

LINEAR VARIABLE DISPLACEMENT TRANSDUCERS Series PIz

PFIRON

APPLICATIONS

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

CHARACTERISTICS

- Unguided core
- High repeatability and reliability

PRINCIPLE OF OPERATION

- DC power supply
- High stability and accuracy

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

SPECIFICATIONS

| PIz transmitter | PIz20 | PIz50 | PIz100 | PIz150 | PIz300 |
|------------------------|-------|-------|--------|--------|--------|
| Measurement range [mm] | ±10 | ±25 | ±50 | ±75 | ±150 |
| A [mm] | 109 | 160 | 217 | 267 | 510 |
| B [mm] | 215 | 250 | 300 | 547 | 512 |

| 1 | Power supply | 15V options 12V÷24V | |
|----|-----------------------|-------------------------------|--|
| 2 | Current supply | 30÷35mA | |
| 3 | Output signal | ±5V±10%, PIz100, PIz150: | |
| | | $\pm 5V \pm 10V \pm 10\%$, | |
| 4 | Output impedance | 5600 Ω | |
| 5 | Load impedance | ≥10kΩ | |
| 6 | Frequency range | 3dB,50Hz | |
| 7 | Isolation resistance | ≥20 MΩ | |
| 8 | Linearity [% ZP] | ≤0,5; ≤0,25 | |
| 9 | Temperature range | -20+80°C | |
| 10 | Pulsation | 0,5% FSO | |
| 11 | Electrical connection | Cable or cable with connector | |
| 12 | Vibration immunity | 20g ÷ 2kHz | |
| 13 | Surge immunity | 100g, 11ms | |
| 14 | Enclosure material | Steel 1H18N9T or AISI 304 | |



DIMENSIONS



Continuous development of our products makes necessity of introducing changes to their construction, which may not be indicated in this document.