

M6.5 SERIES

There are millions of inductive sensors deployed in almost every area of factory automation. They detect metal objects contactless and are distinguished by a long operating life and extreme robustness. The Datalogic Automation inductive family provides the right solution to market requirements, offering a wide range of cylindrical and rectangular standard sensors with one or two set switching distances, available also with two, three or four wires connection models, short and standard housing and cable or connector version. Stainless steel version for both harsh environments or for FOOD applications.



HIGHLIGHTS

- Wide range: suitable practically for all the industrial applications
- Stainless steel versions: suitable for food applications
- 1X and 2 X operating distances: high detection reliability and precise reading
- 2, 3 or 4 wire connection: flexible connection system to meet customer applications

APPLICATIONS

Automatic warehouse



Automotive



Transportation lines



Packaging lines

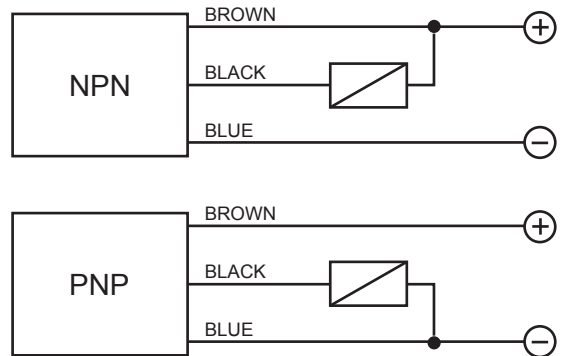


PROXIMITY SWITCHES

10÷30 V DC - 3 WIRES NPN OR PNP OUTPUT

- Range, 1,5mm to 2mm - flush, non flush
- NO or NC select
- Cable or M8 quick connect models
- Stainless steel housing

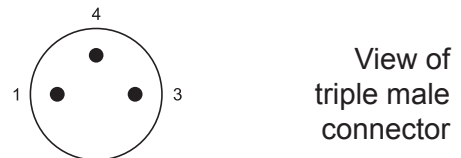
WIRING DIAGRAMS



TECHNICAL DATA

	FLUSH	NON FLUSH
NOMINAL SWITCHING DISTANCE (Sn)	1,5 mm	2 mm
NOMINAL VOLTAGE	10 ÷ 30 VDC (-15 / +10%)	
RESIDUAL RIPPLE	≤ 10%	
HYSTERESIS	< 10%	
MAX. OUTPUT CURRENT	200 mA	
RESIDUAL CURRENT	< 10 mA	
VOLTAGE DROP (Sensor ON)	< 1.2 V (I = 100 mA)	
OPERATION LED	Present	
SWITCHING FREQUENCY	1000 Hz	
START UP DELAY	≤ 50 ms	
REPEATABILITY	≤ 3%	
SHORT CIRCUIT PROTECTION	Present (self-resetting)	
ELECTRIC PROTECTIONS	Against polarity reversal inductive loads	
TEMPERATURE LIMITS	- 25 ÷ +70 °C	
PROTECTION DEGREE	IP 67	
CABLE LENGTH	2 m	
CABLE SECTION	3 x 0,14 mm ²	
HOUSING MATERIAL	Stainless steel Nickel-plated brass	
WEIGHT - Cable output -	80 g	
WEIGHT M8 connector output	40 g	

CONNECTION WITH CONNECTOR M8



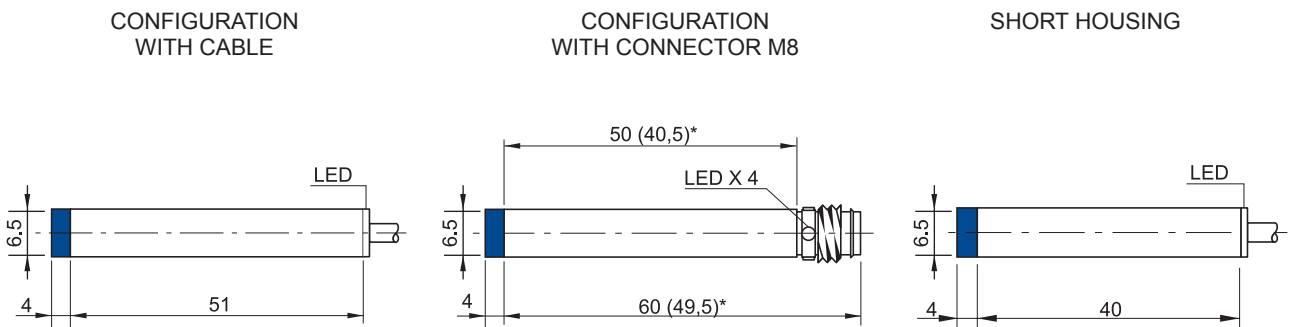
View of triple male connector

CONTACTS CONFIGURATION

Available	Contacts numbers		
	1 BROWN	3 BLUE	4 BLACK
NPN/PNP	+	-	NO/NC



DIMENSIONS (mm)



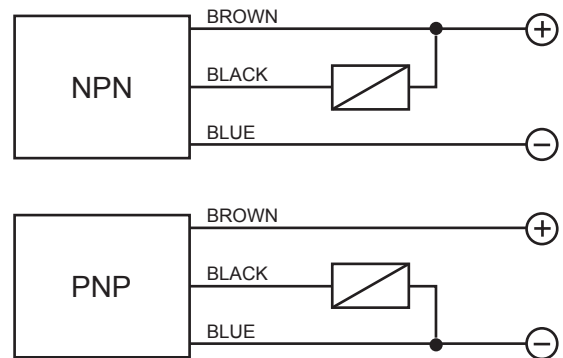
(*) The dimensions into brackets refer to short housing models
Note: the front part in blue refers to non flush models

Ø 6.5 INCREASED RANGE

10÷30 V DC - 3 WIRES NPN OR PNP OUTPUT

- Range, 2mm to 3mm - flush, non flush
- Short housing models
- Cable or M8 quick connect models
- 200mA NPN or PNP
- Operation LED

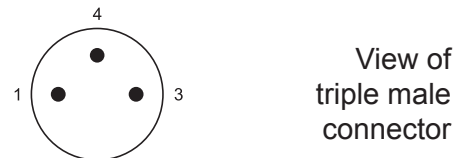
WIRING DIAGRAMS



TECHNICAL DATA

	FLUSH	NON FLUSH
NOMINAL SWITCHING DISTANCE (Sn)	2 mm	3 mm
NOMINAL VOLTAGE	10 ÷ 30 VDC (-15 / +10%)	
RESIDUAL RIPPLE	≤ 10%	
HYSTERESIS	< 10%	
MAX. OUTPUT CURRENT	200 mA	
RESIDUAL CURRENT	< 10 mA	
VOLTAGE DROP (Sensor ON)	< 1.2 V (I = 100 mA)	
OPERATION LED	Yellow	
SWITCHING FREQUENCY	500 Hz	
START UP DELAY	≤ 75 ms	
REPEATABILITY	≤ 3%	
SHORT CIRCUIT PROTECTION	Present (self-resetting)	
ELECTRIC PROTECTIONS	Against polarity reversal inductive loads	
TEMPERATURE LIMITS	- 25 ÷ +70 °C	
PROTECTION DEGREE	IP 67	
CABLE LENGTH	2 m	
CABLE SECTION	3 x 0,14 mm ²	
HOUSING MATERIAL	Nickel-plated brass	
WEIGHT - Cable output -	80 g	
WEIGHT M8 connector output	40 g	

CONNECTION WITH CONNECTOR M8



View of triple male connector

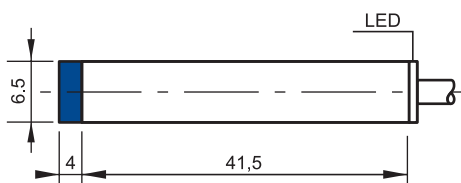
CONTACTS CONFIGURATION

Available	Contacts numbers		
	1	3	4
	BROWN	BLUE	BLACK
NPN/PNP	+	-	NO/NC

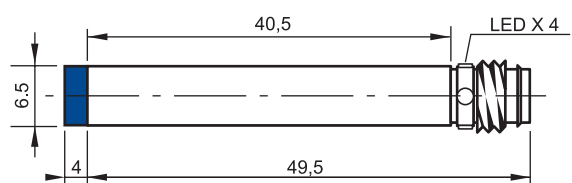


DIMENSIONS (mm)

CONFIGURATION WITH CABLE



CONFIGURATION WITH CONNECTOR M8

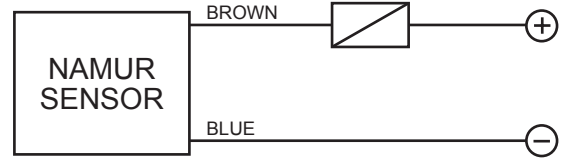


Note: the front part in blue refers to non flush models

NAMUR

- 5÷24 V DC - 2 WIRES
- Range, 1mm to 2mm - flush, non flush
- Cable or M8 quick connect models

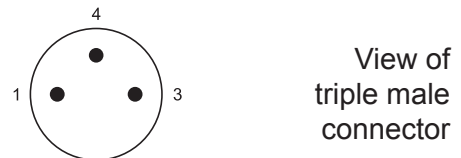
WIRING DIAGRAMS



TECHNICAL DATA

	FLUSH	NON FLUSH
NOMINAL SWITCHING DISTANCE (Sn)	1 mm	2 mm
NOMINAL VOLTAGE (Load resistance 1 K)	7.7 ÷ 9 V DC	
DC SUPPLY VOLTAGE	5 ÷ 24 V DC	
RESIDUAL RIPPLE	≤ 10%	
HYSTERESIS	≤ 10%	
OUTPUT CURRENT (Metal present)	≤ 1 mA	
OUTPUT CURRENT (Metal absent)	≤ 3 mA	
SWITCHING FREQUENCY	2000 Hz	
REPEATABILITY	≤ 3%	
TEMPERATURE LIMITS	-25 ÷ +60 °C	
PROTECTION DEGREE	IP 67	
DEVICE MARKING	II 3D IP67 T6X	
CABLE LENGTH	2 m	
CABLE SECTION	2 x 0.25 mm ²	
HOUSING MATERIAL	Stainless Steel	
WEIGHT - Cable output -	80 g	
WEIGHT M8 connector output	35 g	

CONNECTION WITH CONNECTOR M8



View of triple male connector

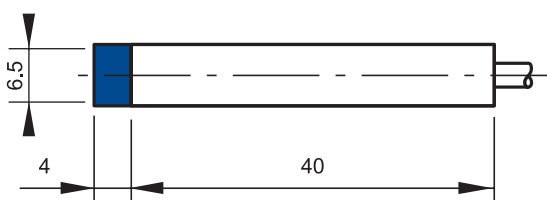
CONTACTS CONFIGURATION

Available	Contacts numbers		
	1	3	4
NAMUR	+	-	

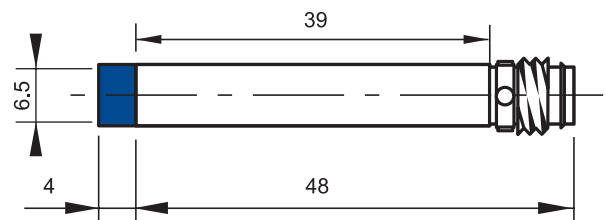


DIMENSIONS (mm)

CONFIGURATION WITH CABLE



CONFIGURATION WITH CONNECTOR M8



Note: the front part in blue refers to non flush models

MODEL SELECTION AND ORDER INFORMATION
2MT CABLE

CODE	MODEL	RANGE	HOUSING	STEEL AISI304	FLUSH	WIRES	NPN/PNP	NO/NC
95B064650	IS-65-A3-03	1X	STANDARD		•	3	NPN	NO
95B064660	IS-65-G3-03	2X	SHORT		•	3	NPN	NO
95B064670	IS-65-B3-03	1X	SHORT		•	3	NPN	NO
95B064680	IS-65-M3-03	1X	SHORT	•	•	3	NPN	NO
95B064690	IS-65-A4-03	1X	STANDARD		•	3	NPN	NC
95B064700	IS-65-G4-03	2X	SHORT		•	3	NPN	NC
95B064710	IS-65-B4-03	1X	SHORT		•	3	NPN	NC
95B064720	IS-65-M4-03	1X	SHORT	•	•	3	NPN	NC
95B064730	IS-65-A1-03	1X	STANDARD		•	3	PNP	NO
95B064740	IS-65-G1-03	2X	SHORT		•	3	PNP	NO
95B064750	IS-65-B1-03	1X	SHORT		•	3	PNP	NO
95B064760	IS-65-M1-03	1X	SHORT	•	•	3	PNP	NO
95B064770	IS-65-A2-03	1X	STANDARD		•	3	PNP	NC
95B064780	IS-65-G2-03	1X	SHORT		•	3	PNP	NC
95B064790	IS-65-B2-03	1X	SHORT		•	3	PNP	NC
95B064800	IS-65-M2-03	1X	SHORT	•	•	3	PNP	NC
95B064810	IS-65-C3-03	1X	STANDARD		•	3	NPN	NO
95B064820	IS-65-H3-03	2X	SHORT			3	NPN	NO
95B064830	IS-65-D3-03	1X	SHORT			3	NPN	NO
95B064840	IS-65-N3-03	1X	SHORT	•		3	NPN	NO
95B064850	IS-65-C4-03	1X	STANDARD			3	NPN	NC
95B064860	IS-65-H4-03	2X	SHORT			3	NPN	NC
95B064870	IS-65-D4-03	1X	SHORT			3	NPN	NC
95B064880	IS-65-N4-03	1X	SHORT	•		3	NPN	NC
95B064890	IS-65-C1-03	1X	STANDARD			3	PNP	NO
95B064900	IS-65-H1-03	2X	STANDARD			3	PNP	NO
95B064910	IS-65-D1-03	1X	SHORT			3	PNP	NO
95B064920	IS-65-N1-03	1X	SHORT	•		3	PNP	NO
95B064930	IS-65-C2-03	1X	STANDARD			3	PNP	NC
95B064940	IS-65-H2-03	2X	SHORT			3	PNP	NC
95B064950	IS-65-D2-03	1X	SHORT			3	PNP	NC
95B064960	IS-65-N2-03	1X	SHORT	•		3	PNP	NC
95B066290	IS-65-A20-03	1X	STANDARD			2		
95B066300	IS-65-C20-03	1X	STANDARD			2		

MODEL SELECTION AND ORDER INFORMATION

M8 CONNECTOR

CODE	MODEL	RANGE	HOUSING	STEEL AISI304	FLUSH	WIRES	NPN/PNP	NO/NC
95B064970	IS-65-A3-S1	1X	STANDARD		•	3	NPN	NO
95B064980	IS-65-G3-S1	2X	SHORT		•	3	NPN	NO
95B064990	IS-65-B3-S1	1X	SHORT		•	3	NPN	NO
95B066000	IS-65-M3-S1	1X	SHORT	•	•	3	NPN	NO
95B066010	IS-65-A4-S1	1X	STANDARD		•	3	NPN	NC
95B066020	IS-65-G4-S1	2X	SHORT		•	3	NPN	NC
95B066030	IS-65-B4-S1	1X	SHORT		•	3	NPN	NC
95B066040	IS-65-M4-S1	1X	SHORT	•	•	3	NPN	NC
95B066050	IS-65-A1-S1	1X	STANDARD		•	3	PNP	NO
95B066060	IS-65-G1-S1	2X	SHORT		•	3	PNP	NO
95B066070	IS-65-B1-S1	1X	SHORT		•	3	PNP	NO
95B066080	IS-65-M1-S1	1X	SHORT	•	•	3	PNP	NO
95B066090	IS-65-A2-S1	1X	STANDARD		•	3	PNP	NC
95B066100	IS-65-G2-S1	2X	SHORT		•	3	PNP	NC
95B066110	IS-65-B2-S1	1X	SHORT		•	3	PNP	NC
95B066120	IS-65-M2-S1	1X	SHORT	•	•	3	PNP	NC
95B066130	IS-65-C3-S1	1X	STANDARD			3	NPN	NO
95B066140	IS-65-H3-S1	2X	SHORT			3	NPN	NO
95B066150	IS-65-D3-S1	1X	SHORT			3	NPN	NO
95B066160	IS-65-N3-S1	1X	SHORT	•		3	NPN	NO
95B066170	IS-65-C4-S1	1X	STANDARD			3	NPN	NC
95B066180	IS-65-H4-S1	2X	SHORT			3	NPN	NC
95B066190	IS-65-D4-S1	1X	SHORT			3	NPN	NC
95B066200	IS-65-N4-S1	1X	SHORT	•		3	NPN	NC
95B066210	IS-65-C1-S1	1X	STANDARD			3	PNP	NO
95B066220	IS-65-H1-S1	2X	SHORT			3	PNP	NO
95B066230	IS-65-D1-S1	1X	SHORT			3	PNP	NO
95B066240	IS-65-N1-S1	1X	SHORT	•		3	PNP	NO
95B066250	IS-65-C2-S1	1X	STANDARD			3	PNP	NC
95B066260	IS-65-H2-S1	2X	SHORT			3	PNP	NC
95B066270	IS-65-D2-S1	1X	SHORT			3	PNP	NC
95B066280	IS-65-N2-S1	1X	SHORT	•		3	PNP	NC
95B066310	IS-65-A20-S1	1X	STANDARD			2		
95B066320	IS-65-C20-S1	1X	STANDARD			2		

MODEL DESCRIPTION

IS - 04 - A 1 - 03

DIAMETER

- 04 = 4mm
- 05 = 5mm
- 65 = 6,5mm
- 08 = 8mm
- 12 = 12mm
- 18 = 18mm
- 30 = 30mm
- 40 = 40x40mm SQUARE
- 80 = 80x80mm SQUARE
- 88 = 8x8mm SQUARE

CONSTRUCTION

- A= flush standard housing
- B= flush short housing
- BB= flush extra short housing
- C= non flush standard housing
- D= non flush short housing
- E= flush standard housing double range
- F= non flush standard housing double range
- G= flush short housing double range
- GG= flush extra short housing double range
- H= non flush short housing double range
- I= flush standard housing metal face
- L= non flush standard housing metal face
- M= flush short housing steel
- N= non flush short housing steel
- O= flush short housing steel double range
- P= non flush short housing steel double range
- Q= flush 8x8mm square housing
- R= flush 8x8mm square housing double range
- S= flush standard housing steel
- T= non flush standard housing steel
- U= flush standard housing steel double range
- V= non flush standard housing steel double range
- W= flush 40x40mm square housing
- X= flush 40x40mm short square housing
- Y= non flush 40x40mm square housing
- Z= non flush 40x40mm short square housing

OUTPUT

- 1 = 10-30 Vdc PNP NO
- 2 = 10-30 Vdc PNP NC
- 3 = 10-30 Vdc NPN NO
- 4 = 10-30 Vdc NPN NC
- 5 = 10-30 Vdc PNP NO-NC
- 6 = 10-30 Vdc NPN NO-NC
- 7 = 24-230Vac – 2 wires NO
- 8 = 24-230Vac – 2 wires NC
- 9 = 10-30 Vdc - 2 wires NO-NC
- 0 = 10-30 Vdc - 4 wires
- 11 = Analog 4-20mA
- 12 = Analog 0-10V
- 13 = Analog 0-10V/4-20mA
- 14 = Analog 0-5V/1-5mA
- 15 = 20-250Vac/Vdc-2 and 3 wires NO
- 20 = NAMUR

CONNECTION

- 02 = Cable 500mm
- 03 = Cable 2mt
- 04 = Cable 700mm
- S1 = M8 connector
- S2 = M12 connector
- S3 = terminal block*
- S4 = unf 1/2"

* only for square housing version

Note: Not all code combinations are available. Please refer to alphabetical model index for the list of available models.