

HC485 DigiSense™ Series

RS-485 Multi-Drop Displacement Sensor

DESCRIPTION

The **NEW HC485 DigiSense™ Displacement Sensor** is available in seven bipolar measurement ranges, with standard strokes from $\pm .050$ inches to ± 3.0 inches. Operating on a single ended 8.5 to 30.0 volt dc. input and a two-wire addressable RS-485 output, the HC485 is ideally suited to factory automation applications.

Direct digital output eliminates the need for expensive and error prone analog to digital conversion. The analog sensor output is scaled into calibrated engineering units, by the internal microprocessor, using factory computed conversion tables, thus providing a traceable measurement without need of an on-site

FEATURES

- ◆ Up To 32 Sensors On One 2-Wire Network
- ◆ Interchangeability Without Calibration
- ◆ 8.5 to 30 V dc. Operation
- ◆ Hermetically Sealed Design
- ◆ MOD-Bus ASCII & RTU Output
- ◆ Factory Calibrated Inch or Millimeter User Selectable Output
- ◆ Digital Programmable Filtering
- ◆ Built-in Tare & Un-Tare
- ◆ Built-in Min / Max Function
- ◆ Velocity Output Inches/mm per sec.

APPLICATIONS

- ◆ Process Control
- ◆ Valve Position Feedback
- ◆ Roller Gap
- ◆ Automated Test Systems

OPTIONS

- ◆ Captive Core
- ◆ Metric Core
- ◆ Guided Core
- ◆ EA Calibration Provides 150% Stroke and 0.05% Linearity
- ◆ Special OEM Protocols
- ◆ Mating Connector



calibration. A certificate of calibration is shipped with every sensor.

Internal MIN, MAX and TIR functions store peak and valley readings at a maximum up-date rate of 600 samples per second to deliver the information to the host, on demand. An internal tare or zero function allows unipolar or bipolar output, as the application dictates.

The HC485 digital output LVDT is packaged in a rugged hermetically sealed stainless steel tube, suitable for use in the most demanding factory floor environments. A six-pin MS style bayonet connector is welded to the lead side of the LVDT, for ease of termination. Mating connectors are supplied upon request.

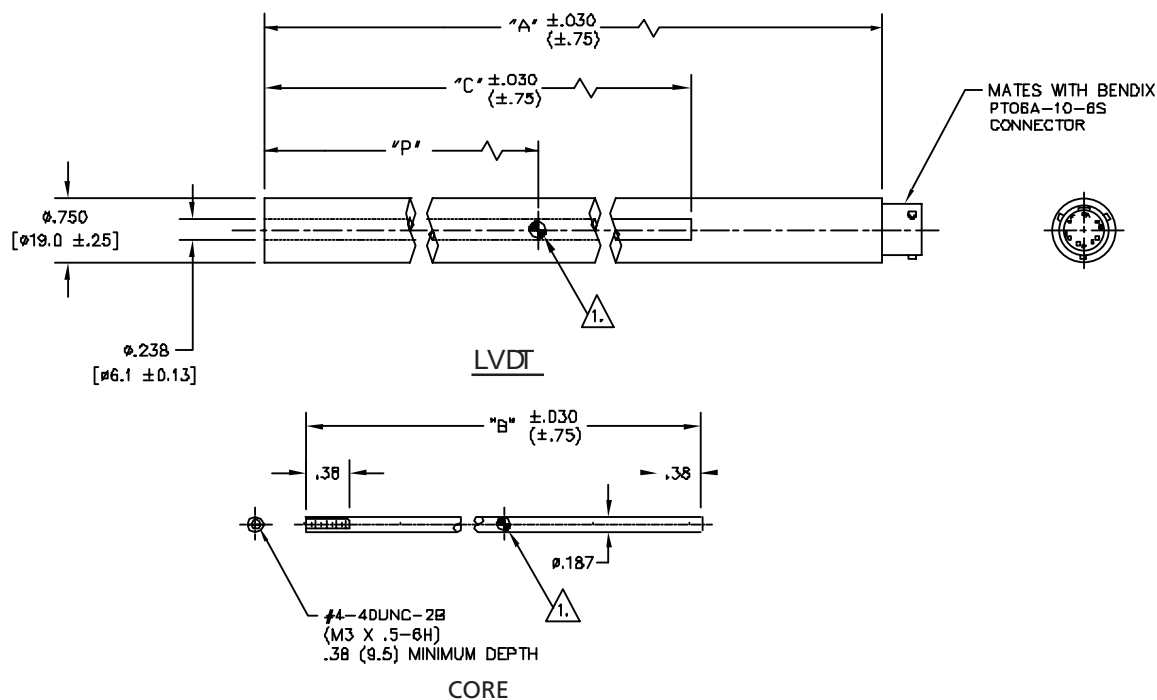


specifications

Input Voltage	8.5 to 30 V dc
Input Current	50 mA nominal
Operating Temperature	
Range	-13°F to 185°F (-25°C to 85°C)
Storage Temp.	-65°F. to 200°F
	-55°C to 95°C
Native Protocols	ModBus RTU
(RS-485)	ModBus ASCII
	Omega I-Series
Output (units)	Metric & Inches
Linearity	0.25% full range
	0.05% optional
Resolution	15-bit (minimum)
Stability	0.1% full range
T/C of Scale Factor	0.025% / °F max
	(0.05% / °C max)
Shock Survival	250 g for 11 ms
Vibration Tolerance	10 g up to 2 kHz
Housing Construction	TIG welded 400
	series stainless steel
Termination	6-pin MS style
	hermetic connector
Environmental Protection	IP-68(to 68-BAR)

HC485 Digisense™ Series

dimensions



mechanical specifications

Dimensions $\pm .03$ in (mm)

HC 485 Series Model Number	Weight A (Body)	B (Core)	Dimensions C	P	Linear Range ± IN (MM)
050	3.34	.585	1.17	.54	.050 (1.25)
	(84.8)	(14.86)	(29.7)	(13.72)	.075 (1.91)
125	4.39	1.100	2.01	.96	.125 (3.0)
	(111.5)	(27.94)	(51.1)	(24.38)	.188 (4.76)
250	5.51	1.800	2.87	1.38	.250 (6.0)
	(140.0)	(45.72)	(72.9)	(35.05)	.375 (9.53)
500	6.92	3.000	4.56	2.23	.500 (12.5)
	(175.8)	(76.20)	(115.8)	(56.64)	.750 (19.05)
1000	9.18	3.800	6.82	3.22	1.000 (25.0)
	(233.2)	(96.52)	(173.2)	(81.79)	1.500 (38.1)
2000	12.66	5.300	10.30	4.91	2.000 (50.0)
	(321.6)	(134.62)	(261.5)	(124.71)	3.000 (76.2)
3000	17.63	6.200	15.27	7.59	3.000 (75.0)
	(447.8)	(157.48)	(387.9)	(192.79)	4.500 (114.3)