

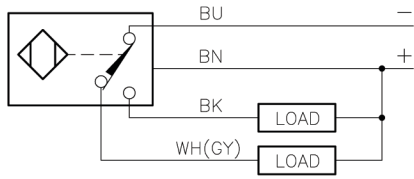
# Inductive Sensors



Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
<b>30 mm - Embeddable, Potted-In Cable</b> 	Bi 10-M30-AD4X	T4417000		10	2-Wire DC
	Bi 12-M30-AD4X	T4417035	<i>Extended Range</i>	12	
	Bi 10-EM30-AN6XLD	T4617109	<i>Load Dump</i>	10	3-Wire DC NPN
	Bi 10U-EM30-AN6X	M1636320	<i>Uprox</i>	10	
	Bi 10U-M30-AN6X	M1636120	<i>Uprox</i>	10	
	Bi 15-M30-AN6X	T4618620	<i>Extended Range</i>	15	
	Bi 10-M30-AN6X	T4617691		10	
	Bi 10-EM30-AP6XLD	T4617003	<i>Load Dump</i>	10	3-Wire DC PNP
	Bi 10-M30-AP6X/S100	M4617004	<i>High Temp. 100°C</i>	10	
	Bi 10U-EM30-AP6X	M1636300	<i>Uprox</i>	10	
	Bi 10U-M30-AP6X	M1636100	<i>Uprox</i>	10	
	Bi 15-M30-AP6X	T4618530	<i>Extended Range</i>	15	
	Bi 10-M30-VN4X	T1571400	<i>Comp. Outputs</i>	10	4-Wire DC NPN
	Bi 15-M30-VN4X	T4570712	<i>Extended Range</i>	15	
	Bi 10-M30-VP4X	T1561400	<i>Comp. Outputs</i>	10	4-Wire DC PNP
Bi 15-M30-VP4X	T4570713	<i>Extended Range</i>	15		
Bi 10U-MT30-ADZ30X2	M4209430	<i>Uprox</i>	10	2-Wire AC/DC Short-Circuit Protected	
<b>30 mm - Embeddable, Potted-In Cable</b> 	Bi 10NF-M30-AN6X	M1616100	<i>Nonferrous</i>	10	3-Wire DC NPN
	Bi 10NF-M30-AP6X	M1606100	<i>Nonferrous</i>	10	3-Wire DC PNP
<b>30 mm - Embeddable, Potted-In Cable</b> 	Bi 12-EM30WD-AN6X	M4614543	<i>Washdown</i>	12	3-Wire DC NPN
	Bi 12-EM30WD-AP6X	M4614540	<i>Washdown</i>	12	3-Wire DC PNP

Voltage	Switching Freq. (Hz)	Operating Current (mA) AC/DC	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/ Cable Mat.	Wiring Diagram #	Wiring Diagrams
10-65 VDC	500	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1	<b>Diagram 1</b> 
	400	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1	
10-30 VDC	500	≤200	-25 to +70	IP 67	SS	PA 12	EPTR	N/A	YE	2M/PVC	2	<b>Diagram 2</b> 
	2000	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	2	
	2000	≤200	-30 to +85	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
10-30 VDC	500	≤200	-25 to +70	IP 67	SS	PA 12	EPTR	N/A	YE	2M/PVC	3	<b>Diagram 3</b> 
	500	≤200	-25 to +100	IP 67	CPB	IRPA	EPTR	N/A	YE	2M/PVC	3	
	2000	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	3	
	2000	≤200	-30 to +85	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
10-65 VDC	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4	<b>Diagram 4</b> 
	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4	
10-65 VDC	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	<b>Diagram 5</b> 
	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	
20-250 VAC 10-300 VDC	20	≤400/300	-25 to +70	IP 67	TC	TC		GN	RD	2M/PUR	6	<b>Diagram 6</b> 
10-30 VDC	500	≤200	0 to +60	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
	10-30 VDC	500	≤200	0 to +60	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3
10-30 VDC		1000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	2
	10-30 VDC	1000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3

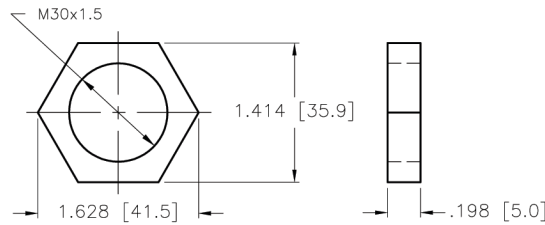
WIRING DIAGRAM



OUTPUT: VN4X

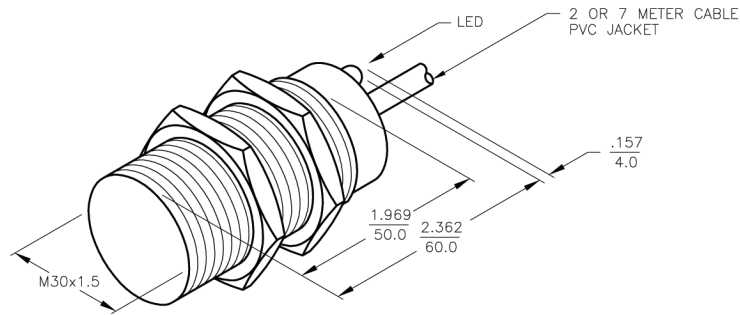
SHORT-CIRCUIT AND OVERLOAD PROTECTED

LOCKNUT LN-M30



SPECIFICATIONS

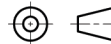
OPERATING VOLTAGE	10-65 VDC
RIPPLE	≤ 10%
DIFFERENTIAL TRAVEL (HYSTERESIS)	3-15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤ 1.8 V at 200 mA
OUTPUT FUNCTION	COMPLEMENTARY OUTPUT ONE N.O., ONE N.C. (SPDT)
TTL COMPATIBLE	NO
SHORT-CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 220 mA
CONTINUOUS LOAD CURRENT	≤ 200 mA
OFF-STATE (LEAKAGE) CURRENT	< 10 $\mu$ A
NO-LOAD CURRENT	4.0-9.5 mA
TIME DELAY BEFORE AVAILABILITY	≤ 8 ms
POWER-ON EFFECT PROTECTION	INCORPORATED
POLARITY INVERSION PROTECTION	INCORPORATED
WIRE BREAK PROTECTION	INCORPORATED
PROTECTION AGAINST TRANSIENTS	2 kV, 1 ms, 1 $\mu$ Ω
OPERATING TEMPERATURE	-25°C to +70°C (-13°F to +158°F)
ENCLOSURE	MEETS NEMA 1, 3, 4, 6, 13 AND IEC IP67
SHOCK	30 g, 11 ms
VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
LED FUNCTION	RED: OUTPUT ENERGIZED
RATED OPERATING DISTANCE(Sn)	10 mm = .394" (NOMINAL)
SWITCHING FREQUENCY	500 Hz
REPEATABILITY	≤ 2% of RATED OPERATING DISTANCE
EMBEDDABLE (SHIELDED)	YES



RELATED DOCUMENTS

- 1.
- 2.
- 3.
- 4.

3RD ANGLE PROJECTION



THIS DRAWING IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED.

**TURCK INC**  
High Technology Sensors and Automation Controls

MATERIAL  
BRASS BARREL

TOLERANCES UNLESS OTHERWISE SPECIFIED

DRFT IK

DATE 01/25/99

DESCRIPTION  
B110-M30-VN4X

FINISH  
COPPER/NICKEL/  
CHROME PLATING

.X ±0.02  
.XX ±0.01  
.XXX ±0.005  
ANGLES ±1°

DSGN

SCALE 1=2.0

UNIT OF MEASUREMENT  
**INCH [ MILLIMETER ]**

IDENTIFICATION NO.  
T1571400

REV  
A

A	REMOVE PART "PART1561400" FROM SOURCE DRAWING	IK	01/25/99	B2693
REV	DESCRIPTION	BY	DATE	ECO NO.

ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY

DO NOT SCALE THIS DRAWING

FILE: T1571400

SHEET 1 OF 1