

Plastic bodied limit switch

Series IN65

Description IN65-E2 SM	Article number 6083000212
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Operating symbol

13 14

23 24

Operating diagram

ON
 OFF

Tolerance:
 Operating point $\pm 0,25$ mm;
 Operating force ± 10 %

Fixed positioning with e.g. fixing screw M5 according to the standard DIN EN ISO 4762.

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
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	Plunger (Steel, nickel)
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.O. (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	30×10^6 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 M20 x1,5
Weight	$\approx 0,07\text{ kg}$
Installation position	operator definable

Actuation
The push bolt actuator is mainly intended to be actuated along its axis.

ID for safety engineering	
B10d N.C.	20×10^6 cycles (check acc. to DIN EN 60947-5-1)
B10d N.O.	1×10^6 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
EN 81

EU Conformity
acc. to directive 2014/35/EU (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.	