

# Magnetic Field Sensors

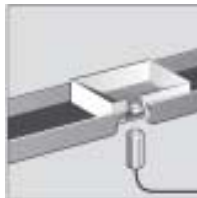
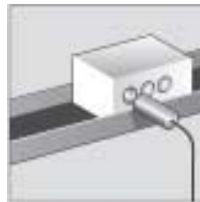
Cylindrical Housings  
Ø 6.5 mm



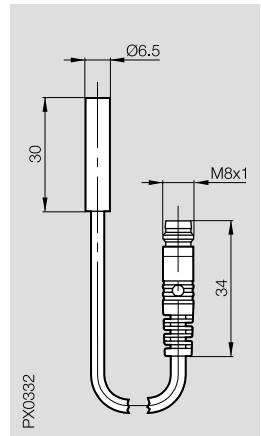
Some advantages of magnetic field sensors in the classic inductive sensors housing.

- Significantly greater switching distances compared with the same size inductive sensor
- Sensing through walls made of colored metal and aluminum, without reduced switching distances
- Reacts only to magnetic fields; no faulty switching by metal shavings or other metal parts
- Can be actuated from the front or side

- Magnet can be flush mounted in steel
- Protected against polarity reversal
- Supply voltage 10...30 V
- Responds to north or south poles
- Semiconductor sensor wear-free
- Vibration insensitive
- Output protected against inductive peaks
- Short circuit protected



Series	<b>BMF 07M</b>
Housing size	Ø 6.5 mm

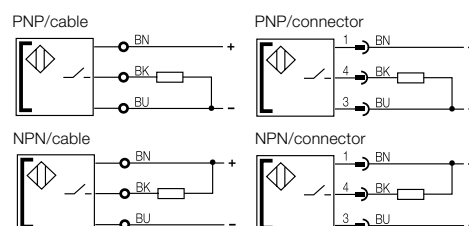


<b>PNP</b>	Normally-open	<b>BMF 07M-PS-D-2-S49-</b>
<b>NPN</b>	Normally-open	<b>BMF 07M-NS-D-2-S49-</b>
Rated operating field strength $I_{H_n I}$		1.2 kA/m
Assured operating field strength $I_{H_a I}$		$\geq 2$ kA/m
Hysteresis of $I_{H_n I}$		$\leq 45$ %
Temperature drift of turn-on point of $I_{H_n I}$		$\leq 0.3$ %/°C
Supply voltage $U_B$		10...30 V DC
Voltage drop $U_d$		$\leq 2.5$ V
Rated insulation voltage $U_i$		75 V DC
Rated operational current $I_o$		200 mA
No-load supply current $I_o$ max.		$\leq 12$ mA
Off-state current $I_r$		$\leq 80$ $\mu$ A
Protected against polarity reversal		yes
Short circuit protected		yes
Load capacity		$\leq 1$ $\mu$ F
Ambient temperature range $T_a$		-25...+70 °C
Utilization category		DC 13
Degree of protection per IEC 60529		IP 67
Housing material		CuZn nickel plated
Connection		cable with connector
No. of wires $\times$ conductor cross section		
Approval		cULus
Recommended connector		BKS-B 48

Please add the cable length to the ordering code for sensors with **cable!**  
PU-03, PU-05 = PUR, length 3 m or 5 m

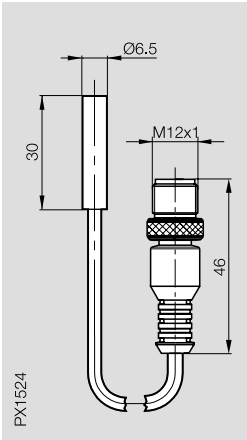
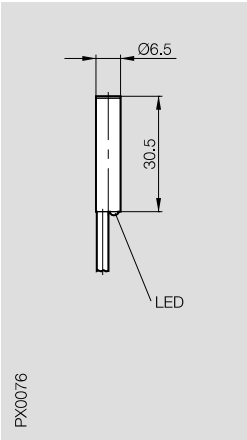
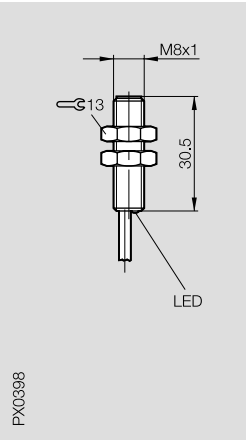
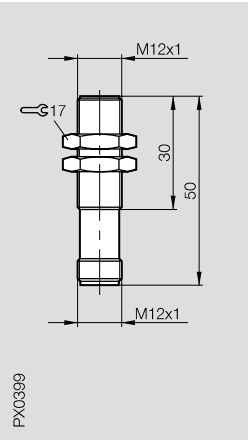
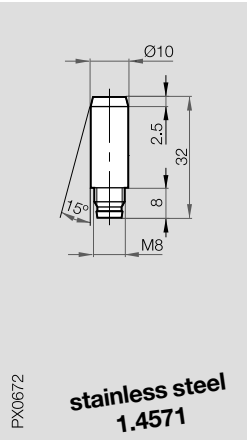
Please add the cable length to the ordering code for sensors with **cable and connector!**  
00,2, 00,5 = PUR, length 0.2 m or 0.5 m

## Wiring diagrams






# Magnetic Field Sensors

Cylindrical Housings  
 $\varnothing$  6.5 mm,  $\varnothing$  10 mm,  
 M8, M12

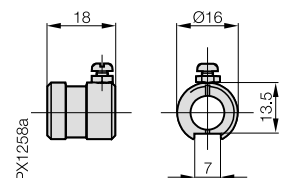
BMF 07M	BMF 07M	BMF 08M	BMF 12M	BMF 10E
$\varnothing$ 6.5 mm	$\varnothing$ 6.5 mm	M8x1	M12x1	for foods industry bracket BMF 10E-HW-19 $\varnothing$ 10 mm
				
BMF 07M-PS-D-2-S 4-	BMF 07M-PS-C-2-KPU-	BMF 08M-PS-C-2-KPU-	BMF 12M-PS-D-2-S 4	BMF 10E-PS-D-2-SA 1-S49
	BMF 07M-NS-C-2-KPU-	BMF 08M-NS-C-2-KPU-	BMF 12M-NS-D-2-S 4	
1.2 kA/m $\geq$ 2 kA/m $\leq$ 45 % $\leq$ 0.3 %/°C	1.2 kA/m $\geq$ 2 kA/m $\leq$ 45 % $\leq$ 0.3 %/°C	1.2 kA/m $\geq$ 2 kA/m $\leq$ 45 % $\leq$ 0.3 %/°C	1.2 kA/m $\geq$ 2 kA/m $\leq$ 45 % $\leq$ 0.3 %/°C	1.2 kA/m $\geq$ 2 kA/m $\leq$ 45 % $\leq$ 0.3 %/°C
10...30 V DC $\leq$ 2.5 V 75 V DC 200 mA $\leq$ 12 mA $\leq$ 80 $\mu$ A yes yes $\leq$ 1 $\mu$ F -25...+70 °C DC 13 IP 67 CuZn nickel plated cable with connector cULus BKS-B 19	10...30 V DC $\leq$ 2.5 V 75 V DC 200 mA $\leq$ 22 mA $\leq$ 80 $\mu$ A yes yes $\leq$ 1 $\mu$ F -25...+70 °C DC 13 IP 67 CuZn nickel plated cable 3 x 0.14 mm <sup>2</sup> cULus	10...30 V DC $\leq$ 3.1 V 75 V DC 200 mA $\leq$ 22 mA $\leq$ 80 $\mu$ A yes yes $\leq$ 1 $\mu$ F -25...+70 °C DC 13 IP 67 CuZn nickel plated cable 3 x 0.14 mm <sup>2</sup> cULus	10...30 V DC $\leq$ 2.5 V 75 V DC 200 mA $\leq$ 12 mA $\leq$ 80 $\mu$ A yes yes $\leq$ 1 $\mu$ F -25...+70 °C DC 13 IP 67 CuZn nickel plated connector cULus BKS-B 19/BKS-B 20	10...30 V DC $\leq$ 2.5 V 75 V DC 200 mA $\leq$ 12 mA $\leq$ 80 $\mu$ A yes yes $\leq$ 1 $\mu$ F -25...+70 °C DC 13 IP 67 <b>stainless steel 1.4571</b> connector BKS-B 48/BKS-B 49

## Operating distance magnet – sensor

Magnet type	Samarium-Cobalt	Hard ferrite	Strontium-Ferrite
			
Ordering code	630 620 260	350 620 961	320 709 084
Housing size	16 x 12 mm	$\varnothing$ 10 mm	$\varnothing$ 4 mm
Height	3 mm	10 mm	5 mm
Assured operating distance $S_a$	28 mm	15 mm	5 mm
Hysteresis	8 mm	2 mm	2 mm

Within the operating zone scheduled, a secure switch is guaranteed. The operating zones have been determined in measuring series and help to choose a magnet suitable.

## Bracket BMF 10E-HW-19 (please order separately)



Piston- $\varnothing$	Tube cuff size
8, 10, 12	2
16, 20, 25	3
32	4
40	5
50	6
63	8
Tube cuff size _ please order separately	

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Connectors,  
 clamps ...  
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