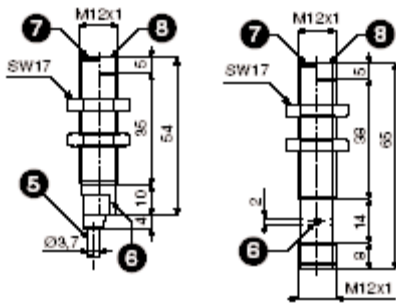


# M12 12mm Programmable Inductive 2 Wire 2mm/4mm ranges

M12 12mm Programmable Inductive Proximity Sensor
2 mm shielded range
4 mm unshielded range
2 wire 10-30VDC
miniaturized body design
2 meter standard integrated cable
IP67 protection degree
protection from electrical damages
NBT nickel plated brass housing



- 1 M1 axial cable
- 4 K1 M12 4 pin 12mm
- 5 M1 cable 3x0.055mm, 3.1mm diameter, PUR, 2m
- 6 LED status indicator (NO output energized)
- 7 Shielded version
- 8 Unshielded version

**PARTS INDEX**

**SPECIFICATIONS**

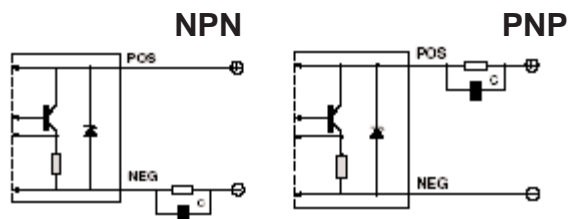
X12DB2D1SM1	PNP/NPN NO SHIELDED M1
X12DB2D1UM1	PNP/NPN NO UNSHIELDLED M1
X12DB2D2SM1	PNP/NPN NC SHIELDED M1
X12DB2D2UM1	PNP/NPN NC UNSHIELDLED M1
X12DB2D1SK1	PNP/NPN NO SHIELDED K1
X12DB2D1UK1	PNP/NPN NO UNSHIELDLED K1
X12DB2D2SK1	PNP/NPN NC SHIELDED K1
X12DB2D2UK1	PNP/NPN NC UNSHIELDLED K1



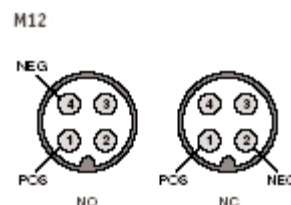
**Parts Matrix**

inductive sensor series	X	X
M12 12mm diameter body	12	12
standard diameter-standard ranges	D	D
nickel plated brass	B	B
2 wire device	2	2
Programmable Output PNP & NPN	D	D
NO normally open	1	1
NC normally closed	2	2
shielded	S	
unshielded		U
2m standard integrated cable	M1	M1
M12 4 Pin 12mm connector	K1	K1
range (mm)	2mm	4mm
load current	100mA	100mA

Wiring Diagram



K1 Connection Diagram



TECHNICAL SPECIFICATIONS

Nominal Sensing Distance $S_n$	2 mm	4 mm
Operating Distance	-	-
Differential Travel	10% Typ	10% Typ
Repeat Accuracy R	2%	2%
Operating Voltage $U_b$	10-30VDC	10-30VDC
Ripple $U_{pp}$	<20% $U_b$	<20% $U_b$
No-load Supply	20mA	20mA
Load Current $I_a$	<100mA	<100mA
Leakage Current	<10uA	<10uA
Voltage Drop $U_a$	1.2V max.	1.2V max.
Output Type	PNP/NPN NO or NC Programmable	PNP/NPN NO or NC Programmable
Switching Frequency	3KHz	3KHz
Time Delay Before Availability $t_v$	50ms	50ms
Supply Electrical Protections	polarity reversal, transient	polarity reversal, transient
Output Electrical Protections	short circuit protection (autoreset)	short circuit protection (autoreset)
Ambient Temperature $T_a$	-20--+70C	-20--+75C
Temperature Drift	+/- 10% SR	+/- 10% SR
Protection Degree (DIN 40 050)	IEC IP67	IEC IP67
LED Indicators	Yellow (NO output energized)	Yellow (NO output energized)
Housing Material	NBT	NBT
Sensing Face Material	PBT	PBT
Tightening Torque	-	-
Weight (approximate)	30-70G (M1)(K1)	30-70G (M1)(K1)