



## AP Series Customizable OEM Gage Heads

- $\pm 1.0\text{mm}$  to  $2.5\text{mm}$  Range; Spring -Extend Design
- Linear Ball Bearing Design
- Spring -Extend



The Analog Probe (AP) series - LVDT gage head is designed to meet the most demanding requirements of OEM tooling designers and builders. The AP series gage head was designed utilizing over 60 years of LVDT design expertise. The new design has been optimized to take maximum advantage of process automation thereby eliminating costly and time consuming hand fitting of high tolerance components, resulting in a highly consistent, low cost manufacturing process. This OEM gage head has a modular design allowing for easy customization to solve your unique OEM application requirements.

### Features

- Calibrated Over  $\pm 1.0\text{m}$  to  $\pm 2.5\text{m}$  m
- Ultra-Precision Performance
- AC-Operated
- User-Adjustable Pretravel and overtravel settings
- 8mm or 9.5 mm body diameter
- Plain or Threaded Housing
- Calibration Certificate Supplied with every Gage Head
- Connector Options
- Special Contact Tips

### Applications

- Automotive machine parts SPC inspection engine, brake rotor and power train component dimensions
- Aircraft engine component inspection - turbine blade thickness and flow turbine shaft torquing and run-out
- Assembly line, in-process measurements
- Prosthetic joint and limb testing fitting
- Robotics
- SPC monitoring of machine part dimensions
- Bore/Depth gage hand tools
- Position feedback for X/Y tables
- PCB drilling machines
- Z-axis control for wire die bonding machines

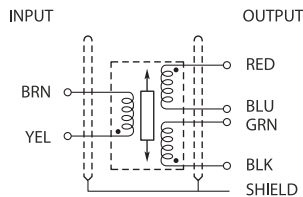
## Common Specifications

<b>Input Frequency</b>	2.5 to 10 kHz
<b>Linearity</b>	< ±0.20% of full range output
<b>Repeatability</b>	0.000004" (0.10Fm )
<b>Operating Temp. Range</b>	-45°F to 160°F (-40°C to 70°C)
<b>Temperature Coefficient of Sensitivity</b>	0.05% of full range output/°F (±0.01% of full range output/°C)
<b>Housing Material</b>	Hardened stainless steel
<b>Cable</b>	6.5 feet (2 meters), 32 AWG stranded, PTFE insulated, shielded polyurethane jacket, 6 conductor
<b>Cable Exit</b>	Axial standard; adaptor available to allow for radial exit

## Electrical Specifications

Excitation	3.5 V rms at 5.0 kHz (nom )
Sensitivity	5.0 – 5.5 m V/V/.001"
Null Voltage	5.0 mV (m ax)
Phase Shift	3.0° ±3°
Primary Impedance	960 ohm s
Secondary Impedance	2150 ohm s

## Wiring



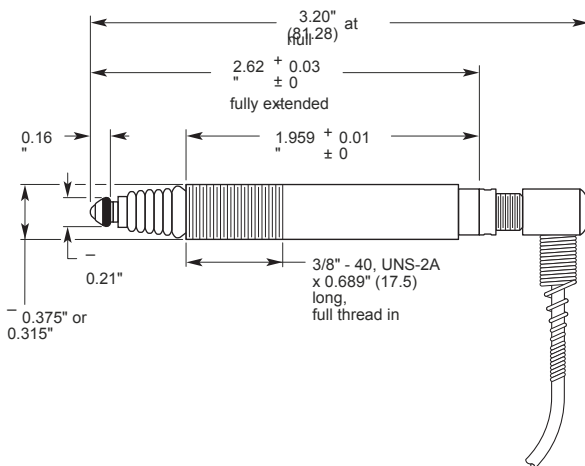
Note:  
BLU and GRN tied for differential output with YEL and BLK common.  
The output is in phase, with core displaced toward cable end. (Retract)

## Mechanical Specifications

Linear Range	±1.0mm - ±2.5mm
Pre travel	0.000" to 0.015"
Overtravel	0.005" (min)
Probe Force	70g typical (customized 50 to 100g at null)
Body Diameter	8mm or 9.5mm
Body Type	Plain or threaded
Customized Cable Length	6.5' (2.0m ) standard
Tip Thread	4-48 AGD

## Dimensions

in (mm)



## Ordering information

AP - X.Xmm - YYYY  
(X.X is the range in MM, for example 1.0 or 2.5)

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