

# 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.

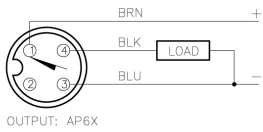


Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Mating Cordset	Wiring Diagram #	Wiring Diagrams
10-30 VDC	2000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	PKG 3Z-*	5	<p><b>Diagram 1</b></p>
10-30 VDC	2000	≤200	-30 to +85	IP 68	SS	LCP	N/A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

Uprox+

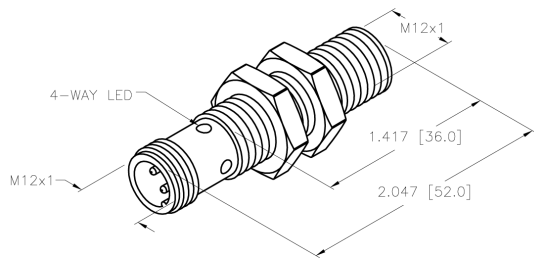
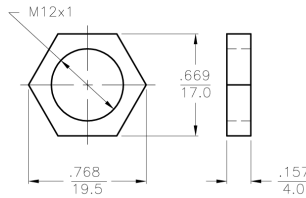
\* Length in meters.

WIRING DIAGRAM



SHORT-CIRCUIT AND OVERLOAD PROTECTED

LOCKNUT LN-M12



SPECIFICATIONS

RATED OPERATING DISTANCE	4mm =.158"
MOUNTING MODE	FLUSH
MIN. REPEAT ACCURACY	≤ 2%
TEMPERATURE DRIFT	≤ ±10%
HYSTERESIS (SWITCHING DISTANCE)	3-15%
OPERATING TEMPERATURE	-30°C to +85°C (-22°F to +185°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 PROTECTED	YES
MAX. VOLTAGE DROP	≤ 1.8 V
REVERSE POLARITY PROTECTION	INCORPORATED
WIRE-BREAK PROTECTION	INCORPORATED
OUTPUT FUNCTION	NORMALLY OPEN, 3-WIRE, PNP
MAX. SWITCHING FREQUENCY	≤ 2 kHz
HOUSING MATERIAL	METAL, BRASS/CHROME PLATED
ACTIVE FACE	PLASTIC, LCP-GF30
CONNECTION	M12x1
SHOCK RESISTANCE	30 g, 11 ms
VIBRATION RESISTANCE	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
DEGREE OF PROTECTION	IP68
SWITCHING STATUS INDICATION	LED: YELLOW

SOURCE DRAWING - FOR REFERENCE ONLY

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MATERIAL	TOLERANCES UNLESS OTHERWISE SPECIFIED .X ±0.02 .XX ±0.01 .XXX ±0.005 ANGLES ±1°	DRFT RDS D5GN TB	DATE 05/08/06 SCALE 1=1.0	DESCRIPTION BI 4U-M12-AP6X-H1141	
FINISH	ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY	UNIT OF MEASUREMENT <b>INCH [ MILLIMETER ]</b>		IDENTIFICATION NO. M1634804	REV A
A DRAWING RELEASE	RDS 05/09/06	DO NOT SCALE THIS DRAWING		FILE: M1634804	SHEET 1 OF 1
REV DESCRIPTION	BY DATE ECO NO.				