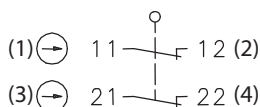


Description **IN65-A2Z M12**

Operating symbol



[mm]	11-12	21-22	[N]
0			4
1,1			
1,9			
6			12

☒ ON

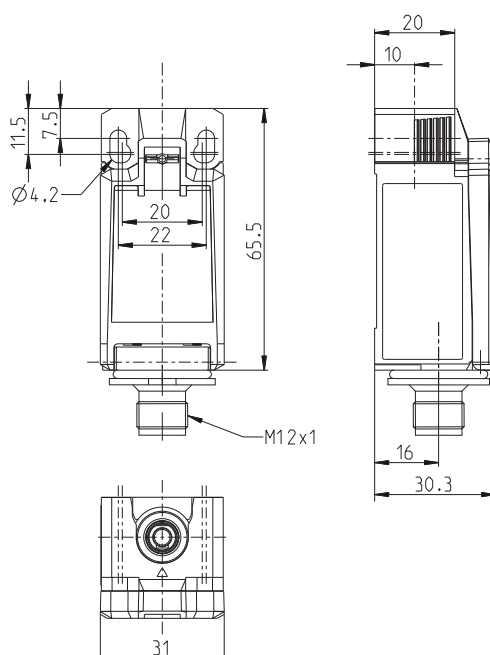
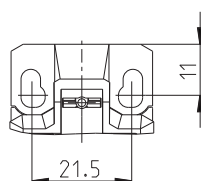
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Tolerance:
Operating point $\pm 0,25$ mm;
Direct opening action $+ 0,25$ mm
Operating force ± 10 %

Plug

Diagram of a plug with four numbered points (1, 2, 3, 4) indicating the locations for the four screws.

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



Rated insulation voltage	U_i	250 V
Rated impulse withstand voltage	U_{imp}	2,5 kV
Rated operational voltage	U_e	240 V AC
Rated supply frequency AC		50 / 60 Hz
Overvoltage category		II acc. EN 60947-1 annex H table H1
Conv. thermal current	I_{the}	2,5 A
Minimum current		1 mA
Reliability		acc. EN 60947-5-4 @ 24 V DC, 10 mA, 1 mA, U_{kd} 2,4 V DC
Utilization category		AC 15, U_e/I_e 240 V / 1,5 A (3300 table A.1)
Direct opening action	$\rightarrow$	acc. IEC/EN 60947-5-1, annex K; direct opening force: 33 N
Short-circuit protective device		Fuse 2 A gG
Rated conditional short-circuit current		400 A
Max. contact resistance		25 mOhm (unused)
Electrical life		on request

Mechanical data		
Enclosure		Thermoplastic, glass fibre reinforced (UL 94-V0)
Cover		Thermoplastic, glass fibre reinforced (UL 94-V0)
Actuating force	F_B	$10\text{ N} \leq F_B \leq 30\text{ N}$
Operating temperature		$-30\text{ °C} \dots +75\text{ °C}$
Storage temperature		$-40\text{ °C} \dots +80\text{ °C}$
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		2 N.C. (Form Zb)
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		10×10^6 operating cycles
Mission time		≤ 20 years
Connection		Connector M12x1, A-coded
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		$\approx 0,06\text{ kg}$
Installation position		operator definable

ID for safety engineering	
B10d N.C.	20×10^6 cycles Tbd (check acc. to DIN EN 60947-5-1)
B10d N.O.	1×10^6 cycles (Tbd contact with reduced power for consumers with resistive load)

Standards	
	VDE 0660 T100, DIN EN 60947-1, IEC 60947-1
	VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1
	VDE 0660 T211, DIN EN 60947-5-4, IEC 60947-5-4
	UL 60947-1, CAN/CSA-22.2 No. 60947-1-13
	UL 60947-5-1, CAN/CSA-C22.2 No. 60947-5-1-14
	DIN EN ISO 13849-1
	DIN EN ISO 13849-2
	UL 508
	EN 81

EU Conformity	
	acc. to directive 2014/35/EU (Low-Voltage-Directive)

Approvals	
	DGUV (in preparation)
	CCC
	cCSA _{US} B300, 240Vac 1.5A G.P., 24Vdc 1.5A R. Enclosure Type 4X
	TÜV (in preparation)

Notes

The degree of protection specified (IP code) applies only to a properly closed cover and the use of an equivalent connector.
The connector and the cable (fix or flexible mounted) must at least be suitable for the described ambient air temperatures.
The connector must not be connected or disconnected when voltage is applied.
The mechanical life of the connector is 100 connection cycles.
The push bolt actuator is mainly intended to be actuated along its axis.

Approvals / properties applies only to the fully assembled device.