

Inductive Sensors



Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
12 mm - Embeddable, eurofast® Connection 	Bi 4-M12K-AN6X-H1141	T4607101	Short Barrel	4	3-Wire DC PNP
	Bi 4-M12K-AP6X-H1141	T4607082	Short Barrel	4	3-Wire DC PNP
	Bi 2-M12K-VP6X-H1141	M1633005	Short Barrel	2	4-Wire DC PNP
12 mm - Embeddable, eurofast Connection 	Bi 2-M12-AD4X-H1141	T4406500		2	2-Wire DC
	Bi 3-M12-AD4X-H1141	T4405041	Ext. Range	3	
	Bi 2-EM12-AN6X-H1141	T4606601		2	3-Wire DC NPN
	Bi 2-M12-AN6X-H1141	T4606600		2	
	Bi 3-EM12WD-AN6X-H1141	M1634334	Washdown	3	
	Bi 3-M12WD-AN6X-H1141	M4607120	Washdown	3	
	Bi 3U-EM12-AN6X-H1141	M1634350	Uprox	3	
	Bi 3U-M12-AN6X-H1141	M1634150	Uprox	3	
	Bi 3U-M12-AN6X2-H1141	M1634155	Uprox	3	
	Bi 4-M12-AN6X-H1141	T4607100	Extended Range	4	
	Bi 2-EM12-AP6X-H1141	T4606501		2	3-Wire DC PNP
	Bi 2-M12-AP6X-H1141	T4606500		2	
	Bi 3-EM12WD-AP6X-H1141	M1634331	Washdown	3	
	Bi 3-M12WD-AP6X-H1141	M4607121	Washdown	3	
	Bi 3U-EM12-AP6X-H1141	M1634340	Uprox	3	
	Bi 3U-EM12H-AP6X-H1141	M1634312	Uprox, Stoneface	3	
	Bi 3U-M12-AP6X-H1141	M1634140	Uprox	3	
	Bi 3U-M12-AP6X2-H1141	M1634145	Uprox	3	
	Bi 4-M12-AP6X-H1141	T4607000	Extended Range	4	
	Bi 2-M12-VN6X-H1141	T1643000	Comp. Outputs	2	4-Wire DC NPN
	Bi 4-M12-VN6X-H1141	T1643200	Ext. Range, Comp. Outputs	4	
	Bi 2-M12-VP6X-H1141	T1633000	Comp. Outputs	2	4-Wire DC PNP
	Bi 4-M12-VP6X-H1141	T1633200	Ext. Range, Comp. Outputs	4	
	Bi 4-EM12-VP6X-H1141	T1633201	Ext. Range, Comp. Outputs	4	
	Bi 2-EM12-Y0X-H1141	T4010098		2	2-Wire DC NAMUR
	Bi 2-M12-Y1X-H1141	M4010200		2	

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	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2	Diagram 1
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	5	Diagram 2
10-65 VDC	1000	≤100	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.2T-*	1	Diagram 3
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4T-*	2	Diagram 4
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2	Diagram 5
10-30 VDC	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	2	Diagram 6
10-30 VDC	3000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	2	
10-30 VDC	3000	≤200	-30 to +85	IP 68	SS	PA 12	N/A	YE	RKV 4T-*	2	
10-30 VDC	3000	≤200	-30 to +85	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2	
10-30 VDC	3000	≤200	-30 to +85	IP 67	CPB	PA 12	GN	YE	RK 4T-*	2	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2	
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4T-*	3	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3	
10-30 VDC	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	3	
10-30 VDC	3000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	3	
10-30 VDC	3000	≤200	-30 to +85	IP 68	SS	PA 12	N/A	YE	RKV 4T-*	3	
10-30 VDC	3000	≤200	-30 to +85	IP 68	SS	SF	N/A	YE	RKG 4T-*/S600	3	
10-30 VDC	3000	≤200	-30 to +85	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3	
10-30 VDC	3000	≤200	-30 to +85	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	4	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	4	
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4.4T-*	5	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	5	
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4.4T-*	5	
5-30 VDC	5000	Remote	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4.21T-*	6	
5-30 VDC	5000	Remote	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.21T-*	6	

* Length in meters.

WIRING DIAGRAM

BN
N.O.
BK
LOAD
BU
N.C.
WH
LOAD

OUTPUT: VN6X

LOCKNUT LN-M12

M12x1
.669 [17.0]
.768 [19.5]
.157 [4.0]

SPECIFICATIONS

RATED OPERATING DISTANCE	4 mm [.158]
MOUNTING MODE	FLUSH
TEMPERATURE DRIFT	≤±10%
HYSTERESIS (SWITCHING DISTANCE)	3–15%
MIN. REPEAT ACCURACY	≤2%
OPERATING TEMPERATURE	–25°C to +70°C (–13°F to +158°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
WIRE-BREAK PROTECTION	INCORPORATED
REVERSE POLARITY PROTECTION	INCORPORATED
OUTPUT FUNCTION	4-WIRE, COMPLIMENTARY, NPN
MAX. SWITCHING FREQUENCY	≤2 kHz
HOUSING MATERIAL	BRASS, CHROME PLATED
ACTIVE FACE	PLASTIC, PA12-GF30
CONNECTOR	M12x1 EUROFAST
VIBRATION RESISTANCE	55 Hz (IN ALL 3 PLANES)
SHOCK RESISTANCE	30 g, 11 ms
DEGREE OF PROTECTION	IP 67
SWITCHING STATUS INDICATION	LED, YELLOW

M12x1
LEDs
.354 [9.0]
1.417 [36.0]
2.047 [52.0]

RELATED DOCUMENTS

1.
2.
3.
4.

3RD ANGLE PROJECTION

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TURCK INC
High Technology Sensors and Automation Controls

MATERIAL

TOLERANCES UNLESS OTHERWISE SPECIFIED

DRFT RDS
DSGN

DATE 09/21/04
SCALE 1=1.0

DESCRIPTION
BI 4-M12-VN6X-H1141

FINISH

±0.0394 in
[±1.00 mm]

UNIT OF MEASUREMENT
INCH [MILLIMETER]

IDENTIFICATION NO.
T1643200

REV
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A DRAWING RELEASE

RDS 09/22/04

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FILE: T1643200

SHEET 1 OF 1