Cable-Extension Position Transducer

- **Short to Medium Range**
- **Industrial Grade - High Cycle Applications**
- **Potentiometer Sensor - RS232 / 485 Output**

PT5232

Specification Summary:

GENERAL

Full Stroke Ranges ..... 0-10 to 0-250 inches, see ① next page
Output Signal ..... RS232 or RS485, see ⑤
Accuracy ..... ±0.25 to ±0.10% full stroke, max., see ②
Repeatability ..... ±0.02% full stroke, max.
Resolution ..... 0.01 to 0.001in. (0.1 to 0.01 mm), see ③
Measuring Cable ..... thermoplastic or stainless steel, see ④
Enclosure Material ..... hard-anodized aluminum
Sensor ..... plastic-hybrid precision potentiometer
Maximum Measuring Cable Velocity ..... 300 inches per second
Maximum Measuring Cable Acceleration ..... 5 g
Weight ..... 5 lbs., max

ELECTRICAL

Input Voltage ..... 10...30 VDC
Input Current ..... 100 mA, max.
Temperature Coefficient of Sensing Element ..... 88 P.P.M./ºF

COMMUNICATIONS

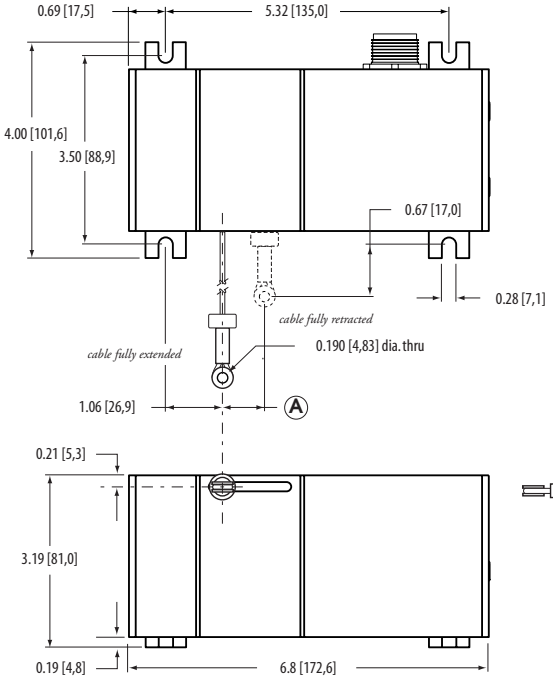
Baud Rate ..... 9600 (programmable to19.2K)
Format ..... startbit, 8 databits, stopbit, no parity
Position Output Data ..... ASCII string

ENVIRONMENTAL

Enclosure Design ..... NEMA 4, IP65/67
Operating Temperature ..... 0º to 80ºC
Vibration ..... up to 10 G's to 2000 Hz

The PT5232 cable-extension transducer delivers positional feedback signal via RS232 or RS485 serial communication. Transducer can either transmit data continuously or polled as needed. As a precision plastic hybrid potentiometer is used as the sensor, the PT5232 constantly maintains position information even when power is lost.

Software for Win95/98/NT is available that allows user to access all programmable features. These include calibration, "zero" position adjust and baudrate settings.



Ⓐ Dimension

stroke range	measuring cable		
	S47	V62	N34
10	0.06 [1,5]	0.08 [2,0]	n/a
15	0.09 [2,3]	0.12 [3,1]	n/a
20	0.12 [3,1]	0.16 [4,1]	n/a
30	0.18 [4,6]	0.23 [5,8]	n/a
40	0.24 [6,1]	0.31 [7,9]	n/a
50	0.30 [7,6]	0.39 [9,9]	n/a
60	0.36 [9,1]	0.47 [11,9]	n/a
80	0.48 [12,2]	0.62 [15,7]	n/a
100	0.60 [15,2]	0.78 [19,8]	n/a
125	0.75 [19,1]	0.97 [24,6]	n/a
150	0.90 [22,9]	1.17 [29,7]	n/a
200	n/a	n/a	0.86 [21,9]
250	n/a	n/a	1.08 [27,4]

ALL DIMENSIONS ARE IN INCHES [MM]
tolerances are ± 0.03 inches [0,8 mm]
unless otherwise noted

Communication Format:

format:	8 databits, 1 stopbit, no parity
string length:	8 bytes
structure:	<Do, D1, D2, D3, D4, D5, D6, D7>
	Do = sign (+/-)
	D1...D7 = linear position
	D4 = decimal point

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Model Number:

PT5232 - _____ - ___ - ___ - ___ - ___ - ___

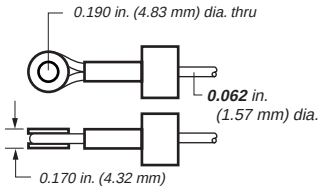
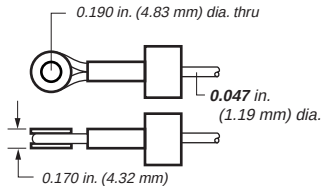
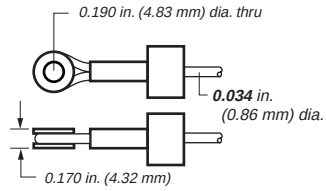
order code: Ⓡ Ⓐ Ⓑ Ⓒ Ⓓ

Full Stroke Range:

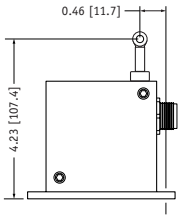
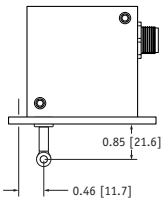
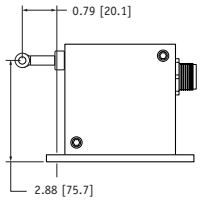
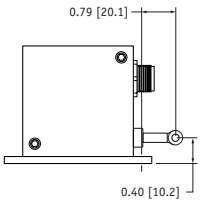
Ⓡ order code:	10	15	20	25	30	40	50	60	80	100	125	150	200	250
① full stroke range, min:	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.	60 in.	80 in.	100 in.	125 in.	150 in.	200 in.	250 in.
② accuracy (% of f.s.):	0.25 %	0.25 %	0.25 %	0.25%	0.25%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.10%	0.10%	0.10%
std. cable tension (±30%):	41 oz.	41 oz.	41 oz.	41 oz.	41 oz.	41 oz.	41 oz.	41 oz.	41 oz.	41 oz,	41 oz.	41 oz.	21 oz.	21 oz.
potentiometer cycle life*:	2.5×10^6					5×10^5						2.5×10^5		
③ resolution:	0.001 in. (0.1 mm)									0.01 in. (1 mm)				

*note: ***potentiometer cycle life*** is defined as the minimum number of times the measuring cable can be fully extended and retracted before any measurable degradation of the output signal occurs.*

Measuring Cable:

Ⓐ order code:	V62	S47	N34
available full stroke ranges:	all ranges up to 150 inches	all ranges up to 150 inches	200 and 250 inches only
④ cable construction:	.062 thermoplastic	.047 stainless steel	.034 nylon-coated stainless steel
			

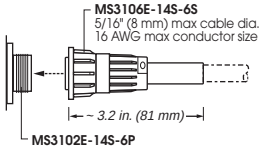
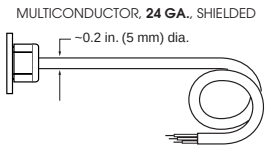
Cable Exit:

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

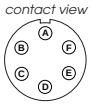
Data Communication:

Ⓒ order code:	232	485
⑤ input / output signal:	RS232	RS485

Electrical Connection:

Ⓓ order code:	M6	C25
electrical connection:	6-pin plastic connector and mating plug	25 ft. instrumentation cable
		

contact view



	RS232	RS485
A =	10...30 VDC	10...30 VDC
B =	Common	Common
C =	–	Transmitted Data [+]
D =	Transmitted Data	Transmitted Data [–]
E =	Received Data	Received Data [+]
F =	Common	Received Data [–]

		RS232	RS485
Red	=	10...30 VDC	10...30 VDC
Black	=	Common	Common
White	=	–	Transmitted Data [+]
Green	=	Transmitted Data	Transmitted Data [–]
Blue	=	Received Data	Received Data [+]
Brown	=	Common	Received Data [–]