

VYDAS

INTERNATIONAL MARKETING

Specialist Sensors & Instruments for Industry



PTx SERIES AC/AC LVDT-s (SMALL DIAMETER SERIES) FOR LINEAR MEASUREMENTS 6 mm to 300 mm RANGES

APPLICATION

The PTx series are AC/AC LVDT-s which is the miniature version of PJx series transducers. They can be used in static and dynamic measurements of displacements, materials length and thickness change, construction and machine elements deflections.

CHARACTERISTICS

- Freedom movable magnetic core
- High stability and accuracy
- Very high repeatability and reliability
- Small dimensions
- Resistant to weather

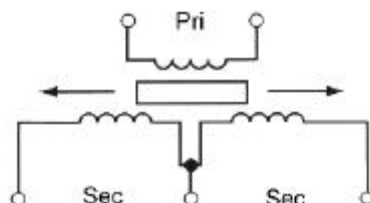
PRINCIPLE OF OPERATION

The LVDT is a cylindrical electromechanical device consisting of one primary winding, two secondary windings and a moveable core. When the primary is powered and the core moved, the output from the secondaries is proportional to and in phase with the core movement. The construction gives a possibility to insert the core connecting rod from the any side of the transducer.

SPECIFICATIONS

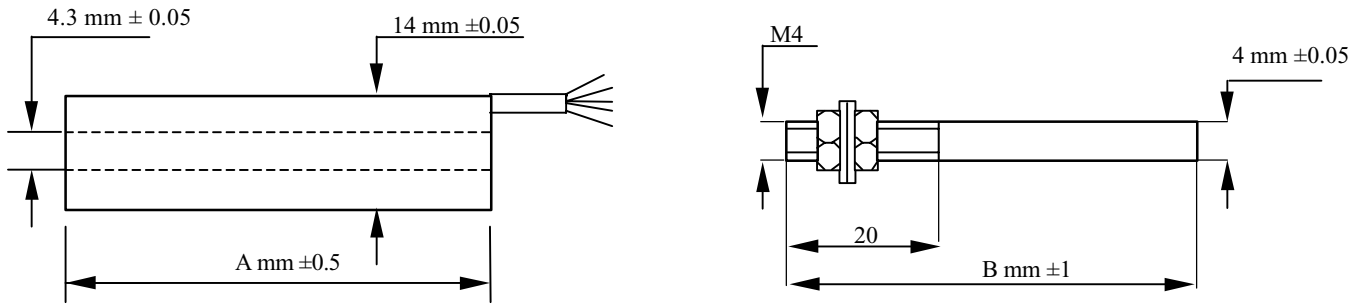
Measurement Ranges	$\pm 3, \pm 5, \pm 10, \pm 15, \pm 25, \pm 50, \pm 100, \pm 150$ mm
Power Supply	2Vrms, 5...15mA, 5kHz
Output Signal	1V rms $\pm 10\%$, 0.5Vrms $\pm 10\%$ for PTx6 only
Load Impedance	$\pm 51k\Omega$
Insulation Resistance	$> 20M\Omega$
Linearity	$\leq 0.5\%$, option $\leq 0.25\%$
Operating Temperature	-20°C to 80°C , option -20 to 120°C
Temp. Error	$\leq 0,02\% / 1^{\circ}\text{C}$
Electrical Connection	only cable or cable with KD51 connector
Vibration Tolerance	20g up to 2kHz
Shock Survival	100g, 11ms
Housing Material	1H18N9T acid resistant steel, as per PN-86020 or AISI 304 series stainless steel

CIRCUIT DIAGRAM



The continual development of our products causes a necessity of changes introduction which can not be published in this document

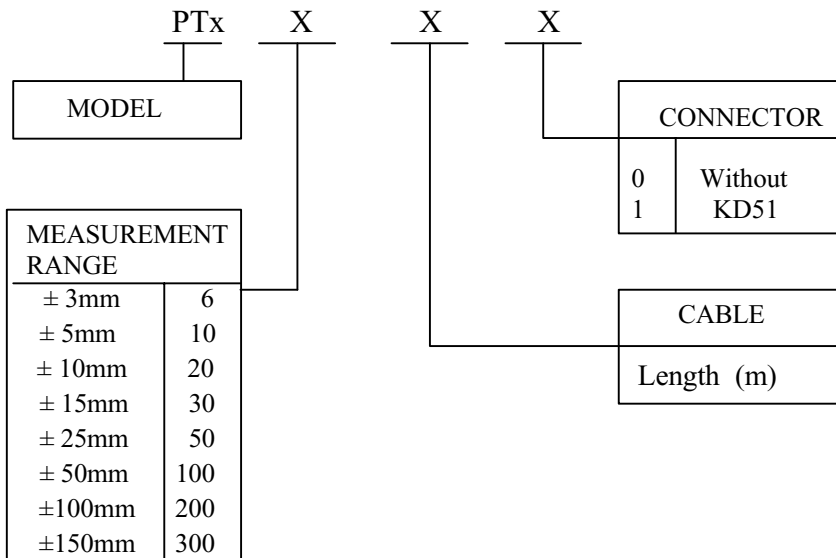
DIMENSIONS



PTx transducer	PTx6	PTx10	PTx20	PTx30	PTx50	PTx100	PTx200	PTx300
Measurement Range (mm)	±3	±5	±10	±15	±25	±50	±100	±150
A (mm)	58	72	82	102	132	212	342	472
B (mm)	100	100	140	150	170	270	380	490

ORDERING INFORMATION

Specify the model according to the ordering code:



Ordering example:

PTx200 – 3 – 0

PTx – Linear displacement transducer

200 – Measurement range ± 100mm

3 – 3m length cable

0 – No connector

Notes:

1. Standard version: 0.5m length of cable
2. Measurement conditions: the load 51 kΩ, ambient temp. 20°C
3. In the special order is possible the construction and making of non typical transducers.

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