

Plastic bodied limit switch

Series IN65

Description IN65-SA2Z HK M16	Article number 6083000336
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Operating symbol

11 — 12
 21 — 22

Operating diagram

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	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: 33 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		Lever with roller (Thermoplastic)
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)
Operating rate	V	$0,06\text{ m/min} \leq V \leq 30\text{ m/min}$
Bounce duration	ms	< 3 ms
Switchover time	ms	< 8 ms
Switching frequency		$\leq 60 / \text{min.}$
Mechanical life		10×10^6 operating cycles
Mission time		≤ 20 years
Connection		4 screw connections (M3)
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 M16 x1,5
Weight		$\approx 0,08\text{ kg}$
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 10⁶ cycles
B10d N.O. 1 x 10⁶ 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.	