

Inductive Sensors



Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
12 mm - Embeddable, Potted-In Cable 	Bi 3-GT12K-AD4X/S1610	T4405083-2	<i>armorguard</i>	3	2-Wire DC
	Bi 2-EG12HK-AN6X/S1589	T4605192	<i>weldguard</i>	2	3-Wire DC NPN
	Bi 2-G12K-AN6X	T4671200	<i>Short Barrel</i>	2	
	Bi 4-G12K-AN6X	T4670251	<i>Short Barrel</i>	4	
	Bi 2-G12K-AP6X	T4670200	<i>Short Barrel</i>	2	3-Wire DC PNP
	Bi 4-G12K-AP6X	T4670250	<i>Short Barrel</i>	4	
	Bi 2-EG12-Y0X	T4012000		2	2-Wire DC NAMUR
	Bi 2-G12-Y0	T1005400		2	
	Bi 2-G12-Y0X	T4010000		2	
	12 mm - Embeddable, Potted-In Cable 	Bi 2-EG12-AN6X	T4605101		2
Bi 2-G12-AN6X		T4635500		2	
Bi 2-G12-AN7X		T4730500	<i>TTL Compatible</i>	2	
Bi 4-G12-AN6X		T1690706	<i>Extended Range</i>	4	
Bi 2-EG12-AP6X		T4605001		2	3-Wire DC PNP
Bi 2-G12-AP6X		T4635400		2	
12 mm - Embeddable, Potted-In Cable 	Bi 2-G12-ADZ32X	T4205000		2	2-Wire AC/DC Short-circuit Protected
	Bi 4-G12-ADZ32X	T4205030	<i>Extended Range</i>	4	
	Bi 2-G12-AZ33X	T1304002		2	2-Wire AC/DC
	12 mm - Embeddable, Potted-In Cable, Teflon Coated 	Bi 2-GT12-ADZ32X/S34	T4205210	<i>WFI</i>	2
Bi 2-GT12-AZ33X/S34		T1304052	<i>WFI</i>	2	2-Wire AC/DC

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/ Cable Mat.	Wiring Diagram #	Wiring Diagrams
10-65 VDC	1000	≤100	-25 to +70	IP 67	AG	WG	EPTR	N/A	YE	2M/PVC	1	Diagram 1
10-30 VDC	2000	≤200	-25 to +70	IP 67	WG	WG	EPTR	N/A	YE	2M/PVC	2	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	Diagram 2
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
5-30 VDC	5000	Remote	-25 to +70	IP 67	SS	PA 12	EPTR	N/A	YE	2M/PVC	4	Diagram 3
	5000	Remote	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	N/A	2M/PVC	4	
	5000	Remote	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4	
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	EPTR	N/A	YE	2M/PVC	2	Diagram 4
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
	2000	≤150	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	EPTR	N/A	YE	2M/PVC	3	Diagram 5
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	Diagram 6
	20	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	
35-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	Diagram 7
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	TC	TC	EPTR	N/A	YE	2M/PVC	5	
35-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	TC	TC	EPTR	N/A	YE	2M/PVC	5	Diagram 8
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	TC	TC	EPTR	N/A	YE	2M/PVC	5	

Diagram 1

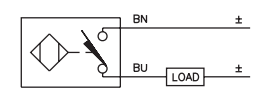


Diagram 2

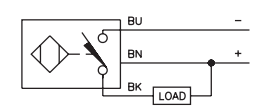


Diagram 3

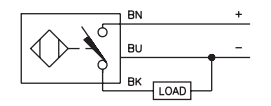


Diagram 4

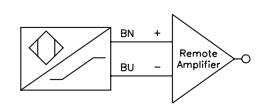


Diagram 5

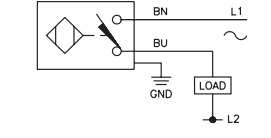


Diagram 6



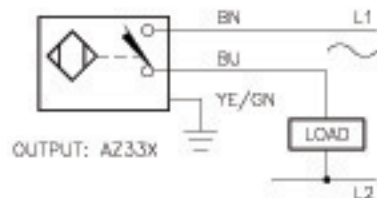
Diagram 7



Diagram 8

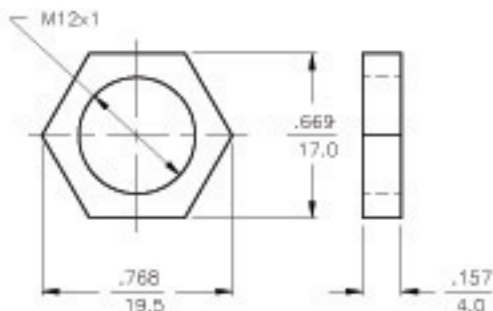


WIRING DIAGRAM



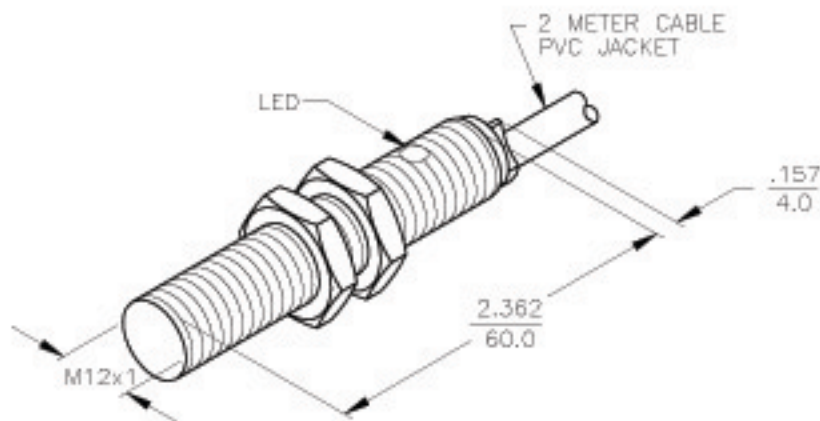
WARNING: NO SHORT-CIRCUIT PROTECTION. ALWAYS WIRE A LOAD IN SERIES WITH THE SENSOR.

LOCKNUT LN-M12



SPECIFICATIONS

OPERATING VOLTAGE	35-250 VAC/DC
LINE FREQUENCY	40-60 Hz
DIFFERENTIAL TRAVEL (HYSTERESIS)	3-15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤11.0 V at 100 mA
OUTPUT FUNCTION -AZ	NORMALLY OPEN 2-WIRE AC SELF-CONTAINED
SHORT-CIRCUIT PROTECTED	NO
CONTINUOUS LOAD CURRENT	≤200 mA
OFF-STATE (LEAKAGE) CURRENT	≤1.7 mA
MINIMUM LOAD CURRENT	≥5.0 mA
INRUSH CURRENT	≤1.0 A (≤10 ms/5 Hz)
TIME DELAY BEFORE AVAILABILITY	≤8 ms
POWER-ON EFFECT PROTECTION	INCORPORATED
PROTECTION AGAINST TRANSIENTS	5 KV, 10 ms, 10 kΩ
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	95 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
LED FUNCTION	RED: OUTPUT ENERGIZED
SENSING RANGE	2 mm = .079" (NOMINAL)
SWITCHING FREQUENCY	20 Hz
REPEATABILITY	≤2% of RATED OPERATING DISTANCE
EMBEDDABLE (SHIELDED)	YES



SOURCE DRAWING - FOR REFERENCE ONLY

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 .X ±0.02 .XX ±0.01 .XXX ±0.005 FINISH COPPER, NICKEL, CHROME PLATING	DFT SWC DATE 06/02/94 UBRN SCALE 1=2.0	DESCRIPTION Bi 2-G12-AZ33X	
		UNIT OF MEASUREMENT INCH [MILLIMETER]		IDENTIFICATION NO. T1304002	
		DO NOT SCALE THIS DRAWING		REV D	
D UPDATE OPERATING VOLTAGE, SEE ECO		RWC 08/09/07 18320		FILE: T1304002	
REV DESCRIPTION		BY DATE EDO NO.		SHEET 1 OF 1	