

## Metal bodied limit switch

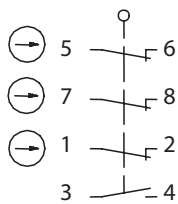
### Series MN78

Description **MN78-31 05**

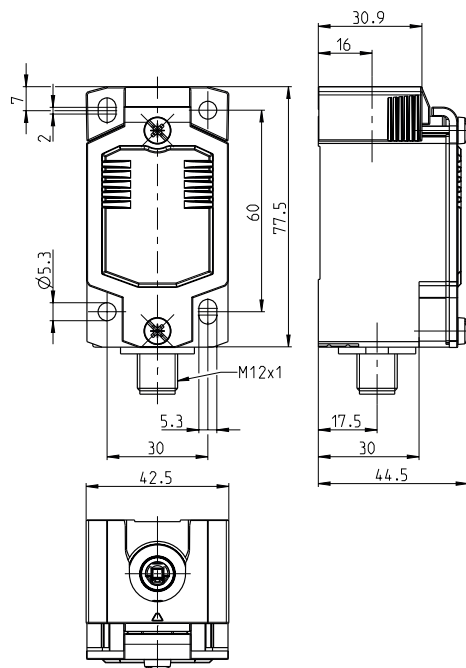
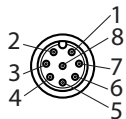
Article number **6087000124**

#### Enclosure with built-in switches without actuating device


##### Operating symbol



##### Plug



#### Electrical Data

Rated insulation voltage	$U_i$	36 V
Rated impulse withstand voltage	$U_{imp}$	0,8 kV
Rated operational voltage	$U_e$	30 V AC / 24 V DC
Rated supply frequency AC		50 / 60 Hz
Conv. thermal current	$I_{the}$	1,5 A
Minimum current		1 mA
Utilization category		AC 15, $U_e/I_e$ 30 V / 1,5 A; DC 13, $U_e/I_e$ 24 V / 1,5 A
Direct opening action		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		III (safety extra-low voltage)

Mechanical data		
Enclosure		Die-cast aluminium
Cover		Sheet aluminium
Actuating force	$F_{bmin}$ $F_{\ominus}$	15 N + Force of the actuating device 40 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 only with mounted actuating device
Pollution degree (built-in switch)		3
Contact material		silver
Contact type		3 N.C. (Form Zb), 1 N.O.
Switching frequency		≤ 60 / min.
Mechanical life		depending on the operating device up to 10 x 10 <sup>6</sup> operating cycles
Mission time		≤20 years
Connection		Plug M12x1, 8-pole, A-coded
Weight		≈ 0,19 kg
Installation position		operator definable

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
		DIN EN ISO 13849-2

EU Conformity		
		acc. to directive 2011/65/EU (RoHS II)

Approvals		
		CCC
		cUL <sub>US</sub>

Notes		
<p>The degree of protection specified (IP code) applies only to a properly closed cover and the use of an equivalent connector. The connector and the cable (fix or flexible mounted) must at least be suitable for the described ambient air temperatures. The connector must not be connected or disconnected when voltage is applied. The mechanical life of the connector is 100 connection cycles.</p> <p>The information on the switching travel can be found in the data sheets of the actuator, as these depend on the actuator used.</p> <p>Approvals / properties applies only to the fully assembled device.</p>		