HD-T080 AC Series
Spring-loaded Ultra-precision LVDT

The HD-T080 AC Series gaging probes are spring-loaded, ultra-precision AC LVDTs offering exceptional linearity, high accuracy, and infinite resolution. Construction consists of a stainless steel probe assembly and an 8 mm diameter housing rated to IP-65. Designed for a wide range of position measurement and dimensional gaging applications, they are available in stroke ranges of 1 mm, 2 mm, 5 mm, 10 mm, and 15 mm. The HD-T080 Series features ultra-precision linear ball bearings for smooth, stiction-free probe movement, triple-shielded LVDT design for EMI protection, and a measuring tip accuracy up to 0.5 µm, ensuring excellent repeatability and long-term reliability.



FEATURES

- Ultra-precision measuring tip，Upto 0.5µm accuracy
- Precision linear bearing spring-loaded mechanism, smooth, no stuck
- Triple-shielded LVDT design for EMI protection
- Polyurethane cable rated for long-term use in drag chains
- Fluoroelastomer sheath offering high temperature and chemical resist
- Standard M2.5 threaded tip for easy replacement
- Available with LVDT (full-bridge) or LVRT (half-bridge) configurations

GREAT FOR

- Dimensional Gaging
- Metal Component Gaging
- Materials Testing
- Roundness Measurements
- Automotive Testing

SPECIFICATIONS

Performance

Code	Stroke Range (mm)	Sensitivity,mV/V/mm
SX-T080-010-X-X-AC	1	180
SX-T080-020-X-X-AC	2	200
SX-T080-050-X-X-AC	5	133
SX-T080-100-X-X-AC	10	80
SX-T080-150-X-X-AC	15	184

All values are nominal unless otherwise noted. Dimensions are in mm unless otherwise noted

FR: Full Range is the stroke range, end to end; FR= S for 0 to S stroke range

FRO (Full Range Output): Algebraic difference in outputs measured at the ends of the range

Electrical

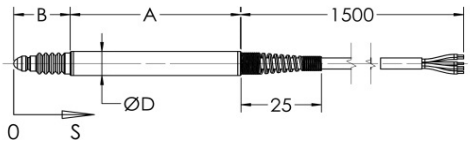
Power s Supply	3 V rms(1~7V rms Optional)
Input Frequency	2.5KHz (2K~10KHz Optional)
Resolution	Depends on the electronic device
Non-linearity (maximum)	<0.25%
Repeatability	< 0.1%
Operating Temperature	-10℃~ +85℃
TC of Sensitivity	< 0.01%℃
Structure	Springback
Wiring	6-core Teflon cable or wire
Phase shift	3°± 3°
Springback Force	70g±20% @ Midpoint position of the travel distance
Pre-trip / Over-trip	> 0.3mm
Mechanical Response	10Hz~200Hz@20℃
IP Grade	IP65

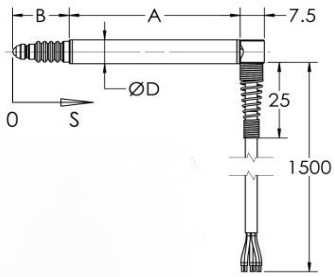
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The information provided herein is, to the best of Hansensol's knowledge, true and accurate.
It is provided for guidance only, and all specifications are subject to change without prior notice.

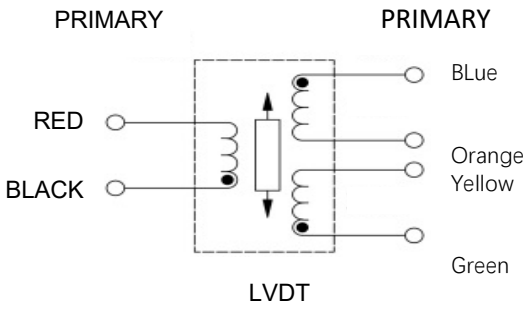
Dimension [mm]

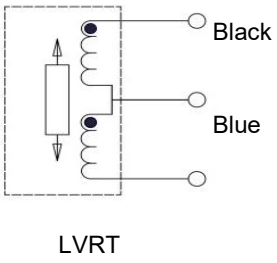
Code	Dim "A"	Dim "B"
SX-T080-010-X-X-AC	45	15
SX-T080-020-X-X-AC	45	20
SX-T080-050-X-X-AC	55	29
SX-T080-100-X-X-AC	77	36
SX-T080-150-X-X-AC	85	43





Wiring





ORDERING INFORMATION

HD - T 080 - 100 - X - D - AC

Structure	
T	Spring-loaded

Outer Diameter	
080	8mm

Stroke Range	
Code	Stroke
010	1mm
020	2mm
050	5mm
100	10mm
150	15mm
Customizable Range	

Output	
AC	AC output

Full bridge / Half bridge	
D	LVDT
R	LVRT

Direction of wiring	
X	Axial outlet
Y	90° outlet

Optional accessories

1. Installation bracket
2. Iron core connecting rod (customizable)

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