

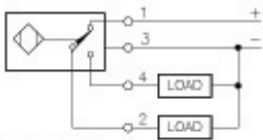
Inductive Sensors



Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
	Bi 15-CP40-AD4X	M4477000		•	15	2-Wire DC
	Ni 20-CP40-AD4X	M4477100			20	
	Bi 15U-CP40-AN6X2	M1623512	<i>Uprox</i>	•	15	3-Wire DC NPN
	Bi 15-CP40-AN6X2	M1623000		•	15	
	Ni 20-CP40-AN6X2	M1623100			20	
	Ni 25U-CP40-AN6X2	M1623711	<i>Uprox</i>		25	
	Ni 40U-CP40-AN6X2	M1623610	<i>Uprox, Ext. Range</i>		40	
	Bi 15-CP40-AN6X2/S97	M1623001	<i>Low Temp -40° C</i>	•	15	
	Bi 15U-CP40-AP6X2	M1623502	<i>Uprox</i>	•	15	3-Wire DC PNP
	Bi 15-CP40-AP6X2	M1603000		•	15	
	Ni 20-CP40-AP6X2	M1603100			20	
	Ni 25U-CP40-AP6X2	M1623701	<i>Uprox</i>		25	
	Ni 40U-CP40-AP6X2	M1623602	<i>Uprox</i>		40	
	Ni 50U-CP40-AP6X2	M1625842	<i>Uprox, Ext. Range</i>		50	
	Bi 15U-CP40-VN4X2	M1540511	<i>Uprox</i>	•	15	4-Wire NPN
	Bi 15-CP40-VN4X2	M1525000	Comp. Outputs	•	15	
	Bi 15-CP40-VN4X2/S100	M1514400	High Temp. 100°C	•	15	
	Bi 20-CP40-VN4X2	M1579221	Ext. Range	•	20	
	Ni 20-CP40-VN4X2	M1525100	Comp. Outputs		20	
	Ni 20-CP40-VN4X2/S100	M1527200	High Temp. 100°C		20	
	Ni 20NF-CP40-VN4X2	M1528200	<i>Nonferrous</i>		20	
	Ni 35-CP40-VN4X2	M1525400	Comp. Outputs		35	
	Ni 40U-CP40-VN4X2	M1540611	<i>Uprox, Ext. Range</i>		40	
	Ni 50U-CP40-VN4X2	M1625807	<i>Uprox</i>		50	
	Bi 15U-CP40-VP4X2	M1540501	<i>Uprox</i>	•	15	4-Wire PNP
	Bi 15-CP40-VP4X2	M1501000	Comp. Outputs	•	15	
	Bi 15-CP40-VP4X2/S100	M1501900	High Temp. 100°C	•	15	
	Bi 20-CP40-VP4X2	M1501200	Ext. Range	•	20	
	Ni 20-CP40-VP4X2	M1501100	Comp. Outputs		20	
	Ni 20-CP40-VP4X2/S100	M1502000	High Temp. 100°C		20	
	Ni 20NF-CP40-VP4X2	M1508200	<i>Nonferrous</i>		20	
	Ni 35-CP40-VP4X2	M1501400	Comp. Outputs		35	
	Ni 40U-CP40-VP4X2	M1540601	<i>Uprox, Ext. Range</i>		40	
	Ni 50U-CP40-VP4X2	M1538303	<i>Uprox</i>		50	
	Bi 15U-CP40-ASIX2	M1901003	<i>Uprox</i>	•	15	2-Wire ASI-BUS
	Ni 40U-CP40-ASIX2	M1901008	<i>Uprox</i>		40	

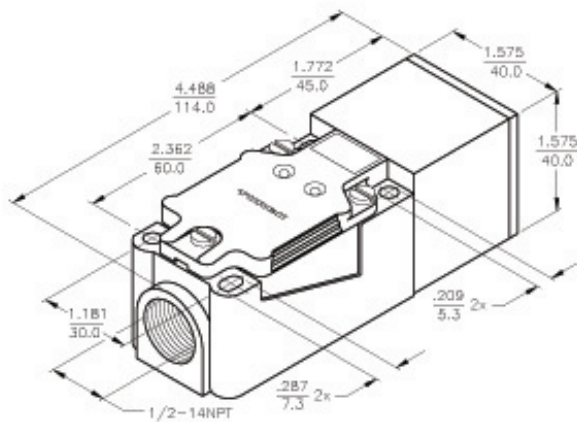
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/Face	Power LED	Output LED	Mating Cord, Cable Length/Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1	Diagram 1
	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	Diagram 2
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	
	250	≤200	-40 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	Diagram 3
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	Diagram 4
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	4	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	4	
	100	≤200	0 to +60	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4		
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	Diagram 5
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	100	≤200	0 to +60	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	
18-33 VDC	200	N/A	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	6	Diagram 6
	200	N/A	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	6	

WIRING DIAGRAM



OUTPUT: VP4X2

SHORT-CIRCUIT AND OVERLOAD PROTECTED



SPECIFICATIONS

OPERATING VOLTAGE	10-65 VDC
RIPPLE	≤ 10%
DIFFERENTIAL TRAVEL (HYSTERESIS)	3-15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤ 1.8 V at 200 mA
OUTPUT FUNCTION	COMPLEMENTARY OUTPUT, ONE N.O., ONE N.C.
TTL COMPATIBLE	NO
SHORT-CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 220 mA
CONTINUOUS LOAD CURRENT	≤ 200 mA
OFF-STATE (LEAKAGE) CURRENT	< 10 μA
NO-LOAD CURRENT	8-13 mA
TIME DELAY BEFORE AVAILABILITY	4-8 ms
POWER-ON EFFECT PROTECTION	PER IEC 947-5-2
REVERSE POLARITY PROTECTION	INCORPORATED
WIRE-BREAK PROTECTION	INCORPORATED
PROTECTION AGAINST TRANSIENTS	2 kV, 1 ms, 1 kΩ
OPERATING TEMPERATURE (10% DRIFT)	-25°C to +70°C (-13°F to +158°F)
OPERATING TEMPERATURE (15% DRIFT)	-25°C to +85°C (-13°F to +185°F)
ENCLOSURE	MEETS NEMA 1, 3, 4, 6, 13 AND EC IP67
SHOCK	30 g, 11 ms
VIBRATION	55 Hz, 1 mm AMPITUDE (IN ALL 3 PLANES)
LED FUNCTION	GREEN: POWER ON YELLOW: OUTPUT ENERGIZED
SENSING RANGE	15 mm = .591" (NOMINAL)
SWITCHING FREQUENCY	250 Hz
REPEATABILITY	≤ 2% of NOMINAL SENSING RANGE
EMBEDDABLE (SHIELDED)	YES

1. SENSING HEAD TURNS TO ACCOMMODATE 9 DIFFERENT SENSING POSITIONS.
2. UPDXX HAS WELD FIELD IMMUNITY, SENSOR IS SUITABLE FOR USE ON RESISTANCE MACHINES.
3. ALL DIMENSIONS ARE 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.	TURCK INC High Technology Sensors and Automation Controls	
MATERIAL PLASTIC HOUSING	TOLERANCES UNLESS OTHERWISE SPECIFIED .X ± 0.02 .XX ± 0.01 .XXX ± 0.005 ANGLES ± 1°	DWGT GMB USDR	DATE 04/25/90 SCALE NONE	DESCRIPTION Bi15U-CP40-VP4X2
FRESH	ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY	UNIT OF MEASUREMENT INCH [MILLIMETER]		IDENTIFICATION NO. M1540501
REV B UPDATE FORMAT, SWITCHING FREQUENCY	CBM 02/23/95 T2741	DO NOT SCALE THIS DRAWING		REV B
REV DESCRIPTION	BY DATE EDO NO.	FILE: M15405D1	SHEET 1 OF 1	