

# Plastic bodied limit switch

## Series IN65

Description <b>IN65-A2Z AHM</b>	Article number <b>6083000332</b>
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**Operating symbol**

11 — 12  
21 — 22

**Operating diagram**

0° [N] 4  
15,6°  
25,9° ⊕  
75,6° 17

ON     OFF

Tolerance:  
 Operating point ± 3,5°;  
 Direct opening action + 3,5°  
 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		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
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: 29 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 steel roller / lever in 15 ° increments adjustable
Actuating force	$F_B$	$10\text{ N} \leq F_B \leq 30\text{ N}$
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	$V$	$0,06\text{ m/min} \leq V \leq 30\text{ m/min}$
Bounce duration	ms	The value depends on the operating rate.
Switchover time	ms	The value depends on the operating rate.
Switching frequency		$\leq 60 / \text{min.}$
Mechanical life		$10 \times 10^6$ operating cycles
Mission time		$\leq 20$ years
Connection		4 screw connections (M3)
Conductor cross-sections		Solid or Litz wire with ferrules $0,34\text{ mm}^2 - 1,5\text{ mm}^2$ ; AWG 22-16
Cable entrance		1 x M20 x1,5
Weight		$\approx 0,1\text{ kg}$
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.	$20 \times 10^6$ cycles
B10d N.O.	$1 \times 10^6$ 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 <sub>US</sub> B300, 240Vac 1.5A G.P., 24Vdc 1.5A R. Enclosure Type 4X

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.	