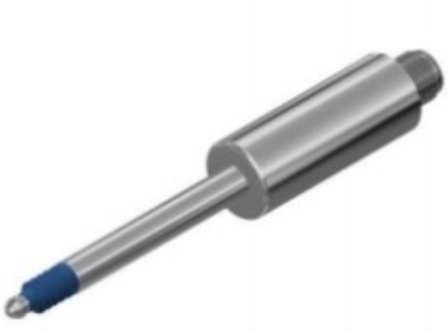
PTL-TSK-T080 LVDT Probe



Specifications

Ultra-long service life

Repeatability 0.01% FS, 0.5 um

Triple-shielded LVDT

Flexible cable, resistant to chemicals

Optional electrical connectors

Features

- All stainless steel housing
- Measuring range 0~15 mm selectable
- Linearity ±0.25%
- Shock and vibration resistant
- Wide temperature range, -25°C to 85°C
- External spring return mechanism
- Precision bearing return mechanism, smooth sliding, no sticking, minimal wear
- One-piece design, easy to install
- Innovative winding design for short body length
- Built-in conditioner with digital output
- Internal shielding for strong anti-interference

The PTL-TSK-T080 is a dimensional measurement probe based on the Linear Variable Differential Transformer (LVDT) principle. It outputs a highly repeatable voltage proportional to displacement for high-precision, high-repeatability measurement in quality control and metrology applications.

The core and windings have no mechanical contact, ensuring a very long service life. The one-piece design of the PTL-TSK-T080 offers better vibration resistance and a longer service life.

Environmental Parameters

Operating temperature: -25°C ~ 85°C

Temperature drift: <0.05%

Shock: 1000 g, 11 ms

Vibration: 20 g, 20 KHz

Applications

- In-line inspection of automotive parts
- CNC machining process verification
- Dimensional inspection of precision parts
- Manufacturing process condition monitoring
- Automatic factory SPC data collection
- Robotics
- Material deformation testing
- Food processing
- Servo valve signal feedback
- Equipment condition and deformation/displacement monitoring

Material Parameters

Housing: corrosion-resistant iron-nickel alloy

Core: high-stability nickel-iron alloy

Winding: ceramic quartz / plastic

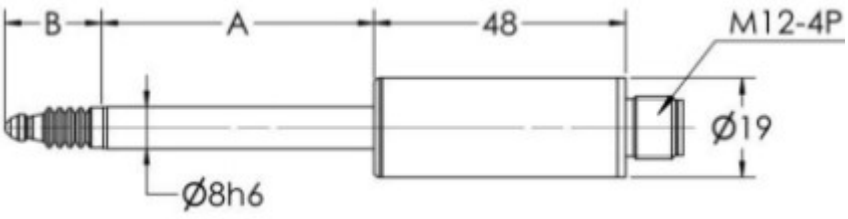
Magnet wire: coated copper wire

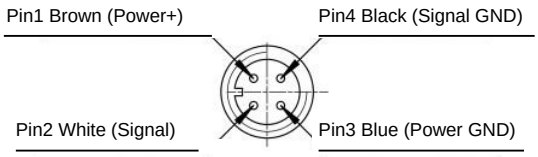
Electrical connection: M12 aviation connector

Performance Specifications

Parameter	PTL-TSK-T080-001	PTL-TSK-T080-002	PTL-TSK-T080-005	PTL-TSK-T080-010	PTL-TSK-T080-015
Range (mm)	1	2	5	10	15
Response Freq. (Hz)	10~200	10~200	10~200	10~200	10~200
Protection Rating	IP65	IP65	IP65	IP65	IP65
Vibration	20g@2000Hz	20g@2000Hz	20g@2000Hz	20g@2000Hz	20g@2000Hz
Shock Resistance	1000g@11ms	1000g@11ms	1000g@11ms	1000g@11ms	1000g@11ms
Return Life	>10 million cycles	>10 million cycles	>10 million cycles	>10 million cycles	>10 million cycles
Input Voltage	13~28VDC	13~28VDC	13~28VDC	13~28VDC	13~28VDC

Dimensions and Wiring





M12 Connector Pin Definition

Ordering Information

PTL-TSK-T080	-XXX	-XXXX
Analog Output LVDT	Range	Signal
	-001	-485: Modbus RS-485
	-002	
	-005	
	-010	
	-015	

Notes:

- Electrical specifications based on 3 KHz excitation frequency
- For more options, consult the factory for customization

Warranty

KMBT products are warranted for one year from the date of shipment. Warranty does not cover product misuse; however, paid repair service is available.

Contact Information

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