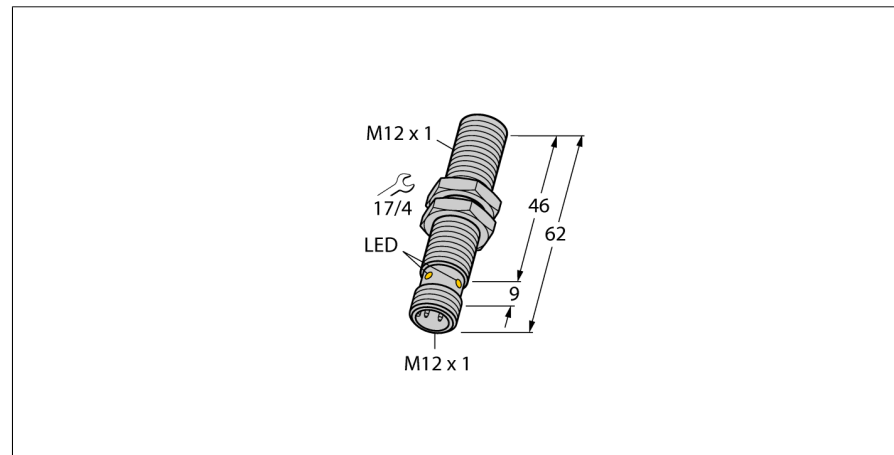
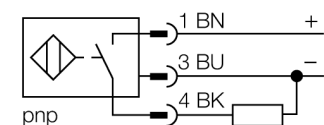


**Magnetic field sensor  
magnet-inductive proximity sensor  
BIM-M12E-AP4X-H1141**



- Threaded barrel, M12 x 1
- Chrome-plated brass
- Rated operating distance 90 mm with DMR31-15-5 magnet
- DC 3-wire, 10...65 VDC
- NO contact, PNP output
- Male connector, M12 x 1

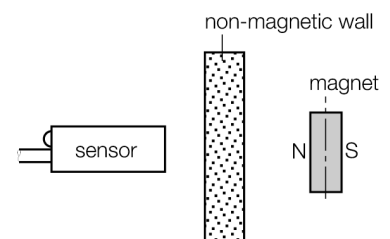
**Wiring diagram**



**Functional principle**

Magnetic inductive proximity sensors are actuated by magnetic fields and are thus capable of detecting permanent magnets through non-ferromagnetic materials (e.g. wood, plastic, non-ferrous metals, aluminium, stainless steel).

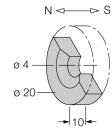
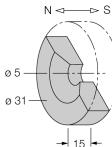
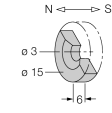
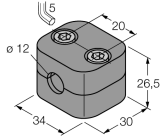
Thus it is possible to achieve large switching distances even with smaller housing styles. In combination with the actuation magnet DMR31-15-5 TURCK sensors feature a relatively high switching distance. Thus there are multiple detection possibilities, particularly if the mounting space is limited or other difficult sensing conditions prevail.



<b>Type code</b>	BIM-M12E-AP4X-H1141
<b>Ident no.</b>	1579913
<b>Rated operating distance Sn</b>	90 mm in conjunction with magnet DMR31-15-5
<b>Repeatability</b>	≤ 0.3 % of full scale
<b>Temperature drift</b>	15 %
<b>Hysteresis</b>	1...10 %
<b>Ambient temperature</b>	-25...+70 °C
<b>Operating voltage</b>	10...65VDC
<b>Residual ripple</b>	≤ 10 % U <sub>in</sub>
<b>DC rated operational current</b>	≤ 200 mA
<b>No-load current I<sub>0</sub></b>	≤ 15 mA
<b>Residual current</b>	≤ 0.1 mA
<b>Rated insulation voltage</b>	≤ 0.5 kV
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>0</sub></b>	≤ 1.8 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ complete
<b>Output function</b>	3-wire, NO contact, PNP
<b>Switching frequency</b>	1 kHz
<b>Design</b>	threaded barrel, M12 x 1
<b>Dimensions</b>	62 mm
<b>Housing material</b>	metal, CuZn, chrome-plated
<b>Material active area</b>	Plastic, PA
<b>Max. tightening torque housing nut</b>	10 Nm
<b>Connection</b>	male, M12 x 1
<b>Vibration resistance</b>	55 Hz (1 mm)
<b>Shock resistance</b>	30 g (11 ms)
<b>Protection class</b>	IP67
<b>MTTF</b>	2283 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	LED yellow
<b>Diameter of the active area B</b>	Ø 12 mm

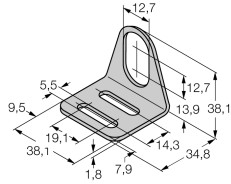
**Magnetic field sensor  
magnet-inductive proximity sensor  
BIM-M12E-AP4X-H1141**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
DMR20-10-4	6900214	Actuation magnet; $\varnothing$ 20 mm ( $\varnothing$ 4 mm), h: 10 mm; sensing range 59 mm on BIM-(E)M12 sensors resp. 50 mm on BIM-EG08 sensors; in combination with Q25L: Recommended distance between sensor and magnet: 3 ... 4 mm	
DMR31-15-5	6900215	Actuation magnet, $\varnothing$ 31 mm ( $\varnothing$ 5 mm), h: 15 mm; sensing range 90 mm on BIM-(E)M12 sensors resp. 78 mm on BIM-EG08 sensors; in combination with Q25L: Recommended distance between sensor and magnet: 3 ... 5 mm	
DMR15-6-3	6900216	Actuation magnet, $\varnothing$ 15 mm ( $\varnothing$ 3 mm), h: 6 mm; sensing range 36 mm on BIM-(E)M12 sensors resp. 32 mm on BIM-EG08 sensors; in combination with Q25L: Recommended distance between sensor and magnet: 3 ... 4 mm	
DM-Q12	6900367		Kein Maßbild vorhanden/ No dimension drawing available
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	

**Magnetic field sensor  
magnet-inductive proximity sensor  
BIM-M12E-AP4X-H1141**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
MW-12	6945003	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
RKC4T-2/TEL	6625010	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	