

Cable-Extension Position Transducer

RS232/485 Data Communication

Ranges: 0-2 to 0-50 inches

Compact Size

PT1232

Specification Summary:

GENERAL

Full Stroke Ranges 0-2 to 0-50 inches
 Electrical Interface RS232 or RS485
 Format ASCII
 Accuracy $\pm 0.10\%$ full stroke
 Repeatability $\pm 0.02\%$ full stroke
 Resolution $\pm 0.003\%$ full stroke
 Measuring Cable 0.019-in. dia. nylon-coated stainless steel
 Enclosure Material ABS plastic and anodized aluminum
 Sensor plastic-hybrid precision potentiometer
 Potentiometer Cycle Life see *ordering information*
 Maximum Retraction Acceleration see *ordering information*
 Weight 1 lb., max.

ELECTRICAL

Input Voltage 10...30 VDC
 Input Current 100 mA, max.
 Baud Rate 9600 (programmable to 19.2K)
 Configuration Software available @ <http://www.celesco.com/download>

ENVIRONMENTAL

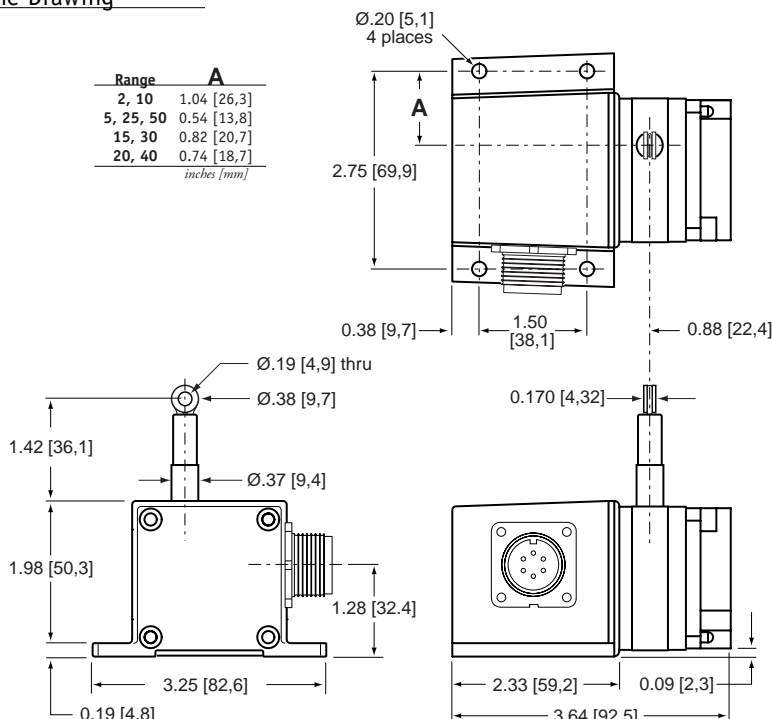
Environmental Suitability NEMA 4, IP 65
 Operating Temperature 32° to 176°F (0° to 80°C)
 Vibration up to 10 G's to 2000 Hz maximum



The PT1232, part of our compact line of cable extension transducers, delivers position feedback via RS232 or RS485 serial communication to your data acquisition or controller system. The PT1232 sends real time data that can be configured to produce engineering units or a raw 16-bit count. Additionally this device can be set to continuously send data or send data only when polled.

Software for Win95/98/NT/2000 is available that allows user to access all programmable features including zero-set, address and baudrate settings.

Outline Drawing

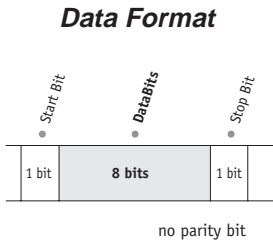


dimensions are in inches [mm], tolerances are ± 0.03 inches [0,8 mm]

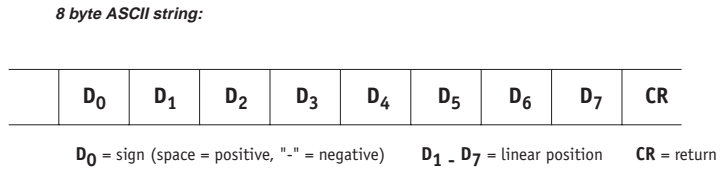
celesco

Celesco Transducer Products, Inc.
 20630 Plummer Street • Chatsworth, CA • 91311
 tel: 800.423.5483 • +1.818.701.2750 • fax: 818.701.2799
celesco.com • info@celesco.com

I/O Format



Position Output String



Sensor Communication:

All communications to/from the transducer are in ASCII. All transmissions are in ASCII.

Command Structure:

Attention Asterisk	Unit Drop Number ⁽¹⁾	Command Code ⁽²⁾	Space	Return
* <ascii 42>	1 thru V	see below	space <ascii 32>	CR <ascii 13>

(1) Unit Drop Number:

The number of devices is restricted to 32. This is the way to differentiate between multiple units on a single drop. This convention also holds true for a single drop.

The drop number is defined as a single alphanumeric character starting at 1 and ending at V. The range of available characters are numbers 1...9 and capital letters A...V. The number zero is not supported.

(2) Command Codes

Command	Description
BAUD 1	set baud rate to 2400 bps
BAUD 2	set baud rate to 4800 bps
BAUD 3	set baud rate to 9600 bps
BAUD 4	set baud rate to 14400 bps
BAUD 5	set baud rate to 19200 bps
UNIT <i>n</i>	<i>n</i> = actual distance from xx.xxx to xxxxx.x
RV	reverse direction of travel scaling
DROP <i>n</i>	set unit drop number, <i>n</i> = 1...9 and A...V
SPAN	sets the span at present position
ZERO	sets the zero to present position
B1	sends back the present position in scaled units
?	sends back the actual number of the A/D reading (±0...65535, uncalibrated)
GS/N	sends back unit serial number
GFS	sends back full scale setting in counts (A/D)
GZERO	sends back zero scale setting in counts (A/D)
GRV	sends back if reversed or not (0 = normal, 1 = reversed)
VER	sends back Celesco software version
GUNIT	sends back the units of measurement scaled to
SC	set to constant send mode (factory preset)

Ordering Information



Sample Model Number:

PT1232 - 50 - UP - 232 - M6

- R** range: 50 inches
- A** measuring cable exit: up (top exit)
- B** data communication: rs232
- C** electrical connection: 6-pin plastic connector

Ordering Information (cont.)

Full Stroke Range:

order code:	2	5	10	15	20	25	30	40	50
full stroke range, min:	2 in.	5 in.	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.
accuracy (% of f.s.):	0.25%			0.15%			0.10%		
potentiometer cycle life:	2,500,000 cycles			500,000 cycles			250,000 cycles		
cable tension ($\pm 20\%$):	12 oz.	5 oz.	12 oz.	9 oz.	6 oz.	5 oz.	9 oz.	6 oz.	5 oz.
maximum cable acceleration:	11 G's	3 G's	11 G's	5 G's	4 G's	3 G's	5 G's	4 G's	3 G's

Cable Exit:

order code: **UP** **DN** **FR** **BK**
 direction: up down front back

range	2	5	10	15	20	25	30	40	50
A	1.04 in. 26,3 mm	0.54 in. 13,8 mm	1.04 in. 26,3 mm	0.82 in. 20,7 mm	0.74 in. 18,7 mm	0.54 in. 13,8 mm	0.82 in. 20,7 mm	0.74 in. 18,7 mm	0.54 in. 13,8 mm
B	0.75 in. 19,1 mm	0.29 in. 6,1 mm	0.75 in. 19,1 mm	0.53 in. 13,5 mm	0.45 in. 11,5 mm	0.29 in. 6,1 mm	0.53 in. 13,5 mm	0.45 in. 11,5 mm	0.29 in. 6,1 mm
C	1.43 in. 36,3 mm	1.89 in. 48,0 mm	1.43 in. 36,3 mm	1.65 in. 41,9 mm	1.73 in. 43,7 mm	1.89 in. 48,0 mm	1.65 in. 41,9 mm	1.73 in. 43,7 mm	1.89 in. 48,0 mm

Data Communication:

order code:	232	485
	RS232	RS485

Electrical Connection:

order code: **M6** **C25**
 6-pin plastic connector with mating plug 25-ft. instrumentation cable 24 AWG, shielded

pin	RS232	RS485	color code	RS232	RS485
A	10...30 VDC	10...30 VDC	Red	10...30 VDC	10...30 VDC
B	common	common	Black	common	common
C	-	Transmitted Data [+]	White	-	Transmitted Data [+]
D	Transmitted Data	Transmitted Data [-]	Green	Transmitted Data	Transmitted Data [-]
E	Received Data	Received Data [+]	Blue	Received Data	Received Data [+]
F	common	Received Data [-]	Brown	common	Received Data [-]

contact view