

PIz SERIES DC/DC LVDT-s FOR LINEAR DISPLACEMENT MEASUREMENT 20 mm to 150 mm RANGES

APPLICATIONS

The PIz series, are DC/DC LVDT-s designed for displacement, length and thickness measurements in industrial, and R&D multi-channel data acquisition, or for use as feedback sensors in machining and process applications.

CHARACTERISTICS

- High stability and accuracy
- High repeatability and reliability
- Unguided core movement for frictionless measurement

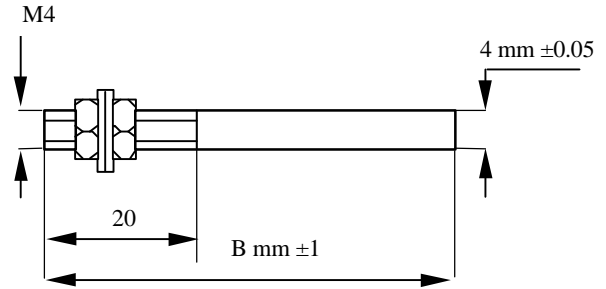
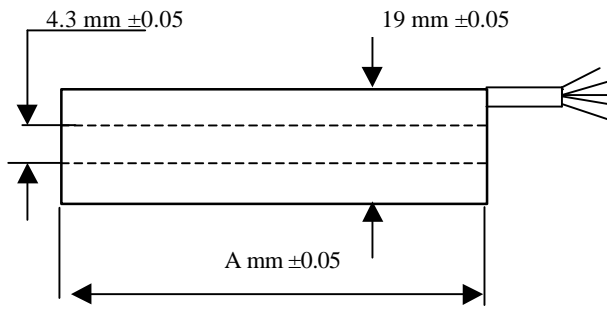
PRINCIPLE OF OPERATION

The LVDT is a cylindrical electromechanical device consisting of one primary winding, two secondary windings and a moveable core (see page 2). When the primary is powered and the core moved, the output from the secondaries is proportional to and in phase with the core movement.

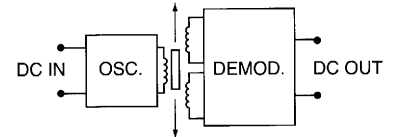
SPECIFICATIONS

Measurement Ranges	$\pm 10, \pm 25, \pm 50, \pm 75$ mm
Input Power	15V DC / 30 - 35mA
Output Signal	$\pm 5V$ DC ± 10 %; (optional $\pm 10V$ DC ± 10 % for PIz100 and PIz150)
Linearity	0.5% FS (optional 0.25% FS)
Output Ripple	0.5% FS
Operating Temperature	0°C to +70°C
Temperature Error	0.02% / 1°C
Load Impedance	± 10 k Ω
Insulation Resistance	20 M Ω
Output Impedance	5600 $\Omega \pm 10$ %
Frequency Response	50 Hz @ 3 dB
Electrical Connection	only cable or cable with KD51 connector
Vibration Tolerance	20g @ 2kHz
Shock Survival	100g, 11ms
Housing Material	1H18N9T acid resistant steel, as per PN-86020 or AISI 304 series stainless steel

DIMENSIONS AND CIRCUIT DIAGRAM

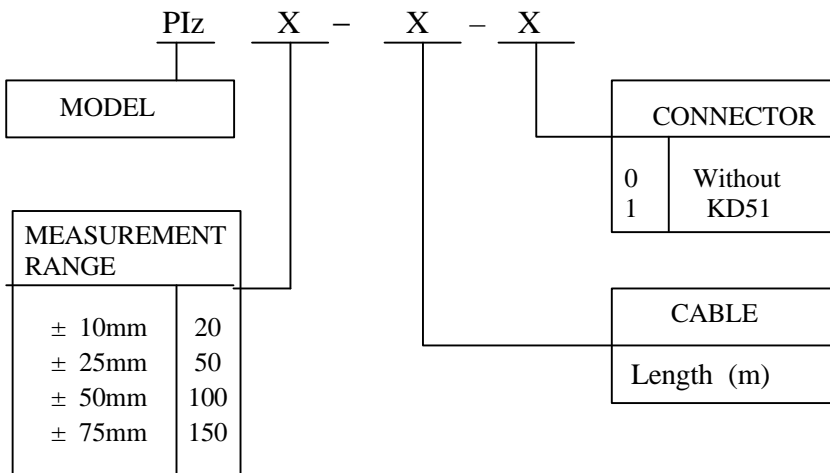


PIz transmitter	PIz20	PIz50	PIz100	PIz150
Measurement range (mm)	±10	±25	±50	±75
A(mm)	107	160	217	267
B (mm)	215	250	300	547



ORDERING INFORMATION

Specify the model according to the ordering code:



Ordering example:

PIz 20 - 3 - 0

DC/DC LVDT with unguided core, ± 10mm range, 3m cable, and 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 transmitters.

PELIRON® Ltd

PRODUCTION AND TRADE COMPANY

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