Inductive
Rectangular Sensors

Rectangular Sensor Selection Guide





Rectangular Style Sensors					
Housing	**5.5 mm**	**6 mm**	**6.5 mm**	**8 mm**	**9.5 mm**
Sensing Range	**2 - 3.5 mm**	**3 mm**	**1 - 2 mm**	**5 - 8 mm**	**2 mm**
Pages	**B13**	**B13**	**B13**	**B15 - B20**	**B21**
Features				uprox+	





Rectangular Style Sensors					
Housing	**26 mm**	**30 mm**	**34 mm**	**40 mm**	**40 mm**
Sensing Range	**10 mm**	**15 mm**	**10 mm**	**20 mm**	**15 - 50 mm**
Pages	**B35**	**B35**	**B37**	**B39**	**B41 - B50**
Features				uprox+	

Rectangular Sensor Selection Guide

Rectangular Style Sensors						
Housing	**10 mm**	**11 mm**	**12 mm**	**14 mm**	**18 mm**	**20 mm**
Sensing Range	2-5 mm	2 - 4 mm	2 - 5 mm	10 - 20 mm	5 - 10 mm	15 - 25 mm
Pages	B21-B24	B23	B25	B27	B29	B31 - B34
Features	uprox+		uprox+			

Rectangular Style Sensors				
Housing	**80 mm**	**80 mm**	**90 mm**	**90 mm**
Sensing Range	40 - 75 mm	50 -75 mm	60 mm	50-100 mm
Pages	B51	B53	B55	B57
Features		uprox+		uprox+

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Inductive Sensor Part Number Key

B	i	15		-	Q	20		-	A	P	6	X2	Wiring Option*	Special Option Code*

Mounting
B = embeddable
N = nonembeddable

Principle of Operation
i = inductive

Rated Operating Distance (mm)

Sensing Characteristics
F = front sensing on Q26 and Q34 sensor
S = side sensing on Q26 sensor
T = side sensing on Q34 sensor
U = ***uprox***® Sensor

Housing Style

Rectangular
K = smooth
Q = metal or plastic, various rectangular styles
QV = plastic, variable position

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)

Secondary Housing Modifier
SR = straight terminal chamber

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

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

Voltage Range

AC/DC: (No SCP)**
3 = 20-250VAC, 10-300 VDC
31 = 20-250VAC, 10-300 VDC, plastic barrel

AC/DC: (Latched SCP)
30 = 20-250VAC, 10-300 VDC
32 = 20-250VAC, 10-300 VDC

DC:
4 = 10-65 VDC, polarity protected, pulsed SCP**
6 = 10-30 VDC, polarity protected, pulsed SCP
**SCP = short-circuit and overload protection

Number of LEDs
(blank) = no LED's
X = 1 LED
X2 = 2 LED's

NOTE: Part Number Keys are to assist in IDENTIFICATION ONLY.
Verify New Part Numbers with Factory; Some Configurations Are Not Possible.
* See next page Wiring Options and Special Option Codes

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 = CA40 sensors with ***weldguard*** laminate
/S1591 = CA40 sensors with ***weldguard*** and ***armorguard***
/S1669 = CA40 sensors with ***stoneface*** cap

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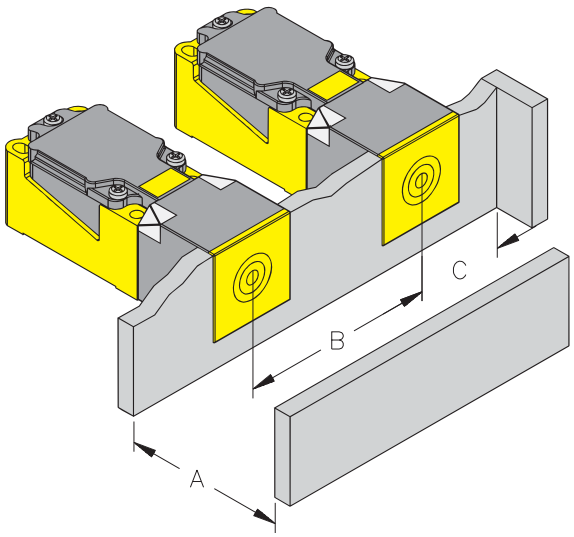
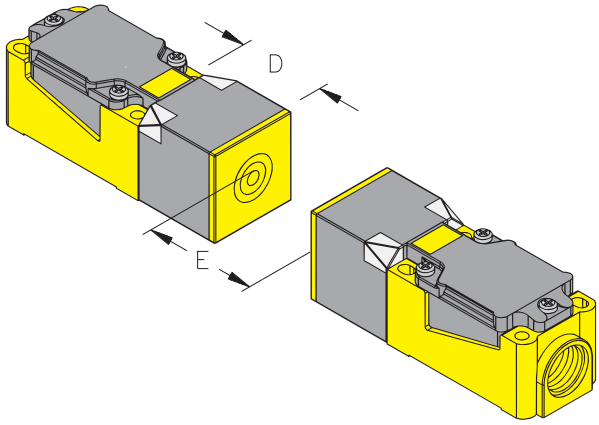
Mounting

TURCK inductive proximity sensors are manufactured with a shielded coil, designated by "Bi" in the part number, and a nonshielded coil, designated by "Ni" in the part number (See page C6). Embeddable (shielded) units may be safely flush-mounted in metal. Nonembeddable (nonshielded) units require a metal free area around the sensing face. Because of possible interference of the electromagnetic fields generated by the oscillators, minimum spacing is required between adjacent or opposing sensors.

It is good engineering practice to mount sensors horizontally or with the sensing face looking down. Avoid sensors that look up wherever possible, especially if metal filings and chips are present.

Embeddable Mounting Characteristics - Rectangular Housings



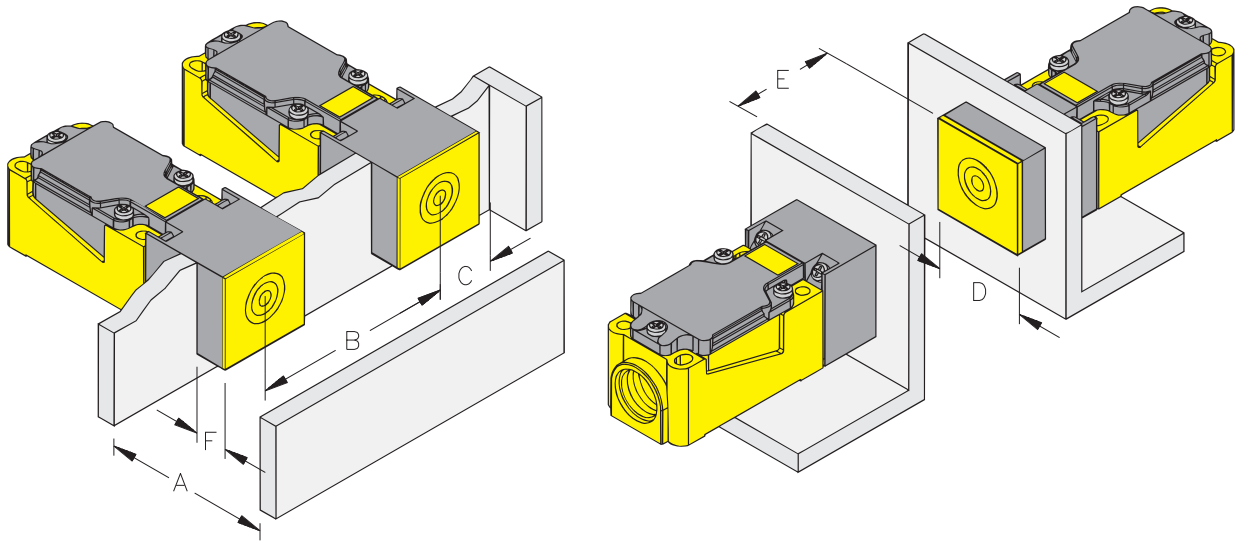


Flush Mountable - CA25, CK40 and CP40

Housing Type	Sensor Type	A	B	C	D	E
CA25	Bi10U	30.00	50.00	25.00	25.00	60.00
CP40/CK40	Bi15U	45.00	80.00	40.00	40.00	90.00
CP40/CK40	Bi15	45.00	80.00	40.00	40.00	90.00
CP40/CK40/CA40	Bi20U	60.00	80.00	40.00	40.00	120.00
CP40	Bi20	60.00	80.00	40.00	40.00	120.00
CP40/CK40	Bi30U	90.00	80.00	40.00	40.00	180.00

Dimensions are in mm.

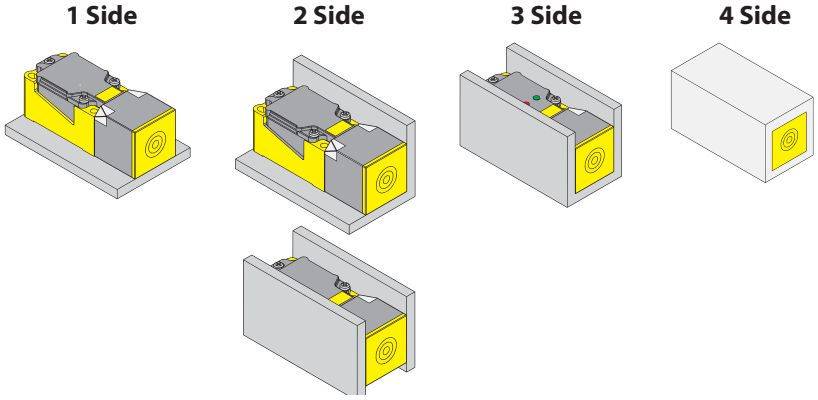
Nonembeddable Mounting Characteristics - Rectangular Housings



Non-Flush Mountable - CA25, CK40 and CP40

Housing Type	Sensor Type	A	B	C	D	E	F	1 Side	2 Side	3 Side
CP/CK40	Ni20	60.00	120.00	60.00	40.00	120.00	20.00			
CP/CK40	Ni25U	75.00	240.00	60.00	40.00	150.00	30.00	Sr=22 mm*	Sr=20 mm*	Sr=17 mm*
CP/CK40	Ni25	75.00	120.00	60.00	40.00	150.00	40.00			
CP/CK40	Ni35U	105.00	240.00	60.00	40.00	210.00	30.00	Sr=28 mm*	Sr=24 mm*	Sr=19 mm*
CP/CK40	Ni35	105.00	180.00	60.00	40.00	210.00	40.00			
CP/CK40	Ni40U	120.00	240.00	60.00	40.00	240.00	40.00			
CP/CK40	Ni40	120.00	180.00	60.00	40.00	240.00	40.00			
CP/CK40	Ni50U	150.00	240.00	60.00	40.00	300.00	40.00	Sr=35 mm*	Sr=25 mm*	Sr=20 mm*

Dimensions are in mm.
* Only DC versions



Non-Flush Mountable - CK40 and CP40

Housing	Sensor	A	B	C	D	E	F	1 Side	2 Side	3 Side	4 Side
CP/CK40	Ni50U	150.00	240.00	60.00	40.00	300.00	40.00	Sr=35mm*	Sr=25mm*	Sr=20mm*	Sr=17mm*

Dimensions are in mm.
* Only DC versions

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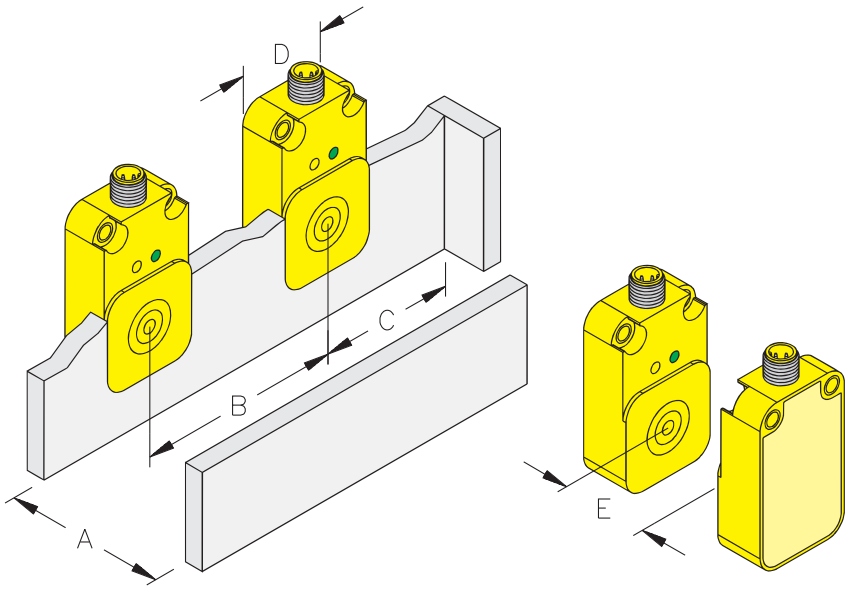
Embeddable Mounting Characteristics - Rectangular Housings

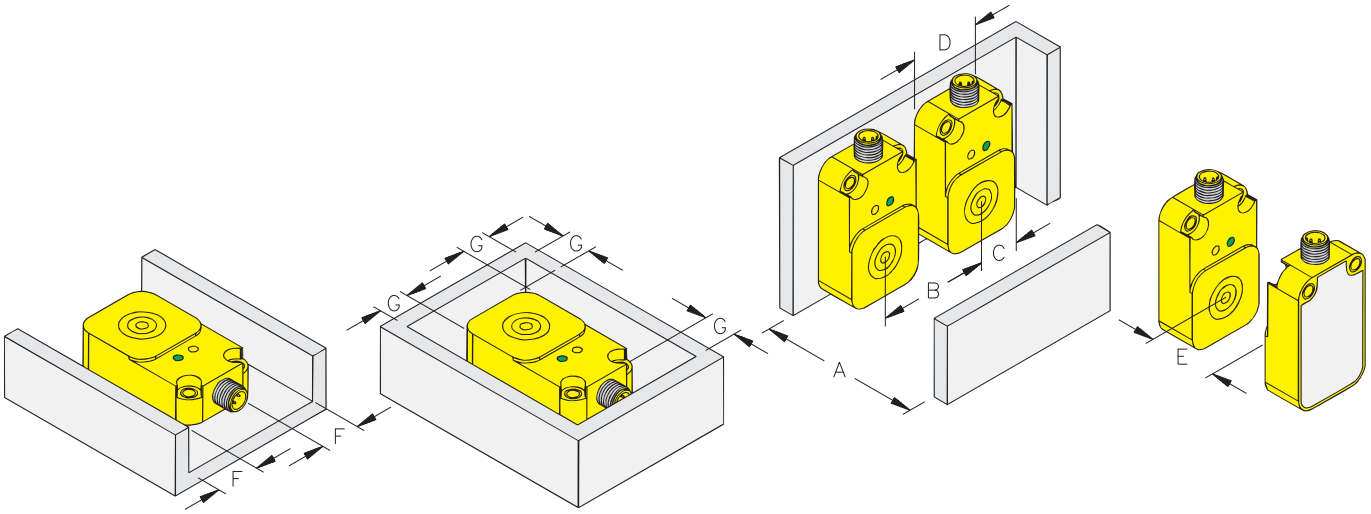


Flush Mountable

Housing Type	Sensor Type	A	B	C	D	E
Q5.5	Bi 2	6.00	16.00	8.00	8.00	12.00
Q06	Bi 3	9.00	35.00	17.00	17.30	18.00
Q08	Bi 5	15.00	40.00	20.00	20.00	30.00
Q08	Bi 5U	15.00	40.00	20.00	20.00	30.00
Q08	Bi 7	21.00	40.00	20.00	20.00	42.00
Q10	Bi 8	24.00	50.00	25.00	25.00	48.00
Q10	Bi 8U	24.00	50.00	25.00	25.00	48.00
Q14	Bi10	30.00	45.00	30.00	30.00	60.00
Q14	Bi10U	30.00	45.00	30.00	30.00	60.00
Q20	Bi15	45.00	60.00	40.00	40.00	90.00
Q20	Bi15U	45.00	60.00	40.00	40.00	90.00
CP80	Bi40	120.00	160.00	80.00	80.00	240.00
Q80	Bi50U	150.00	160.00	80.00	80.00	300.00

Dimensions are in mm.

Embeddable Mounting Characteristics - Rectangular Housings

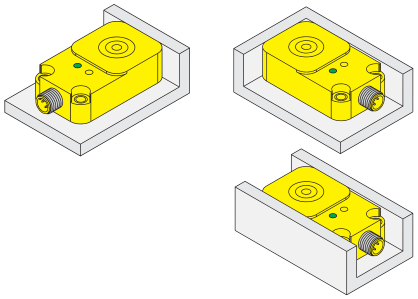


Non-flush Mountable - Minimum Distances - Q5.5, Q14, Q20, CP80, Q80 and K90

Housing Type	Sensor Type	A	B	C	D	E	F	G	1 Side	2 Side
Q5.5	Ni 3.5	11.00	24.00	12.00	8.00	21.00	4.00	8.00		
Q14	Ni20	60.00	90.00	45.00	30.00	120.00	202.00	30.00		
Q20	Ni25	75.00	120.00	60.00	40.00	150.00	25.00	40.00		
CP80	Ni40	120.00	240.00	120.00	80.00	240.00	40.00	80.00		
CP80	Ni50U	150.00	240.00	120.00	80.00	300.00	50.00	80.00		
Q80	Ni70U	210.00	240.00	120.00	80.00	420.00	70.00	80.00	Sr=50 mm	
CP80	Ni75U	225.00	240.00	120.00	80.00	450.00	60.00	80.00		
K90	Ni50U	150.00	270.00	135.00	90.00	300.00	50.00	90.00		
K90	Ni60	180.00	270.00	135.00	90.00	360.00	60.00	90.00		
K90	Ni100U	300.00	270.00	135.00	90.00	600.00	100.00	90.00	Sr=70 mm	

Dimensions are in mm.
* Only non-ferrous metals.

1 Side **2 Side**



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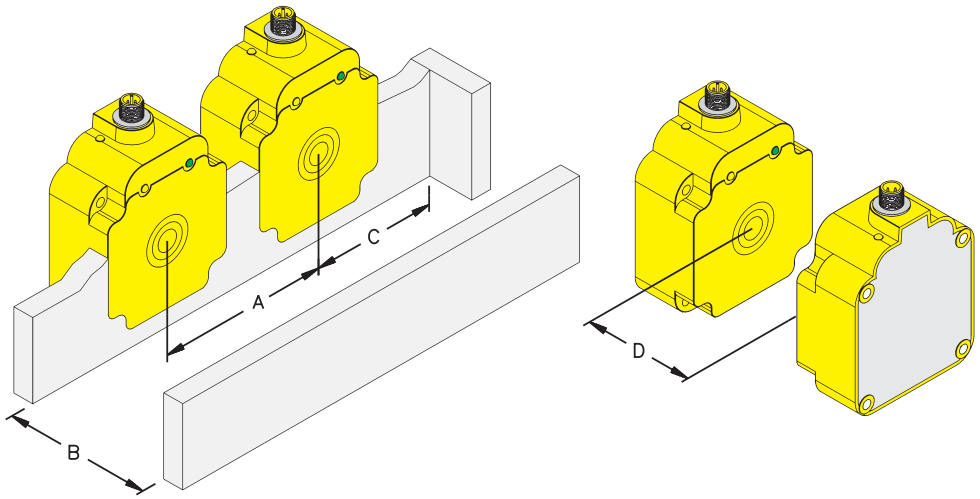
Embeddable Mounting Characteristics

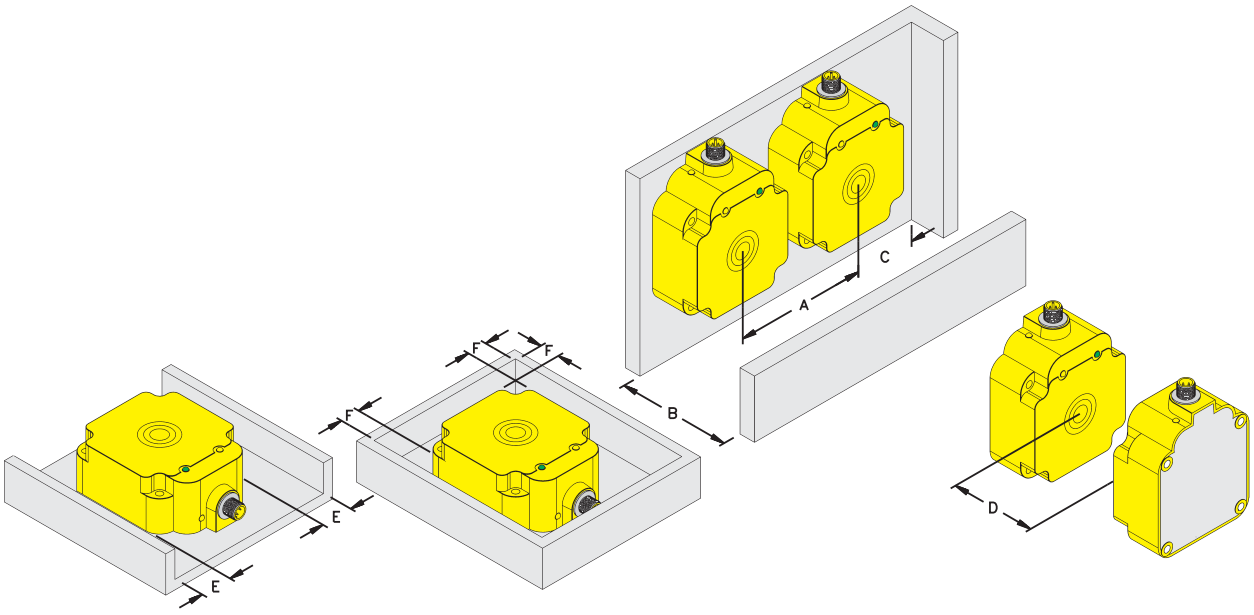


Embeddable, Square Sensors

Part Number	A	B	C	D
Bi50U-Q80 (80 mm)	180	150	80	300

Dimensions are in mm.

Nonembeddable Mounting Characteristics

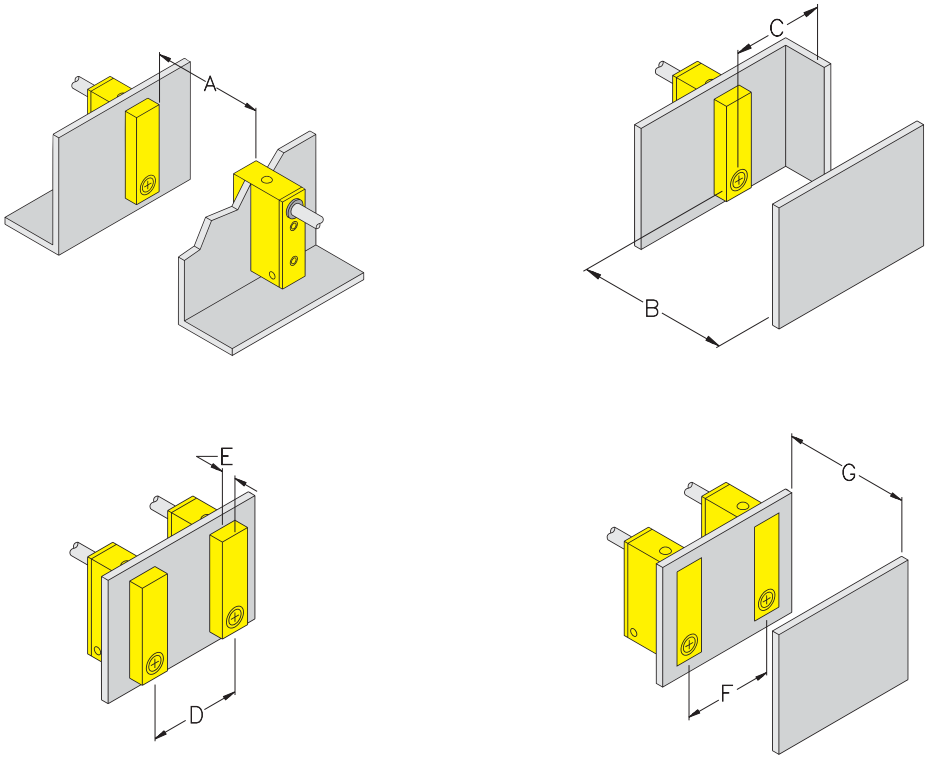


Nonembeddable, Square Sensors

Part Number	A	B	C	D	E	F
Ni70U-Q80 (80 mm)	180	210	80	420	70	140

Dimensions are in mm.

Embeddable Mounting Characteristics - Rectangular Housings



Flush Mountable

Housing Type	Sensor Type	Housing	A	G	C	F
Q6.5	Bi 1	6.50	6.00	3.00	7.00	13.00
Q10S	Bi 2	10.00	12.00	6.00	10.00	20.00
Q11S	Bi 2	11.00	12.00	6.00	11.00	22.00
Q12	Bi 2	12.00	12.00	6.00	12.00	24.00
Q26	Bi10	26.00	60.00	30.00	26.00	52.00
Q34	Bi15	34.00	90.00	45.00	34.00	68.00

Dimensions are in mm.

Non-Flush Mountable

Housing Type	Sensor Type	Housing	A	B	C	D	E
Q6.5	Ni 2	6.50	12.00	6.00	10.00	13.00	4.00
Q9.5	Ni 2	9.50	12.00	6.00	14.00	19.00	4.00
Q11S	Ni 4	11.0	24.00	12.00	10.50	22.00	8.00
Q12	Ni 4	12.00	24.00	12.00	18.00	24.00	8.00
Q25	Ni10	25.00	60.00	30.00	38.00	50.00	20.00
Q30	Ni15	30.00	90.00	45.00	45.00	60.00	30.00

Dimensions are in mm.

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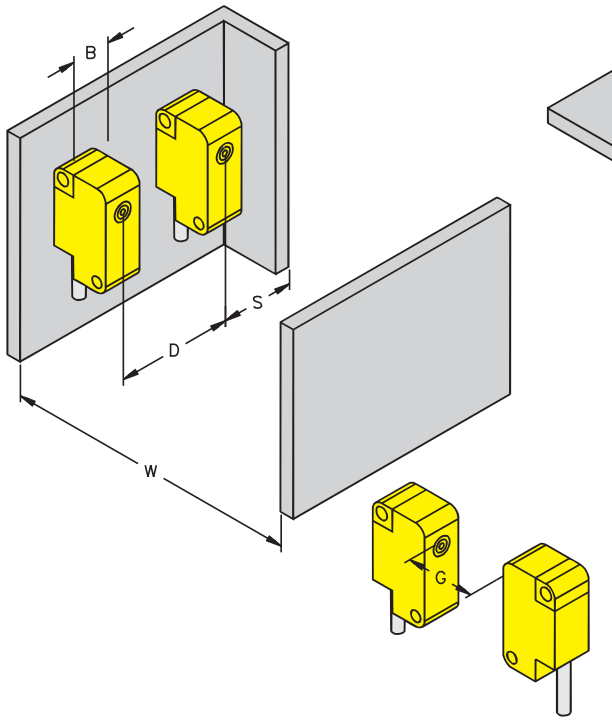
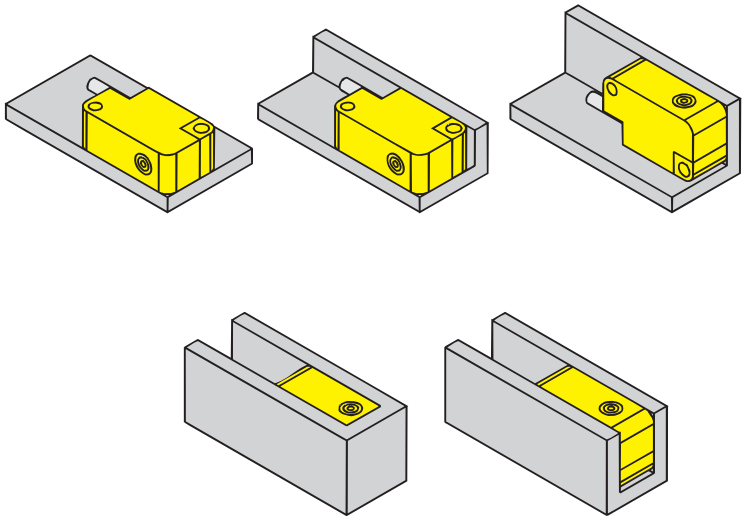
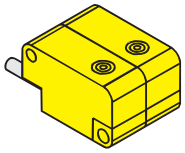
Embeddable Mounting Characteristics



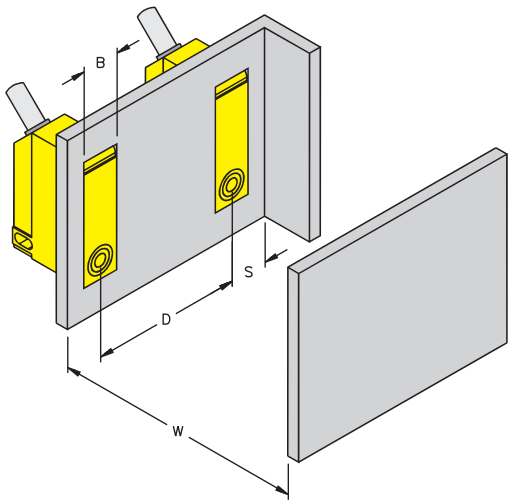


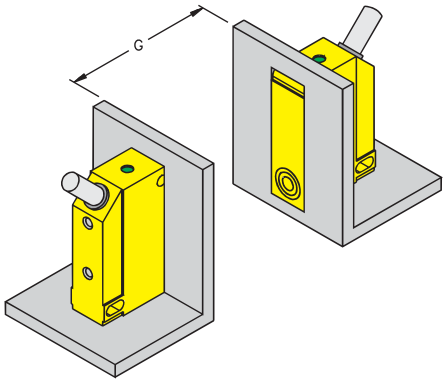


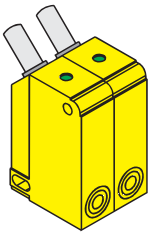
In many cases sensors have to be mounted in close proximity to fulfill the monitoring work. In order to avoid mutual interferences, TURCK offers the Q10S-ZP shield. (Q10S only)

Nonembeddable, Square Sensors

Part Number	D	W	S	G	B Width of Active Face
Ni5U-Q10S..	3xB	3xSn	1.5xB	6xSn	10.2







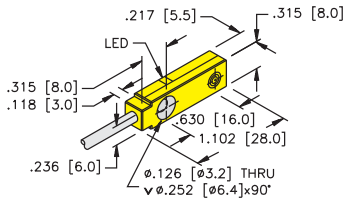
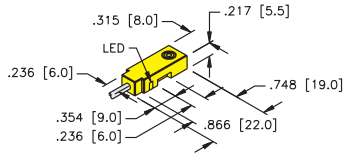
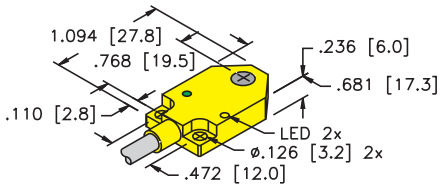
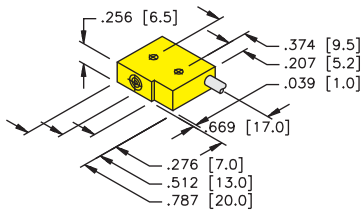
Embeddable, Square Sensors

Part Number	D	W	S	G
Bi5U-Q12..	48 mm	25 mm	12 mm	50 mm

Width of the active face B = 12 mm

Notes:

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
5.5 mm - Embeddable/Nonembeddable, Potted-In Cable 	Bi 2-Q5.5-AG6X	S1613108		•	2	2-Wire DC
	Bi 2-Q5.5-AN6X	S1613100		•	2	3-Wire DC NPN
	Bi 2-Q5.5-AN6X/S34	S1613101	*Weld-field Immune*	•	2	
	Ni 3.5-Q5.5-AN6X	S4613610			3.5	
	Bi 2-Q5.5-AP6X	S1613000		•	2	3-Wire DC PNP
	Bi 2-Q5.5-AP6X/S34	S1613001	*Weld-field Immune*	•	2	
	Ni 3.5-Q5.5-AP6X	S4613601			3.5	
	Bi 2-Q5.5K-AP6X	S1613015		•	2	
5.5 mm - Embeddable/Nonembeddable, Potted-In Cable 	Bi 2-Q5.5K-Y1X	S4055300		•	2	2-Wire DC NAMUR
	Bi 2-Q5.5K-AN6X	S1613016		•	2	3-Wire DC NPN
	Bi 2-Q5.5K-AP6X	S1613015		•	2	3-Wire DC PNP
6.0 mm - Embeddable, Potted-In Cable 	Bi 3-Q06-AN6X2	S1620150		•	3	3-Wire DC NPN
	Bi 3-Q06-AP6X2	S1620100		•	3	3-Wire DC PNP
6.5 mm - Embeddable/Nonembeddable, Potted-In Cable 	Bi 1-Q6.5-AN6	S4613420		•	1	3-Wire DC NPN
	Ni 2-Q6.5-AN6	S4613520			2	
	Bi 1-Q6.5-AP6/S34	S4613401	*Weld-field Immune*	•	1	3-Wire DC PNP
	Ni 2-Q6.5-AP6/S34	S1650023	*Weld-field Immune*		2	

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Cable Length /Jacket	Wiring Diagram #
10-30 VDC	1000	≤50	-25 to +85	IP 67	PP	PP	N/A	YE	2M/PUR	1
10-30 VDC	2000	≤150	-25 to +85	IP 67	PP	PP	N/A	YE	2M/PUR	2
	2000	≤150	-25 to +85	IP 67	PP	PP	N/A	YE	2M/PUR	2
	2000	≤150	-25 to +85	IP 67	PP	PP	N/A	YE	2M/PUR	2
10-30 VDC	2000	≤150	-25 to +85	IP 67	PP	PP	N/A	YE	2M/PUR	3
	2000	≤150	-25 to +85	IP 67	PP	PP	N/A	YE	2M/PUR	3
	2000	≤150	-25 to +70	IP 67	PP	PP	N/A	YE	2M/PUR	3
	2000	≤150	-25 to +70	IP 67	PP	PP	N/A	YE	2M/PUR	3
5-30 VDC	2000	Remote	-25 to +70	IP 67	PP	PP	N/A	YE	2M/PUR	4
10-30 VDC	2000	≤150	-25 to +70	IP 67	PP	PP	N/A	YE	2M/PUR	2
10-30 VDC	2000	≤150	-25 to +70	IP 67	PP	PP	N/A	YE	2M/PUR	3
10-30 VDC	1000	≤200	-25 to +70	IP 67	PBT	PA	GN	YE	2M/PUR	2
10-30 VDC	1000	≤200	-25 to +70	IP 67	PBT	PA	GN	YE	2M/PUR	3
10-30 VDC	2000	≤150	-25 to +70	IP 67	PA 12	PA	N/A	N/A	2M/PUR	2
	2000	≤150	-25 to +70	IP 67	PA 12	PA	N/A	N/A	2M/PUR	2
10-30 VDC	30	≤150	-25 to +70	IP 67	PA 12	PA	N/A	N/A	2M/PUR	3
	30	≤150	-25 to +70	IP 67	PA 12	PA	N/A	N/A	2M/PUR	3

Wiring Diagrams

Diagram 1

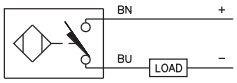


Diagram 2

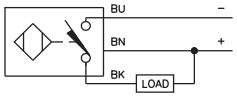


Diagram 3

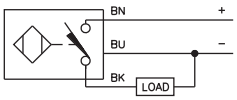
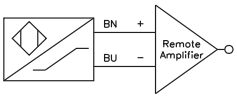
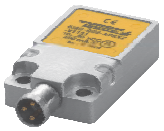


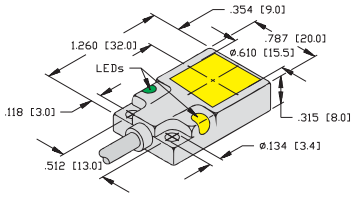
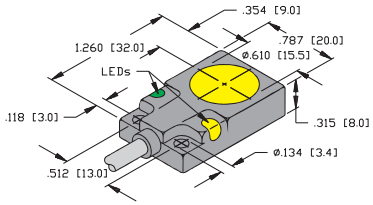
Diagram 4



For material descriptions see page M36.

Inductive Rectangular Sensors



Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
8.0 mm - Embeddable, Potted-In Cable 	Bi 8U-Q08-AN6X2	S1662007	uprox+		8	3-Wire DC NPN
	Bi 8U-Q08-AP6X2	S1662006	uprox+		8	3-Wire DC PNP
8.0 mm - Embeddable, Potted-In Cable 	Bi 5-Q08-AD4X/S34	S4414550	***Weld-field*** **Immune**	•	5	2-Wire DC
	Bi 5U-Q08-AN6X2	S1608911	***Uprox***	•	5	3-Wire DC NPN
	Bi 7-Q08-AN6X2	S1601620	***Ext. Range***	•	7	
	Bi 5U-Q08-AP6X2	S1608901	***Uprox***	•	5	3-Wire DC PNP
	Bi 7-Q08-AP6X2	S1601600	***Ext. Range***	•	7	
	Bi 5-Q08-VN6X2	S1600200	***Comp. Outputs***	•	5	4-Wire DC NPN
	Bi 7-Q08-VN6X2	S1600920	***Ext. Range***	•	7	
	Bi 5-Q08-VP6X2	S1600100	***Comp. Outputs***	•	5	4-Wire DC PNP
	Bi 7-Q08-VP6X2	S1600900	***Ext. Range***	•	7	
	Bi 5-Q08-Y1X	S4054000		•	5	2-Wire NAMUR

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Cable Length /Jacket	Wiring Diagram #
10-30 VDC	1000	≤200	-30 to +85	IP 68	Zinc	PA12	GN	YE	2M/PUR	2
10-30 VDC	1000	≤200	-30 to +85	IP 68	Zinc	PA12	GN	YE	2M/PUR	3
10-65 VDC	50	≤100	-25 to +70	IP 67	Zinc	PA 12	N/A	YE	2M/PUR	1
10-30 VDC	250	≤200	-30 to +85	IP 67	Zinc	PA 12	GN	YE	2M/PUR	2
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	2M/PUR	2
10-30 VDC	250	≤200	-30 to +85	IP 67	Zinc	PA 12	GN	YE	2M/PUR	3
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	2M/PUR	3
10-30 VDC	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PUR	4
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PUR	4
10-30 VDC	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	2M/PUR	5
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	2M/PUR	5
5-30 VDC	1000	Remote	-25 to +70	IP 67	Zinc	PA 12	N/A	YE	2M/PUR	6

Wiring Diagrams

Diagram 1

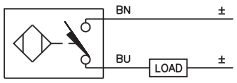


Diagram 2

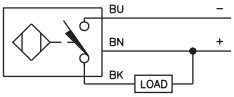


Diagram 3

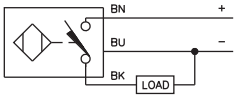


Diagram 4

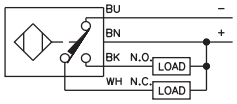


Diagram 5

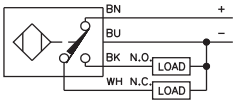
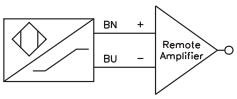
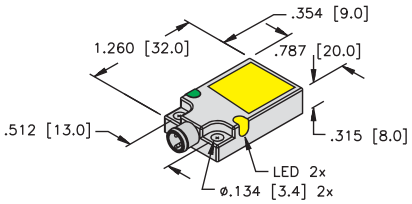
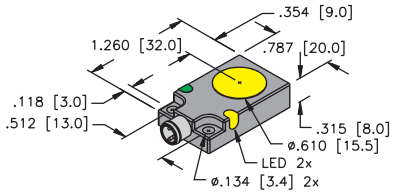
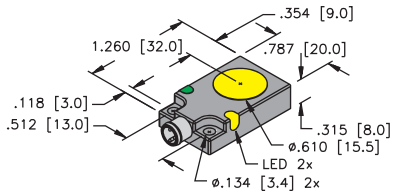


Diagram 6



For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
8.0 mm - Embeddable, *picofast*® Connector 	Bi 8U-Q08-AN6X2-V1131	S1662008	Uprox+		8	3-Wire DC NPN
	Bi 8U-Q08-AP6X2-V1131	S1662005	Uprox+		8	3-Wire DC PNP
8.0 mm - Embeddable, *picofast* Connector 	Bi 5-Q08-AD4X-V1130	S4414551		•	5	2-Wire DC
	Bi 5U-Q08-AN6X2-V1131	S1608910	*Uprox*	•	5	3-Wire DC NPN
	Bi 5-Q08-AN6X2-V1131	S1600600		•	5	
	Bi 7-Q08-AN6X2-V1131	S1601622	*Ext. Range*	•	7	
	Bi 5U-Q08-AP6X2-V1131	S1608900	*Uprox*	•	5	3-Wire DC PNP
	Bi 5-Q08-AP6X2-V1131	S1600500		•	5	
	Bi 7-Q08-AP6X2-V1131	S1601602	*Ext. Range*	•	7	
8.0 mm - Embeddable, *picofast* Connector 	Bi 5-Q08-VN6X2-V1141	S1600400	*Comp. Outputs*	•	5	4-Wire DC NPN
	Bi 7-Q08-VN6X2-V1141	S1600922	*Ext. Range*	•	7	
	Bi 5-Q08-VP6X2-V1141	S1600300	*Comp. Outputs*	•	5	4-Wire DC PNP
	Bi 7-Q08-VP6X2-V1141	S1600902	*Ext. Range*	•	7	

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord	Wiring Diagram #
10-30 VDC	1000	≤200	-30 to +85	IP 68	Zinc	PA 12	GN	YE	PKG 3Z-*	2
10-30 VDC	1000	≤200	-30 to +85	IP 68	Zinc	PA 12	GN	YE	PKG 3Z-*	3
10-65 VDC	1000	≤100	-25 to +70	IP 67	Zinc	PA 12	N/A	YE	PKG 3Z-*	1
10-30 VDC	250	≤200	-30 to +85	IP 67	Zinc	PA 12	GN	YE	PKG 3Z-*	2
	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3Z-*	2
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3Z-*	2
10-30 VDC	250	≤200	-30 to +85	IP 67	Zinc	PA 12	GN	YE	PKG 3Z-*	3
	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3Z-*	3
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3Z-*	3
10-30 VDC	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 4Z-*	4
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 4Z-*	4
10-30 VDC	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 4Z-*	5
	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 4Z-*	5

Wiring Diagrams

Diagram 1

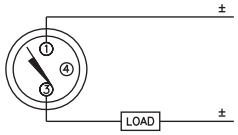


Diagram 2

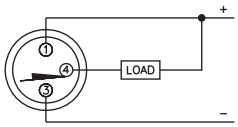


Diagram 3

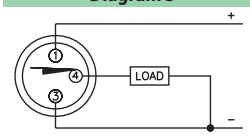


Diagram 4

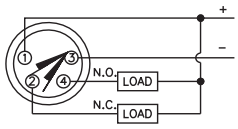
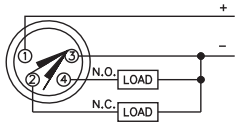


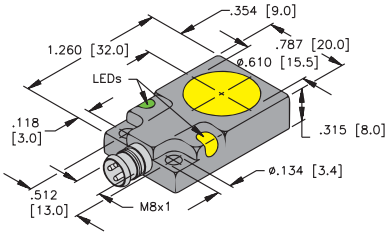
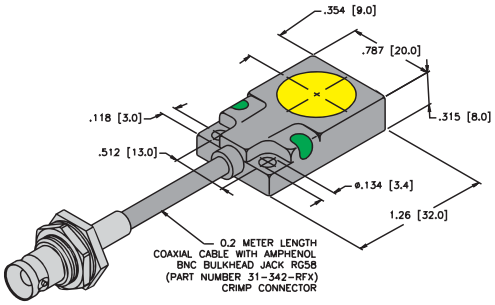
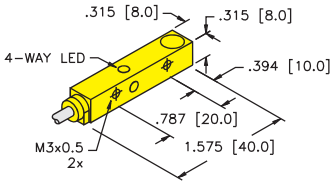
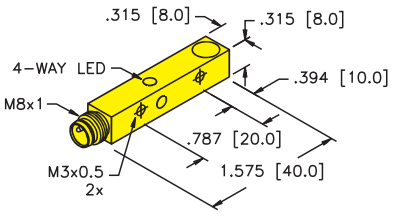
Diagram 5



For material descriptions see page M36.

Inductive Rectangular Sensors



Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
8.0 mm - Embeddable, *picofast*® Connector 	Bi 5-Q08-AD4X-V2130	S4414553		•	5	2-Wire DC
	Bi 5-Q08-AN6X2-V2131	S1600602		•	5	3-Wire DC NPN
	Bi 5U-Q08-AN6X2-V2131	S1608904	***Uprox***	•	5	
	Bi 7-Q08-AN6X2-V2131	S1601623	***Ext. Range***	•	7	
	Bi 5-Q08-AP6X2-V2131	S1600502		•	5	3-Wire DC PNP
	Bi 5U-Q08-AP6X2-V2131	S1608905	***Uprox***	•	5	
	Bi 7-Q08-AP6X2-V2131	S1601603	***Ext. Range***	•	7	
8.0 mm - Embeddable, Amphenol Connector 	Bi 3-Q08-ES/S1027-0.2	M1044691		•	3	N/A
8.0 mm - Nonembeddable, Potted-In Cable 	Ni 4U-Q8SE-AN6X	S4635809	uprox+		4	3-Wire DC NPN
	Ni 4U-Q8SE-AP6X	S4635807	uprox+		4	3-Wire DC PNP
8.0 mm - Nonembeddable, *picofast* Connector 	Ni 4U-Q8SE-AN6X-V1131	S4635810	uprox+		4	3-Wire DC NPN
	Ni 4U-Q8SE-AP6X-V1131	S4635808	uprox+		4	3-Wire DC PNP

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #
10-65 VDC	1000	≤100	-25 to +70	IP 67	Zinc	PA 12	N/A	YE	PKG 3M-*	1
10-30 VDC	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3M-*	2
	250	≤200	-30 to +85	IP 67	Zinc	PA 12	GN	YE	PKG 3M-*	2
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3M-*	2
10-30 VDC	1000	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3M-*	3
	250	≤200	-30 to +85	IP 67	Zinc	PA 12	GN	YE	PKG 3M-*	3
	500	≤200	-25 to +70	IP 67	Zinc	PA 12	GN	YE	PKG 3M-*	3
N/A	500	≤200	-25 to +70	IP 67	Zinc	PA 12	N/A	YE	- - - -	*
10-30 VDC	1000	≤150	-30 to +85	IP 68	PP	PP	N/A	YE	2M/PUR	4
10-30 VDC	1000	≤150	-30 to +85	IP 68	PP	PP	N/A	YE	2M/PUR	5
10-30 VDC	1000	≤150	-30 to +85	IP 68	PP	PP	N/A	YE	PKG 3Z-*	2
10-30 VDC	1000	≤150	-30 to +85	IP 68	PP	PP	N/A	YE	PKG 3Z-*	3

Wiring Diagrams

Diagram 1

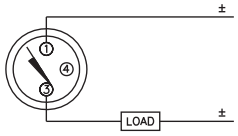


Diagram 2

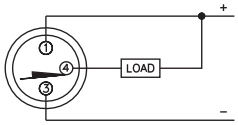


Diagram 3

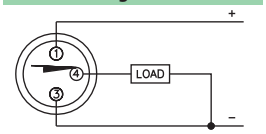


Diagram 4

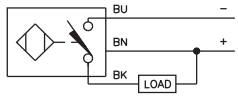
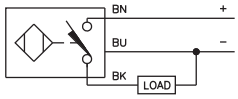


Diagram 5

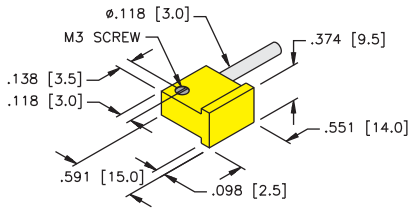
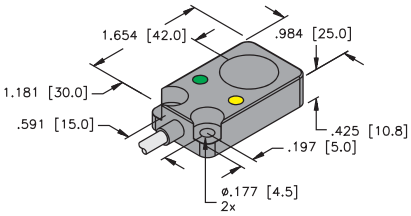
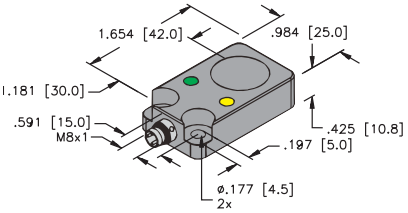


* For use with Weldtron Microprocessor.

For material descriptions see page M36.

Inductive Rectangular Sensors



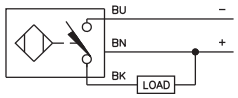
Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
9.5 mm - Nonembeddable, Potted-In Cable 	Ni 2-Q9.5-AP6/S34	S1650077	***Weld-field*** **Immune**		2	**3-Wire DC PNP**
10 mm - Embeddable, Potted-In Cable 	Bi 8U-Q10-AN6X2	S1662003	***Uprox***	•	8	**3-Wire DC NPN**
	Bi 8-Q10-VN6X2	S4616410	***Comp. Outputs***	·	8	**4-Wire DC NPN**
	Bi 8U-Q10-AP6X2	S1662001	***Uprox***	•	8	**3-Wire DC PNP**
	Bi 8-Q10-VP6X2	S4616401	***Comp. Outputs***	·	8	**4-Wire DC PNP**
10 mm - Embeddable, *picofast*® Connector 	Bi 8U-Q10-AN6X2-V1131	S1662004	***Uprox***	•	8	**3-Wire DC NPN**
	Bi 8U-Q10-AP6X2-V1131	S1662002	***Uprox***	•	8	**3-Wire DC PNP**
	Bi 8-Q10-VP6X2-V1141	S4616402	***Comp. Outputs***	•	8	**4-Wire DC PNP**

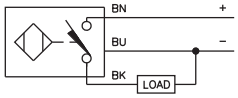
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

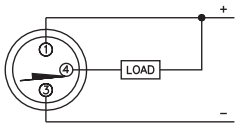
Industrial Automation

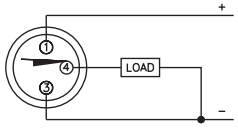
TURCK mold-on connectors available on all cable sensors. See page M25.

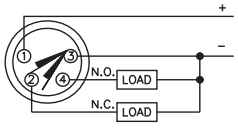
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-30 VDC	30	≤150	-25 to +70	IP 67	PA 12	PA 12	N/A	N/A	2M/PUR	2	Diagram 1
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PUR	1	Diagram 2
10-30 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	6	Diagram 3
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PUR	2	Diagram 4
10-30 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	7	Diagram 5
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	PKG 3M-*	3	Diagram 6
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	PKG 3M-*	4	Diagram 7
10-30 VDC	500	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 4M-*	5	

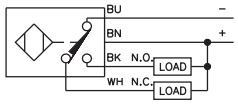


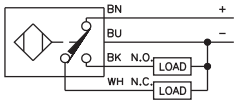






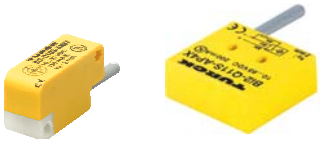


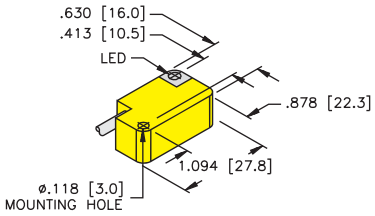
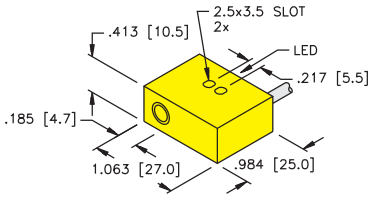




For material descriptions see page M36.

Inductive Rectangular Sensors



Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
10 mm - Embeddable/Nonembeddable, Potted-In Cable 	Bi 2-Q10S-AN6X	S1619310		•	2	**3-Wire DC NPN**
	Ni 5U-Q10S-AN6X	S1609365	uprox+		5	
	Bi 2-Q10S-AP6X	S1609360		•	2	**3-Wire DC PNP**
	Ni 5U-Q10S-AP6X	S1609364	uprox+			
	Bi 2-Q10S-VN6X	S1609341	***Comp. Outputs***	•	2	**4-Wire DC NPN**
	Bi 2-Q10S-VP6X	S1609340	***Comp. Outputs***	•	2	**4-Wire DC PNP**
	Bi 2-Q10S-AZ31X	S1309100		•	2	**2-Wire AC/DC**
	Bi 2-Q10S-Y0X	S4012130		•	2	**2-Wire NAMUR**
	Bi 2-Q10S-Y1X	S4012130		•	2	
11 mm - Embeddable/Nonembeddable, Potted-In Cable 	Bi 2-Q11S-AD4X	M4405040		•	2	**2-Wire DC**
	Ni 4-Q11S-AZ31X	M4348000			4	**2-Wire AC/DC**

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

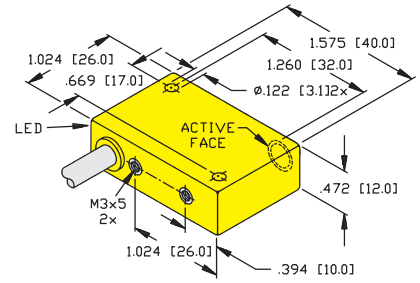
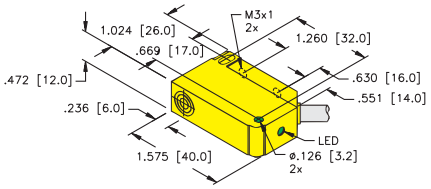
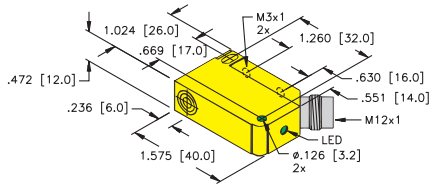
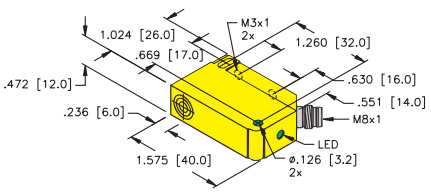
TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-30 VDC	2000	≤150	-25 to +70	IP 67	PP-GF20		N/A	YE	2M/PUR	1	Diagram 1
	1000	≤150	-30 to +85	IP 68	PP-GF20		N/A	YE	2M/PUR		
10-30 VDC	2000	≤150	-25 to +70	IP 67	PP-GF20		N/A	YE	2M/PUR	2	Diagram 2
	1000	≤150	-30 to +85	IP 68	PP-GF20		N/A	YE	2M/PUR	2	
10-30 VDC	2000	≤150	-25 to +70	IP 67	PP-GF20		N/A	YE	2M/PUR	3	Diagram 3
10-30 VDC	2000	≤150	-25 to +70	IP 67	PP-GF20		N/A	YE	2M/PUR	4	
20-250 VAC 10-300 VDC	60	≤100	-25 to +70	IP 67	PP-GF20		N/A	RD	2M/PUR	5	Diagram 4
5-30 VDC	1000	Remote	-25 to +70	IP 67	PP-GF20		N/A	YE	2M/PVC	6	Diagram 5
	1000	Remote	-25 to +70	IP 67	PP-GF20		N/A	YE	2M/PVC	6	
10-65 VDC	2000	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	7	Diagram 6
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	5	Diagram 7

For material descriptions see page M36.

Inductive Rectangular Sensors



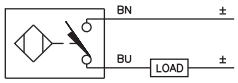
Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
12 mm - Embeddable/Nonembeddable, Potted-In Cable 	Ni 4-Q12-AD4X	M4405012			4	2-Wire DC
	Bi 2-Q12-AZ31X	M1310000		•	2	2-Wire AC/DC
	Ni 4-Q12-AZ31X	M1310200			4	
12 mm - Embeddable, Potted-In Cable 	Bi 5U-Q12-AN6X2	M1635523	uprox+	•	5	3-Wire DC NPN
	Bi 5U-Q12-AP6X2	M1635522	uprox+	•	5	3-Wire DC PNP
	Bi5U-Q12-VP6X2	M1635533	uprox+	•	5	4-Wire DC PNP
12 mm - Embeddable, *eurofast*® Connection 	Bi 5U-Q12-AN6X2-H1141	M1635527	uprox+	•	5	3-Wire DC NPN
	Bi 5U-Q12-AP6X2-H1141	M1635526	uprox+	•	5	3-Wire DC PNP
12 mm - Embeddable, *picofast*® Connection 	Bi 5U-Q12-AN6X2-V1131	M1635525	uprox+	•	5	3-Wire DC NPN
	Bi 5U-Q12-AP6X2-V1131	M1635524	uprox+	•	5	3-Wire DC PNP

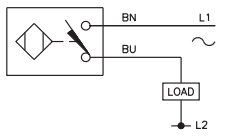
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

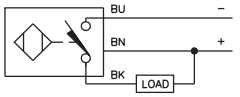
Industrial Automation

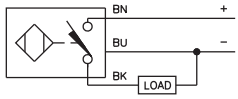
TURCK mold-on connectors available on all cable sensors. See page M25.

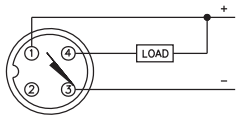
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	2000	£200	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	1	Diagram 1
20-250 VAC 10-65 VDC	20	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	2	Diagram 2
	20	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	2	
10-30 VDC	1000	≤200	-25 to +70	IP 68	PA 12-GF30		GN	YE	2M/PUR	3	Diagram 3
10-30 VDC	1000	≤200	-25 to +70	IP 68	PA 12-GF30		GN	YE	2M/PUR	4	Diagram 4
10-30 VDC	1000	≤200	-25 to +70	IP 68	PA 12-GF30		GN	YE	2M/PUR	9	Diagram 5
10-30 VDC	1000	≤200	-25 to +70	IP 68	PA 12-GF30		GN	YE	RK 4T-*	5	Diagram 6
10-30 VDC	1000	≤200	-25 to +70	IP 68	PA 12-GF30		GN	YE	RK 4T-*	6	Diagram 7
10-30 VDC	1000	≤200	-25 to +70	IP 68	PA 12-GF30		GN	YE	PKG 3Z-*	7	Diagram 8
10-30 VDC	1000	≤200	-25 to +70	IP 68	PA 12-GF30		GN	YE	PKG 3Z-*	8	Diagram 9

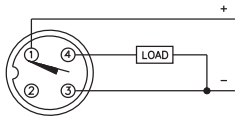


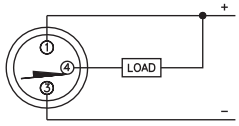


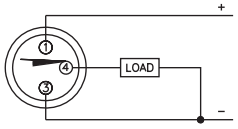


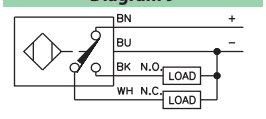






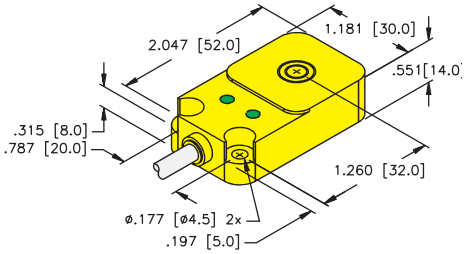
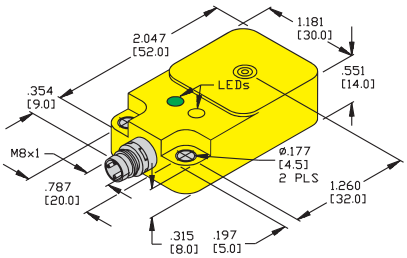






For material descriptions see page M36.

Inductive Rectangular Sensors

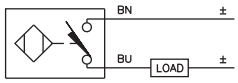
Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
14 mm - Embeddable/Nonembeddable, Potted-In Cable 	Ni20-Q14-AD4X	M4414557			20	**2-Wire DC**
	Bi10U-Q14-AN6X2	M1608710	***Uprox***	•	10	**3-Wire DC NPN**
	Bi10-Q14-AN6X2	M1608320		•	10	
	Ni20-Q14-AN6X2	M4690220			20	
	Bi10U-Q14-AP6X2	M1608700	***Uprox***	•	10	**3-Wire DC PNP**
	Bi10-Q14-AP6X2	M1608720		•	10	
	Ni20-Q14-AP6X2	M4690205		•	20	
	Bi10-Q14-ADZ32X2	M4256220		•	10	**2-Wire AC/DC Short-Circuit Protected**
	Bi10-Q14-ADZ32X2/S34	M4256225	***Weld-field*** **Immune**	•	10	
	Ni20-Q14-ADZ32X2	M4205410		·	20	
	Bi10-Q14-Y0X	M1608730		•	10	**2-Wire NAMUR**
14 mm - Embeddable/Nonembeddable, *picofast*® Connector 	Bi10-Q14-AN6X2-V1131	M1608325		•	10	**3-Wire DC NPN**
	Bi10U-Q14-AN6X2-V1131	M1608510	***Uprox***	•	10	
	Ni20-Q14-AN6X2-V1131	M4690221			20	
	Bi10-Q14-AP6X2-V1131	M1608530		•	10	**3-Wire DC PNP**
	Bi10U-Q14-AP6X2-V1131	M1608500	***Uprox***	•	10	
	Ni20-Q14-AP6X2-V1131	M4690210			20	

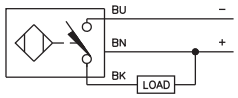
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

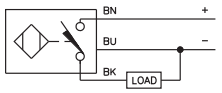
Industrial Automation

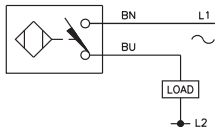
TURCK mold-on connectors available on all cable sensors. See page M25.

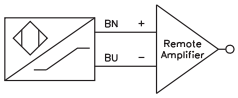
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PUR	1	Diagram 1
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PUR	2	Diagram 2
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	2	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	2	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PUR	3	Diagram 3
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	3	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	3	
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	PBT	PBT	GN	RD	2M/PUR	4	Diagram 4
	20	≤100	-25 to +70	IP 67	PBT	PBT	GN	RD	2M/PUR	4	
	20	≤100	-25 to +70	IP 67	PBT	PBT	GN	RD	2M/PUR	4	
5-30 VDC	1000	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PUR	5	Diagram 5
10-30 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	6	Diagram 6
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	PKG 3M-*	6	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	6	
10-30 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	7	Diagram 7
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	PKG 3M-*	7	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	7	

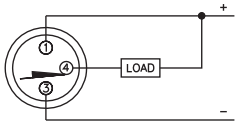


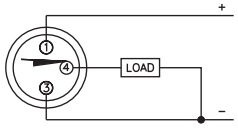






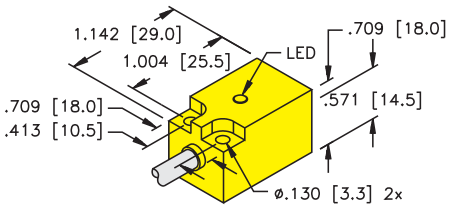






For material descriptions see page M36.

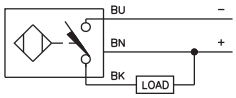
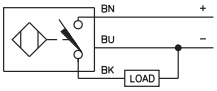
Inductive
Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
18 mm - Nonembeddable, Potted-In Cable 	Ni 5-Q18-AN6X	M4614607			5	**3-Wire DC NPN**
	Ni 5-Q18-AP6X	M4614606			5	**3-Wire DC PNP**
	Ni10-Q18-AP6X	M4652210	*Extended Range*		10	**3-Wire DC PNP**

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

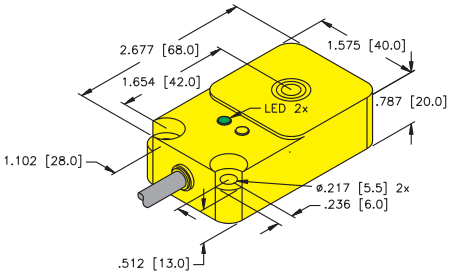
Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-30 VDC	500	≤200	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	1	**Diagram 1**  **Diagram 2** 
10-30 VDC	500	≤200	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	2	
10-30 VDC	500	≤200	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	2	

For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
20 mm - Embeddable/Nonembeddable, Potted-In Cable 	Bi15U-Q20-AN6X2	M1608810	***Uprox***	•	15	**3-Wire DC NPN**
	Bi15-Q20-AN6X2	M1608310		•	15	
	Ni25-Q20-AN6X2	M1602800			25	
	Bi15U-Q20-AP6X2	M1608800	***Uprox***	•	15	**3-Wire DC PNP**
	Bi15-Q20-AP6X2	M1608300		•	15	
	Ni25-Q20-AP6X2	M1602700			25	
	Bi15U-Q20-VP6X2 4M	M1608602	***Uprox***	•	15	**4-Wire DC PNP**
	Bi15-Q20-YOX	M1080020		•	15	**2-Wire NAMUR**
	Bi15-Q20-ADZ32X2	M4256250		•	15	**2-Wire AC/DC Short-Circuit Protected**

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Cable Length /Jacket	Wiring Diagram #
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PUR	1
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	1
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	1
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PUR	2
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	2
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	2
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PUR	3
5-30 VDC	1000	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PUR	4
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PUR	5

Wiring Diagrams

Diagram 1

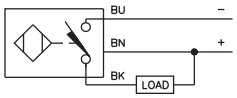


Diagram 2

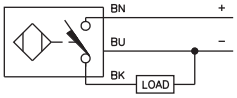


Diagram 3

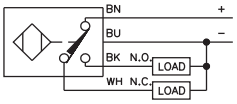


Diagram 4

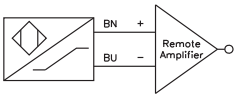
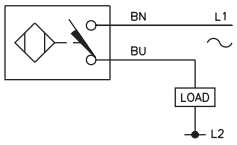
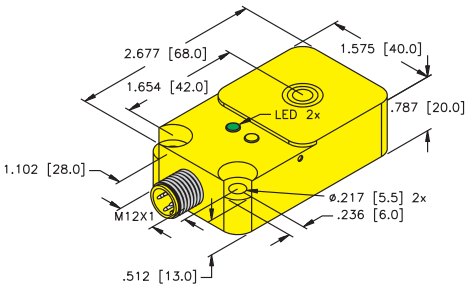
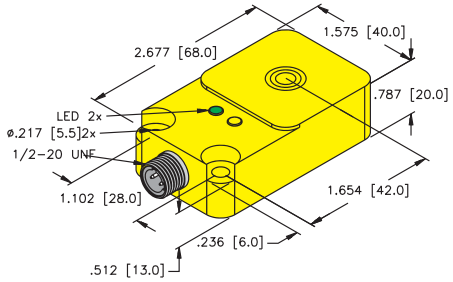
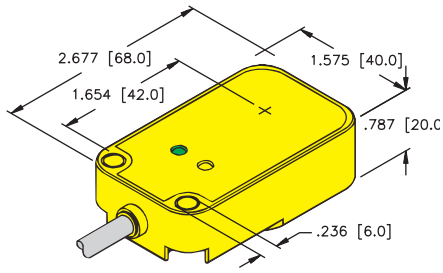


Diagram 5



For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
20 mm - Embeddable/Nonembeddable, *eurofast*® Connector 	Bi15U-Q20-AN6X2-H1141	M1608610	***Uprox***	•	15	**3-Wire DC NPN**
	Bi15-Q20-AN6X2-H1141	M1608315		•	15	
	Ni25-Q20-AN6X2-H1141	M1602802			25	
	Bi15U-Q20-AP6X2-H1141	M1608600	***Uprox***	•	15	**3-Wire DC PNP**
	Bi15-Q20-AP6X2-H1141	M1608305		•	15	
	Ni25-Q20-AP6X2-H1141	M1602702			25	
	Bi15-Q20-YOX-H1141	M1080025		•	15	**2-Wire NAMUR**
20 mm - Embeddable, *microfast*® Connector 	Bi15-Q20-ADZ32X2-B3131	M4256251		•	15	**2-Wire AC/DC Short-Circuit Protected**
20 mm - Embeddable, Potted-In Cable 	Bi22-Q20-RN6X2/S400-S946	M4690237		•	22	**3-Wire DC NPN**
	Bi22-Q20-RP6X2/S400-S946	M4690236		•	22	**3-Wire DC PNP**

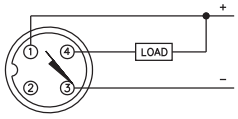
/S400-S946 = LEDs on back side.

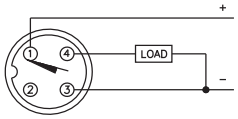
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

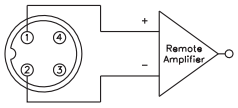
Industrial Automation

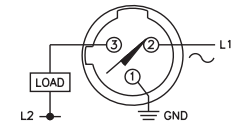
TURCK mold-on connectors available on all cable sensors. See page M25.

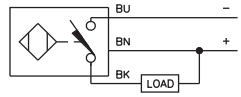
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	RK 4T-*	1	Diagram 1
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	1	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	1	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	RK 4T-*	2	Diagram 2
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	2	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	2	
5-30 VDC	1000	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	RK 4.21T-*	3	Diagram 3
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	PBT	PBT	GN	YE	KB 3T-*	4	Diagram 4
10-30 VDC	250	≤200	-40 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	5	Diagram 5
10-30 VDC	250	≤200	-40 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	6	Diagram 6

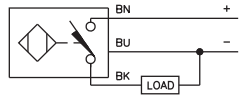






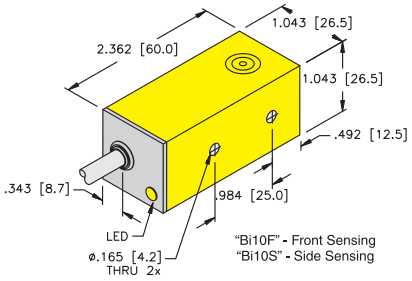
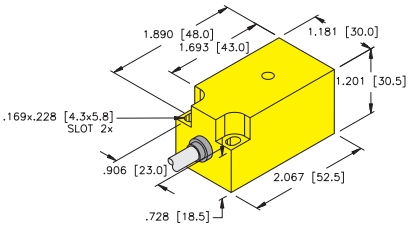






For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
26 mm - Embeddable, Potted-In Cable 	Bi10F-Q26-AD4X/S34	M4470000	***Weld-field Immune***	•	10	**2-Wire DC**
	Bi10S-Q26-AD4X/S34	M4470200	***Weld-field Immune***	•	10	
30 mm - Nonembeddable, Potted-In Cable 	Ni15-Q30-AN6X	M4659330			15	**3-Wire DC - NPN**
	Ni15-Q30-AP6X	M4659325			15	**3-Wire DC - PNP**

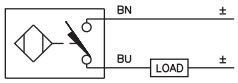
Bi10F = Front sensing
Bi10S = Side sensing

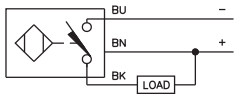
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

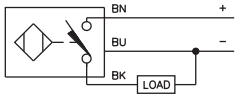
Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	End Cap	Power LED	Output LED	Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	30	≤100	-25 to +70	IP 67	PBT	PBT	PA 12	GN	YE	2M/PVC	1	Diagram 1
	30	≤100	-25 to +70	IP 67	PBT	PBT	PA 12	Gn	YE	2M/PVC	1	
10-30 VDC	2000	≤200	-25 to +70	IP67	PBT	PBT	N/A	N/A	YE	2M/PVC	2	Diagram 2
10-30 VDC	2000	≤200	-25 to +70	IP 67	PBT	PBT	N/A	N/A	YE	2M/PVC	3	Diagram 3

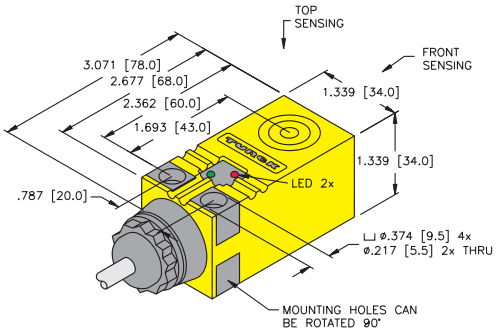
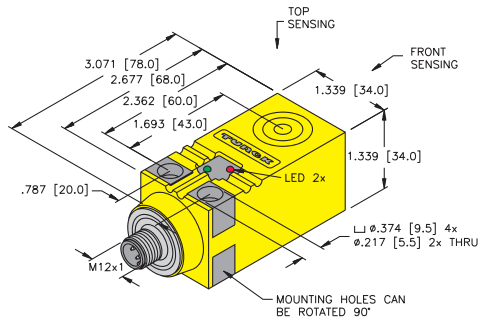
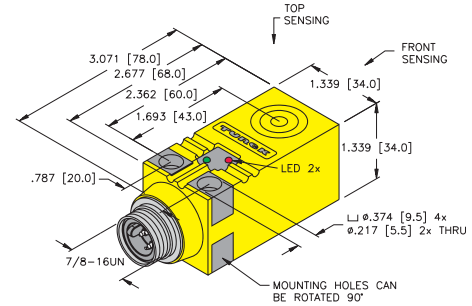
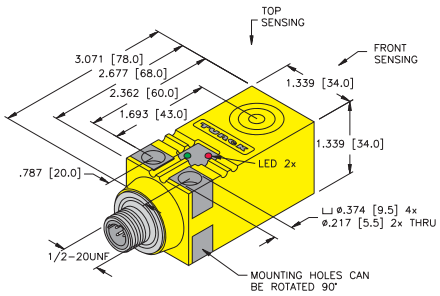






For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
Q34 - Embeddable, Potted-In Cable 	Bi10F-Q34-ADZ30X2/S34	T4202100	***Front Sensing, WFI***	•	10	**2-Wire AC/DC Short-Circuit Protected**
	Bi10T-Q34-ADZ30X2/S34	T4202200	***Top Sensing, WFI***	•	10	
Q34 - Embeddable, *eurofast*® Connector 	Bi10F-Q34-AP6X2-H1141	T4693190	***Front Sensing***	•	10	**3-Wire DC PNP**
	Bi10T-Q34-AP6X2-H1141	T4693390	***Top Sensing***	•	10	
Q34 - Embeddable, *minifast*® Connector 	Bi10F-Q34-AP6X2-B1141	T4693100	***Front Sensing***	•	10	**3-Wire DC PNP**
	Bi10T-Q34-AP6X2-B1141	T4693300	***Top Sensing***	•	10	
	Bi10F-Q34-ADZ30X2-B1131/S34	T4201100	***Front Sensing, WFI***	•	10	**2-Wire AC/DC Short-Circuit Protected**
	Bi10T-Q34-ADZ30X2-B1131/S34	T4201200	***Top Sensing, WFI***	•	10	
	Bi10F-Q34-AZ3X2-B1131	T1369200	***Front Sensing***	•	10	**2-Wire AC/DC**
	Bi10T-Q34-AZ3X2-B1131	T1369000	***Top Sensing***	•	10	
Q34 - Embeddable, *microfast*® Connector 	Bi10F-Q34-ADZ30X2-B3131/S34	T4217000	***Front Sensing, WFI***	•	10	**2-Wire AC/DC Short-Circuit Protected**
	Bi10T-Q34-ADZ30X2-B3131/S34	T4217100	***Top Sensing, WFI***	•	10	
	Bi10T-Q34-AZ3X2-B3131	T1369098	***Top Sensing***	•	10	**2-Wire AC/DC**

WFI = Weld-Field Immune Sensors.

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord	Wiring Diagram #
10-300 VDC 20-250 VAC	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	2M/PVC	1
	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	2M/PVC	1
10-30 VDC	500	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	2
	500	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	2
10-30 VDC	500	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RKM 40-*M	3
	500	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RKM 40-*M	3
10-300 VDC 20-250 VAC	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	RKM 30-*M	4
	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	RKM 30-*M	4
10-300 VDC 20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	RKM 30-*M	4
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	RKM 30-*M	4
10-300 VDC 20-250 VAC	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	KB 3T-*	5
	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	KB 3T-*	5
10-300 VDC 20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	RD	KB 3T-*	5

Wiring Diagrams

Diagram 1

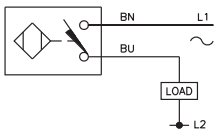


Diagram 2

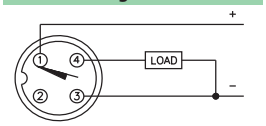


Diagram 3

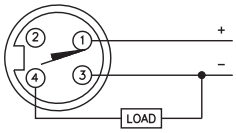


Diagram4

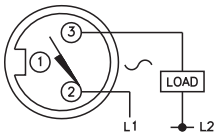
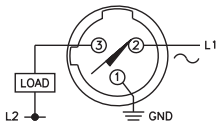
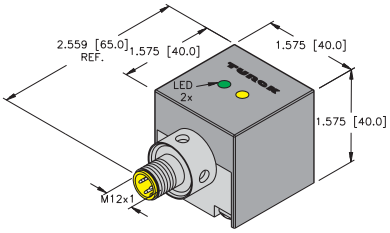
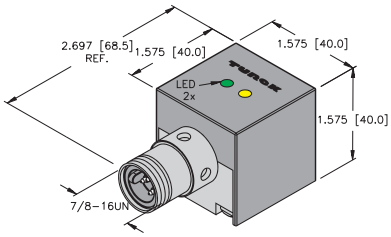
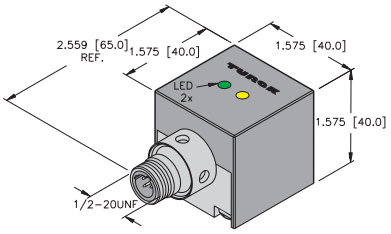


Diagram 5

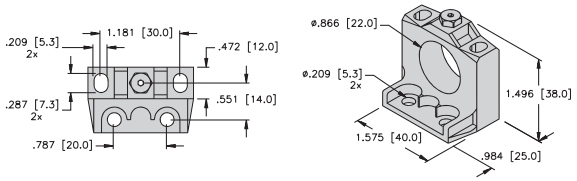


For material descriptions see page M36.

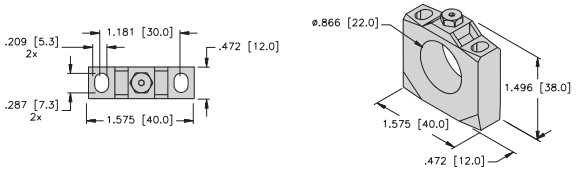
Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing	Output
CA40 - Embeddable, *eurofast*® Connector 	Bi2OU-CA40-AN6X2-H1141 W/BS2.1	M1627390	***Uprox***	•	20	**3-Wire DC NPN**
	Bi2OU-CA40-AP6X2-H1141 W/BS2.1	M1627290	***Uprox***	•	20	**3-Wire DC PNP**
	Bi2OU-CA40-AP6X2-H1141/S1590 W/BS2.0	M1627297	***weldguard***®	•	20	
	Bi2OU-CA40-AP6X2-H1141/S1591 W/BS2.0	M1627296	***armorguard***®	•	20	
	Bi2OU-CA40-AP6X2-H1141/S1591 W/BS2.1	M1627294	***armorguard***	•	20	
CA40 - Embeddable, *minifast*® Connector 	Bi2OU-CA40-ADZ3OX2-B1131 W/BS2.1	M4283290	***Uprox***	•	20	**2-Wire AC/DC Short-Circuit Protected**
	Bi2O-CA40-ADZ3OX2-B1131/S34/S1591 W/BS2.1	M4283595	***armorguard***	•	20	
CA40 - Embeddable, *microfast*® Connector 	Bi2OU-CA40-ADZ3OX2-B3131 W/BS2.1	M4283292	***Uprox***	•	20	**2-Wire AC/DC Short-Circuit Protected**
	Bi2O-CA40-ADZ3OX2-B3131/S34/S1591 W/BS2.1	M4283596	***armorguard***	•	20	

Note: 1. BS2.1 is the standard mounting bracket for CA40 unless noted differently.



BS 2.1 Mounting Bracket



BS 2.0 Mounting Bracket

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord	Wiring Diagram #
10-30 VDC	250	≤200	0 to +70	IP 67	AL	TP	GN	YE	RK 4T-*	1
10-30 VDC	250	≤200	0 to +70	IP 67	AL	TP	GN	YE	RK 4T-*	2
	250	≤200	0 to +70	IP 67	AL	WG	GN	YE	RK 4T-*	2
	250	≤200	0 to +70	IP 67	AG	WG	GN	YE	RK 4T-*	2
	250	≤200	0 to +70	IP 67	AG	WG	GN	YE	RK 4T-*	2
10-300 VDC 20-250 VAC	20	≤400/300	-30 to +85	IP 67	AL	TP	GN	YE	RKM 30-*M	3
	20	≤400/300	-25 to +70	IP 67	AG	WG	GN	YE	RKM 30-*M	3
10-300 VDC 20-250 VAC	20	≤400/300	-30 to +85	IP 67	AL	TP	GN	YE	KB 3T-*	4
	20	≤400/300	-25 to +70	IP 67	AG	WG	GN	YE	KB 3T-*	4

Wiring Diagrams

Diagram 1

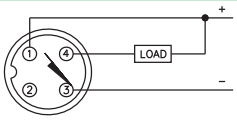


Diagram 2

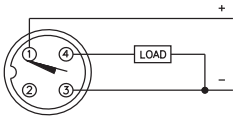


Diagram 3

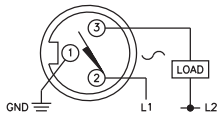
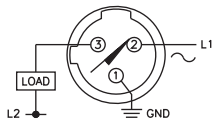
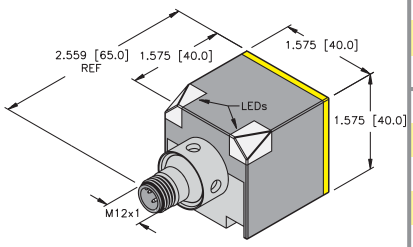


Diagram 4

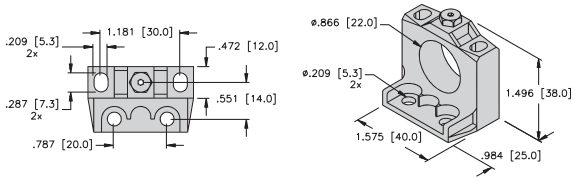


For material descriptions see page M36.

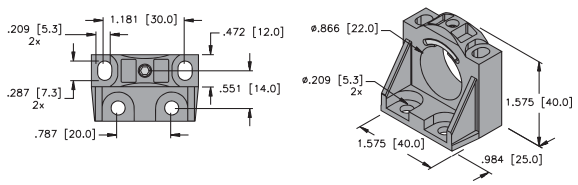
Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
CK40 - Embeddable/Nonembeddable, *eurofast*® Connector 	Bi15U-CK40-AD4X-H1144	M4280032	Uprox+	•	15	2-Wire DC
	Ni35U-CK40-AD4X-H1144	M4280232	Uprox+		35	
	Bi15-CK40-AD4X-H1141 W/Bs2.1	M4465090		•	15	
	Ni20-CK40-AD4X-H1141 W/BS2.1	M4465290			20	
	Bi15U-CK40-AN6X2-H1141 W/BS 2.1	M1625690	Uprox	•	15	3-Wire DC NPN
	Bi20U-CK40-AN6X2-H1141 W/BS 2.1	M1627231	Uprox+	•	20	
	Bi30U-CK40-AN6X2-H1141 W/BS 4	M1625820	Uprox+	•	30	
	Bi15-CK40-AN6X2-H1141 W/BS 2.1	M1625190		•	15	
	Ni20-CK40-AN6X2-H1141 W/BS 2.1	M1625390			20	
	Ni25U-CK40-AN6X2-H1141 W/BS 2.1	M1625789	Uprox		25	
	Ni35U-CK40-AN6X2-H1141 W/BS 4	M1625810	Uprox		35	
	Ni50U-CK40-AN6X2-H1141 W/BS 4	M1625823	Uprox+		50	
	Bi15U-CK40-AP6X2-H1141 W/BS 2.1	M1625689	Uprox	•	15	3-Wire DC PNP
	Bi20U-CK40-AP6X2-H1141 W/BS 2.1	M1627288	Uprox+	•	20	
	Bi30U-CK40-AP6X2-H1141 W/BS 4	M1625829	Uprox+	•	30	
	Bi15-CK40-AP6X2-H1141 W/BS 2.1	M1625090		•	15	
	Ni20-CK40-AP6X2-H1141 W/BS 2.1	M1625290			20	
	Ni25U-CK40-AP6X2-H1141 W/BS 2.1	M1625790	Uprox		25	
	Ni35U-CK40-AP6X2-H1141 W/BS 4	M1625800	Uprox		35	
	Bi15-CK40-VN4X2-H1141 W/BS 2.1	M1550190	Comp. Outputs	•	15	4-Wire DC NPN
	Ni20-CK40-VN4X2-H1141 W/BS 2.1	M1550390	Comp. Outputs		20	
	Ni50U-CK40-VN4X2-H1141 W/BS 2.1	M1625806	Uprox+ /Comp. Outputs		50	
	Bi15-CK40-VP4X2-H1141 W/BS 2.1	M1550091	Comp. Outputs	•	15	4-Wire DC PNP
	Ni20-CK40-VP4X2-H1141 W/BS 2.1	M1550290	Comp. Outputs		20	
	Ni35U-CK40-VP6X2-H1141	M1625815	Uprox		35	
	Ni50U-CK40-VP4X2-H1141 W/BS 2.1	M1538302	Uprox+ Comp. Outputs			
	Bi15-CK40-Y1X-H1141	M4065000		•	15	2-Wire DC NAMUR

Note: 1. BS2.1 is the standard mounting bracket for CK40 unless noted differently.



BS 2.1 Mounting Bracket



BS 4 Mounting Bracket

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

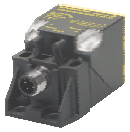
Industrial Automation

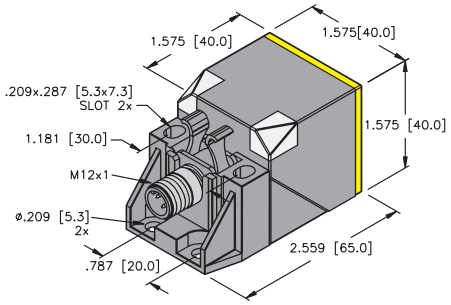
TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	250	≤200	-20 to +70	IP 68	PBT	PBT	GN	YE	RK 4.23T-*	1	Diagram 1
	250	≤200	-20 to +70	IP 68	PBT	PBT	GN	YE	RK 4.23T-*	1	
	150	≤100	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4.2T-*	2	
	200	≤100	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4.2T-*	2	
10-30 VDC	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	RK 4T-*	3	Diagram 2
	250	≤200	-20 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	3	
	250	≤200	-10 to +60	IP 68	PBT	PBT	GN	YE	RK 4T-*	3	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	3	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	3	
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	RK 4T-*	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	RK 4T-*	3	
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	3	
10-30 VDC	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	RK 4T-*	4	Diagram 3
	250	≤200	-20 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	4	
	250	≤200	-10 to +60	IP 68	PBT	PBT	GN	YE	RK 4T-*	4	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	4	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4T-*	4	
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	RK 4T-*	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	RK 4T-*	4	
10-65 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4.4T-*	5	Diagram 4
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4.4T-*	5	
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4.4T-*	5	
10-65 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4.4T-*	6	Diagram 5
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4.4T-*	6	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	RK 4.4T-*	6	
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4.4T-*	6	
5-30 VDC	150	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	RK 4.21T-*	7	Diagram 6
											Diagram 7

For material descriptions see page M36.

Inductive
Rectangular Sensors



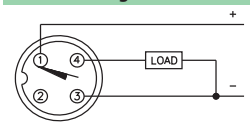
Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
QV40 - Embeddable/Nonembeddable, *eurofast* ® Connection 	Bi20U-QV40-AP6X2-H1141	M1627245	uprox+	20	**3-Wire DC PNP**
	Ni50U-QV40-AP6X2-H1141	M1625853	uprox+	50	

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

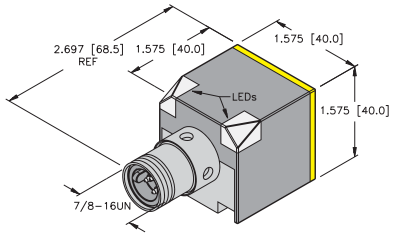
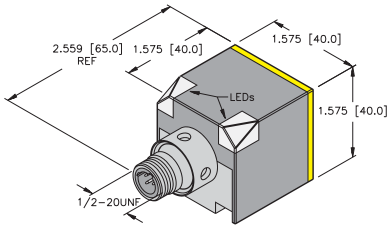
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Mating Cordset	Wiring Diagram #	Wiring Diagrams
10-30 VDC	250	≤200	0 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	1	Diagram 1
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	RK 4T-*	1	

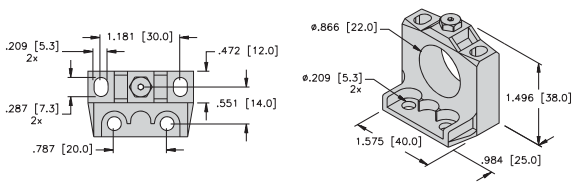


* Length in meters.

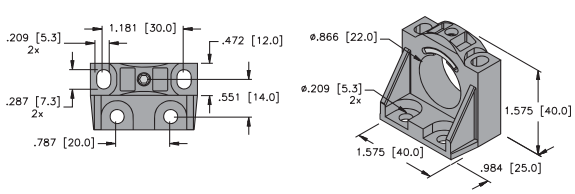
For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
CK40 - Embeddable/Nonembeddable, *minifast*® Connector 	Bi15U-CK40-ADZ30X2-B1131 W/BS 2.1	M4280090	***Uprox***	•	15	**2-Wire AC/DC Short-Circuit Protected**
	Ni25U-CK40-ADZ30X2-B1131 W/BS 2.1	M4280290	***Uprox***		25	
	Ni35U-CK40-ADZ30X2-B1131 W/BS 4	M4280410	***Uprox***		35	
	Bi15-CK40-AZ3X2-B1131 W/BS 2.1	M1335091		•	15	**2-Wire AC/DC**
	Ni20-CK40-AZ3X2-B1131 W/BS 2.1	M1335291			20	
CK40 - Embeddable/Nonembeddable, *microfast*® Connector 	Bi15U-CK40-ADZ30X2-B3131 W/BS 2.1	M4280091	***Uprox***	•	15	**2-Wire AC/DC Short-Circuit Protected**
	Ni25U-CK40-ADZ30X2-B3131 W/BS 2.1	M4280291	***Uprox***		25	
	Bi15-CK40-ADZ30X2-B3131/S34 W/BS 2.1	M4244290	**WFI**	•	15	**2-Wire AC/DC Short-Circuit Protected**
	Bi15-CK40-AZ3X2-B3131 W/BS 2.1	M1335095		•	15	**2-Wire AC/DC**
	Ni20-CK40-AZ3X2-B3131 W/BS 2.1	M1335290			20	



BS 2.1 Mounting Bracket



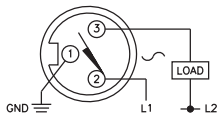
BS 4 Mounting Bracket

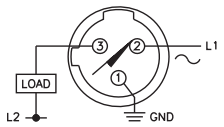
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

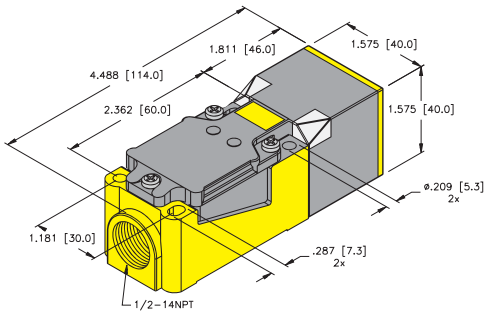
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord	Wiring Diagram #	Wiring Diagrams
10-300 VDC 20-250 VAC	60	≤400/300	-30 to +85	IP 68	PBT	PBT	GN	YE	RKM 30-*M	1	Diagram 1
	60	≤400/300	-30 to +85	IP 67	PBT	PBT	GN	YE	RKM 30-*M	1	
	60	≤400/300	-30 to +85	IP 68	PBT	PBT	GN	YE	RKM 30-*M	1	
10-300 VDC 20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	RKM 30-*M	1	Diagram 2
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	RKM 30-*M	1	
10-300 VDC 20-250 VAC	60	≤400/300	-30 to +85	IP 68	PBT	PBT	GN	YE	KB 3T-*	2	
	60	≤400/300	-30 to +85	IP 67	PBT	PBT	GN	YE	KB 3T-*	2	
10-300 VDC 20-250 VAC	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	KB 3T-*	2	
10-300 VDC 20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	KB 3T-*	2	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	KB 3T-*	2	





For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
CP40 - Embeddable/Nonembeddable, Terminal Chamber 	Bi15-CP40-AD4X	M4477000		•	15	2-Wire DC
	Ni20-CP40-AD4X	M4477100			20	
	Bi15U-CP40-AN6X2	M1623512	*Uprox*	•	15	3-Wire DC NPN
	Bi15-CP40-AN6X2	M1623000		•	15	
	Bi20U-CP40-AN6X2	M1625828	*Uprox*	•	20	
	Bi30U-CP40-AN6X2	M1625827	*Uprox*	•	30	
	Ni20-CP40-AN6X2	M1623100			20	
	Ni25U-CP40-AN6X2	M1623711	*Uprox*		25	
	Ni40U-CP40-AN6X2	M1623610	*Uprox*, Ext. Range		40	
	Bi15-CP40-AN6X2/S97	M1623001	*Low Temp -40° C*	•	15	
	Ni50U-CP40-AN6X2	M1625824	*Uprox*		50	
	Bi15U-CP40-AP6X2	M1623502	*Uprox*	•	15	3-Wire DC PNP
	Bi15-CP40-AP6X2	M1603000		•	15	
	Bi20U-CP40-AP6X2	M1625826	*Uprox*	•	20	
	Bi30U-CP40-AP6X2	M1625825	*Uprox*	•	30	
	Ni20-CP40-AP6X2	M1603100			20	
	Ni25U-CP40-AP6X2	M1623701	*Uprox*		25	
	Ni40U-CP40-AP6X2	M1623602	*Uprox*		40	
	Ni50U-CP40-AP6X2	M1625842	*Uprox*		50	
			Ext. Range			
	Bi15U-CP40-VN4X2	M1540511	*Uprox*	•	15	4-Wire NPN
	Bi15-CP40-VN4X2	M1525000	Comp. Outputs	•	15	
	Bi15-CP40-VN4X2/S100	M1514400	*High Temp. 100°C*	•	15	
	Bi20-CP40-VN4X2	M1579221	Ext. Range	•	20	
	Ni20-CP40-VN4X2	M1525100	Comp. Outputs		20	
	Ni20-CP40-VN4X2/S100	M1527200	*High Temp. 100°C*		20	
	Ni35-CP40-VN4X2	M1525400	Comp. Outputs		35	
	Ni40U-CP40-VN4X2	M1540611	*Uprox*, Ext. Range		40	
	Ni50U-CP40-VN4X2	M1625807	*Uprox*		50	
	Bi15U-CP40-VP4X2	M1540501	*Uprox*	•	15	4-Wire PNP
	Bi15-CP40-VP4X2	M1501000	Comp. Outputs	•	15	
	Bi15-CP40-VP4X2/S100	M1501900	*High Temp. 100°C*	•	15	
	Bi20-CP40-VP4X2	M1501200	Ext. Range	•	20	
	Ni20-CP40-VP4X2	M1501100	Comp. Outputs		20	
	Ni20-CP40-VP4X2/S100	M1502000	*High Temp. 100°C*		20	
	Ni35-CP40-VP4X2	M1501400	Comp. Outputs		35	
	Ni40U-CP40-VP4X2	M1540601	*Uprox*, Ext. Range		40	
	Ni50U-CP40-VP4X2	M1538303	*Uprox*		50	

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #
10-65 VDC	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1
	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1
10-30 VDC	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	2
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	N/A	2
	250	≤200	-10 to +60	IP 68	PBT	PBT	GN	YE	N/A	2
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2
	250	≤200	-40 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	N/A	5
10-30 VDC	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	3
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	N/A	3
	250	≤200	-10 to +60	IP 68	PBT	PBT	GN	YE	N/A	3
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	3
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	3
10-65 VDC	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	4
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	4
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	4
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	4
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	4
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	5
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	5

Wiring Diagrams

Diagram 1

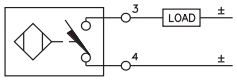


Diagram 2

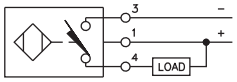


Diagram 3

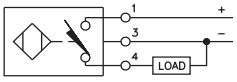


Diagram 4

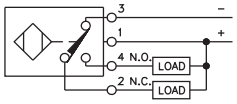
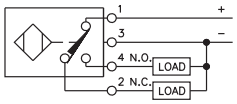
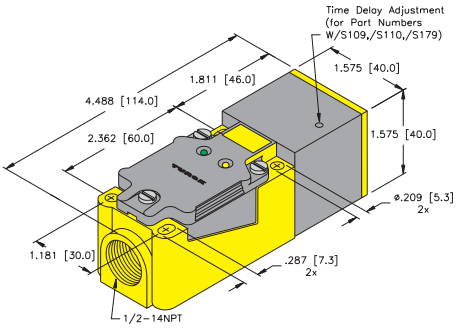


Diagram 5



For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
CP40 - Embeddable/Nonembeddable, Termainal Chamber 	Ni30-CP40-VP4X2/S109	M1512521	*Time Delay*		30	4-Wire PNP
	Bi15-CP40-FDZ30X2	M4224100	Prog. Outputs	•	15	2-Wire AC/DC
	Bi15-CP40-FDZ30X2/S97	M4226600	*Low Temp -40°C*	•	15	
	Bi15U-CP40-FDZ30X2	M4280601	*Uprox*	•	15	
	Ni20-CP40-FDZ30X2	M4224200	Prog. Outputs		20	
	Ni35-CP40-FDZ30X2	M4224500	Prog. Outputs		35	
	Ni40U-CP40-FDZ30X2	M4280801	*Uprox*		40	
	Bi15-CP40-FZ3X2	M1341000	Prog. Outputs	•	15	2-Wire AC/DC
	Bi15-CP40-FZ3X2/S97	M1341010	*Low Temp. -40°C*	•	15	
	Bi15-CP40-FZ3X2/S100	M1377600	*High Temp. 100°C*	•	15	
	Ni20-CP40-FZ3X2	M1341100	Prog. Outputs		20	
	Ni20-CP40-FZ3X2/S100	M1377500	*High Temp. 100°C*		20	
	Ni35-CP40-FZ3X2	M1341300	Prog. Outputs		35	
	Ni40-CP40-FZ3X2/S100	M1374802	*High Temp. 100°C*		40	
	Bi15-CP40-FZ3X2/S109	M1373700	*Time Delay*	•	15	2-Wire AC
	Bi15-CP40-FZ3X2/S110	M1373500	*Time Delay*	•	15	
	Ni20-CP40-FZ3X2/S109	M1374500	*Time Delay*		20	
	Ni20-CP40-FZ3X2/S110	M1374600	*Time Delay*		20	
	Ni30-CP40-FZ3X2/S109	M1374700	*Time Delay*		30	
	Ni30-CP40-FZ3X2/S110	M1374400	*Time Delay*		30	
	Bi15-CP40-VDZ3X2	M4222700	*Comp. Outputs*	•	15	4-Wire AC/DC
	Bi15-CP40-Y1X	M1012000		•	15	NAMUR
	Ni20-CP40-Y1X	M1012100			20	
	Ni35-CP40-Y1X/S100	M1011126	*High Temp. 100°C*		35	

WFI = Weld-Field Immune Sensors.
"/S109" Designates on Delay.
"/S110" Designates off Delay.

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

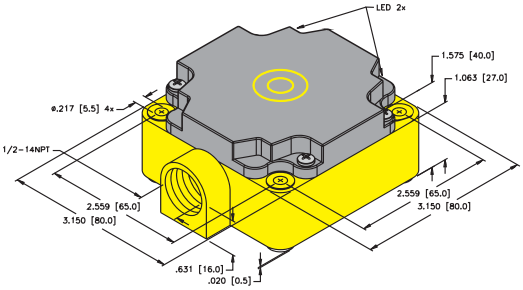
Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	--	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	1	Diagram 1
10-300 VDC 20-250 VAC	60	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	60	≤400/300	-40 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	60	≤400/300	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	
	60	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	60	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	60	≤400/300	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	2	
10-300 VDC 20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	Diagram 2
	20	≤400/300	-40 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	2	
20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	Diagram 3
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
20-250 VAC 20-320 VDC	30	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	Diagram 4
5-30 VDC	150	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	4	
	150	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	4	
	80	Remote	-25 to +100	IP 67	PBT	PBT	N/A	YE	- - - -	4	

For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
CP80 - Embeddable/Nonembeddable, Terminal Chamber 	Ni75U-CP80-AN6X2	M1623811	***Uprox***		75	**3-Wire DC NPN**
	Ni75U-CP80-AP6X2	M1623801	***Uprox***		75	**3-Wire DC PNP**
	Bi40-CP80-VN4X2	M1579800	***Comp. Outputs***	•	40	**4-Wire DC NPN**
	Ni40-CP80-VN4X2	M1525500	***Comp. Outputs***		40	
	Ni50-CP80-VN4X2	M1525600	***Comp. Outputs***		50	
	Ni75U-CP80-VN4X2	M1540811	***Uprox***		75	
	Bi40-CP80-VP4X2	M1569800	***Comp. Outputs***	•	40	**4-Wire DC PNP**
	Ni40-CP80-VP4X2	M1501500	***Comp. Outputs***		40	
	Ni50-CP80-VP4X2	M1501600	***Comp. Outputs***		50	
	Ni75U-CP80-VP4X2	M1540801	***Uprox***		75	
	Bi40-CP80-FDZ30X2	M4230901	**Prog. Outputs**	•	40	**2-Wire AC/DC Short-Circuit Protected**
	Ni50-CP80-FDZ30X2	M4232100	**Prog. Outputs**		50	
	Ni50-CP80-FDZ30X2/S100	M4229000	***High Temp. 100°C***		50	
	Ni75U-CP80-FDZ30X2	M4280901	***Uprox***		75	
	Bi40-CP80-FZ3X2	M1340401	**Prog. Outputs**	•	40	**2-Wire AC/DC**
	Ni40-CP80-FZ3X2	M1341500	**Prog. Outputs**		40	
	Ni40-CP80-FZ3X2/S100	M1345300	***High Temp. 100°C***		40	
	Ni50-CP80-FZ3X2	M1341600	**Prog. Outputs**		50	
	Ni40-CP80-Y1	M1040000			40	**2-Wire NAMUR**
	Ni50-CP80-Y1	M1040100			50	

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

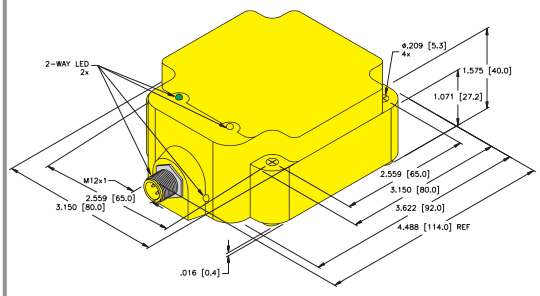
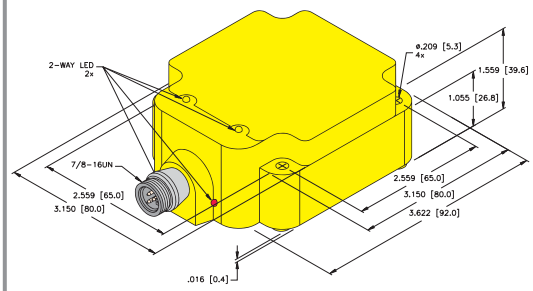
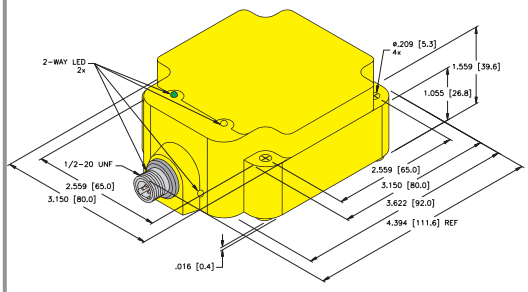
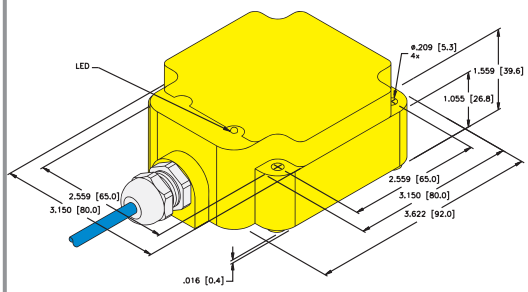
Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	1	Diagram 1
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	Diagram 2
10-65 VDC	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	Diagram 3
10-65 VDC	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	Diagram 4
20-250 VAC 10-300 VDC	60	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	100	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	25	≤400/300	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	Diagram 5
20-250 VAC 10-300 VDC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
5-30 VDC	100	Remote	-25 to +70	IP 67	PBT	PBT	N/A	N/A	- - - -	6	Diagram 6
	100	Remote	-25 to +70	IP 67	PBT	PBT	N/A	N/A	- - - -	6	

For material descriptions see page M36.

Inductive Rectangular Sensors

Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
Q80 - Embeddable/Nonembeddable, *eurofast*® Connector 	Bi50U-Q80-AN6X2-H1141	M1608944	uprox+	•	50	3-Wire DC NPN
	Ni75U-Q80-AN6X2-H1141	M1625856	uprox+		75	
	Bi50U-Q80-AP6X2-H1141	M1608940	uprox+	•	50	3-Wire DC PNP
	Ni75U-Q80-AP6X2-H1141	M1625855	uprox+		75	
	Bi50U-Q80-VN4X2-H1141	M1562001	uprox+	•	50	4-Wire DC NPN
	Ni75U-Q80-VN4X2-H1141	M1625858	uprox+ /Comp. Outputs		75	
	Bi50U-Q80-VP4X2-H1141	M1562000	*Uprox*	•	50	4-Wire DC PNP
	Ni70U-Q80-VP4X2-H1141	M1625833	uprox+ /Comp. Outputs		70	
	Ni75U-Q80-VP4X2-H1141	M1625857	uprox+ Comp.Outputs		75	
Q80 - Embeddable, *minifast*® Connector 	Bi50-Q80-ADZ30X2-B1131	M4200310		•	50	2-Wire AC/DC Short-Circuit Protected
Q80 - Embeddable, *microfast*® Connector 	Bi50-Q80-ADZ30X2-B3131	M4200311		•	50	2-Wire AC/DC Short-Circuit Protected
CP80 - Embeddable/Nonembeddable, Terminal Chamber 	Ni60-Q80-Y1X	M1008700			60	2-Wire NAMUR

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #
10-30 VDC	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	1
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	1
10-30 VDC	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	2
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4T-*	2
10-65 VDC	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4.4T-*	3
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4.4T-*	3
10-65 VDC	250	250	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4.4T-*	4
	250	≤200	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4.4T-*	4
	250	250	-25 to +70	IP 68	PBT	PBT	GN	YE	RK 4.4T-*	4
20-250 VAC 10-300 VDC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	RKM 30-*M	5
20-250 VAC 10-300 VDC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	KB 3T-*	6
5-30 VDC	100	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	2 M/PVC	7

Wiring Diagrams

Diagram 1

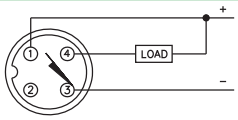


Diagram 2

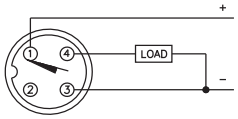


Diagram 3

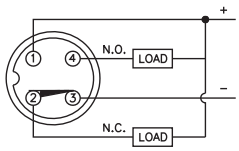


Diagram 4

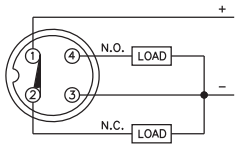


Diagram 5

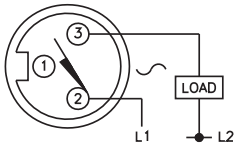


Diagram 6

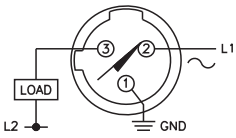
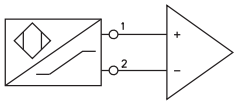
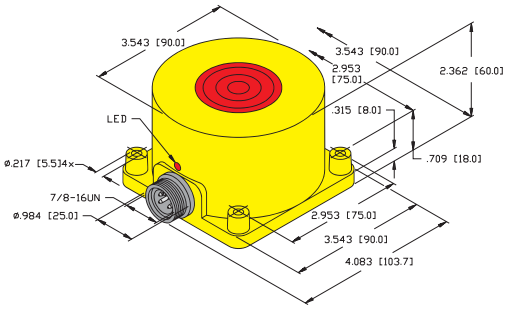


Diagram 7



For material descriptions see page M36.

Inductive Rectangular Sensors

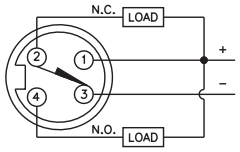
Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
K90 - Nonembeddable, *minifast*® Connector 	Ni60-K90-VN4X-B2141	M1520300	***Comp. Outputs***		60	**4-Wire DC NPN**
	Ni60-K90-VP4X-B2141	M1510300	***Comp. Outputs***		60	**4-Wire DC PNP**
	Ni60-K90-AZ3X-B2131	M1354200			60	**2-Wire AC**

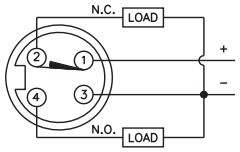
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

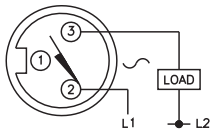
Industrial Automation

TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord	Wiring Diagram #	Wiring Diagrams
10-65 VDC	60	≤200	-25 to +70	IP 67	PUR	PUR	N/A	YE	RK 40-*M	1	Diagram 1
10-65 VDC	60	≤200	-25 to +70	IP 67	PUR	PUR	N/A	YE	RK 40-*M	2	Diagram 2
20-250 VAC	20	≤500	-25 to +70	IP 67	PBT	PBT	N/A	YE	RK 30-*M	3	Diagram 3

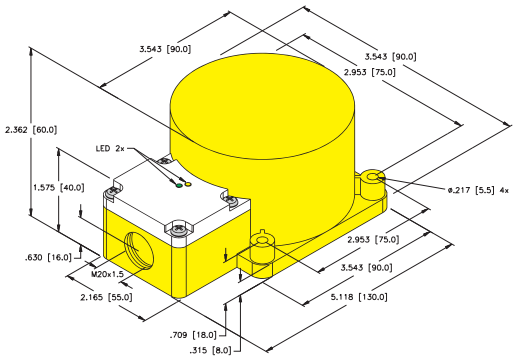






For material descriptions see page M36.

Inductive Rectangular Sensors

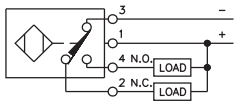
Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
K90SR - Nonembeddable, Terminal Chamber 	Ni60-K90SR-VN4X2	M1574000	**Comp. Outputs**		60	**4-Wire DC NPN**
	Ni100U-K90SR-VP4X2	M1625834	**/Comp.**		100	**4-Wire DC PNP**
	Ni60-K90SR-VP4X2	M1564000	***Comp. Outputs***		60	
	Ni60-K90SR-FDZ30X2	M4240200	***Prog. Outputs***		60	**2-Wire AC/DC Short-Circuit Protected**
	Ni60-K90SR-FZ3X2	M1342900	***Prog. Outputs***		60	**2-Wire AC/DC**
	Ni50-K90SR-Y1	M1007400			50	**2-Wire DC NAMUR**

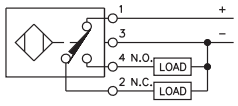
For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.

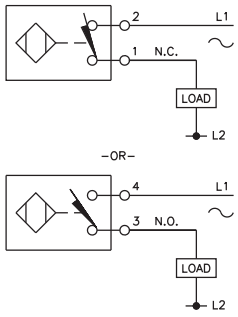
Industrial Automation

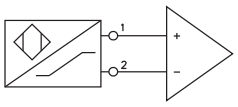
TURCK mold-on connectors available on all cable sensors. See page M25.

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/ Face	Power LED	Output LED	Mating Cord, Cable Length /Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	60	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	1	Diagram 1
10-65 VDC	60	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	Diagram 2
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	2	
10-300 VDC 20-250 VAC	100	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	Diagram 3
10-300 VDC 20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
5-30 VDC	100	Remote	-25 to +70	IP 67	PBT	PBT	N/A	N/A	- - - -	4	Diagram 4









For material descriptions see page M36.