

Inductive Sensors



Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
CP40 - Embeddable/Nonembeddable, Terminal Chamber 	Bi15-CP40-AD4X	M4477000		•	15	2-Wire DC
	Ni20-CP40-AD4X	M4477100			20	
	Bi15U-CP40-AN6X2	M1623512	<i>Uprox</i>	•	15	3-Wire DC NPN
	Bi15-CP40-AN6X2	M1623000		•	15	
	Ni20-CP40-AN6X2	M1623100			20	
	Ni25U-CP40-AN6X2	M1623711	<i>Uprox</i>		25	
	Ni40U-CP40-AN6X2	M1623610	<i>Uprox, Ext. Range</i>		40	
	Bi15-CP40-AN6X2/S97	M1623001	<i>Low Temp -40° C</i>	•	15	
	Bi15U-CP40-AP6X2	M1623502	<i>Uprox</i>	•	15	3-Wire DC PNP
	Bi15-CP40-AP6X2	M1603000		•	15	
	Ni20-CP40-AP6X2	M1603100			20	
	Ni25U-CP40-AP6X2	M1623701	<i>Uprox</i>		25	
	Ni40U-CP40-AP6X2	M1623602	<i>Uprox</i>		40	
	Ni50U-CP40-AP6X2	M1625842	<i>Uprox, Ext. Range</i>		50	
	Bi15U-CP40-VN4X2	M1540511	<i>Uprox</i>	•	15	4-Wire NPN
	Bi15-CP40-VN4X2	M1525000	Comp. Outputs	•	15	
	Bi15-CP40-VN4X2/S100	M1514400	High Temp. 100°C	•	15	
	Bi20-CP40-VN4X2	M1579221	Ext. Range	•	20	
	Ni20-CP40-VN4X2	M1525100	Comp. Outputs		20	
	Ni20-CP40-VN4X2/S100	M1527200	High Temp. 100°C		20	
	Ni20NF-CP40-VN4X2	M1528200	Nonferrous		20	
	Ni35-CP40-VN4X2	M1525400	Comp. Outputs		35	
	Ni40U-CP40-VN4X2	M1540611	<i>Uprox, Ext. Range</i>		40	
	Ni50U-CP40-VN4X2	M1625807	<i>Uprox</i>		50	
	Bi15U-CP40-VP4X2	M1540501	<i>Uprox</i>	•	15	4-Wire PNP
	Bi15-CP40-VP4X2	M1501000	Comp. Outputs	•	15	
	Bi15-CP40-VP4X2/S100	M1501900	High Temp. 100°C	•	15	
	Bi20-CP40-VP4X2	M1501200	Ext. Range	•	20	
	Ni20-CP40-VP4X2	M1501100	Comp. Outputs		20	
	Ni20-CP40-VP4X2/S100	M1502000	High Temp. 100°C		20	
	Ni20NF-CP40-VP4X2	M1508200	Nonferrous		20	
	Ni35-CP40-VP4X2	M1501400	Comp. Outputs		35	
	Ni40U-CP40-VP4X2	M1540601	<i>Uprox, Ext. Range</i>		40	
	Ni50U-CP40-VP4X2	M1538303	<i>Uprox</i>		50	
	Bi15U-CP40-ASIX2	M1901003	<i>Uprox</i>	•	15	2-Wire ASI-BUS
	Ni40U-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	
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	Diagram 5
	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	Diagram 6
	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	
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	

Rectangular

3-Wire DC

Ripple.	≤10%
Differential Travel (Hysteresis).	3-15% (5% typical)
Voltage Drop Across Conducting Sensor.	≤1.8 V
	- Si...K08/K10(AP71, AN7) . . . ≤0.7 V
	- Bi/Ni../S34 ≤1.8 V
	- Bi 2-Q8SE-AP/AN.. . . . ≤2.5 V
Trigger Current for Overload Protection	≥220 mA on 200 mA Load Current
	≥170 mA on 150 mA Load Current
	≥120 mA on 100 mA Load Current
Off-State (Leakage) Current	<100 µA
No-Load Current	<10 mA (Uprox ≤15 mA)
Time Delay Before Availability	≤8 ms
Power-On Effect	Per IEC 947-5-2
Reverse Polarity Protection	Incorporated
Wire-Break Protection	Incorporated
Transient Protection.	Per EN 60947-5-2
Shock.	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
	Bi 2-Q8SE-AP/AN.. ≤5% of Rated Operating Distance

4-Wire DC

Ripple.	≤10%
Differential Travel (Hysteresis).	3-15% (5% typical)
Voltage Drop Across Conducting Sensor.	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA on 200 mA Load Current
	≥170 mA on 150 mA Load Current
	≥120 mA on 100 mA Load Current
Off-State (Leakage) Current	<100 µA
No-Load Current	<10 mA (Uprox ≤15 mA)
Power-On Effect	Per IEC 947-5-2
Reverse Polarity Protection	Incorporated
Wire-Break Protection	Incorporated
Transient Protection.	Per EN 60947-5-2
Shock.	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance