



TRANSFORMER LINEAR DISPLACEMENT TRANSDUCERS (LVDT) PSa SERIES

APPROPRIATION

Transformer linear displacement transducers (LVDT) of the PSa series, provided with a return spring, can measure touching, without fixing of the core connecting rod. They can be used to measurements of:

- displacement and change of dimensions or deflections of heavy, giant constructions,
- wide changes of dilatation slits and a settlement irregularity of dam concrete blocks in hydroelectric plants.

CHARACTERIZATION

- Captive spring return armature
- High stability
- Very high repeatability
- Housing protection IP67 (can works in the water)
- High mechanical durability

CONSTRUCTION

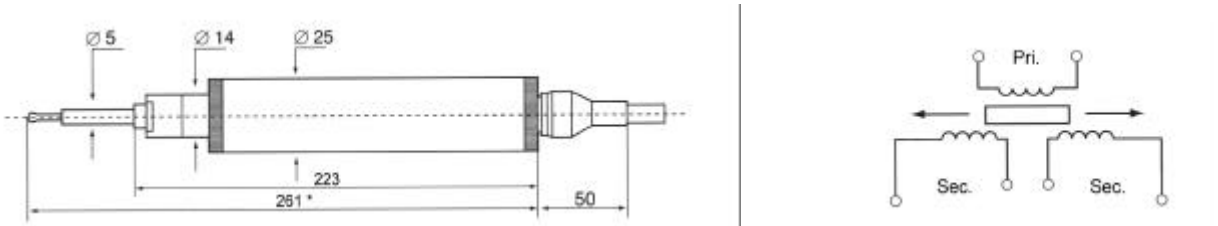
The transducer construction is based on the differential transformer placed in a cylindrical housing. The output signal depends from a movable magnetic core position inside the coil assembly. The return spring tightens the core connecting rod to the measured object.

TECHNICAL DATA

Measurement range	±10 mm
Power supply	2Vrms , 1mA ± 10 % , 5kHz
Output signal	700mVrms ± 10 % ,
Load resistance (R)	R ³ 51k Ω
Insulation resistance	³ 20M Ω
Nonlinearity	≤ 0,75%
Operating temperature	- 20...+ 80°C; option -20...120°C
Temp. error	≤ 0,02%/1°C
Housing protection	IP67

Electrical connection	only cable or cable with MIC326 connector
Vibration tolerance	20g up to 2kHz
Shock survival	100g, 11ms
Housing material	1H18N9T acid resistant steel, according to PN-86020 or AISI 304 series stainless steel

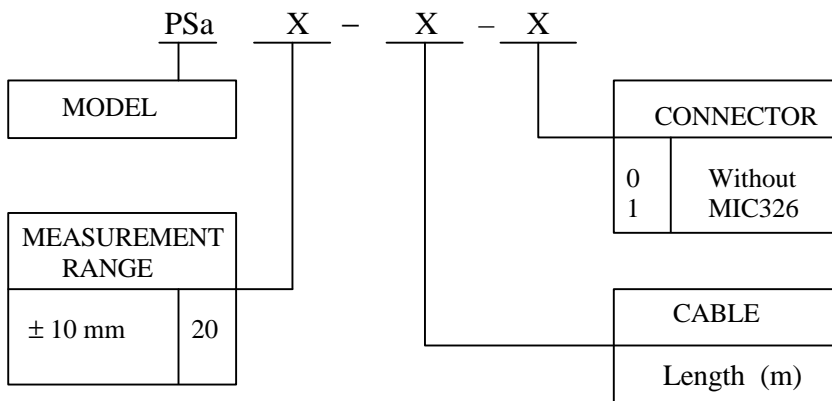
DIMENSIONS AND CIRCUIT DIAGRAM



*core position for the electrical zero

ORDERING INFORMATION

Specify the model according to the ordering code:



Ordering example:

PSa20 – 3 – 0

PSa – Linear displacement transducer

20 – Measurement range ± 10mm

3 – 3m length cable

0 – No connector

Notes:

1. Standard version: 0.5m length of the cable, without connector.
2. Measurement conditions: the load 51 kΩ, ambient temp. 20°C.
3. The transducer can operate under another conditions of the power supply.
3. In the special order is possible the construction and making of non typical transducers.



PELIRON® Ltd

PRODUCTION AND TRADE COMPANY
 UL. EZOPA 71 A 04-805 WARSZAWA TEL. (+48 22), 615-25-70, 615-27-05 FAX. (+48 22) 615 –70-78
 account PBK IX Oddz. Warszawa 11101040-37745-2700-1-64, Regon 006210833, NIP 113-00-18-140
 Our Web site [http:// www.peltron.home.pl](http://www.peltron.home.pl) e-mail: peltron@home.pl