

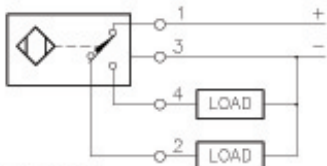
# Inductive Sensors



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	<b>Comp. Outputs</b>	•	15	
	Bi 15-CP40-VN4X2/S100	M1514400	<b>High Temp. 100°C</b>	•	15	
	Bi 20-CP40-VN4X2	M1579221	<b>Ext. Range</b>	•	20	
	Ni 20-CP40-VN4X2	M1525100	<b>Comp. Outputs</b>		20	
	Ni 20-CP40-VN4X2/S100	M1527200	<b>High Temp. 100°C</b>		20	
	Ni 20NF-CP40-VN4X2	M1528200	<i>Nonferrous</i>		20	
	Ni 35-CP40-VN4X2	M1525400	<b>Comp. Outputs</b>		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	<b>Comp. Outputs</b>	•	15	
	Bi 15-CP40-VP4X2/S100	M1501900	<b>High Temp. 100°C</b>	•	15	
	Bi 20-CP40-VP4X2	M1501200	<b>Ext. Range</b>	•	20	
	Ni 20-CP40-VP4X2	M1501100	<b>Comp. Outputs</b>		20	
	Ni 20-CP40-VP4X2/S100	M1502000	<b>High Temp. 100°C</b>		20	
	Ni 20NF-CP40-VP4X2	M1508200	<i>Nonferrous</i>		20	
	Ni 35-CP40-VP4X2	M1501400	<b>Comp. Outputs</b>		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	

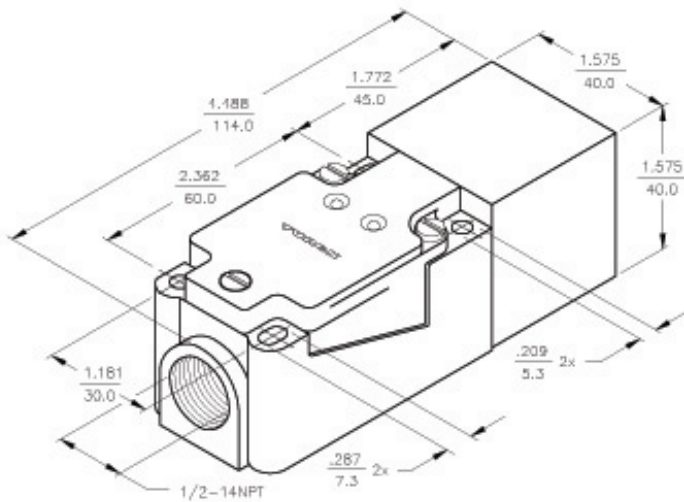
Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/Face	Power LED	Output LED	Mating Cord, Cable Length/Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1	<b>Diagram 1</b> 
	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	<b>Diagram 2</b> 
	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	<b>Diagram 3</b> 
	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	<b>Diagram 4</b> 
	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	
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	<b>Diagram 5</b> 
	250	≤200	-30 to +85	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	
	250	≤200	-30 to +85	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	
	250	≤200	-30 to +85	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	<b>Diagram 6</b> 
	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	
	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 (SHORT-CIRCUIT PROTECTED)
RIPPLE	≤ 10%
HYSTERESIS (DIFFERENTIAL TRAVEL)	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. (SPDT)
TTL COMPATIBLE	NO
SHORT-CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 220 mA
CONTINUOUS LOAD CURRENT	≤ 200 mA
LEAKAGE (OFF-STATE) CURRENT	< 10 μA
NO-LOAD CURRENT	4.0-9.5 mA
TIME DELAY BEFORE AVAILABILITY	≤ 25 ms
POWER-ON EFFECT PROTECTION	INCORPORATED
POLARITY INVERSION PROTECTION	INCORPORATED
WIRE-BREAK PROTECTION	INCORPORATED
PROTECTION AGAINST TRANSIENTS	2 kV, 1 ms, 1 kΩ
OPERATING TEMPERATURE	-25°C to +70°C (-13°F to +158°F)
ENCLOSURE	MEETS NEMA 1, 3, 4X, 6, 13 AND IEC IP67
SHOCK	30 g, 11 ms
VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
LED FUNCTION	GREEN: POWER ON YELLOW: OUTPUT ENERGIZED
SENSING RANGE	15 mm = .591" (NOMINAL)
SWITCHING FREQUENCY	150 Hz
REPEATABILITY	≤ 2%
SHIELDED	YES

NOTES:

1. SENSING HEAD TURNS TO ACCOMMODATE 9 DIFFERENT SENSING POSITIONS.

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MATERIAL PLASTIC HOUSING	TOLERANCES UNLESS OTHERWISE SPECIFIED .X ± 0.02 .XX ± 0.01 .XXX ± 0.005 ANGLES ± 1°	DWGT SMW USDR	DATE 10/27/86 SCALE NONE	DESCRIPTION Bi5-CP40-VP4X2
FRESH	ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY	UNIT OF MEASUREMENT <b>INCH [ MILLIMETER ]</b>		IDENTIFICATION NO. M1501000
D UPDATE TO CURRENT TITLEBLOCK	RDS 07/16/02 5504	DO NOT SCALE THIS DRAWING		REV D
REV DESCRIPTION	BY DATE EDO NO.	FILE: M1501000	SHEET 1 OF 1	