

# Plastic bodied limit switch Series IN65

Description <b>IN65-SU1Z AHK KV</b>	Article number <b>6183000247</b>
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**Operating symbol**

**Operating diagram**

ON  
 OFF

**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
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	$\ominus$	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	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	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	15 x 10 <sup>6</sup> operating cycles
Mission time	$\leq$ 20 years
Connection	4 screw connections (M3)
Conductor cross-sections	Solid or Litz wire with ferrules 0,34 mm <sup>2</sup> - 1,5 mm <sup>2</sup> ; AWG 22-16
Cable entrance	1 x cable gland M20 x1,5 (clamping range 5 mm - 10 mm)
Weight	$\approx$ 0,1 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 <sup>6</sup> cycles
B10d N.O. 1 x 10 <sup>6</sup> 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 <sub>e</sub> /I <sub>e</sub> 240 V / 1,5 A; DC 13, U <sub>e</sub> /I <sub>e</sub> 24 V / 1,5 A)
	CCC (AC 15, U <sub>e</sub> /I <sub>e</sub> 240 V / 1,5 A; DC 13, U <sub>e</sub> /I <sub>e</sub> 24 V / 1,5 A)
	cCSA <sub>US</sub> B300, 240Vac 1.5A G.P., 24Vdc 1.5A R. Enclosure Type 4X
	TÜV SÜD (AC 15, U <sub>e</sub> /I <sub>e</sub> 240 V / 1,5 A; DC 13, U <sub>e</sub> /I <sub>e</sub> 24 V / 1,5 A)

Notes	
<p>The specified protection classification (IP code) applies only when the cover is closed and the appropriate cable is used, in accordance with the clamping range of the above mentioned cable gland.</p>	
<p>Packaging unit: 100 pieces including 1 x assembly instruction</p>	