

Rectangular Inductive Sensor Selection Guide

Rectangular Style Sensors					
					
Housing	4.7 mm	5.5 mm	6 mm	8 mm	10 mm
Sensing Range	2 mm	2 - 3.5 mm	3 mm	5 - 8 mm	2 - 5 mm
Pages	A11	A11	A11	A13 - 16	A17
Features				Uprox+	Uprox+

Rectangular Style Sensors					
					
Housing	Variable, with pigtail	10 mm	12 mm	14 mm	20 mm
Sensing Range	2 - 7 mm	2 - 4 mm	2 - 5 mm	10 - 20 mm	15 - 25 mm
Pages	A19	A21	A23	A25	A27 - 30
Features			Uprox+		

Rectangular Style Sensors					
					
Housing	18 mm	25 mm	30 mm	40 mm	40 mm
Sensing Range	5 - 10 mm	10 mm	15 mm	20 mm	15 - 50 mm
Pages	A31	A31	A31	A33	A35 - 40
Features				Uprox+	Uprox+

Rectangular Style Sensors					
					
Housing	40 mm	80 mm	80 mm	90 mm	Variable
Sensing Range	15 - 50 mm	40 - 75 mm	50 - 75 mm	60 - 100 mm	2 - 50 mm
Pages	A41 - 46	A47 - 50	A51	A53	A55 - 58
Features	Uprox+	Uprox+	Uprox+		Intrinsically Safe

We reserve the right to make technical alterations without prior notice.



Rectangular Inductive Sensor Part Number Key

B i 15				-	Q 20		-	A P 6		X2	Wiring Option*	Special Option Code**
Mounting B = embeddable N = nonembeddable											Number of LEDs (blank) = no LEDs X = 1 LED X2 = 2 LEDs	
Principle of Operation i = inductive											Voltage Range AC/DC: (No SCP**) 3 = 20-250 VAC, 10-300 VDC 31 = 20-250 VAC, 10-300 VDC, plastic barrel AC/DC: (Latched SCP) 30 = 20-250 VAC, 10-300 VDC 400 mA 32 = 20-250 VAC, 10-300 VDC 400 mA DC: 4 = 10-65 VDC, polarity protected, pulsed SCP** 6 = 10-30 VDC, polarity protected, pulsed SCP **SCP = short-circuit and overload protection	
Rated Operating Distance (mm)											Output D = 2-wire DC (transistor output) DZ = 2-wire AC/DC, (power MOSFET output) N = NPN transistor (current sinking) P = PNP transistor (current sourcing) Z = 2-wire AC or 2-wire AC/DC	
Sensing Characteristics S = side sensing on Q10S sensor U = Uprox® Sensor											Output Function A = normally open (N.O.) F = connection programmable (N.O. or N.C.) V = complementary outputs: one N.O., one N.C. Y0 = NAMUR output, requires switching amplifier Y1 = NAMUR output, requires switching amplifier/ATEX approved	
Housing Style Rectangular K = smooth Q = metal or plastic, various rectangular styles											Secondary Housing Modifier SR = straight terminal chamber	
Limit Switch CA = Stubby®, short aluminum housing, connector CK = Stubby, short plastic housing, connector CP = Combiprox®, plastic housing, terminal chamber base with removable sensor												
Housing Height (mm)												

NOTE:
 Part number keys are to assist in identification only.
 Verify new part numbers with factory; some configurations are not possible.

Wiring Options*

A. Connectorized Sensor

Bi15 - Q20 - AN6X2 - H1 1 4 1

Connector Family

- B1 = Minifast®, Metal, Male
- B2 = Minifast, Plastic, Male
- B3 = Microfast®, Metal, Male
- H1 = Eurofast®, Metal or Plastic, Male
- V1 = Picofast®, Metal, Male
- V2 = Picofast, Snap and M8x1, Male (Q08 Only)

Connector/Sensor Transition

- 1 = straight

Wiring Configuration

Example:

- 1 = Standard
- 3 = N.C. DC Output on Pin 4 (for US)

Number of Pins

B. Potted Cable

Bi15 - Q20 - AN6X2 - 7M

Cable Length

- Blank = 2 meter cable
- 7M = 7 meter cable

Special Option Codes**

Bi - 5 - Q08 - AN6XS /S34

Option Code

Example:

- /S34 = Weld Field Immune
- /S97 = -40 °C (-40 °F) Operating Temperature
- /S100 = +100 °C (+212 °F) Operating Temperature
- /S1590 = CK/CA40 sensors with Weldguard laminate
- /S1591 = CA40 sensors with Weldguard and Armorguard



Inductive Barrel Sensors | 8 mm Namur



Dimension Drawings		
A	B	C
D	E	F
G	H	

Wiring Diagrams/Mating Cordsets	
1	2

A1 2-wire DC NAMUR - (Y0 and Y1)		
Differential Travel (Hysteresis):	1-10% (5% typical)	Power-On Effect: Realized in Amplifier
Nominal Voltage:	8.2 VDC (EN60947-5-6)	Reverse Polarity Protection: Incorporated
Load Resistance:	1000 Ω	Wire-Break Protection: Realized in Amplifier
Non-Activated Current Consumption:	≥2.1 mA	Transient Protection: Realized in Amplifier
Activated Current Consumption:	≤1.2 mA	Shock: 30 g, 11 ms
Recommended Switching Point for Remote		Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes
Amplifier:	>1.2 to <2.1 mA, typ. 1.55 mA ON/1.75 mA OFF	Repeatability: ≤2% of Rated Operating Distance

Amplifier Note:
Inductive sensors with Namur outputs are typically used in hazardous locations and the approval agencies require the use of an amplifier to regulate the signals in the hazardous area. Due to the wide variety of approvals, output options, and amplifier designs, it is not possible to incorporate all of the choices in this catalog. For the most up to date information, please either search for these products under our interface technology product category (www.turck.us) or contact us by phone.

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Inductive Barrel Sensors | 8 mm Namur

Intrinsically Safe

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Output LED	Dimension Drawings	Wiring Diagrams	Spec List
Bi1.5-EG08K-Y1-V1131 1003630	Short Barrel	1.5	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	A	1	A1
Bi1.5-EG08-Y1-V1131 1003530		1.5	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	B	1	A1
Ni3-EG08K-Y1-V1130 1003721	Short Barrel	3	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	C	1	A1
Ni3-EG08-Y1-V1130 1003732		3	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	D	1	A1
Bi1.5-EG08K-Y1-H1341 1003620	Short Barrel	1.5	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	E	2	A1
Bi1.5-EG08K-Y1X-H1341 1003640	Short Barrel	1.5	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	YE	E	2	A1
Bi1.5-EG08-Y1-H1341 1003502		1.5	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	F	2	A1
Ni3-EG08K-Y1-H1341 1003720	Short Barrel	3	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	G	2	A1
Ni3-EG08K-Y1X-H1341 1003704	Short Barrel	3	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	G	2	A1
Ni3-EG08-Y1-H1341 1003730		3	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	SS	PA 12	N/A	H	2	A1

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