

Plastic bodied limit switch

Series IN65

Description IN65-SA2Z AHK	Article number 6083000237
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Operating symbol

11 — 12
 21 — 22

Operating diagram

Tolerance:
 Operating point $\pm 3,5^\circ$;
 Direct opening action $+ 3,5^\circ$
 Operating force $\pm 10\%$

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		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
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 / 3 A DC 13, U_e/I_e 24 V / 4 A
Direct opening action		acc. IEC/EN 60947-5-1, annex K; direct opening force: 33 N
Short-circuit protective device		Fuse 4 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)
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	2 N.C. (Form Zb)
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	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 0,09 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 (check acc. to DIN EN 60947-5-1)
B10d N.O. 1 x 10 ⁶ cycles (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

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

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.	