

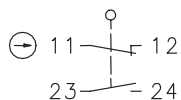
Plastic bodied limit switch

Series I81

Description **I81-U1Z AVZK**

Article number **6183000463**

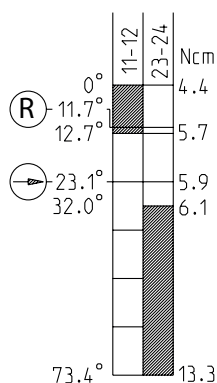
Operating symbol



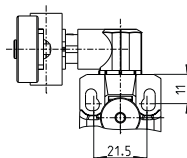
Direct opening action only at appropriate actuating travel over device

Operating diagram

(R = Latch; F @ 0°, 0,1m/s)

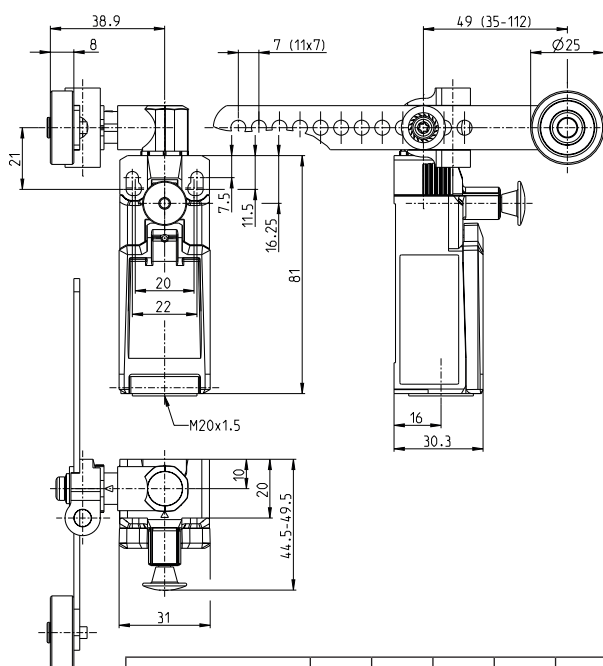


Fixed positioning with e.g. fixing screw M5 according to the standard DIN EN ISO 4762.



ON OFF

Tolerance:
Operating point $\pm 0,25$ mm;
Direct opening action $+ 0,25$ mm
Operating force ± 10 %



m/s	0,1	0,5	1	2	5
A	45°	45°	45°	40°	30°
B	45°	45°	45°	40°	30°

Electrical Data

Rated insulation voltage	U_i	400 V
Rated impulse withstand voltage	U_{imp}	4 kV
Rated operational voltage	U_e	240 V AC / 24 V DC
Rated supply frequency AC		50 / 60 Hz
Overvoltage category		II acc. EN 60947-1 annex H table H1
Conv. thermal current	I_{the}	5 A
Minimum current		1 mA
Utilization category		AC 15, U_e/I_e 240 V / 3 A DC 13, U_e/I_e 24 V / 1,5 A
Direct opening action		acc. IEC/EN 60947-5-1, annex K
Short-circuit protective device		Fuse 4 A gG
Rated conditional short-circuit current		400 A
Max. contact resistance		25 mOhm (unused)
Protection class		II

Mechanical data		
Enclosure		Thermoplastic, glass fibre reinforced (UL 94-V0)
Cover		Thermoplastic, glass fibre reinforced (UL 94-V0)
Actuator		Metal lever with plastic roller / lever in 15 ° increments adjustable
Reset facility		pull blue RESET - button
Actuating force	F_B	$10\text{ N} \leq F_B \leq 30\text{ N}$
Operating temperature		-30 °C ... +75 °C
Storage temperature		-40 °C ... +80 °C
Protection type		IP66 / IP67 acc. EN 60529
Pollution degree (built-in switch)		3
Contact material		silver
Device Class (built-in switch)		Category E (MC3+CC2+SC1) acc. EN 60947-1 annex Q
Contact type		1 N.C. (Form Zb), 1 N.O.
Isolating distance		4 mm (2x2 mm)
Operating rate	V	$0,06\text{ m/min} \leq V \leq 30\text{ m/min}$
Bounce duration	ms	The value depends on the operating rate.
Switchover time	ms	The value depends on the operating rate.
Switching frequency		$\leq 60 / \text{min.}$
Mechanical life		1×10^5 operating cycles
Mission time		≤ 20 years
Connection		4 screw connections (M3)
Conductor cross-sections		Solid or Litz wire with ferrules $0,34\text{ mm}^2 - 1,5\text{ mm}^2$; AWG 22-16
Cable entrance		1 x M20 x1,5
Weight		$\approx 0,17\text{ kg}$
Installation position		operator definable

Actuation	
The actuating device is preferably started from 2 sides. By lifting the clamp the actuation assembly can be rotated in 45° increments such that 16 actuation directions are possible. The actuation assembly is to be again fastened to the housing by lowering the clamp.	

ID for safety engineering	
B10d N.C.	2×10^5 cycles
B10d N.O.	1×10^5 cycles

Standards	
	DIN EN 60947-5-1,
	UL 508 / CSA C22.2 No.14
	DIN EN ISO 13849-1
	EN81-20
	EN81-50

EU Conformity	
	acc. to directive 2006/42/EC (Safety-of-Machinery-Directive)

Approvals	
	CCC (AC 15, U_e/I_e 240 V / 1,5 A; DC 13, U_e/I_e 24 V / 1,5 A)
	cCSA _{US} B300, 240Vac 1.5A G.P., 24Vdc 1.5A R. Enclosure Type 4X
	TÜV SÜD (AC 15, U_e/I_e 240 V / 1,5 A; DC 13, U_e/I_e 24 V / 1,5 A)

Notes	
The degree of protection (IP code) specified applies solely to a property closed cover and the use of an equivalent cable gland with adequate cable.	