

HP19

High-pressure LVDT sensors

Application

Machine & tool positioning
Testing machine
Hydraulic actuators
Pressure vessels
Petrochemical
Valve position feedback

Properties

Diameter 20.6mm
High pressure resistance: 35MPa
Metric or UNC/UNF threads (optional)
SUS304 hermetically sealed construction
Corrosion-resistant materials can be customized



ABEK HP19 Series LVDT displacement sensors are designed for displacement measurement in high-pressure environments and are ideal for position measurement in pressure vessels such as autoclaves, pressure seal chambers, hydraulic actuators, valve position indicators, etc.

The HP19 Series LVDTs feature a rugged, thick-walled stainless steel pressure-resistant design, ensuring exceptional durability in demanding environments. For applications involving strong corrosive media, the sensor can be customized with 316L stainless steel or Hastelloy C276 materials. The HP19 series is rated for extreme operating conditions, sustaining pressures up to 35MPa (5,000psi) while maintaining performance at temperatures reaching 200°C (392°F), making it ideal for challenging high-pressure, high-temperature (HPHT) applications.

The HP19 stroke options include $\pm 6.5\text{mm}$, $\pm 12.5\text{mm}$, $\pm 25\text{mm}$, and are available with US or metric

threads. The LVDTs have a maximum measurement non-linearity of $\pm 0.25\%$ (full stroke range), which ensures high-precision position measurement.

All models have an internal magnetic shield to protect the sensor from external magnetic fields. This series of LVDTs adopts through-plate installation, which has strong resistance to shock and vibration.

To ensure seamless integration, we offer a comprehensive range of compatible accessories for this series, including installation fixtures and signal conditioners. Contact our technical team for complete accessory specifications and application support.

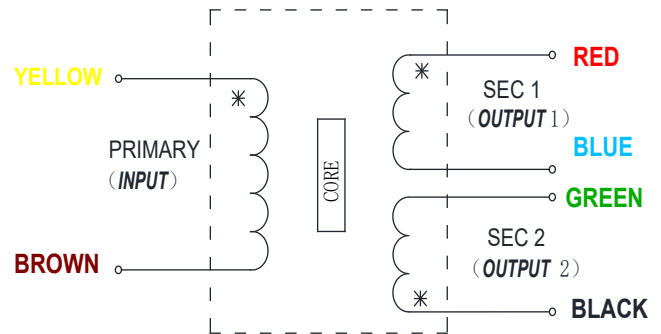
Standards and Documentation

GJB 150A-2009	Laboratory enviro methods for military material
JJF 1305-2011	Calibration specification for linear displacement sensors
GJB 8350-2015	General specification for linear displacement sensors

Electrical parameters

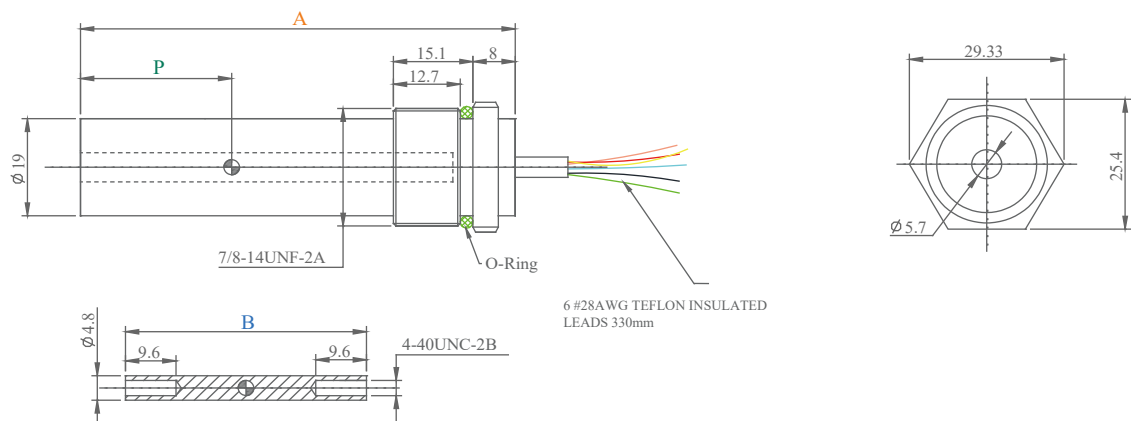
Parameters	Specification
Input voltage	1-12V AC, 3V rms (rated)
Input frequency	400Hz to 10kHz 2.5 kHz (rated)
Working voltage	30MPa , maximum pressure 35MPa
Linearity error	<±0.25% (Full stroke range)
Repeatability	<0.01% (Full stroke range)
Hysteresis error	<0.01% (Full stroke range)
Operating temp	-55 °C to +200 °C
Thermal	-0.02 %/°C (rated)
Vibration	20g, 2 K Hz

Wiring information

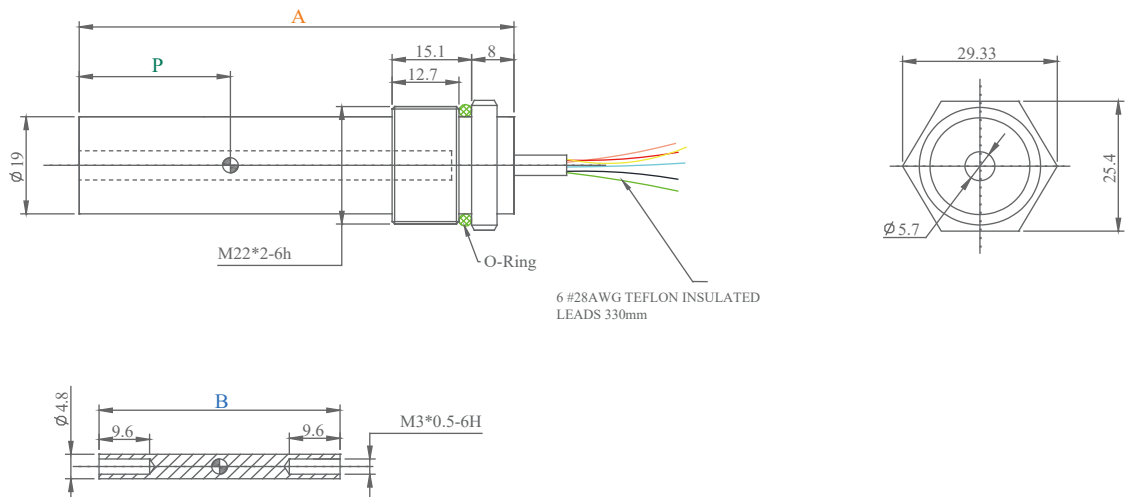


Dimensions

HP19A Unified Thread

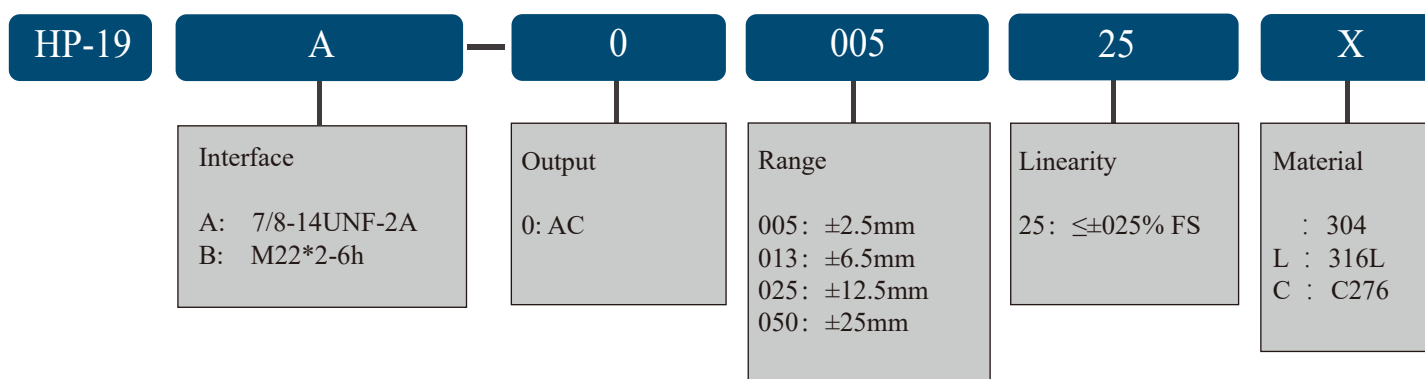


HP19B Metric Thread



Parameters	Model →	HP19A -000525	HP19A -001325	HP19A -002525	HP19A -005025
		HP19B -000525	HP19B -001325	HP19B -002525	HP19B -005025
Range	mm	±2.5	±6.5	±12.5	±25
Dimension "A"		56.6	76.2	118.1	200.2
Dimension "B"		32	45.7	76.2	96.5
Dimension "P"		24.5	35.3	56.6	80.8
Sensitivity	mV/V/mm	90	68	40	32
Primary Impedance	Ω	≥800	≥800	≥940	≥770

Selection Guide



Contact us

Contact us for technical consultation or customization requests.

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