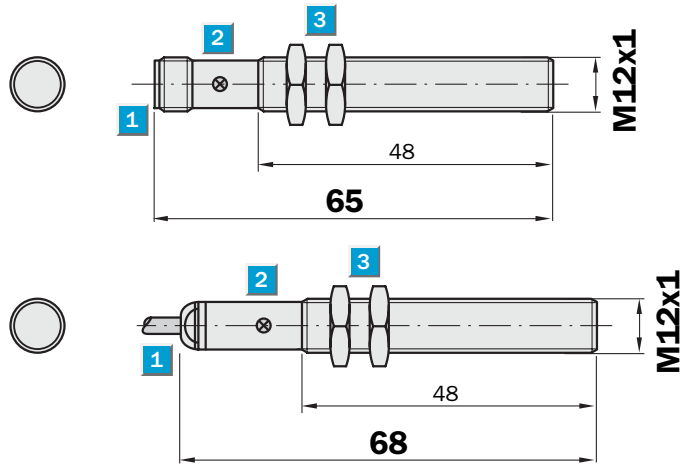


Sensing range
2 mm

Inductive sensor

- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67
- Flush Installation

Dimensional drawing

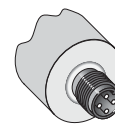
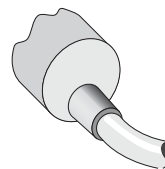
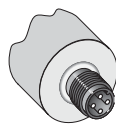


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal



Connection type

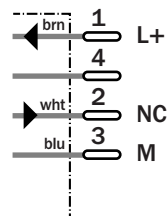
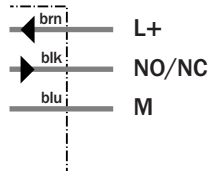
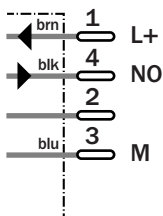
IME12-02BNSZC0S	IME12-02BNOZW2S	IME12-02BNOZC0S
IME12-02BPSZC0S	IME12-02BNSZW2S	IME12-02BPOZC0S
	IME12-02BPOZW2S	
	IME12-02BPSZW2S	



M12, 4-pin

3 x 0.25 mm²

M12, 4-pin



Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME12-	02BNO ZC0S	02BNO ZW2S	02BNS ZC0S	02BNS ZW2S	02BPO ZC0S	02BPO ZW2S	02BPS ZC0S	02BPS ZW2S		
Sensing range S_n	2 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	$\leq 10 \%$											
Voltage drop U_d	$\leq 2 V^{1)}$											
Power consumption	$\leq 10 mA^{2)}$											
Continuous current I_a	$\leq 200 mA$											
Time delay before availability t_v	$\leq 100 ms$											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	$\leq 2 \%$ (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	$\pm 10 \%$											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

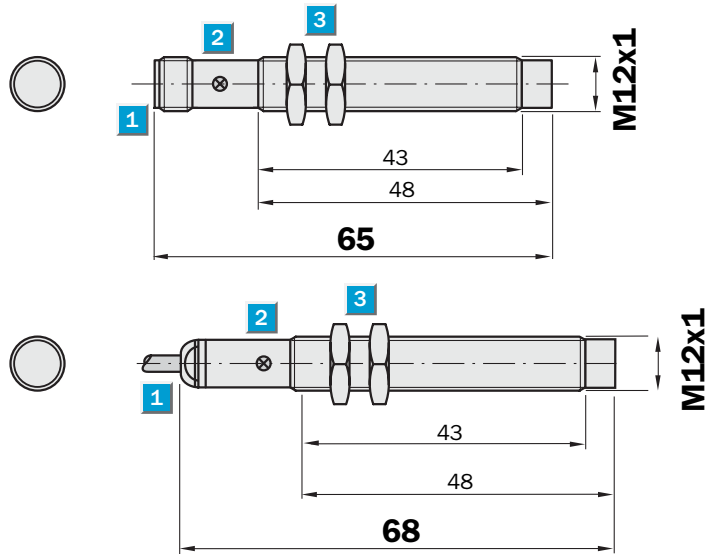
Type	Part Number
IME12-02BNOZC0S	1 040 743
IME12-02BNOZW2S	1 040 746
IME12-02BNSZC0S	1 040 740
IME12-02BNSZW2S	1 040 742
IME12-02BPOZC0S	1 040 736
IME12-02BPOZW2S	1 040 738
IME12-02BPSZC0S	1 040 732
IME12-02BPSZW2S	1 040 734

Sensing range
4 mm

Inductive sensor

- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67
- Non-flush installation

Dimensional drawing

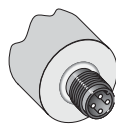


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

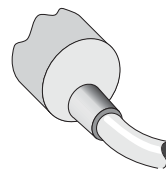
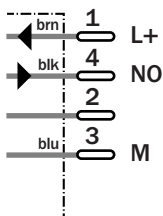


Connection type

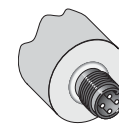
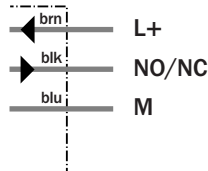
IME12-04NNSZC0S	IME12-04NNOZW2S	IME12-04NNOZC0S
IME12-04NPSZC0S	IME12-04NNSZW2S	IME12-04NPOZC0S
	IME12-04NPOZW2S	
	IME12-04NPSZW2S	



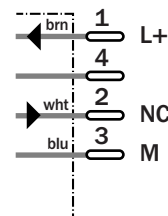
M12, 4-pin



3 x 0.25 mm²



M12, 4-pin



Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME12-	04NN OZC0S	04NNO ZW2S	04NNS ZC0S	04NNS ZW2S	04NPO ZC0S	04NPO ZW2S	04NPS ZC0S	04NPS ZW2S		
Sensing range S_n	4 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	≤ 10 %											
Voltage drop U_d	≤ 2 V ¹⁾											
Power consumption	≤ 10 mA ²⁾											
Continuous current I_a	≤ 200 mA											
Time delay before availability t_v	≤ 100 ms											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	≤ 2 % (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	± 10 %											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Non-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

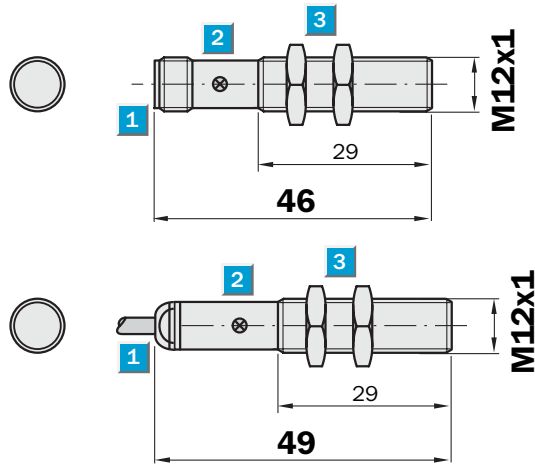
Type	Part Number
IME12-04NNOZC0S	1 040 760
IME12-04NNOZW2S	1 040 762
IME12-04NNSZC0S	1 040 756
IME12-04NNSZW2S	1 040 757
IME12-04NPOZC0S	1 040 752
IME12-04NPOZW2S	1 040 754
IME12-04NPSZC0S	1 040 748
IME12-04NPSZW2S	1 040 750

Sensing range
2 mm

Inductive sensor

- Short circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67
- Flush installation

Dimensional drawing

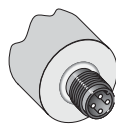


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

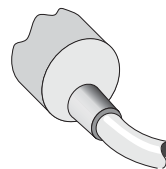
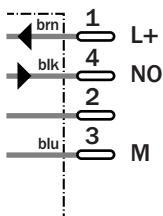


Connection type

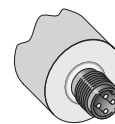
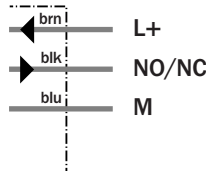
IME12-02BNSZCOK	IME12-02BNOZW2K	IME12-02BNOZCOK
IME12-02BPSZCOK	IME12-02BNSZW2K	IME12-02BPOZCOK
	IME12-02BPOZW2K	
	IME12-02BPSZW2K	



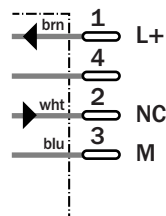
M12, 4-pin



3 x 0.25 mm²



M12, 4-pin



Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME12-	02BNO ZCOK	02BNO ZW2K	02BNS ZCOK	02BNS ZW2K	02BPO ZCOK	02BPO ZW2K	02BPS ZCOK	02BPS ZW2K		
Sensing range S_n	2 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	$\leq 10 \%$											
Voltage drop U_d	$\leq 2 V^{1)}$											
Power consumption	$\leq 10 mA^{2)}$											
Continuous current I_a	$\leq 200 mA$											
Time delay before availability t_v	$\leq 100 ms$											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	$\leq 2 \%$ (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	$\pm 10 \%$											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

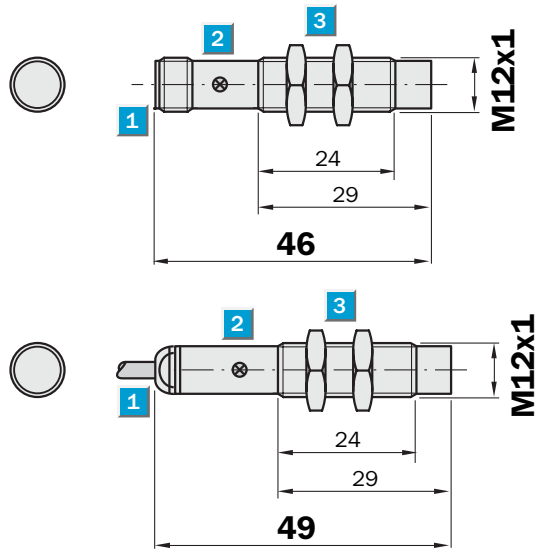
Type	Part Number
IME12-02BNOZCOK	1 040 744
IME12-02BNOZW2K	1 040 745
IME12-02BNSZCOK	1 040 739
IME12-02BNSZW2K	1 040 741
IME12-02BPOZCOK	1 040 735
IME12-02BPOZW2K	1 040 737
IME12-02BPSZCOK	1 040 731
IME12-02BPSZW2K	1 040 733

Sensing range
4 mm

Inductive sensor

- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67
- Non-flush installation

Dimensional drawing

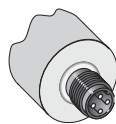


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

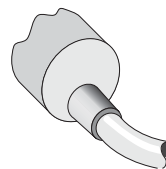
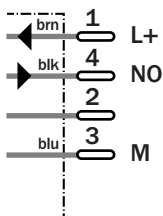


Connection type

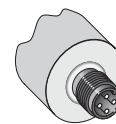
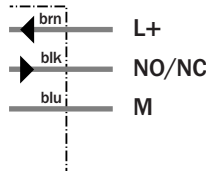
IME12-04NNSZCOK	IME12-04NNOZW2K	IME12-04NNOZCOK
IME12-04NPSZCOK	IME12-04NNSZW2K	IME12-04NPOZCOK
	IME12-04NPOZW2K	
	IME12-04NPSZW2K	



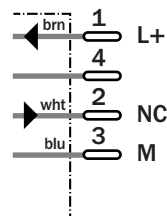
M12, 4-pin



3 x 0.25 mm²



M12, 4-pin



Accessories

Connector, M12, 4-pin
Mounting systems

Technical specifications		IME12-	04NNO ZCOK	04NNO ZW2K	04NNS ZCOK	04NNS ZW2K	04NPO ZCOK	04NPO ZW2K	04NPS ZCOK	04NPS ZW2K		
Sensing range S_n	4 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	$\leq 10 \%$											
Voltage drop U_d	$\leq 2 V^{1)}$											
Power consumption	$\leq 10 mA^{2)}$											
Continuous current I_a	$\leq 200 mA$											
Time delay before availability t_v	$\leq 100 ms$											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	$\leq 2 \%$ (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	$\pm 10 \%$											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Non-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

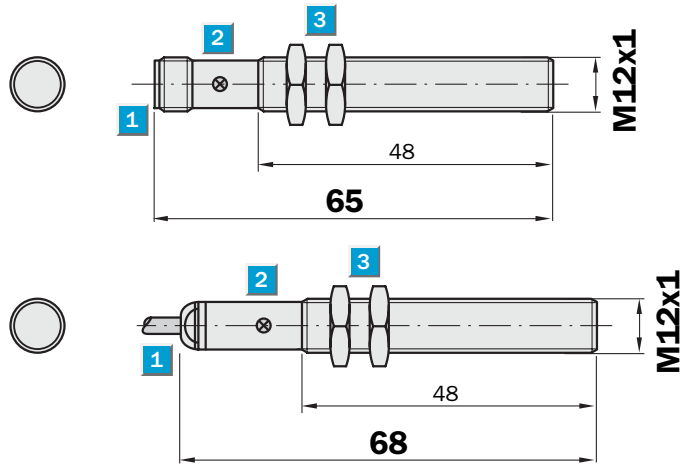
Type	Part Number
IME12-04NNOZCOK	1 040 759
IME12-04NNOZW2K	1 040 761
IME12-04NNSZCOK	1 040 755
IME12-04NNSZW2K	1 040 758
IME12-04NPOZCOK	1 040 751
IME12-04NPOZW2K	1 040 753
IME12-04NPSZCOK	1 040 747
IME12-04NPSZW2K	1 040 749

Sensing range
4 mm

Inductive sensor

- Enhanced sensing range
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating
- Quasi-flush installation

Dimensional drawing

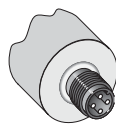


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

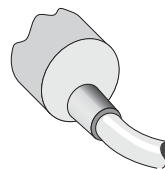
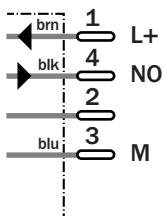


Connection type

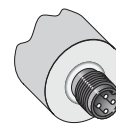
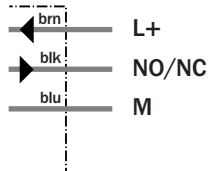
IME12-04BNSZC0S	IME12-04BNOZW2S	IME12-04BNOZC0S
IM12E-04BPSZC0S	IME12-04BNSZW2S	IME12-04BPOZC0S
	IME12-04BPOZW2S	
	IME12-04BPSZW2S	



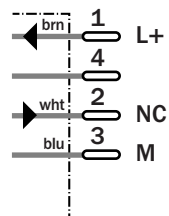
M12, 4-pin



3 x 0.25 mm²



M12, 4-pin



Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME12-	04BNO ZC0S	04BNO ZW2S	04BNS ZC0S	04BNS ZW2S	04BPO ZC0S	04BPO ZW2S	04BPS ZC0S	04BPS ZW2S		
Sensing range S_n	4 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	≤ 10 %											
Voltage drop U_d	≤ 2 V ¹⁾											
Power consumption	≤ 10 mA ²⁾											
Continuous current I_a	≤ 200 mA											
Time delay before availability t_v	≤ 100 ms											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	≤ 2 % (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	± 10 %											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Quasi-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

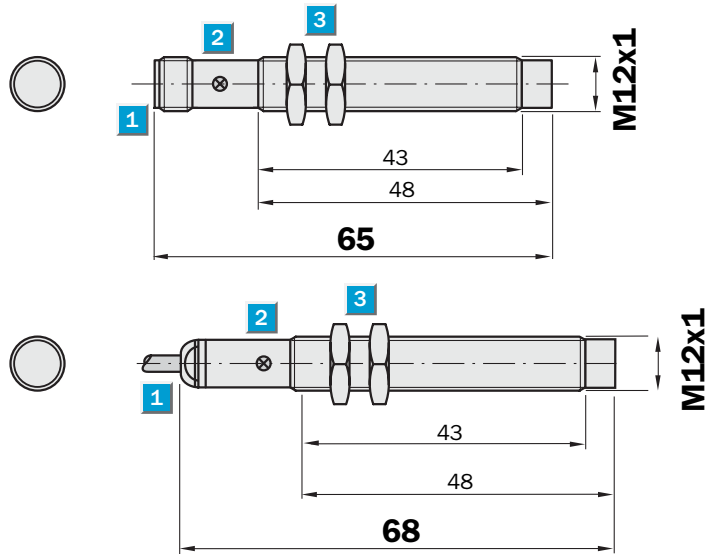
Type	Part Number
IME12-04BNOZC0S	1 040 776
IME12-04BNOZW2S	1 040 778
IME12-04BNSZC0S	1 040 772
IME12-04BNSZW2S	1 040 774
IME12-04BPOZC0S	1 040 768
IME12-04BPOZW2S	1 040 770
IME12E-04BPSZC0S	1 040 764
IME12-04BPSZW2S	1 040 766

Sensing range
8 mm

Inductive sensor

- Enhanced sensing range
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread
- M12 x 1 mm
- Enclosure rating
- Non-flush installation

Dimensional drawing

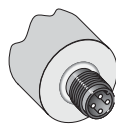


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

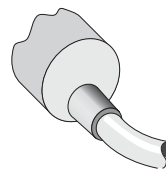
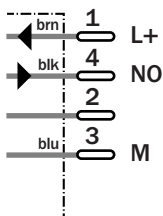


Connection type

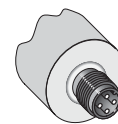
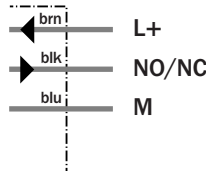
IME12-08NNSZC0S	IME12-08NNOZW2S	IME12-08NNOZC0S
IME12-08NPSZC0S	IME12-08NNSZW2S	IME12-08NPOZC0S
	IME12-08NPOZW2S	
	IME12-08NPSZW2S	



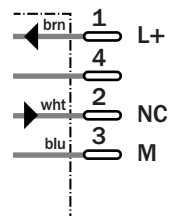
M12, 4-pin



3 x 0.25 mm²



M12, 4-pin



Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME12-	08NNO ZC0S	08NNO ZW2S	08NNS ZC0S	08NNS ZW2S	08NPO ZC0S	08NPO ZW2S	08NPS ZC0S	08NPS ZW2S		
Sensing range S_n	8 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	$\leq 10\%$											
Voltage drop U_d	$\leq 2\text{ V}^{1)}$											
Power consumption	$\leq 10\text{ mA}^{2)}$											
Continuous current I_a	$\leq 200\text{ mA}$											
Time delay before availability t_v	$\leq 100\text{ ms}$											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	$\leq 2\%$ (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	$\pm 10\%$											
EMC	According to EN 60947-5-2											
Switching output	PNP											
	NPN											
Output function	Normally closed											
	Normally open											
Installation	Overflush											
	Non-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

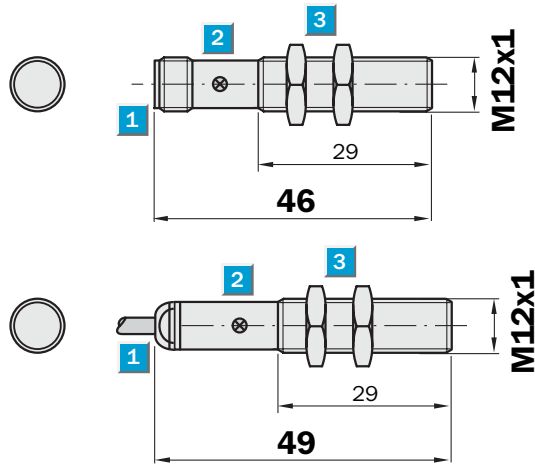
Type	Part Number
IME12-08NNOZC0S	1 040 826
IME12-08NNOZW2S	1 040 793
IME12-08NNSZC0S	1 040 788
IME12-08NNSZW2S	1 040 790
IME12-08NPOZC0S	1 040 784
IME12-08NPOZW2S	1 040 786
IME12-08NPSZC0S	1 040 780
IME12-08NPSZW2S	1 040 782

Sensing range
4 mm

Inductive sensor

- Enhanced sensing range
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating
- Quasi-flush installation

Dimensional drawing

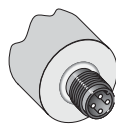


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

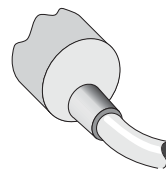
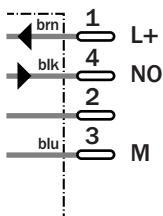


Connection type

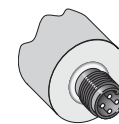
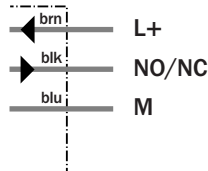
IME12-04BNSZCOK	IME12-04BNOZW2K	IME12-04BNOZCOK
IME12-04BPSZCOK	IME12-04BNSZW2K	IME12-04BPOZCOK
	IME12-04BPOZW2K	
	IME12-04BPSZW2K	



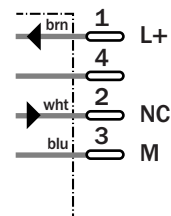
M12, 4-pin



3 x 0.25 mm²



M12, 4-pin



Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME12-	04BNO ZCOK	04BNO ZW2K	04BNS ZCOK	04BNS ZW2K	04BPO ZCOK	04BPO ZW2K	04BPS ZCOK	04BPS ZW2K		
Sensing range S_n	4 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	≤ 10 %											
Voltage drop U_d	≤ 2 V ¹⁾											
Power consumption	≤ 10 mA ²⁾											
Continuous current I_a	≤ 200 mA											
Time delay before availability t_v	≤ 100 ms											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	≤ 2 % (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	± 10 %											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Quasi-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_r
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

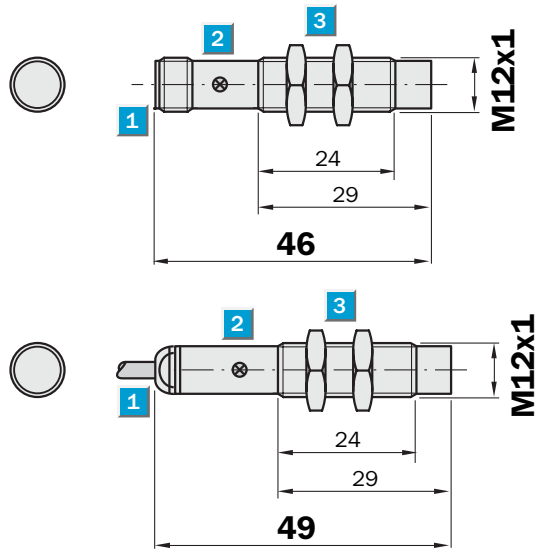
Type	Part Number
IME12-04BNOZCOK	1 040 775
IME12-04BNOZW2K	1 040 777
IME12-04BNSZCOK	1 040 771
IME12-04BNSZW2K	1 040 773
IME12-04BPOZCOK	1 040 767
IME12-04BPOZW2K	1 040 769
IME12-04BPSZCOK	1 040 763
IME12-04BPSZW2K	1 040 765

Sensing range
8 mm

Inductive sensor

- Enhanced sensing range
- Short-circuit protection (pulsed)
- Robust brass housing, nickel-plated with fine thread M12 x 1 mm
- Enclosure rating IP 67
- Non-flush installation

Dimensional drawing

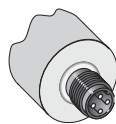


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 17, metal

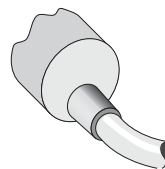
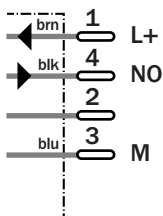


Connection type

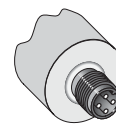
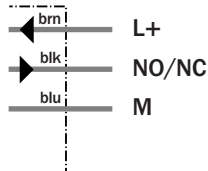
IME12-08NNSZCOK	IME12-08NNOZW2K	IME12-08NNOZCOK
IME12-08NPSZCOK	IME12-08NNSZW2K	IME12-08NPOZCOK
	IME12-08NPOZW2K	
	IME12-08NPSZW2K	



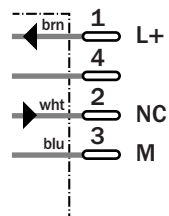
M12, 4-pin



3 x 0.25 mm²



M12, 4-pin



Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		IME12-	08NNO ZCOK	08NNO ZW2K	08NNO ZW2K	08NNS ZW2K	08NPO ZCOK	08NPO ZW2K	08NPS ZCOK	08NPS ZW2K		
Sensing range S_n	8 mm											
Electrical configuration	DC 3-wire											
Supply voltage V_s	DC 10 ... 30 V											
Ripple U_{pp}	≤ 10 %											
Voltage drop U_d	≤ 2 V ¹⁾											
Power consumption	≤ 10 mA ²⁾											
Continuous current I_a	≤ 200 mA											
Time delay before availability t_v	≤ 100 ms											
Hysteresis H, of s_r	5 ... 15 %											
Repeatability R	≤ 2 % (U_b and T_a constant) ³⁾											
Temperature drift, of s_r	± 10 %											
EMC	According to EN 60947-5-2											
Switching output	NPN											
	PNP											
Output function	Normally closed											
	Normally open											
Installation	Non-flush											
Connection type	Connector, M12, 4-pin											
	Cable, PVC, 2 m											
Enclosure rating	IP 67 ⁴⁾											
Max. switching frequency	500 Hz											
Dimensions	M12 x 1 ⁵⁾											
Short-circuit protection	✓ ⁶⁾											
Reverse polarity protection	✓											
Power-up pulse suppression	✓											
Shock/vibration stress	30 g, 11 ms/10 ... 55 Hz, 1 mm											
Ambient temperature T_a	-20 °C ... +65 °C											
Housing material	Brass nickel-plated, plastic											
Tightening torque	13 Nm											

¹⁾ at I_a max
²⁾ without load

³⁾ of s_{rr}
⁴⁾ according to EN 60529

⁵⁾ Thread diameter x pitch (mm)
⁶⁾ (pulsed)

Reduction factor R_M

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel (V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4

Ordering information

Type	Part Number
IME12-08NNOZCOK	1 040 791
IME12-08NNOZW2K	1 040 792
IME12-08NNOZW2K	1 040 787
IME12-08NNSZW2K	1 040 789
IME12-08NPOZCOK	1 040 783
IME12-08NPOZW2K	1 040 785
IME12-08NPSZCOK	1 040 779
IME12-08NPSZW2K	1 040 781