M12 12mm Analog Inductive Metal Housing 1-3mm range 4-20mA & 016mA Output

M12 12mm
Miniature Inductive Proximity Sensor

Analog Output 4-20mA & 4-16mA

1-3mm range

2/3 wire 15-40VDC

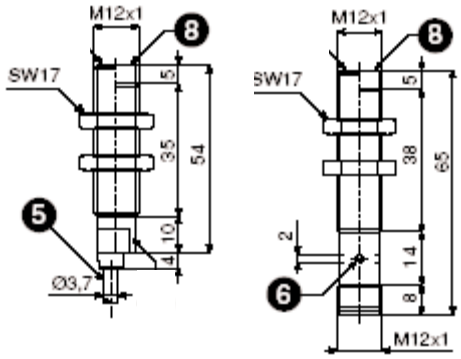
miniaturized body design

2 meter standard integrated cable

IP67 protection degree

protection from electrical damages

NBT nickel plated brass housing



5 M1 cable 3x0.055mm, 3.1mm diameter, PUR, 2m

6 K1 4 pin 12mm connector

8 Shielded version

Parts Matrix

inductive sensor series	**X**
M12 12mm diameter body	**12**
standard diameter-standard ranges	**D**
nickel plated brass	**B**
3(2) wire device	**3**
Analog Output 4-20mA & 4-16mA	**K**
inversely proportional	**5**
directly proportional	**(6)**
shielded	**S**
2m standard integrated cable	**M1**
M12 4 Pin 12mm connector	**K1**
range (mm)	**1-3mm**

PARTS INDEX

X12DB3KSM1B **M1 CABLE**
X12DB3KSK1B **K1 CONNECTOR**

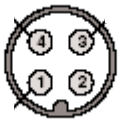
X12DB3KSM1B **M1 CABLE**
X12DB3KSK1B **K1 CONNECTOR**

SPECIFICATIONS

Wiring Diagram*

***see page 3**

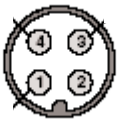
K1 Connection Diagram



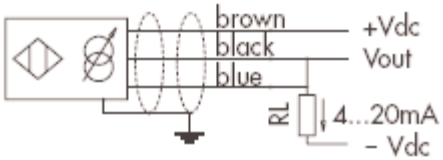
Technical Specifications

Sensing Distance Sd	**1-3mm**
Operating Distance	**-**
Differential Travel	**10% Typ**
Standard Target	**18x18x1mm**
Repeat Accurracy R	**.5%**
Supply Voltage Range U_B	**14-40 VDC**
Max Switching Freq.	**250Hz**
Ripple U_{pp}	**<20% U_b**
No-load Supply	**4mA**
Load Curent I_a	**<10mA**
Leakage Current	**<10uA**
Voltage Drop U_d	**-**
Output Type	**analog 4-20mA & 4-16mA**
Supply Electrical Protections	**polarity reversal, transient**
Output Electrical Protections	**short circuit protection (autoreset)**
Ambient Temperature T_a	**-25--+70C**
Tempearture Drift	**<10%**
Protection Degree (DIN 40 050)	**IEC IP67**
Housing Material	**Chrome Plated Brass**
Sensing Face Material	**PBT**
Tightening Torque	**-**

Wiring Diagram* **K1 Connection Diagram**



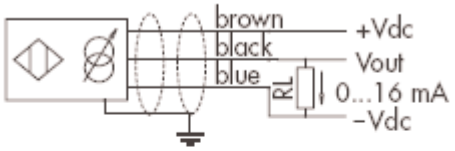
2 wires connection



Vout (V)	RL (ohm)	Vcc (min)
0,04 ... 0,2	10	15
0,4 ... 2	100	15
2 ... 10	500	20
4 ... 20	1000	30

$RL\ (max) = \frac{(Vcc-12)}{20} K$

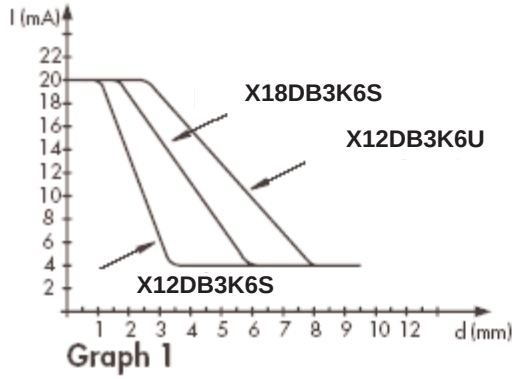
3 wires connection



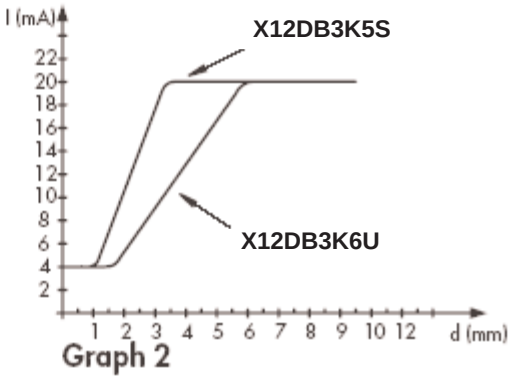
Vout (V)	RL (ohm)	Vcc (min)
0 ... 1	62,5	15
0 ... 10	625	18
0 ... 16	1000	24
0 ... 20	1250	28
0 ... 30	1875	38

$RL\ (max) = \frac{(Vcc-2)}{16} K$

Typical curves



Graph 1



Graph 2