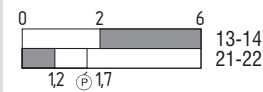
Change-over contact, double break



**Snap action**



**Slow action**



Screw terminals

**Z 415-11-1-P4**

**T 415-11-1-P4**

# 15. Micro switches

## 15.18 Technical data

	Z 415	T 415	Z 6880
Standards:	IEC/EN 60947-5-1		
Enclosure material:	Glass-fibre reinforced thermoplastic		
Actuator:	Thermoplastic		
Protection class:	IP 40, terminals IP 00 to IEC/EN 60529		
Degree of pollution:	2		
Contact material:	Silver		
Contact type:	Change-over contact, double break, type Zb, with galvanically separated contact bridges		
Switching system:	Snap action Positive break NC contact ⊖	Slow action Positive break NC contact ⊖	Snap action Positive break NC contact ⊖
Termination:	Screw terminals		Screw or spade terminals
Cable size:	Max. 2.5 mm <sup>2</sup> (incl. conductor ferrules)		
Rated impulse withstand voltage U <sub>imp</sub> :	4 kV		
Rated insulation voltage U <sub>i</sub> :	250 V		
Thermal test current I <sub>th</sub> :	6 A		
Utilisation category:	AC-15		
Rated operating current/voltage I <sub>o</sub> /U <sub>o</sub> :	2.5 A/230 VAC		
Max. fuse rating:	20 A (slow blow), 25 A (quick blow)		
Actuating force:	20 N	10 N	Z 6880-11-1: 20 N Z 6880-11-1-80R: 12 N
Return force:	–		
Contact break:	2 x 1.25 mm immediately beyond switching point 2 x 4.2 mm at full travel	2 x 4.8 mm at full travel	2 x 1.25 mm immediately beyond switching point 2 x 2.5 mm at full travel
Switchover time:	≤ 4 ms	–	≤ 5 ms
Bounce duration:	≤ 3 ms	–	≤ 3 ms
Ambient temperature:	– 30 °C ... + 85 °C		
Mechanical life:	≥ 1 million operations	≥ 30 million operations	≥ 1 million operations
Switching frequency:	10,000/h		
Actuating speed:	Min. 1 mm/min	Min. 60 mm/min	Min. 1 mm/min
Repeat accuracy of switching points:	± 0.02 mm at plunger		

