

# Inductive Sensors



Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
<b>12 mm - Embeddable, picofast® Connection</b> 	Bi 4U-M12-AP6X-V1131	M1634780	<i>Uprox+</i>	4	3-Wire DC PNP
<b>12 mm - Embeddable, eurofast® Connection</b> 	Bi 4U-EM12-AN6X-H1141	M1634827	<i>Uprox+</i> , Stainless Steel	4	3-Wire DC NPN
	Bi 4U-EM12WD-AN6X-H1141	M1634841	<i>Uprox+</i> , Washdown	4	
	Bi 4U-M12-AN6X-H1141	M1634824	<i>Uprox+</i>	4	
	Bi 4U-MT12-AN6X-H1141	M1634829	<i>Uprox+</i> , Teflon	4	
	3-Wire DC PNP	Bi 4U-EM12-AP6X-H1141	M1634807	<i>Uprox+</i> , Stainless Steel	4
		Bi 4U-EM12WD-AP6X-H1141	M1634812	<i>Uprox+</i> , Washdown	4
		Bi 4U-M12-AP6X-H1141	M1634804	<i>Uprox+</i>	4
		Bi 4U-MT12-AP6X-H1141	M1634809	<i>Uprox+</i> , Teflon	4
		Bi 4U-MT12E-AP6X2-H1141*	M1644742	<i>Uprox+</i> , Dual LED's	4
		<b>12 mm - Nonembeddable, eurofast Connection</b> 	Ni 10U-EM12-AN6X-H1141	M1634828	<i>Uprox+</i> , Stainless Steel
Ni 10U-EM12WD-AN6X-H1141	M1634837		<i>Uprox+</i> , Washdown	10	
Ni 10U-M12-AN6X-H1141	M1634826		<i>Uprox+</i>	10	
Ni 10U-MT12-AN6X-H1141	M1634830		<i>Uprox+</i> , Teflon	10	
3-Wire DC PNP	Ni 10U-EM12-AP6X-H1141		M1634808	<i>Uprox+</i> , Stainless Steel	10
	Ni 10U-EM12WD-AP6X-H1141		M1634814	<i>Uprox+</i> , Washdown	10
	Ni 10U-M12-AP6X-H1141		M1634806	<i>Uprox+</i>	10
	Ni 10U-MT12-AP6X-H1141		M1634810	<i>Uprox+</i> , Teflon	10
	Ni 10U-MT12E-AP6X2-H1141*		M1634844	<i>Uprox+</i> , Dual LED's	10
	<b>12 mm - Embeddable, Potted-in Cable</b> 		Bi 4U-EM12WD-AN6X	M1634842	<i>Uprox+</i> , Washdown
Bi 4U-M12-AN6X		M1634823	<i>Uprox+</i>	4	
3-Wire DC PNP		Bi 4U-EM12WD-AP6X	M1634811	<i>Uprox+</i> , Washdown	4
		Bi 4U-M12-AP6X	M1634803	<i>Uprox+</i>	4
<b>12 mm - Nonembeddable, Potted-in Cable</b> 	Ni 10U-EM12WD-AN6X	M1634838	<i>Uprox+</i> , Washdown	10	3-Wire DC NPN
	Ni 10U-M12-AN6X	M1634825	<i>Uprox+</i>	10	
	3-Wire DC PNP	Ni 10U-EM12WD-AP6X	M1634813	<i>Uprox+</i> , Washdown	10
		Ni 10U-M12-AP6X	M1634805	<i>Uprox+</i>	10

\* MT12E = extended barrel length 62mm.

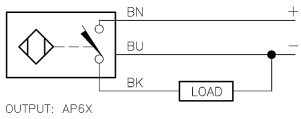


Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Mating Cordset	Wiring Diagram #	Wiring Diagrams
10-30 VDC	2000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	PKG 3Z-*	5	<p><b>Diagram 1</b></p>
10-30 VDC	2000	≤200	-30 to +85	IP 68	SS	LCP	N/A	YE	RK 4T-*	1	<p><b>Diagram 2</b></p>
	2000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	RK 4T-*	1	
	2000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	RK 4T-*	1	
	2000	≤200	-30 to +85	IP 68	TC	LCP	N/A	YE	RK 4T-*	1	
10-30 VDC	2000	≤200	-30 to +85	IP 68	SS	LCP	N/A	YE	RK 4T-*	2	<p><b>Diagram 3</b></p>
	2000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	RK 4T-*	2	
	2000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	RK 4T-*	2	
	2000	≤200	-30 to +85	IP 68	TC	LCP	N/A	YE	RK 4T-*	2	
	2000	≤200	-30 to +85	IP 68	TC	LCP	GN	YE	RK 4.4T-*	2	
10-30 VDC	1000	≤200	-30 to +85	IP 68	SS	LCP	N/A	YE	RK 4T-*	1	<p><b>Diagram 4</b></p>
	1000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	RK 4T-*	1	
	1000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	RK 4T-*	1	
	1000	≤200	-30 to +85	IP 68	TC	LCP	N/A	YE	RK 4T-*	1	
10-30 VDC	1000	≤200	-30 to +85	IP 68	SS	LCP	N/A	YE	RK 4T-*	2	<p><b>Diagram 5</b></p>
	1000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	RK 4T-*	2	
	1000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	RK 4T-*	2	
	1000	≤200	-30 to +85	IP 68	TC	LCP	N/A	YE	RK 4T-*	2	
	1000	≤200	-30 to +85	IP 68	TC	LCP	GN	YE	RK 4T-*	2	
10-30 VDC	2000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	2M/PUR	3	<p><b>Diagram 5</b></p>
	2000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	2M/PVC	3	
10-30 VDC	2000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	2M/PUR	4	<p><b>Diagram 5</b></p>
	2000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	2M/PVC	4	
10-30 VDC	1000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	2M/PUR	3	<p><b>Diagram 5</b></p>
	1000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	2M/PVC	3	
10-30 VDC	1000	≤200	-30 to +85	IP 68, 69K	SS	LCP	N/A	YE	2M/PUR	4	<p><b>Diagram 5</b></p>
	1000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	2M/PVC	4	

Uprox+

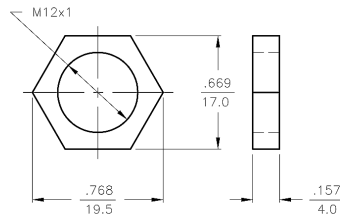
\* Length in meters.

WIRING DIAGRAM



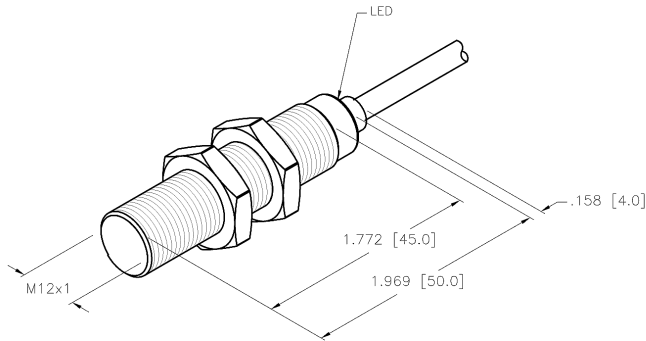
SHORT-CIRCUIT AND OVERLOAD PROTECTED

LOCKNUT LN-M12



SPECIFICATIONS

RATED OPERATING DISTANCE	4mm [.158]
MOUNTING MODE	FLUSH
TEMPERATURE DRIFT	≤±10%
HYSTERESIS	3-15%
MIN. REPEAT ACCURACY	≤2%
OPERATING TEMPERATURE	-25°C to +75°C (-13°F to +167°F)
RATED OPERATIONAL VOLTAGE	10-30 VDC
MAX. RIPPLE	≤10%
RATED OPERATIONAL CURRENT	≤200 mA
NO-LOAD CURRENT	≤15 mA
MAX. OFF-STATE CURRENT	≤0.1 mA
RATED INSULATION VOLTAGE	≤0.5 kV
SHORT-CIRCUIT PROTECTION	YES
MAX. VOLTAGE DROP	≤1.8 V
WIRE BREAKAGE PROTECTION	INCORPORATED
REVERSE POLARITY PROTECTION	INCORPORATED
OUTPUT FUNCTION	3-WIRE, NORMALLY OPEN, PNP
MAX. SWITCHING FREQUENCY	≤2 kHz
HOUSING MATERIAL	BRASS, CHROME PLATED
ACTIVE FACE	PLASTIC, LCP-GF30
END CAP	PLASTIC, EPTR
CABLE	Ø5.2, LiYY, PVC, 2 METER LENGTH
VIBRATION RESISTANCE	55 Hz (IN ALL 3 PLANES)
SHOCK RESISTANCE	30 g, 11 ms
DEGREE OF PROTECTION	IP 68
SWITCHING STATUS INDICATION	LED, YELLOW



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.	 High Technology Sensors and Automation Controls		
MATERIAL	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRFT RDS	DATE 05/08/06	DESCRIPTION BI 4U-M12-AP6X	
FINISH	.X ±0.02 .XX ±0.01 .XXX ±0.005 ANGLES ±1° ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY	DGSGN TB	SCALE 1=1.0		
		UNIT OF MEASUREMENT <b>INCH [ MILLIMETER ]</b>		IDENTIFICATION NO. M1634803	REV A
A DRAWING RELEASE	RDS 05/08/06	DO NOT SCALE THIS DRAWING		FILE: M1634803	SHEET 1 OF 1