Precision Potentiometric Output
Ranges: 0-2 to 0-100 inches
Compact Size • OEM Applications

PTX101

Specification Summary:

GENERAL

Full Stroke Range Options ..... 0-2 to 0-100 inches
Output Signal Options..... voltage divider (potentiometer)
Accuracy.....± 0.25% to ±0.10% full stroke *see ordering information*
Repeatability..... ± 0.02% full stroke
Resolution .....essentially infinite
Measuring Cable
with standard cable tension ..... .019-in. dia. nylon-coated stainless steel
with increased or high tension ..... .024-in. dia. nylon-coated stainless steel
Enclosure Material.....anodized aluminum
Sensor ..... plastic-hybrid precision potentiometer
Potentiometer Cycle Life .....*see ordering information*
Maximum Retraction Acceleration .....*see ordering information*
Weight..... 2 lbs. max.

ELECTRICAL

Input Resistance Options ..... 500, 1K, 5K, 10K ohms, *see ordering information*
Maximum Input Voltage.....*see ordering information*
Power Rating.....*see ordering information*
Output Signal Change Over Full Stroke Range.....94% ±4% of input voltage

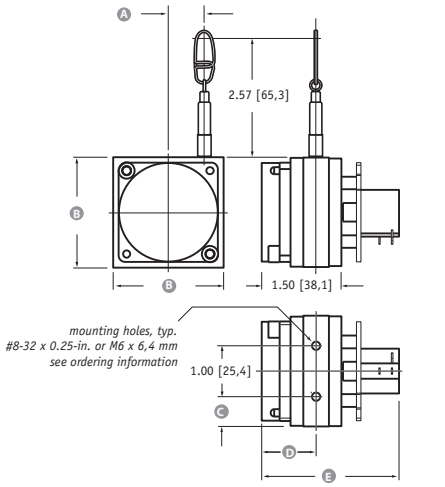
ENVIRONMENTAL

Enclosure .....NEMA 1
Temperature Coefficient of Sensing Element ..... 88 PPM/°F
Humidity..... 100% RH @ 90°F (32 C)
Operating Temperature ..... -40° to 200°F (-40° to 90°C)
Vibration..... up to 10 G's to 2000 Hz maximum

The PTX101 is a low cost, compact and easy-to-use cable-extension transducer. It is available with full-scale measurement ranges from 2 to 100 inches. The PTX101 provides a voltage feedback signal that is proportional to the linear movement of a traveling stainless-steel extension cable.

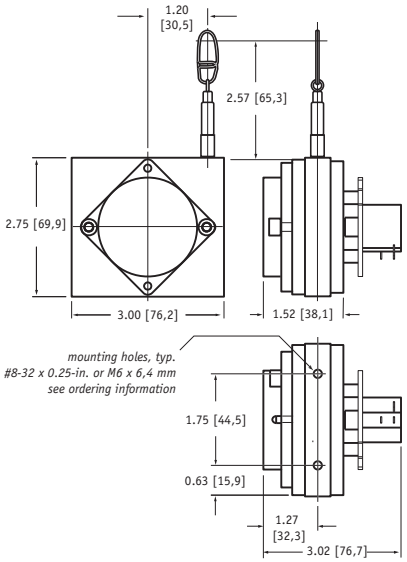
Simply mount the body of the transducer to a fixed surface and attach the extension cable to the moving object. The PTX101 is recommended for applications where space and money is limited.

2 to 60-inch Ranges

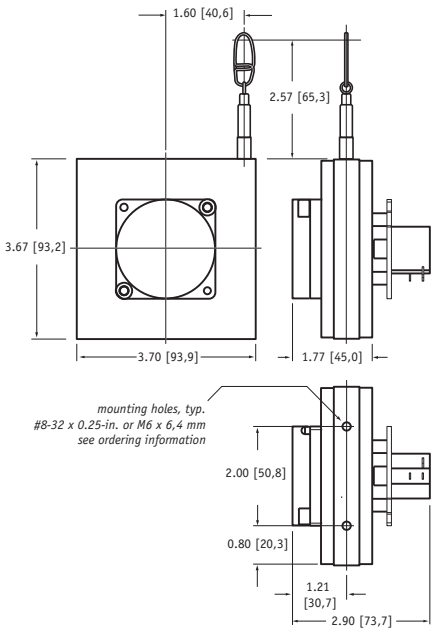


Range	A	B	C	D	E
2", 10", 20"	.34 [8.6]	2.00 [50,8]	.50 [12,7]	.88 [22,0]	2.51 [63,8]
5", 25", 50"	.83 [21,1]	2.00 [50,8]	.50 [12,7]	.88 [22,0]	2.51 [63,8]
15", 30"	.56 [14,2]	2.00 [50,8]	.50 [12,7]	.88 [22,0]	2.51 [63,8]
40"	.64 [16,2]	2.00 [50,8]	.50 [12,7]	.88 [22,0]	2.51 [63,8]
60"	.97 [24,6]	2.50 [63,5]	.75 [19,1]	1.27 [32,3]	3.02 [76,7]

75-inch Range



100-inch Range



All Dimensions are in INCHES [MM] tolerances are ±0.03 in. [0,8 mm]

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Ordering Information:

Model Number:

PTX101 - ____ - ____ 1 ____ - ____ 1 ____ 0
order code: Ⓡ Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ

Sample Model Number:
PTX101 - 0025 - 111 - 1110

Ⓡ	range:	25 inches
Ⓐ	measuring cable tension:	standard - 5 oz.
Ⓒ	mounting holes:	8-32 x .25 in. threaded
Ⓓ	sensing circuit:	500 ohms
Ⓕ	electrical connection:	solder terminals

Full Stroke Range:

Ⓡ order code:	0002	0005	0010	0015	0020	0025	0030	0040	0050	0060	0075	0100
full stroke range, min:	2 in.	5 in.	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.	60 in.	75 in.	100 in.
accuracy (% of f.s.):	0.25%	0.25%	0.15%	0.15%	0.10%	0.15%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
potentiometer cycle life*:	2.5×10^6	2.5×10^6	5×10^5	5×10^5	5×10^5	5×10^5	5×10^5	2.5×10^5	2.5×10^5	2.5×10^5	2.5×10^5	2.5×10^5

**–1 cycle is defined as the travel of the measuring cable from full retraction to full extension and back to full retraction*

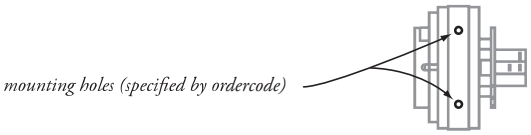
Measuring Cable Tension:

Ⓐ order code:	1	2**	3**
	standard tension* (max. acceleration)	increased tension*	high tension*
2, 10, 20 inch range:	12 oz. (11 G)	72 oz.	144 oz.
5, 25, 50 inch range:	5 oz. (2 G)	30 oz.	60 oz.
15, 30 inch range:	8 oz. (3 G)	48 oz.	96 oz.
40 inch range:	6 oz. (4 G)	36 oz.	72 oz.
60 inch range:	13 oz. (4 G)	26 oz.	52 oz.
75, 80 inch range:	10 oz. (3 G)	20 oz.	40 oz.
100 inch range:	13 oz. (5 G)	26 oz.	52 oz.

**– tolerance: ±20% **–Options 2, 3 for re-orders only, Option 7 no longer available.*

Mounting Holes:

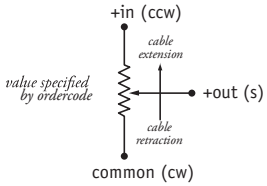
Ⓒ order code:	1	2
	#8-32 x 0.25-in. threaded holes	M6 x 6,4 mm threaded holes



Sensing Circuit:

Ⓓ order code:	1	2	3	4
	500 ohm*	1000 ohm*	5000 ohm*	10,000 ohm*

sensing circuit

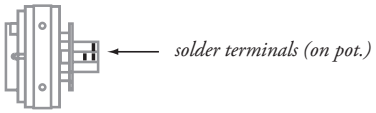


max. input voltage and power rating

	2-inch, 5-inch range	*10-inch to 100-inch range*
500-ohms:	20 V AC/DC (1 W)	30 V AC/DC (2 W)
1K to 10K-ohms:	30 V AC/DC (1 W)	30 V AC/DC (2 W)

**tolerance = ±10%*

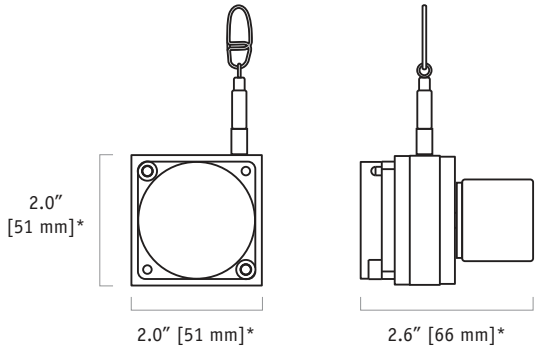
Electrical Connection:

Ⓕ *order code:*	**0**	**1**
	solder terminals	10-ft. instrumentation cable shielded, 24 AWG
		
	terminal / **signal** CCW / +in CW / common S / +out	**color code** / **terminal** / **signal** RED / CCW / + in BLACK / CW / common GREEN / S / + out

PTX150

Incremental Encoder Output

Linear Position to 150 inches (3810 mm)
Compact Design • OEM Applications
Anodized Aluminum Enclosure
IP50 / NEMA 1 • Automation & Testing Applications



**note: 25 & 50" range shown for illustration, see outline drawing for other range.*

GENERAL

Full Stroke Range Options	0-25 to 0-150 in., 0-625 to 0-3750 mm
Output Signal Options	incremental encoder (quadrature)
Accuracy	see ordering information
Repeatability	± 0.02% full stroke
Resolution Options	25 to 1250 pulses per inch
Measuring Cable	0.019-in. dia. nylon-coated stainless steel
Enclosure Material	anodized aluminum
Sensor	optical encoder
Maximum Retraction Acceleration	see ordering information
Weight	1 lb. max.

ELECTRICAL

Input Voltage	see ordering information
Input Current	see ordering information
Electrical Connection	18-inch multiconductor cable

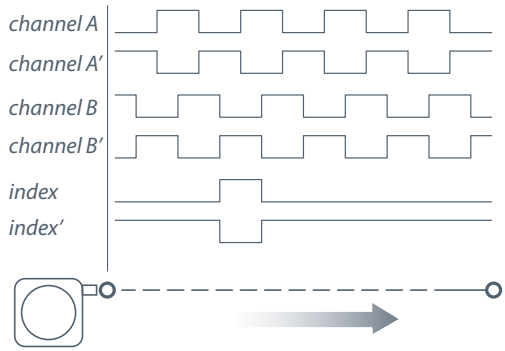
ENVIRONMENTAL

Enclosure	IP50, NEMA 1
Operating Temperature	0° to 160°F (-17° to 71°C)
Humidity	98% RH non-condensing
Vibration	up to 10 g @58 to 500 Hz

The PTX150 is a low cost, compact and easy to use encoder based cable-extension transducer. It is available with full stroke ranges up to 150 inches. The PTX150 provides an incremental encoder feedback signal.

Simply mount the body of the transducer to a fixed surface and attach the extension cable to the moving object. The PTX150 is recommended for application where space and money is limited.

Output Signal:



-- see ordering information for available channels

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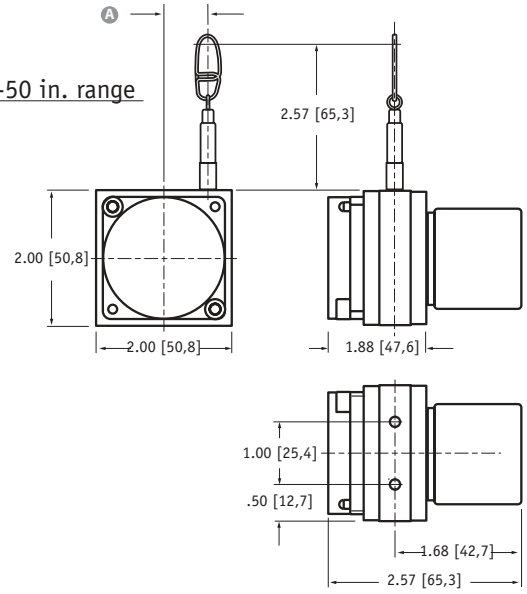
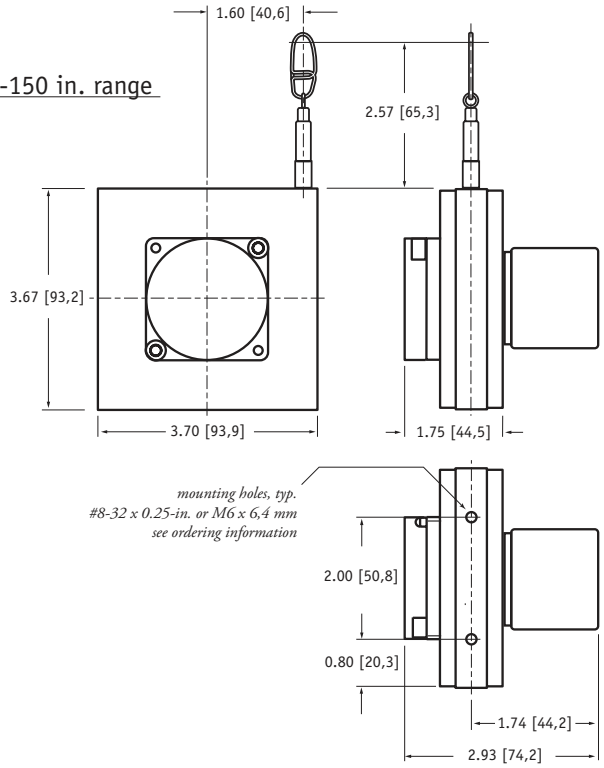
Outline Drawing:

0-25, 0-50 in. range



A	range	dim.
	25 in. • 625 mm	0.34 [8,6]
	50 in. • 1250 mm	0.64 [16,2]

0-100, 0-150 in. range



All Dimensions are in INCHES [MM] tolerances are ±0.03 in. [0,8 mm]

Ordering Information:

Model Number:

PTX150 - ____ - 1 1 ____ - ____ ____ 0 0

order code: Ⓡ Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ

Sample Model Number:

PTX150 - 0025 - 111 - 1110

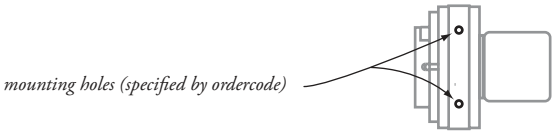
Ⓡ	range:	25 inches
Ⓒ	mounting holes:	8-32 x .25 in. threaded
Ⓓ	output signal:	TTL/CMOS driver, Channels A,B
Ⓔ	resolution:	500 pulses per inch

Full Stroke Range:

Ⓡ order code:	0025	0050	0100	0150	0625	1250	2500	3750
full stroke range, min:	25 in.	50 in.	100 in.	150 in.	625 mm	1250 mm	2500 mm	3750 mm
accuracy:	±0.010 in.	±0.020 in.	±0.040 in.	±0.060 in.	±0.25 mm	±0.50 mm	±1.00 mm	±1.50 mm
repeatability:	±0.005 in.	±0.010 in.	±0.020 in.	±0.030 in.	±0.12 mm	±0.25 mm	±0.50 mm	±0.75 mm
cable tension (±20%):	13 oz.	6 oz.	14 oz.	8 oz.	3,6 N	1,8 N	5,0 N	3,0 N

Mounting Holes:

Ⓒ order code:	1	2
	#8-32 x 0.25-in. threaded holes	M6 x 6,4 mm threaded holes



Ordering Information (cont.):

Output Signals:

Ⓓ order code:	1	2	3	4
driver option:	 TTL - CMOS	 Open Collector	 5 Volt Line Driver	 Universal Line Driver
Specs:				
Input voltage (V+):	4.5..13.2 Vdc	10.8...26.4 Vdc	5 Vdc	5..30 Vdc
Sink current:	20 mA max.	20 mA max.	20 mA max.	Source/Sink current: 20 mA max.
Input current:	80 mA max.	80 mA max.	150 mA max.	100 mA max, no load
Signal: / ***Color Code:***				
4.5 - 13.2 VDC	Red	10.8 - 26.4 VDC Red	4.5 - 13.2 VDC Red	5 - 30 VDC Red
Channel A	White	Channel A White	Channel A White	Channel A White
Channel B	Green	Channel B Green	Channel A' Gray	Channel A' Gray
Common	Black	Common Black	Channel B Green	Channel B Green
			Channel B' Blue	Channel B' Blue
			Index Yellow	Index Yellow
			Index' Orange	Index' Orange
			Common Black	Common Black

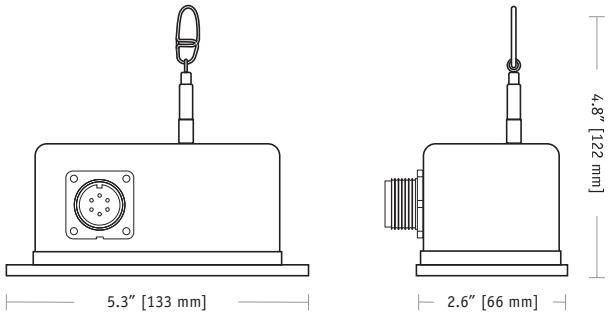
Resolution:

Ⓔ order code:	1	2	3	4
25 in. range:	500 ppi	1000 ppi	1250 ppi	50 ppi
50 in. range:	250 ppi	500 ppi	625 ppi	25 ppi
100 in. range:	100 ppi	200 ppi	250 ppi	10 ppi
150 in. range:	100 ppi	200 ppi	250 ppi	10 ppi
625 mm range:	20 ppmm	40 ppmm	50 ppmm	2 ppmm
1250 mm range:	10 ppmm	20 ppmm	25 ppmm	1 ppmm
2500 mm range:	5 ppmm	10 ppmm	12,5 ppmm	0,5 ppmm
3750 mm range:	4 ppmm	10 ppmm	12,5 ppmm	0,5 ppmm

DPT250

Instrument Grade • Incremental Encoder

Short-Range String Encoder • High Resolution
25, 50-inch Stroke Range Options
Powder Painted & Anodized Aluminum Enclosure
Perfect Solution for Industrial & Testing Applications



The DPT250 Cable-Extension Transducer offers a highly accurate incremental encoder output signal that can provide both position and velocity information. The output is a digital pulse stream that can provide resolution down to less than a thousandth's of an inch!

Delivering high accuracy and fine resolution without the need for perfect parallel alignment, this compact device offers the additional benefits of ease of installation and ability to interface to any PLC or controller. These features make the DPT250 the perfect choice for many applications that range from hydraulic cylinder positioning to robotic arm motion feedback.

General

Full Stroke Ranges	0-25 to 0-50 inches [0-625 to 0-1250 mm]
Output Signal	incremental encoder (quadrature)
Sensor	optical encoder
Output Driver Options	TTL/CMOS, Open Collector, Line Driver
Accuracy	see ordering information
Repeatability	see ordering information
Resolution Options	25 to 1250 pulses per inch
Measuring Cable	0.019-in. dia. nylon-coated stainless steel
Enclosure Material	powder-painted and anodized aluminum
Weight	2 lbs. max.

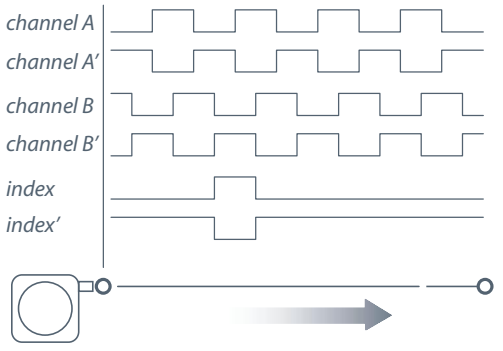
Electrical

Input Voltage	see ordering information

Environmental

Operating Temperature	0°F to 160°F (-20°C to 70°C)
Humidity	98% RH, no condensation
Vibration	up to 10g to 2000 Hz
Enclosure	IP 55, NEMA 12

Electrical Output Signal Options



-- see ordering information for available channels

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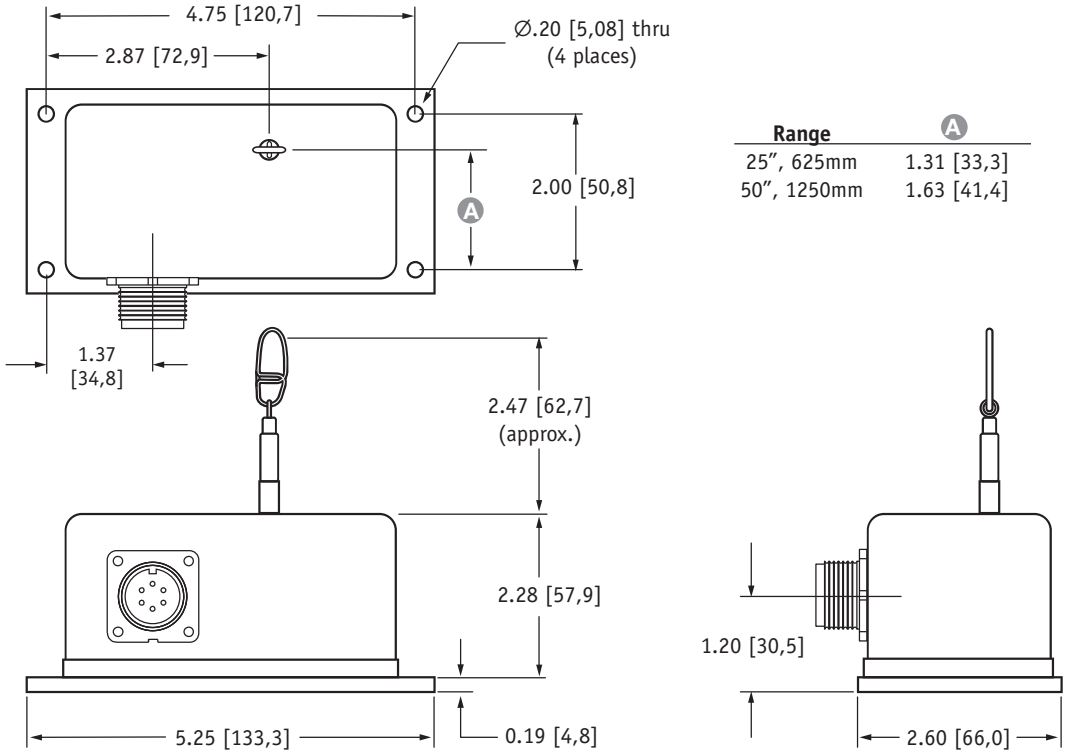
Fig. 1, Top Exit:



Range	A
25", 625mm	1.31 [33,3]
50", 1250mm	1.63 [41,4]

ALL DIMENSIONS ARE IN INCHES [MM] • tolerances are ±0.02 in. [±0,5mm]

Ordering Information:

Model Number:

DPT250 - ____ - ____ 1 ____ - ____ ____ ____ 0
order code: ® Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ

Sample Model Number:
DPT250 - 0025 - 111 - 1130

®	range:	25 inches
Ⓐ	measuring cable tension:	standard - 12 oz.
Ⓒ	cable exit:	top
Ⓓ	sensing circuit/channels:	TTL/CMOS, A,B
Ⓔ	resolution:	500 pulses per inch
Ⓕ	electrical connection:	6-pin plastic connector

Full Stroke Range:

® order code:	0025	0050	0625	1250
full stroke range, min:	25 in.	50 in.	625 mm	1250 mm
accuracy:	±0.010 in. (max)	±.020 in. (max)	±0.25 mm (max)	±0.50 mm (max)
repeatability:	±0.005 in. (max)	±.010 in. (max)	±0.12 mm (max)	±0.25 mm (max)
cable tension* (±30%):	13 oz.	6 oz.	3,6 N	1,6 N
cable acceleration, max.:	11 g	4 g	11 g	4 gs
resolution options:	50, 500, 1000, 1250 pulses per inch	25, 250, 500, 625 pulses per inch	2, 20, 40, 50 pulses per mm	1, 10, 20, 25 pulses per mm

**note: increased cable tension options available for re-orders only (see below)*

Measuring Cable Tension:

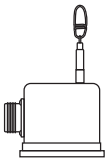
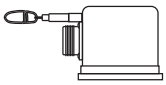
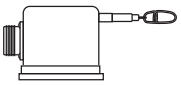
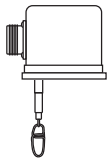
Ⓐ order code:	1	H	2**	3**
	standard tension	high tension*		
25 inch range:	13 oz.	65 oz.	44 oz.	73 oz.
50 inch range:	6 oz.	33 oz.	22 oz.	36 oz.
625 mm range:	3,6 N	18,1 N	12 N	20 N
1250 mm range:	1,6 N	9,2 N	6 N	10 N
measuring cable:	.019-in. dia. nylon-coated stainless steel		.024-in. dia. stainless steel	

Reorder Only Reorder Only

–note: spring tension tolerance: ±20%* *–note: outline dimensions for these options not controlled on this datasheet.*

Measuring Cable Exit:

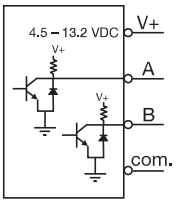
Ⓒ order code:	1	2	3	4
	top exit (see fig. 1)	front exit*	rear exit*	bottom exit*

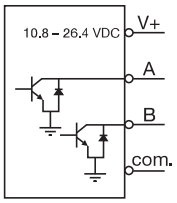





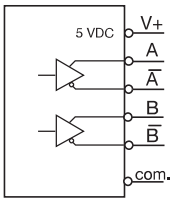
–note: dimensions for optional cable exits not controlled on this datasheet, please contact factory

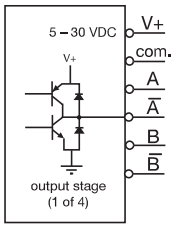
Sensing Circuit / Channels:

Ⓓ order code:	1	2	4	6
description:	TTL / CMOS	open collector	line driver	universal line driver
	Input voltage (V+): 4.5...13.2 Vdc Sink current: 20 mA max. Input current: 80 mA max.	Input voltage (V+): 10.8...26.4 Vdc Sink current: 20 mA max. Input current: 80 mA max.	Input voltage (V+): 5 Vdc Sink current: 20 mA max. Input current: 150 mA max.	Input voltage (V+): 5...30 VDC Source/Sink: 20 mA max. Input current: 50 mA max, no load







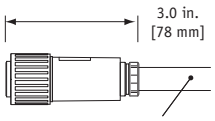


Resolution:

Ⓔ order code:	1	2	3	4
25 in. range:	500 ppi	1000 ppi	1250 ppi	50 ppi
50 in. range:	250 ppi	500 ppi	625 ppi	25 ppi
625 mm range:	20 ppmm	40 ppmm	50 ppmm	2 ppmm
1250 mm range:	10 ppmm	20 ppmm	25 ppmm	1 ppmm

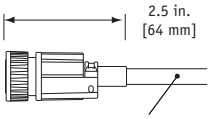
Electrical Connection:

Ⓕ order code:	1	3	4
	15-inch, shielded instrumentation cable	6-pin plastic connector with mating plug	18-pin plastic connector with mating plug



contact view

.30 – .39 in. [8 – 10 mm] cable dia.
16 AWG max conductor size
connector: MS3102E-14S-6P
mating plug: MS3106E-14S-6S



contact view

.26 – .30 in. [6,6 – 7,6 mm] cable dia.
20 – 24 AWG conductor size
connector: Conxall 14282-18PG-300-K
mating plug: Conxall 13282-18SG-326-K

color	TTL/CMOS Open Collector	5 V Line Driver Universal Line Driver
red	input voltage	input voltage
black	common	common
green	channel A	channel A
white	channel B	channel B
blue	-	channel A'
brown	-	channel B'
yellow	-	index
orange	-	index'

pin	TTL/CMOS Open Collector	5 V Line Driver Universal Line Driver
A	input voltage	input voltage
B	common	common
C	channel A	channel A
D	channel B	channel B
E	-	channel A'
F	-	channel B'

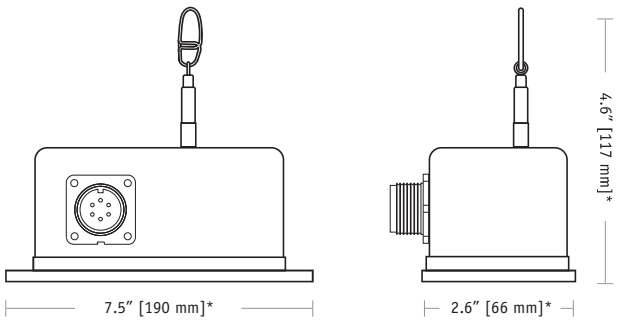
pin	TTL/CMOS Open Collector	5 V Line Driver Universal Line Driver
1	input voltage	input voltage
2	common	common
3	channel B	channel B
6	channel A	channel A
7	-	index
11	-	channel B'
12	-	channel A'
15	-	index'

version: 6.0 last updated: November 27, 2012

DV301

Instrument Grade • Position/Velocity

Position and Velocity Output Signals
Stroke Range Options: 0–2 to 0–100 inches
Powder Painted & Anodized Aluminum Enclosure
Industrial Automation & Testing Applications



**50-inch range model, dimensions may differ for other ranges*

The DV301 is a combination position and velocity transducer for full-scale measurement ranges from 2 to 100 inches. A precision plastic-hybrid potentiometer provides accurate position feedback while a self-generating DC tachometer provides a velocity signal that is proportional to the speed of the traveling stainless-steel measuring cable.

GENERAL

Full Stroke Range Options	0-2 to 0-100 inches
Measuring Cable	see ordering information
Enclosure Material	powder-painted and anodized aluminum
Weight	2 lbs. max.

POSITION

Output Signal	voltage divider (potentiometer)
Accuracy	± 0.25% to ±0.10% full stroke (see ordering information)
Repeatability	± 0.02% full stroke
Resolution	essentially infinite
Sensor	plastic-hybrid precision potentiometer
Input Resistance Options	500, 1K, 5K or 10K Ω
Power Rating, Watts	2.0 at 70°F derated to 0 at 250° F
Maximum Input Voltage	see ordering information
Output Signal Change Over Full Stroke Range	94% ±4% of input voltage

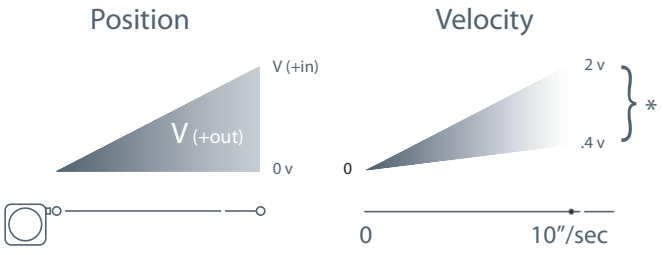
VELOCITY

Output Signal	DC tachometer output
Linearity	better than ±0.10% of output at any velocity
Repeatability	±0.10% of reading
Maximum Velocity • Retraction Acceleration	see ordering information
Sensor	tach generator
Input Voltage	none required
Output Voltage @ 100 inches per minute	see ordering information
Output Impedance	350 ohms ±10%
Output Ripple (when output ≥ 280 mV)	±3% rms

ENVIRONMENTAL

Enclosure	IP50, NEMA 1
Operating Temperature	-40° to 200°F (-40° to 90°C)
Vibration	up to 10 g to 2000 Hz maximum

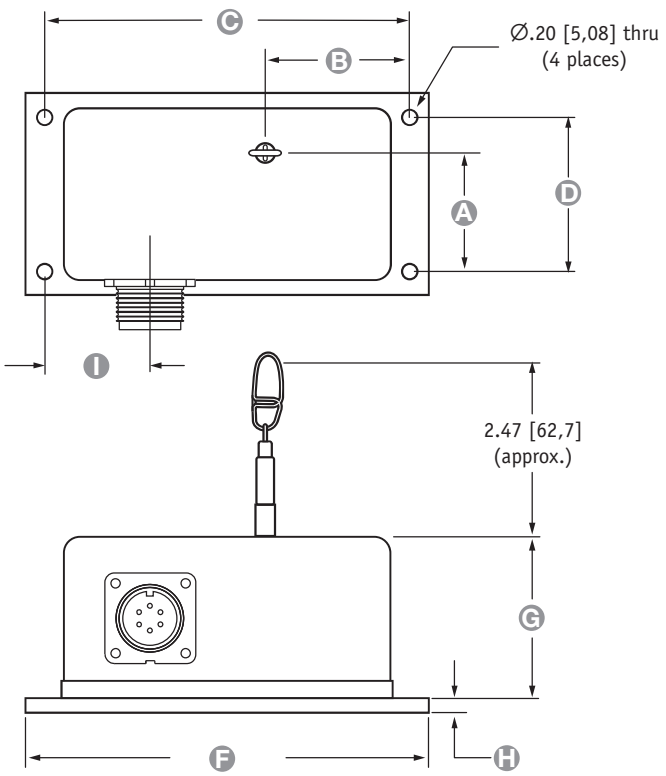
Electrical Output Signals

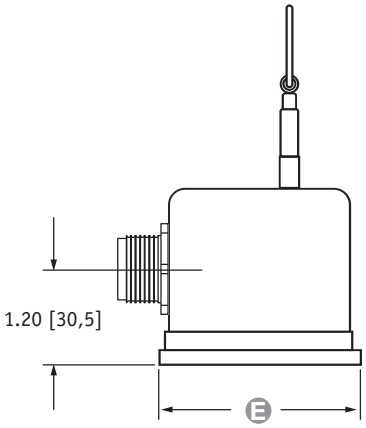


**varies by stroke range – see ordering information*

20630 Plummer Street • Chatsworth, CA 91311
tel: 800.423.5483 • +1.818.701.2750 • fax: +1.818.701.2799
measurement SPECIALTIES™
celesco
celesco.com • info@celesco.com

Fig. 1, Top Exit:





ALL DIMENSIONS ARE IN **INCHES [MM]**
tolerances are ±0.02 in. [±0,5mm]

ALL DIMENSIONS ARE IN **INCHES [MM]** • tolerances are ±0.02 in. [±0,5mm]

Range	A	B	C	D	E	F	G	H	I
2", 10", 20"	1.34 [34,0]	4.00 [101,6]	7.00 [177,8]	2.00 [50,8]	2.63 [66,8]	7.50 [190,5]	2.10 [53,3]	.16 [4,1]	1.37 [34,8]
5", 25", 50"	1.85 [47,0]	4.00 [101,6]	7.00 [177,8]	2.00 [50,8]	2.63 [66,8]	7.50 [190,5]	2.10 [53,3]	.16 [4,1]	1.37 [34,8]
15", 30"	1.51 [38,4]	4.00 [101,6]	7.00 [177,8]	2.00 [50,8]	2.63 [66,8]	7.50 [190,5]	2.10 [53,3]	.16 [4,1]	1.37 [34,8]
40"	1.67 [42,4]	4.00 [101,6]	7.00 [177,8]	2.00 [50,8]	2.63 [66,8]	7.50 [190,5]	2.10 [53,3]	.16 [4,1]	1.37 [34,8]
60"	2.19 [55,6]	3.88 [98,5]	7.00 [177,8]	2.37 [60,2]	3.25 [82,5]	7.50 [190,5]	2.60 [66,0]	.19 [4,8]	1.37 [34,8]
75", 80"	2.52 [64,0]	4.38 [111,3]	6.75 [171,4]	2.50 [63,5]	3.63 [92,2]	7.50 [190,5]	2.86 [72,6]	.19 [4,8]	1.37 [34,8]
100"	3.18 [80,7]	5.18 [131,5]	7.38 [187,5]	3.00 [76,2]	4.25 [108,0]	8.00 [203,2]	3.80 [96,5]	.19 [4,8]	3.69 [93,7]

Ordering Information:

Model Number:

DV301 - ____ **-** ____ **1** ____ **-** ____ **1** ____ **0**
order code: R A B C D E F G

Sample Model Number:

DV301 - 0025 - 111 - 1110

R	range:	25 inches
A	measuring cable tension:	standard - 5 oz.
C	cable exit:	top
D	output signals:	500 ohm position / DC tachometer velocity
F	electrical connection:	6-pin plastic connector

Full Stroke Range:

R order code:	0002	0005	0010	0015	0020	0025	0030	0040	0050	0060	0075	0100
full stroke range, min:	2 in.	5 in.	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.	60 in.	75 in.	100 in.
position accuracy (% of f.s.):	0.25%	0.25%	0.15%	0.15%	0.10%	0.15%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
potentiometer cycle life*1:	2.5×10^6	2.5×10^6	5×10^5	5×10^5	5×10^5	5×10^5	5×10^5	2.5×10^5	2.5×10^5	2.5×10^5	2.5×10^5	2.5×10^5
velocity output signal (±3%)*2:	322 mV	130 mV	322 mV	217 mV	322 mV*3	130 mV	217 mV*3	165 mV*3	130 mV*3	112 mV	91 mV	66 mV

**1 – 1 cycle is defined as the travel of the measuring cable from full retraction to full extension and back to full retraction* **2–at the rate of 100 inches per minute*
3 – output signal is reduced by 50% when **Measuring Cable Tension options **2** or **3** is selected below*

Ordering Information (cont.):

Measuring Cable Tension:

Ⓐ order code:	1	H	M	2*	3*
	standard tension *tension, ±30% • max. acceleration*	high tension *tension, ±40%*	max tension *tension, ±40%*	medium tension *tension, ±40%*	high tension *tension, ±40%*
2, 10, 20 inch range:	39 oz. • 25g	65 oz.	116 oz.	65 oz.	116 oz.
5, 25, 50 inch range:	16 oz. • 5g	26 oz.	47 oz.	26 oz.	47 oz.
15, 30 inch range:	26 oz. • 6g	44 oz.	78 oz.	44 oz.	78 oz.
40 inch range:	21 oz. • 11g	33 oz.	61 oz.	34 oz.	61 oz.
60 inch range:	13 oz. • 4g	22 oz.	40 oz.	22 oz.	40 oz.
75, 80 inch range:	17 oz. • 5g	31 oz.	n/a	31 oz.	61 oz.
100 inch range:	24 oz. • 10g	n/a	n/a	47 oz.	47 oz.
measuring cable:	.019-in. dia. nylon-coated stainless steel			.024-in. diameter stainless steel	

Reorder Only

note – outline dimensions for these options are **not controlled on this datasheet!*

Measuring Cable Exit:

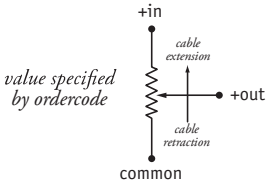
Ⓒ order code:	1	2	3	4
	top exit (see fig. 1)	front exit*	rear exit*	bottom exit*

**–note: dimensions for optional cable exits not controlled on this datasheet, please contact factory*

Output Signals:

Ⓓ order code:	1	2	3	4
position sensing potentiometer:	500 ohms*	1000 ohms*	5000 ohms*	10,000 ohms*

position sensing circuit



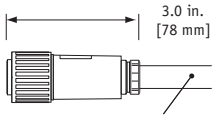
velocity sensing circuit

	max. input voltage & power rating	
	2-inch, 5-inch range	*10-inch to 100-inch range*
500-ohms:	20 V AC/DC (1 W)	30 V AC/DC (2 W)
1K to 10K-ohms:	30 V AC/DC (1 W)	30 V AC/DC (2 W)

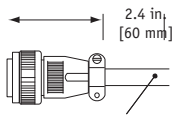
**–tolerance = ±10%*

Electrical Connection:

Ⓕ order code:	1	3	4
	6-pin plastic connector with mating plug	6-pin metal connector with mating plug	25-ft. instrumentation cable 24 AWG, shielded



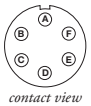
1/2 - 5/16" [14 - 8 mm] cable dia.
16 AWG max conductor size
connector: MS3102E-14S-6P
mating plug: MS3106E-14S-6S



3/8-in. [9 mm] max cable dia.
16 AWG max conductor size
connector: MS3102E-14S-6P
mating plug: MS3106E-14S-6S

25 ft. x 0.2-in. dia.
[7,5 M x 5 mm dia.]
24 AWG, shielded

6-pin mating plug:



pin	signal	
A	+ in	position
B	common	position
C	+ out	position
D	-	
E	+ out	velocity
F	- out	velocity

25-ft. instrumentation cable:

color	signal	
red	+ in	position
black	common	position
green	+ out	position
white	+ out	velocity
brown	- out	velocity

version: **9.0** last updated: April 9, 2013