

Plastic bodied limit switch

Series IN65

Description IN65-A2Z HK NORM	Article number 6083000328
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Operating symbol

Operating diagram

[mm]	11-12	21-22	[N]
0			4
1,3			
2,3			
7,7			17

ON
 OFF

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

	m/s	0,1	0,5	1	2	5
A		-	-	-	-	-
B		40°	40°	30°	20°	10°

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; 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	2 N.C. (Form Zb)
Isolating distance	4 mm (2x2 mm)
Operating rate	V 0,06 m/min $\leq V \leq$ 30 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 / min.
Mechanical life	10 x 10 ⁶ operating cycles
Mission time	\leq 20 years
Connection	4 screw connections (M3)
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
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.

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	
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.	