

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

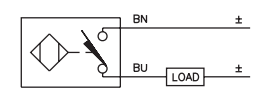


Diagram 2

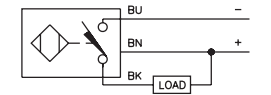


Diagram 3

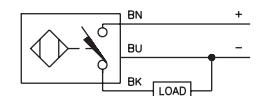


Diagram 4

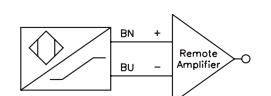
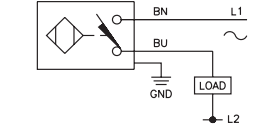
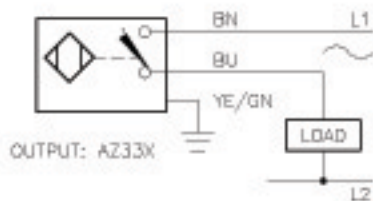


Diagram 5

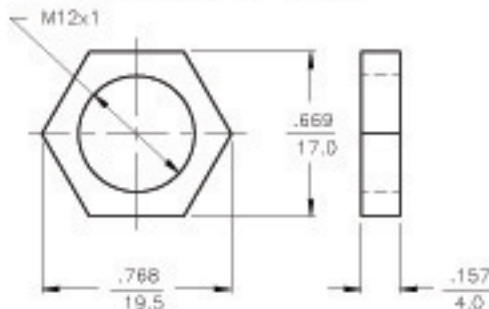


WIRING DIAGRAMS



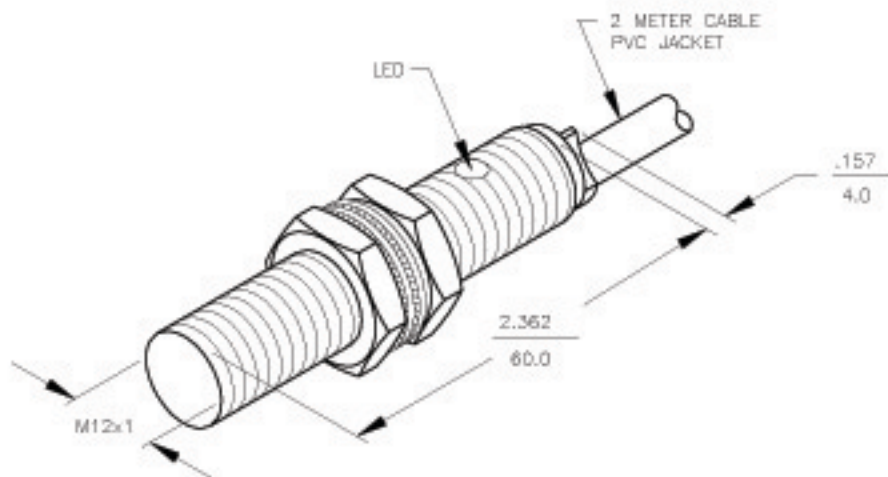
WARNING: NO SHORT-CIRCUIT PROTECTION.
ALWAYS WIRE A LOAD IN SERIES WITH THE SENSOR.

LOCKNUT LN-MT12



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 200 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	EN 60947-5-2
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(S _n)	2 mm = .079" (NOMINAL)
SWITCHING FREQUENCY	20 Hz
REPEATABILITY	≤ 2% of RATED OPERATING DISTANCE
EMBEDDABLE (SHIELDED)	YES



NOTES:

1. "/S34" DESIGNATES WELD FIELD IMMUNITY. SENSOR IS SUITABLE FOR USE ON RESISTANCE WELDING MACHINES.

2. MATERIALS:

TEFLON COATED BRASS BARREL.
TEFLON COATED BRASS LOCKNUTS.
BLACK CHRDMATED STEEL LOCKWASHERS.
TEFLON COATED PA 12-GF30 PLASTIC SENSING FACE.

RELATED DOCUMENTS

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

3RD ANGLE PROJECTION



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TURCK INC
High Technology Sensors and Automation Controls

MATERIAL SEE NOTE 2

TOLERANCES UNLESS OTHERWISE SPECIFIED

DWGT JMS

DATE 8/18/95

DESCRIPTION

Bi2-GT12-AZ33X/S34

FINISH

.X ±0.02
.XX ±0.01
.XXX ±0.005

UNITS

SCALE NONE

IDENTIFICATION NO.

T1304052

REV

E

ANGLES ±1°

UNIT OF MEASUREMENT
INCH [MILLIMETER]

FILE: T1304052

SHEET 1 OF 1

ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY

DO NOT SCALE THIS DRAWING

E	UPDATE OPERATING VOLTAGE, SEE ECO	RWC	08/09/07	18320
REV	DESCRIPTION	BY	DATE	EDD NO.