

M65 6.5mm Long Range Miniature Inductive 2mm/4mm ranges

M65 6.5mm
Long Range
Miniature Inductive Proximity Sensor

2 mm shielded range
4 mm unshielded range

3 wire 10-30VDC

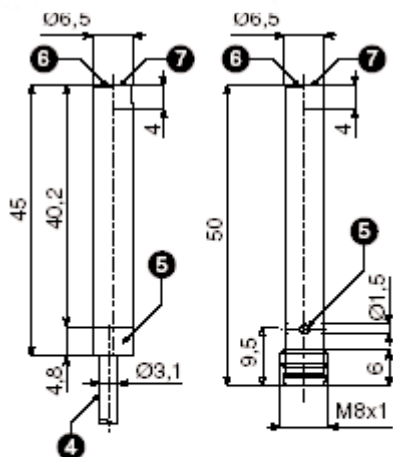
miniaturized body design

2 meter standard integrated cable

IP67 protection degree

protection from electrical damages

stainless steel housing



- 1
- 2
- 4
- 5
- 6
- 7

M1 axial cable

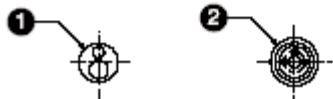
E1 M8 3 pin 8mm

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

LED status indicator (NO output energized)

Shielded version

Unshielded version



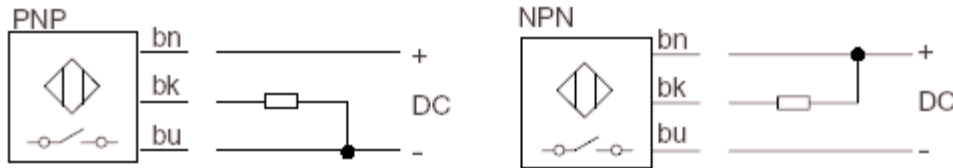
Parts Matrix

PARTS INDEX

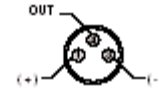
SPECIFICATIONS

inductive sensor series	X	X	X65LS3P1SM1 X65LS3P2SM1 X65LS3N1SM1 X65LS3N2SM1	PNP NO SHIELDED M1 PNP NC SHIEDLED M1 NPN NO SHIELDED M1 NPN NC SHIELDED M1
M65 6.5mm diameter body	65	65		
standard diameter-long ranges	L	L	X65LS3P1UM1 X65LS3P2UM1 X65LS3N1UM1 X65LS3N2UM1	PNP NO UNSHIELDED M1 PNP NC UNSHIELDED M1 NPN NO UNSHIELDED M1 NPN NC UNSHIELDED M1
stainless steel	S	S		
3 wire device	3	3		
PNP output	P	P	X65LS3P1SE1 X65LS3P2SE1	PNP NO SHIELDED E1 PNP NC SHIEDLED E1
NPN output	N	N	X65LS3N1SE1 X65LS3N2SE1	NPN NO SHIELDED E1 NPN NC SHIEDLED E1
NO normally open	1	1		
NC normally closed	2	2	X65LS3P1UE1 X65LS3P2UE1 X65LS3N1UE1 X65LS3N2UE1	PNP NO UNSHIELDED E1 PNP NC UNSHIELDED E1 NPN NO UNSHIELDED E1 NPN NC UNSHIELDED E1
shielded	S			
unshielded		U		
2m standard integrated cable	M1	M1		
M8 3 Pin 8mm connector	E1	E1		
range (mm)	2mm	4mm		
load current	200mA	200mA		

Wiring Diagram



E1 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	<200mA	<200mA
Leakage Current	<10uA	<10uA
Voltage Drop U_d	1.2V max.	1.2V max.
Output Type	PNP or NPN NO or NC	PNP or NPN NO or NC
Switching Frequency	3KHz	3KHz
Time Delay Before Availability t_v	100ms	100ms
Supply Electrical Protections	polarity reversal, transient	polarity reversal, transient
Output Electrical Protections	short circuit protection (autoreset)	short circuit protection (autoreset)
Ambient Temperature T_a	-25--+70C	-25--+70C
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	stainless steel	stainless steel
Sensing Face Material	PBT	PBT
Tightening Torque	-	-
Weight (approximate)	35g (M1) 7g (E1)	35g (M1) 7g (E1)