

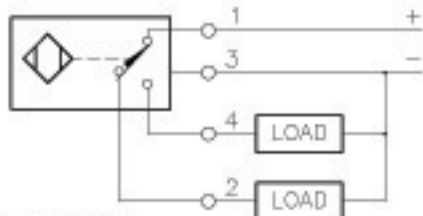
Inductive Sensors



| Housing Style - Rectangular | Part Number | ID Number | Features | Embeddable | Sensing Range (mm) | Output |
|---|----------------------|-----------|--------------------------|------------|--------------------|----------------|
| <p>CP40 - Embeddable/Nonembeddable, Terminal Chamber</p> | 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 | <i>Comp. Outputs</i> | • | 15 | |
| | Bi15-CP40-VN4X2/S100 | M1514400 | <i>High Temp. 100°C</i> | • | 15 | |
| | Bi20-CP40-VN4X2 | M1579221 | <i>Ext. Range</i> | • | 20 | |
| | Ni20-CP40-VN4X2 | M1525100 | <i>Comp. Outputs</i> | | 20 | |
| | Ni20-CP40-VN4X2/S100 | M1527200 | <i>High Temp. 100°C</i> | | 20 | |
| | Ni20NF-CP40-VN4X2 | M1528200 | <i>Nonferrous</i> | | 20 | |
| | Ni35-CP40-VN4X2 | M1525400 | <i>Comp. Outputs</i> | | 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 | <i>Comp. Outputs</i> | • | 15 | |
| | Bi15-CP40-VP4X2/S100 | M1501900 | <i>High Temp. 100°C</i> | • | 15 | |
| | Bi20-CP40-VP4X2 | M1501200 | <i>Ext. Range</i> | • | 20 | |
| | Ni20-CP40-VP4X2 | M1501100 | <i>Comp. Outputs</i> | | 20 | |
| | Ni20-CP40-VP4X2/S100 | M1502000 | <i>High Temp. 100°C</i> | | 20 | |
| | Ni20NF-CP40-VP4X2 | M1508200 | <i>Nonferrous</i> | | 20 | |
| | Ni35-CP40-VP4X2 | M1501400 | <i>Comp. Outputs</i> | | 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 | |

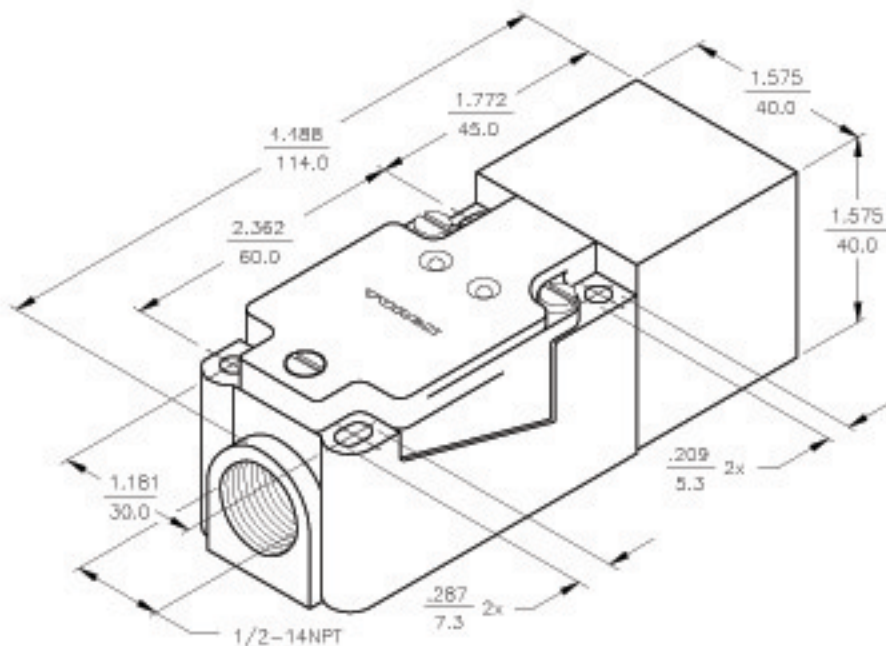
| Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Front Cap/Face | Power LED | Output LED | Mating Cord, Cable Length/Jacket | Wiring Diagram # | Wiring Diagrams |
|-----------|----------------------|------------------------|----------------------|------------|---------|----------------|-----------|------------|----------------------------------|------------------|----------------------|
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| | 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 | |

WIRING DIAGRAM



OUTPUT: VP4X2

SHORT-CIRCUIT AND OVERLOAD PROTECTED



SPECIFICATIONS

| | |
|---|---|
| OPERATING VOLTAGE | 10-85 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 μ A |
| 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 kA |
| 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.

| | | | | | |
|---|-----------------------------|---|---------------|---|----------------|
| 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. | | High Technology Sensors and Automation Controls | |
| | MATERIAL PLASTIC HOUSING | TOLERANCES UNLESS OTHERWISE SPECIFIED .X ±0.02 .XX ±0.01 .XXX ±0.005 ANGLES ±1° ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY | DRFT SNW | | |
| FINISH | | USDR | SCALE NONE | IDENTIFICATION NO. M1501000 | |
| | | UNIT OF MEASUREMENT INCH [MILLIMETER] | | REV D | |
| D UPDATE TO CURRENT TITLEBLOCK | | RDS | 07/16/03 | 5004 | |
| REV | DESCRIPTION | BY | DATE | EDD NO. | |
| | | | | DO NOT SCALE THIS DRAWING | FILE: M1501000 |
| | | | | | SHEET 1 OF 1 |