

Series HC485

Schaevitz™ RS-485 Multi-Drop Displacement Sensor

- Measurement ranges from ± 1.25 mm to ± 75.0 mm
- LVDT
- Linearity 0,25 % full range, optional 0.05 %
- Output RS-485
- Supply voltage 8.5 ... 30 VDC



The HC485 Displacement Sensor is available in seven bipolar measurement ranges, with standard strokes from ± 0.050 inches to ± 3.0 inches (± 1.25 mm to ± 75.0 mm). 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 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.

■ Features

- Up to 32 sensors on one 2-wire network
- Interchangeability without calibration
- Hermetically sealed design
- MOD-Bus ASCII and RTU output
- Factory calibrated inch or millimeter user selectable output
- Digital programmable filtering
- Build-in tare and un-tare
- Build-in Min/Max function
- Velocity output inch/s or mm/s
- Calibration certificate

■ Options

- Captive core
- Guided core
- Metric thread core
- EA calibration provides 150 % stroke and 0.05 % linearity
- Special OEM protocols
- Mating connector

■ Applications

- Process control
- Valve position feedback
- Roller gap
- Automated test systems

■ Specifications

| | |
|---|---------------------------------------|
| Supply voltage | 8.5 ... 30 VDC |
| Input current | 50 mA (nominal) |
| Operating temperature | -25 ... +85 °C |
| Storage temperature | -55 ... +95 °C |
| Native protocols RS-485 | ModBus RTU ModBus ASCII Omega I |
| Linearity | 0.25 % full range, optional 0.05 % |
| Resolution, minimum | 15 bit |
| Stability | 0.1 % full range |
| Temperature coefficient of scale factor | ≤ 0.05 %/K |
| Shock survival | 250 g for 11 ms |
| Vibration tolerance | 10 g up to 2 kHz |
| Housing construction | TIG-welded 400 stainless steel |
| Environmental protection | IP68 (to 68 bar) |
| Electr. termination | 6-pin MS style hermetic connector |

