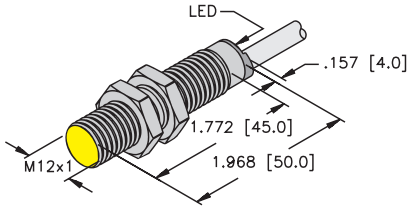
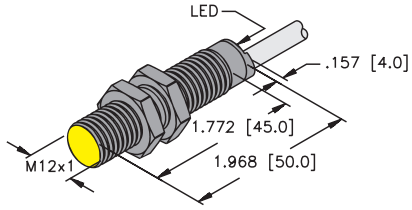
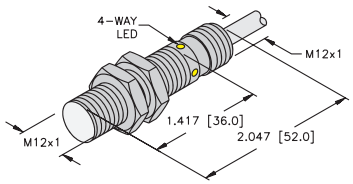
Inductive Sensors

Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
12 mm - Embeddable, Potted-In Cable 	Bi 2-M12-AD4X	T4405000		2	2-Wire DC
	Bi 3-M12-AD4X	T4405035	*Ext. Range*	3	
	Bi 2-M12-AN6X	T4606695		2	3-Wire DC NPN
	Bi 3U-EM12-AN6X	M1634320	*Uprox*	3	
	Bi 3U-M12-AN6X	M1634120	*Uprox*	3	
	Bi 4-M12-AN6X	T4607130	*Ext. Range*	4	
	Bi 2-M12-AP6X	T4605000		2	3-Wire DC PNP
	Bi 2-M12-AP6X/S100	M4605003	*High Temp. 100°C*	2	
	Bi 3U-EM12-AP6X	M1634300	*Uprox*	3	
	Bi 3U-M12-AP6X	M1634100	*Uprox*	3	
	Bi 4-M12-AP6X	T4607006	*Ext. Range*	4	
	Bi 2-M12-VN6X	T1640200	*Comp. Output*	2	4-Wire DC NPN
	Bi 4-M12-VN6X	T1643300	*Ext. Range, Comp. Output*	4	
	Bi 2-M12-VP6X	T1630200	*Comp. Output*	2	4-Wire DC PNP
	Bi 4-M12-VP6X	T1633300	*Ext. Range, Comp. Output*	4	
	Bi 2-EM12-ADZ32X	T4205092		2	2-Wire AC/DC Short-circuit Protected
12 mm - Embeddable, Potted-In Cable, Teflon Coated 	Bi 2U-MT12-ADZ32X	M4205100	*Uprox*	2	2-Wire AC/DC Short-circuit Protected
12 mm - Embeddable, Potted-In Cable 	Bi 3-EM12WD-AN6X	M1634333	*Washdown*	3	3-Wire DC NPN
	Bi 2-EM12WD-AP6/S929	M4614515	*Low Temp. -60°C*	2	3-Wire DC PNP
	Bi 3-EM12WD-AP6X	M1634330	*Washdown*	3	
	Bi 3-EM12WD-AP6X/S97	M1634336	*Low Temp. -40°C*	3	

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 #
10-65 VDC	1000	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1
	1000	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2
	3000	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	2
	3000	≤200	-30 to +85	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
	2000	≤200	-25 to +100	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3
	3000	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	3
	3000	≤200	-30 to +85	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4
	2000	≤200	-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	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	SS	PA 12	EPTR	N/A	YE	2M/PVC	6
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	TC	TC	EPTR	N/A	YE	2M/PVC	6
10-30 VDC	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	2
10-30 VDC	1000	≤200	-60 to +60	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3
	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3
	2000	≤200	-40 to +70	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3

Wiring Diagrams

Diagram 1

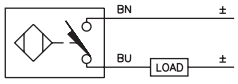


Diagram 2

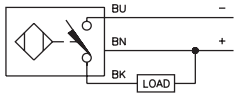


Diagram 3

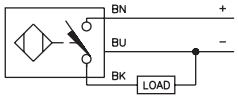


Diagram 4

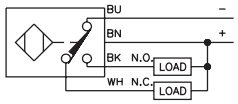


Diagram 5

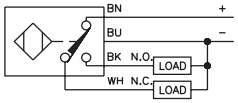
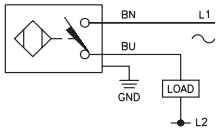
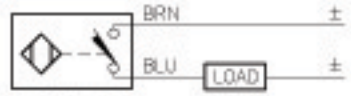


Diagram 6



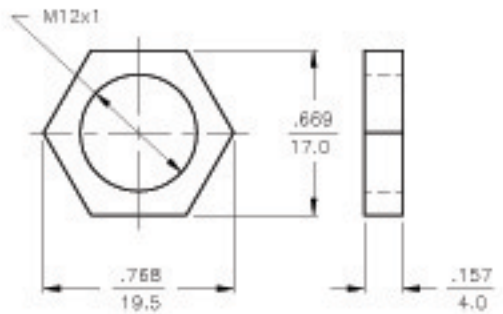
WIRING DIAGRAM



OUTPUT: AD4X

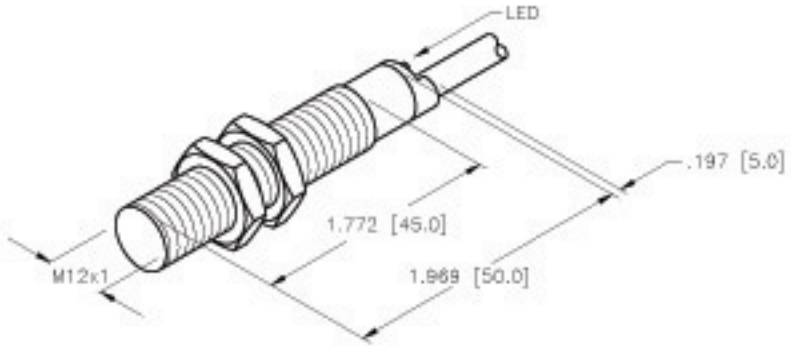
SHORT-CIRCUIT AND OVERLOAD PROTECTED

LOCKNUT LN-M12



SPECIFICATIONS

OPERATING VOLTAGE	10-65 VDC
RIPPLE	≤ 10%
HYSTERESIS (DIFFERENTIAL TRAVEL)	3-15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤ 5.0 V at 100 mA
OUTPUT FUNCTION	NORMALLY OPEN 2-WIRE DC SELF-CONTAINED
TTL COMPATIBLE	NO
SHORT-CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 120 mA
MAXIMUM LOAD CURRENT	≤ 100 mA
MINIMUM LOAD CURRENT	≥ 3.0 mA
LEAKAGE (OFF-STATE) CURRENT	≤ 0.8 mA
TIME DELAY BEFORE AVAILABILITY	≤ 10 ms
POWER-ON EFFECT PROTECTION	INCORPORATED
PROTECTION AGAINST TRANSIENTS	PER 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	YELLOW: OUTPUT ENERGIZED
SENSING RANGE	2 mm = .079" (NOMINAL)
SWITCHING FREQUENCY	1000 Hz
REPEATABILITY	≤ 2% of NOMINAL SENSING RANGE
SHIELDED	YES



SOURCE DRAWING - FOR REFERENCE ONLY

NOTE:

1. ALL TOLERANCES ±1.0 mm.
2. THIS SENSOR MAY BE USED AS A SINKING OR SOURCING DEVICE.

REV	DESCRIPTION	BY	DATE	ECO NO.
C	UPDATE HOUSING STYLE, LED COLOR	CBM	04/24/00	B3497

RELATED DOCUMENTS
1.
2.
3.
4.

3RD ANGLE PROJECTION

TURCK INC
High Technology Sensors and Automation Controls

MATERIAL: BRASS BARREL

FINISH: COPPER/NICKEL/ CHROME PLATING

TOLERANCES UNLESS OTHERWISE SPECIFIED
.X ±0.02
.XX ±0.01
.XXX ±0.005
ANGLES ±1°
ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY

DRFT: CBM | DATE: 04/24/00
DSGN: | SCALE: NONE

UNIT OF MEASUREMENT
INCH [MILLIMETER]
DO NOT SCALE THIS DRAWING

DESCRIPTION: Bi 2-M12-AD4X

IDENTIFICATION NO.: T4405000 | REV: C

FILE: T4405000 | SHEET 1 OF 1