

Plastic bodied limit switch Series IN65

Description IN65-SU1Z AHK M12	Article number 6083000312
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Operating symbol

(1) 13 — 14 (2)
(3) 21 — 22 (4)

Operating diagram

ON OFF

Tolerance:
 Operating point ± 3,5°;
 Direct opening action + 3,5°
 Operating torque ± 20 %

Plug

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

	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	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}	4 A
Minimum current		1 mA
Utilization category		AC 15, U_e/I_e 240 V / 3 A
Direct opening action	⊖	acc. IEC/EN 60947-5-1, annex K; direct opening force: 23 N
Short-circuit protective device		Fuse 4 A gG
Rated conditional short-circuit current		400 A
Max. contact resistance		25 mOhm (unused)
Protection class		II, totally insulated

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
Actuating force	F_B 10 N $\leq F_B \leq$ 30 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.
Operating rate	V 0,06 m/min $\leq V \leq$ 30 m/min
Bounce duration	ms < 3 ms
Switchover time	ms < 8 ms
Switching frequency	\leq 60 / min.
Mechanical life	15 x 10 ⁶ operating cycles
Mission time	\leq 20 years
Connection	Plug connector M12x1, A-coded
Conductor cross-sections	Solid or Litz wire with ferrules 0,34 mm ² - 1,5 mm ² ; AWG 22-16
Cable entrance	1 x M20 x1,5
Weight	\approx 0,09 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. 20 x 10 ⁶ cycles
B10d N.O. 1 x 10 ⁶ 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	
	DGUV (AC 15, U_e/I_e 240 V / 1,5 A; DC 13, U_e/I_e 24 V / 1,5 A)
	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	
<p>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. Suitable connector and cable must be used to meet approval requirements.</p>	