

## ITEM 123939 SN02X12-732L-MC2432

Description	Technical data	Accessories	Downloads
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### Features

- › Proximity switch spacing 12 mm
- › Upright housing, small flange
- › Degree of protection IP67 according to IEC 60529
- › Plug connector M12, 5-pin
- › LED function display

### Rated operating distance

With 12 mm proximity switch spacing, the rated operating distance is 5 mm.

### LED function display

The switching elements are equipped as standard with a function display (yellow). The function display can be clearly seen from the exterior.

### Terminal assignment

Pin	Function	Wire color
1	+24 V VS1	BN

Pin	Function	Wire color
2	Input 2	WH
3	0 V	BU
4	Input 1	BK
5	+24 V VS2	GY

PE/FE over thread screen connection

## Approvals



## Mechanical values and environment

Design	Upright
Material	
Active face	PBT
Housing material	Die-cast aluminum
Weight	
Approx.	0,4 kg
Ambient temperature	-25 ... +70 °C
Degree of protection	IP67 [1]
Proximity switch spacing	12 mm
Switching principle	NC
Number of switching elements	2
Number of NC contacts	2
Connection	
	1 x plug connector M12 [2]
	Connection terminals on the switching element

## Electrical connection ratings

Test pulses	
T (LOW) on sensor pulsing	0,1 ... 20 ms
LOW level	
On sensor pulsing	0 ... 5 V DC
Mark/space ratio T <sub>On</sub>	
T (HIGH) : T (LOW) on sensor pulsing	0.1673611111111111
Operating current	Current consumption without load max.5 mA
Operating voltage	
DC	20 ... 24 V 33 V Power supply unit with electrical isolation as per EN 61558-2-6 or sensor pulsing U <sub>B</sub> (HIGH)
Rated operating current I <sub>e</sub>	250 mA

Utilization category according to EN 60947-5-2	DC-12	250 mA, 33 V <sup>[3]</sup>
Short circuit and overload protection, pulsed		Yes
Residual ripple	From U <sub>B</sub> or U <sub>B</sub> (HIGH)	max.10 %
Reverse polarity protection		Yes
EMC protection requirements		EN 60947-5-2
Type of output		PNP
Off-state current I <sub>r</sub>		max.0,001 mA
Voltage drop U <sub>d</sub>	DC	max.2,5 V
Switching frequency, electrical		max.500 Hz
Safety class	EN IEC 61140	III
LED indicator	At 6.8mA	Yes <sup>[4]</sup>

### Operating distance

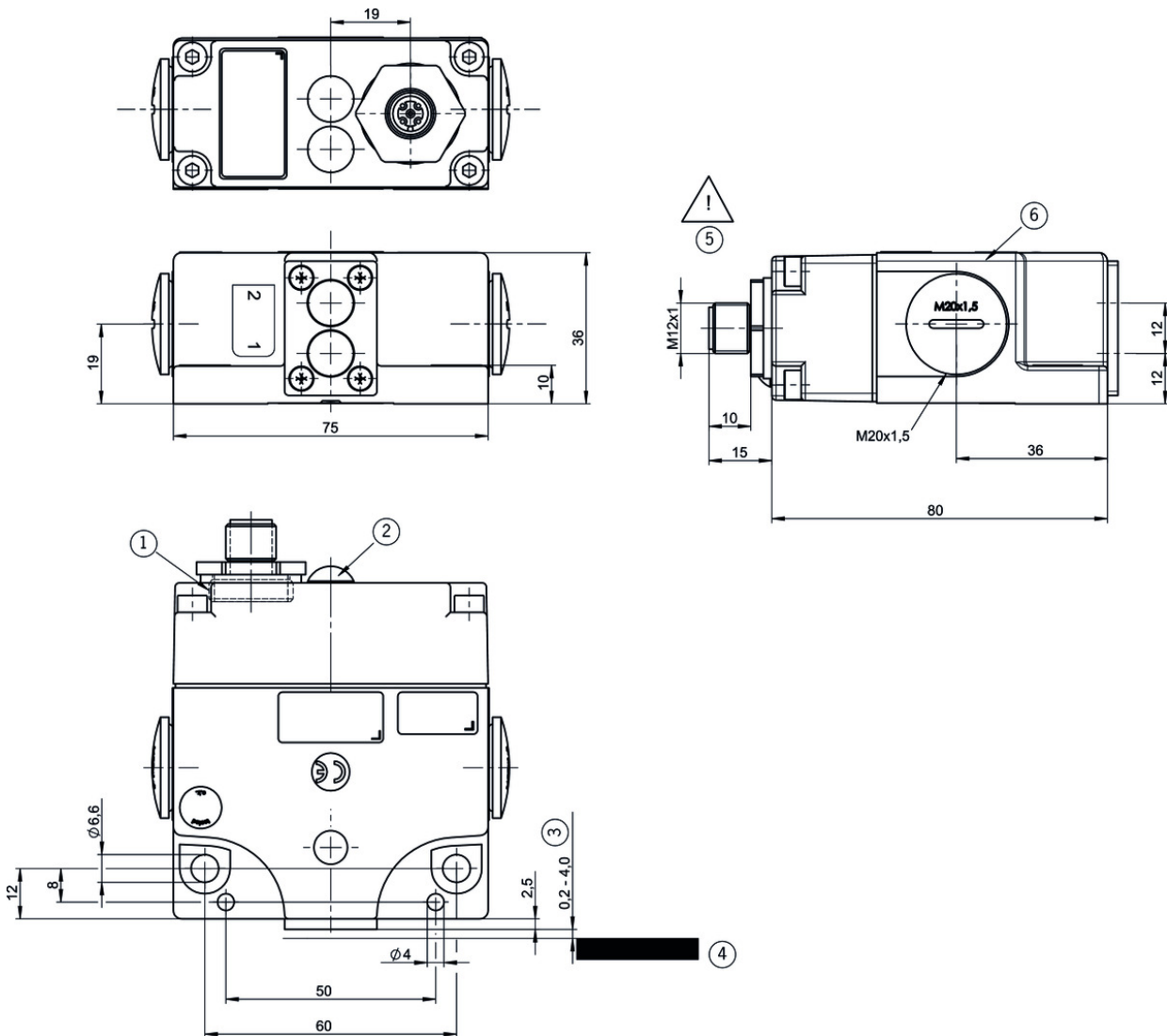
Repeat accuracy R	According to EN 60947-5-2	max.5 %
Rated operating distance S <sub>n</sub>		5 mm
Assured operating distance S <sub>a</sub>		0 ... 4 mm <sup>[5]</sup>
Switching hysteresis		0,2 ... 1,0 mm <sup>[6]</sup>
Center offset		
	At s = 4 mm	m <sub>ON</sub> = (-) 0.5 mm and m <sub>OFF</sub> = 0.0 <sup>[7]</sup>
	At s = 3 mm	m <sub>ON</sub> = (-) 2.5 mm and m <sub>OFF</sub> = (-) 2.0 <sup>[8]</sup>
	At s = 2 mm	m <sub>ON</sub> = (-) 3.3 mm and m <sub>OFF</sub> = (-) 3.0 <sup>[9]</sup>
	At s = 1 mm	m <sub>ON</sub> = (-) 4.2 mm and m <sub>OFF</sub> = (-) 4.0 <sup>[10]</sup>

### Miscellaneous

C number	C2432	<sup>[11]</sup>
Additional information		Housing without earth conductor! <sup>[12]</sup>

- [1]** Only screwed tight with the related mating connector.
- [2]** 5-pin, straight plug connector: Cable outlet not adjustable.
- [3]** For DC-13 the output must be protected with a free-wheeling diode for inductive loads.
- [4]** LED yellow
- [5]** Dimension only applies for steel (ST37) and for EUCHNER trip dogs of series UX.. / GX..
- [6]** In the installed state
- [7, 8, 9, 10]** For side approach
- [11]** Plug connector M12, 5-pin, plug connector not aligned. Only for straight mating connectors.
- [12]** All the electrical connections must either be isolated from the mains supply by a safety transformer according IEC 61558-2-6 with limited output voltage in the event of a fault, or by other equivalent isolation measures.

## Dimension drawing

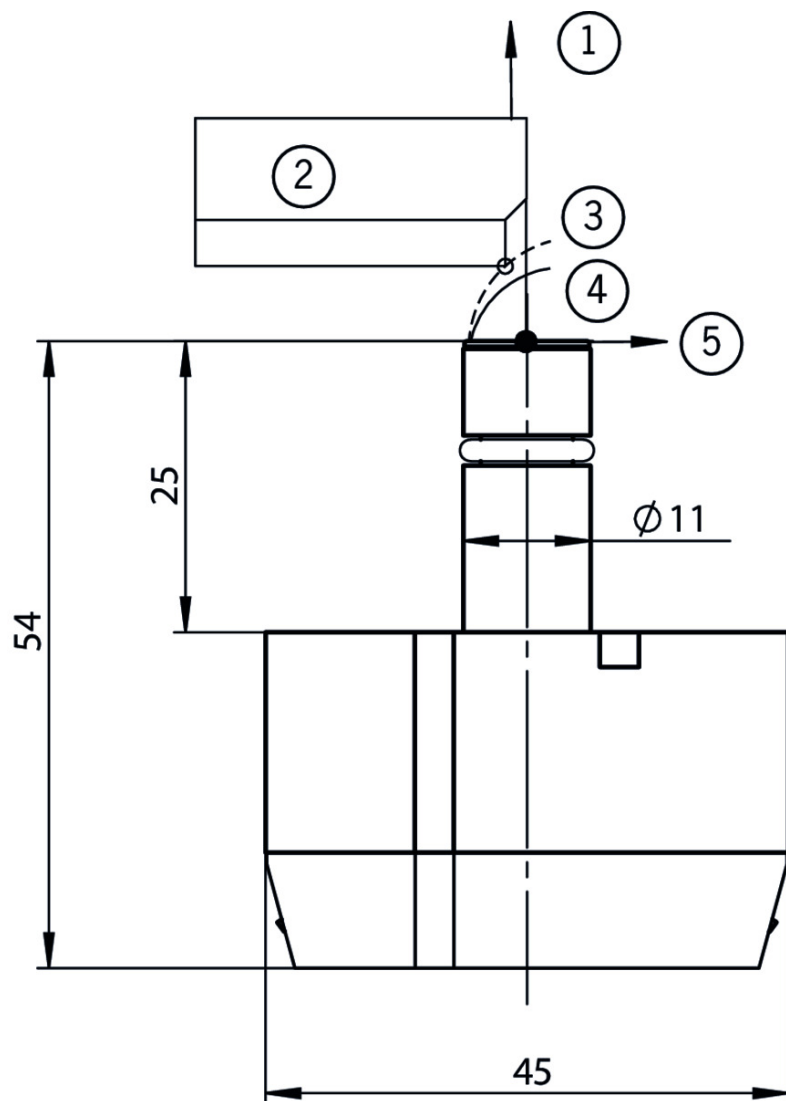


## Legende

- 1 Attention: Built-in connector not aligned
- 2 Yellow LED indicator
- 3 Assured operating distance
- 4 Actuator
- 5 Without earth conductor

6 Housing without earth conductor! All the electrical connections must either be isolated from the mains supply by a safety transformer according IEC 61558-2-6 with limited output voltage in the event of a fault, or by other equivalent isolation measures.

## Dimension drawing



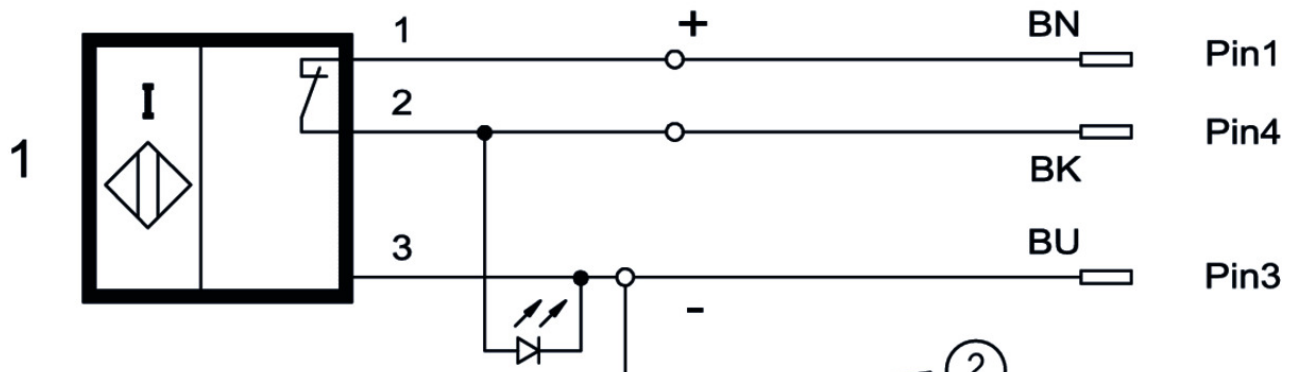
## Legende

- 1 Operating distance s/mm
- 2 Dog
- 3 a ON (s)
- 4 a OFF (s)
- 5 Lateral offset a/mm

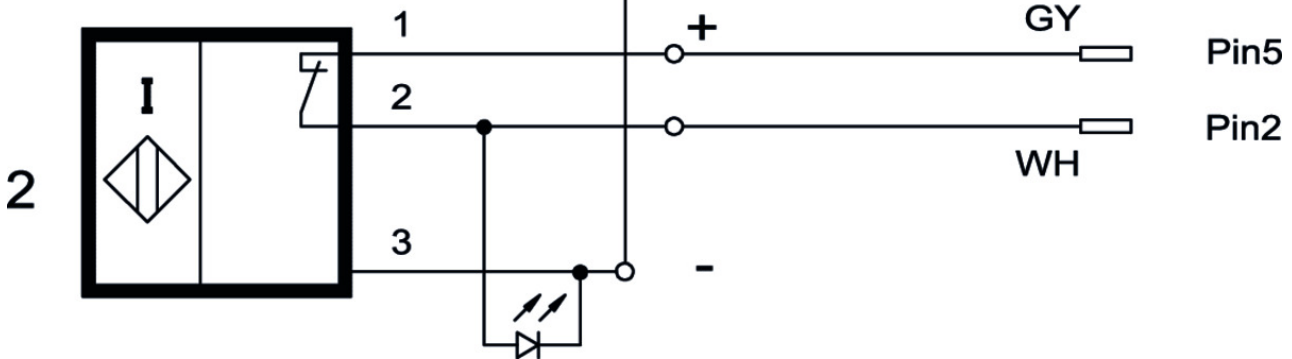
ES732/2C1997 and ES732/7C1997, M12 5-pin

①

ES732/2C1997



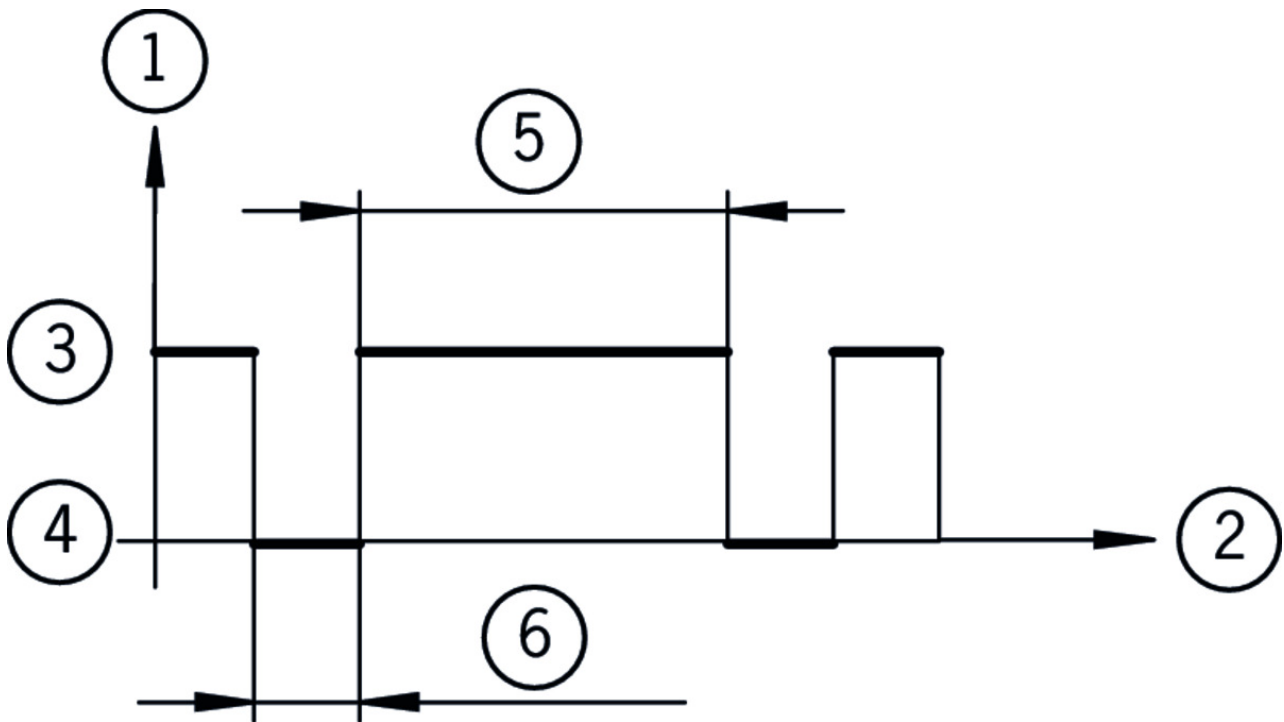
ES732/7C1997



Legende

- 1 M12 built-in plug connector
- 2 OV bridge in the switch

## Diagram



## Legende

- 1 UB
- 2 Time
- 3 UB (HIGH)
- 4 UB (LOW)
- 5 T (HIGH)
- 6 T (LOW)

## Connection material

- ✓ Connection cable with straight plug connector M12, 5-pin, 10m



**123997** C-M12F05-05X034PU10,0-MA-123997

### ✓ Features

- › M12 female plug, 5-pin
- › Straight plug connector
- › PUR cable
- › Cable length 10 m

- ✓ Connection cable with straight plug connector M12, 5-pin, 25m



**124054** C-M12F05-05X034PU25,0-MA-124054

### ✓ Features

- › M12 female plug, 5-pin

- › Straight plug connector
  - › PUR cable
  - › Cable length 25 m
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