

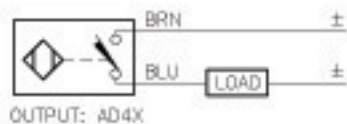
Inductive Sensors



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	

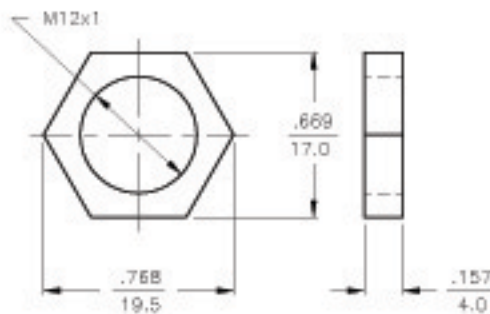
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/ Cable Mat.	Wiring Diagram #	Wiring Diagrams
10-65 VDC	1000	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1	Diagram 1
	1000	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	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	Diagram 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	Diagram 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	Diagram 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	Diagram 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	Diagram 6
	20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	TC	TC	EPTR	N/A	YE	2M/PVC	
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 DIAGRAM



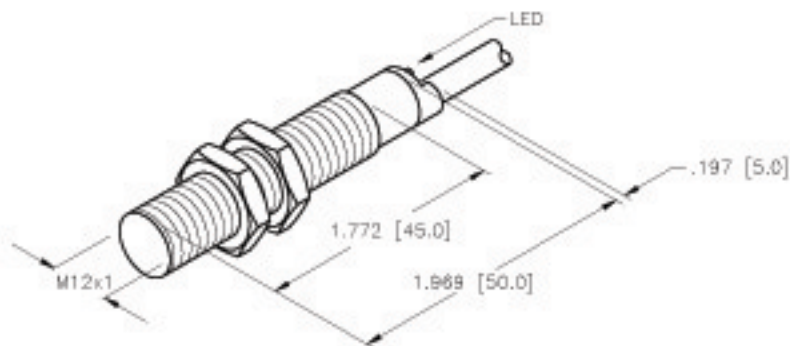
SHORT-CIRCUIT AND OVERLOAD PROTECTED

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
SHDRT-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.

RELATED DOCUMENTS		3RD ANGLE PROJECTION		THIS DRAWING IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED.		 High Technology Sensors and Automation Controls			
1.			TOLERANCES UNLESS OTHERWISE SPECIFIED: .X ±0.02 .XX ±0.01 .XXX ±0.005 ANGLES ±1° ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY	DRFT	CBM	DATE	D4/24/00	DESCRIPTION	Bi 2-M12-AD4X
2.				USDR		SCALE	NONE		
3.		FINISH		UNIT OF MEASUREMENT		IDENTIFICATION NO.		REV	C
4.		COPPER/NICKEL/ CHROME PLATING		INCH [MILLIMETER]		T4405000			
C	UPDATE HOUSING STYLE, LED COLOR	CBM	04/24/00	B3497	DO NOT SCALE THIS DRAWING		FILE: T4405000	SHEET 1 OF 1	
REV	DESCRIPTION	BY	DATE	EDD NO.					