

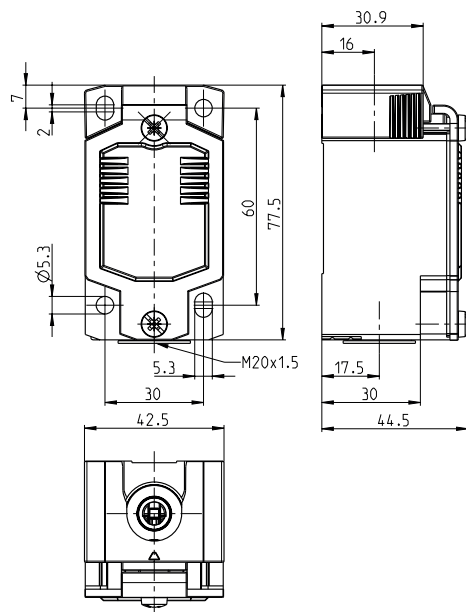
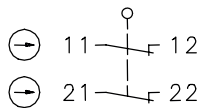
Metal bodied limit switch Series MN78

Description **MN78-S20 M20**

Article number **6087000104**

Enclosure with built-in switches without actuating device

Operating symbol



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
Short-circuit protective device		Fuse 4 A gG
Rated conditional short-circuit current		400 A
Protection class		I

Mechanical data		
Enclosure		Die-cast aluminium
Cover		Sheet aluminium
Actuating force	F_{bmin} F_{\ominus}	14 N + Force of the actuating device 28 N + Force of the actuating device
Operating temperature		-30 °C ... +75 °C
Storage temperature		-40 °C ... +80 °C
Protection type		IP66 / IP67 acc. EN 60529, Type 4X
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		15×10^6 operating cycles
Mission time		≤ 20 years
Connection		4 screw connections (M3)
Earth bolt		1 x M3,5
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		$\approx 0,18 \text{ kg}$
Installation position		operator definable

ID for safety engineering	
B10d N.C.	20×10^6 cycles

Standards	
	DIN EN 60947-5-1
	UL 508 / CSA C22.2 No.14
	DIN EN ISO 13849-1
	DIN EN ISO 13849-2

EU Conformity	
	acc. to directive 2014/35/EU (Low-Voltage-Directive)

Approvals	
	CCC
	cUL _{US}

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.	
The information on the switching travel can be found in the data sheets of the actuator, as these depend on the actuator used.	
Approvals / properties applies only to the fully assembled device.	