

Provides an encoder output.

The PT150 is a digital version of the reliable PT101 Position Transducer. Standard measurement ranges are from 0-2 to 0-500 inches. A bi-directional shaft encoder provides a TTL-compatible output which is used for display, feedback for servo systems, input for programmable controllers and other industrial applications. Outputs are squared quadrature, delayed 90 phase degrees, depending on whether the cable is extending or retracting. Output counts of 250/inch (100/cm) or 100/inch (40/cm) are available, depending on range.

FEATURES:

- Digital output
- 0.05% accuracy standard
- Resolutions to 0.004 inch or 0.10mm
- TTL compatible
- Metric ranges available
- Other encoder outputs available

| Measurement Range | Output | Resolution | Approx. Cable Tension | Max. Cable Acceleration | |
|-------------------|-------------|------------|-----------------------|-------------------------|------|
| Inches | Pulses/Inch | Inches | Ounces | Ext. G's | Ret. |
| 50 in. | 250 | 0.004 | 14 | 13 | 9 |
| 150 in. | 100 | 0.010 | 25 | 7 | 5 |
| 500 in. | 100 | 0.010 | 16 | 5 | 3 |
| MM | Pulses/MM | MM | Newtons | | |
| 1250 mm | 10 | 0.10 | 3 | 13 | 9 |
| 2500 mm | 5 | 0.20 | 8 | 7 | 5 |
| 10000 mm | 5 | 0.20 | 5 | 5 | 3 |

Specifications:

GENERAL

Range See Table
Case Material Aluminum Alloy
Electrical Connector¹ MS3102E-14S-6P

ELECTRICAL

Input Voltage² 5.0 ± 0.5 VDC
Input Current 130 mA max.
Output³
High (source) 2.4 volt min. @ 0.4 mA
Low (sink) 0.4 volt max. @ 16.00 mA

PERFORMANCE

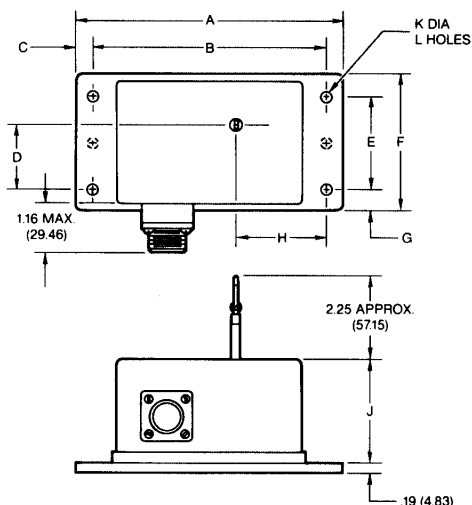
Accuracy ± 0.05% F.S. ± 1 count
Resolution⁴ See Table
Phase Accuracy ± 30° max.

ENVIRONMENTAL

Temperature Range 0° F to 200° F
Humidity up to 90% R.H.
Vibration up to 10 G's to 2000 Hz.

NOTES:

1. Mating connector supplied. Other connectors optional.
2. 5 VDC standard, consult factory for other voltages.
3. TTL compatible.
4. Resolution shown can be improved by a factor of 2 or 4 using external logic.



| | 0-50 INCHES 0-1250 MM | 0-150 INCHES 0-2500 MM | 0-500 INCHES 0-10,000 MM |
|---|--------------------------|---------------------------|-----------------------------|
| A | 5.25(133.3) | 8.00(203.2) | 8.38(212.9) |
| B | 4.75(120.6) | 7.38(187.4) | 7.75(196.8) |
| C | .25(6.35) | .31(7.87) | .31(7.87) |
| D | 2.02(51.31) | 3.10(78.74) | 7.28(184.9) |
| E | 2.38(60.45) | 3.00(76.20) | 10.00(254.0) |
| F | 3.25(82.55) | 4.25(107.9) | 11.25(285.7) |
| G | .44(11.18) | .62(15.75) | .62(15.75) |
| H | 1.87(47.50) | 3.69(93.73) | * |
| J | 2.66(67.56) | 3.79(96.27) | 4.16(105.6) |
| K | .20(5.08) | .25(6.35) | .25(6.35) |
| L | 4 HOLES | 4 HOLES | 6 HOLES |

* 10000 mm: H = 3.90(99.06)
500 inches: H = 3.57(90.68)

| | |
|---|-------------------------------|
| A | +5VDC EXCITATION |
| B | EXCITATION RET./OUTPUT COMMON |
| C | OUTPUT "B" |
| D | OUTPUT "A" |
| E | N.C. |
| F | N.C. |

CONNECTOR

ORDER INFORMATION

MODEL NO. RANGE (IN.)
PT150(E) 50-150-500 IN.
(1250-2500-10,000 MM)



TRANSDUCER PRODUCTS, INC
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PRICE LIST

PT150--11C-DE10

Effective : Jul 28, 2006
Produced: 7/28/2006
PT150-Ordering Codes.xls
PT150

| | |
|--|--|
| <input type="text"/> = Full Stroke Range | 0050 = 50 inches 1250 = 1250 mm 0150 = 150 inches 2500 = 2500 mm |
| A = 1 | |
| B = 1 | |
| C = Cable Exit | 1 = top exit 2, 3, 4 = front exit, rear exit and bottom exit |
| D = Output Driver | 1 = (replaced by 5) 2 = (replaced by 6) 3 = 10.8 - 26.4 VDC (open collector) 4 = (replaced by 6) 5 = 4.5 - 13.2 VDC TTL & CMOS compatible (standard) 6 = 10.8 - 26.4 VDC (open collector with pullup resistors) |
| E = Resolution | 1 = standard resolution 2 = 2 times resolution 3 = 2.5 times resolution 5 = 0.1 times resolution |
| F = Electrical Connection | 1 = 6-pin plastic connector and mating plug |

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