



Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
12 mm - Embeddable, <i>picofast</i>® Connection 	Bi 4U-M12-AP6X-V1131	M1634780	<i>Uprox+</i>	4	3-Wire DC PNP
12 mm - Embeddable, <i>eurofast</i>® Connection 	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	
	Bi 4U-EM12-AP6X-H1141	M1634807	<i>Uprox+</i> , Stainless Steel	4	3-Wire DC PNP
	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	
12 mm - Nonembeddable, <i>eurofast</i> Connection 	Ni10U-EM12-AN6X-H1141	M1634828	<i>Uprox+</i> , Stainless Steel	10	3-Wire DC NPN
	Ni10U-EM12WD-AN6X-H1141	M1634837	<i>Uprox+</i> , Washdown	10	
	Ni10U-M12-AN6X-H1141	M1634826	<i>Uprox+</i>	10	
	Ni10U-MT12-AN6X-H1141	M1634830	<i>Uprox+</i> , Teflon	10	
	Ni10U-EM12-AP6X-H1141	M1634808	<i>Uprox+</i> , Stainless Steel	10	3-Wire DC PNP
	Ni10U-EM12WD-AP6X-H1141	M1634814	<i>Uprox+</i> , Washdown	10	
	Ni10U-M12-AP6X-H1141	M1634806	<i>Uprox+</i>	10	
	Ni10U-MT12-AP6X-H1141	M1634810	<i>Uprox+</i> , Teflon	10	
	Ni10U-MT12E-AP6X2-H1141*	M1634844	<i>Uprox+</i> , Dual LED's	10	
12 mm - Embeddable, Potted-in Cable 	Bi 4U-EM12WD-AN6X	M1634842	<i>Uprox+</i> , Washdown	4	3-Wire DC NPN
	Bi 4U-M12-AN6X	M1634823	<i>Uprox+</i>	4	
	Bi 4U-EM12WD-AP6X	M1634811	<i>Uprox+</i> , Washdown	4	3-Wire DC PNP
	Bi 4U-M12-AP6X	M1634803	<i>Uprox+</i>	4	
12 mm - Nonembeddable, Potted-in Cable 	Ni10U-EM12WD-AN6X	M1634838	<i>Uprox+</i> , Washdown	10	3-Wire DC NPN
	Ni10U-M12-AN6X	M1634825	<i>Uprox+</i>	10	
	Ni10U-EM12WD-AP6X	M1634813	<i>Uprox+</i> , Washdown	10	3-Wire DC PNP
	Ni10U-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	Diagram 1
10-30 VDC	2000	≤200	-30 to +85	IP 68	SS	LCP	N/A	YE	RK 4T-*	1	Diagram 2
	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	Diagram 3
	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	Diagram 4
	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	Diagram 5
	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	Diagram 5
	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	Diagram 5
	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	Diagram 5
	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	Diagram 5
	1000	≤200	-30 to +85	IP 68	CPB	LCP	N/A	YE	2M/PVC	4	

* Length in meters.

WIRING DIAGRAM

OUTPUT: AN6X

SHORT-CIRCUIT AND OVERLOAD PROTECTED

LOCKNUT LN-M12

M12x1

.669
17.0

.768
19.5

.157
4.0

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, NPN
MAX. SWITCHING FREQUENCY	≤ 2 kHz
HOUSING MATERIAL	BRASS, CHROME PLATED
ACTIVE FACE	PLASTIC, LCP-GF30
END CAP	PLASTIC, EPTR
CABLE	ø5.2, LifYY, 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

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TURCK INC
High Technology Sensors and Automation Controls

DRFT RDS
DSGN TB

DATE 05/08/06
SCALE 1=1.0

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

MATERIAL

FINISH

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

DESCRIPTION
BI 4U-M12-AN6X

IDENTIFICATION NO.
M1634823

REV
A

A DRAWING RELEASE

REV DESCRIPTION

RDS 05/08/06

BY DATE ECO NO.

FILE: M1634823

SHEET 1 OF 1