

Plastic bodied limit switch

Series IN65

Description **IN65-SU1Z HK M12** Article number **6083000387**

Operating symbol

(1)

(3)

Plug

Operating diagram

[mm]	0	21-22	13-14	13-14	21-22	[N]
	0					10
	1,7					
	3,6					
	6,6					13
	7,7					

ON
 OFF

Tolerance:
 Operating point ± 0,30 mm;
 Direct opening action + 0,30 mm
 Operating force ± 10 %

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	-	-	-	-	-
	B	40°	40°	30°	20°	10°

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)

Mechanical data	
Enclosure	Thermoplastic, glass fibre reinforced (UL 94-V0)
Cover	Thermoplastic, glass fibre reinforced (UL 94-V0)
Actuator	Lever with roller (Thermoplastic)
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	10 x 10 ⁶ operating cycles
Mission time	\leq 20 years
Connection	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 0,08 kg
Installation position	operator definable

Actuation
<p>The actuating device is preferably started from 1 side. By lifting the clamp the actuation assembly can be rotated in 45° increments such that 8 actuation directions are possible. The actuation assembly is to be again fastened to the housing by lowering the clamp.</p>

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>	