

VYDAS

INTERNATIONAL MARKETING

Specialist Sensors & Instruments for Industry



PSx SERIES AC/AC LVDT-s FOR GAUGING DISPLACEMENTS APPLICATIONS WITH SPRING RETURN 1 mm to 100 mm RANGES

APPLICATION

The PSx series, AC/AC LVDT is designed with a return spring, so it can measure touching, without the core connecting rod being fixed. They can be used in static and dynamic measurements like: displacements, materials length and thickness change, construction and machine elements deflections.

CHARACTERISTICS

- Captive spring return armature
- High stability and accuracy
- Very high repeatability
- High mechanical durability

PRINCIPLE OF OPERATION

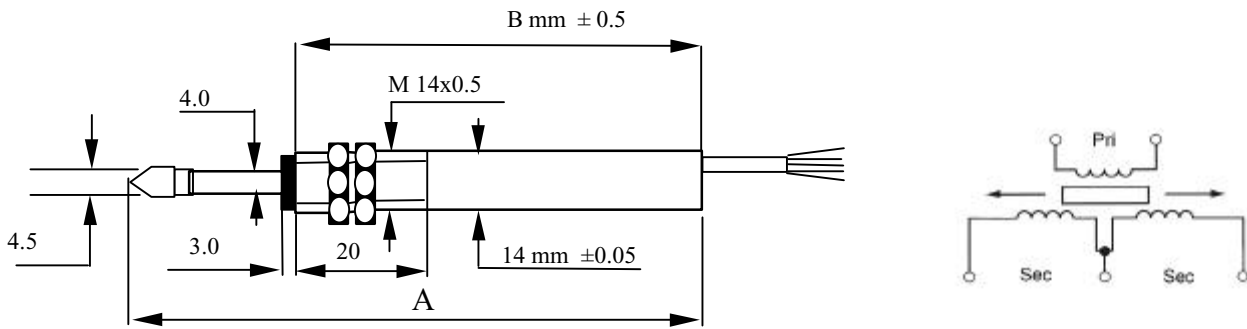
The LVDT is a cylindrical electromechanical device consisting of one primary winding, two secondary windings and a moveable core (see page 2). When the primary is powered and the core moved, the output from the secondaries is proportional to and in phase with the core movement.

SPECIFICATIONS

Measurement Ranges	$\pm 0,5; \pm 1; \pm 3; \pm 5; \pm 10; \pm 25; \pm 50$ mm
Power Supply	2Vrms , 5mA to 15mA, 5kHz
Output Signal	0.5V rms ± 10 % for PSx1, PSx2 and PSx6; 1Vrms ± 10 % for PSx10, PSx20, PSx50 and PSx100
Load Impedance	$\pm 51k \Omega$
Insulation Resistance	$> 20M \Omega$
Linearity	$\leq 0.5\%$, option $\leq 0.25\%$
Operating Temperature	$- 20^{\circ}C$ to $80^{\circ}C$, option $- 20^{\circ}C$ to $120^{\circ}C$
Temp. Error	$\leq 0,02\%/1^{\circ}C$
Electrical Connection	only cable or cable with optional 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

The continual development of our products causes a necessity of changes introduction which can not be published in this document

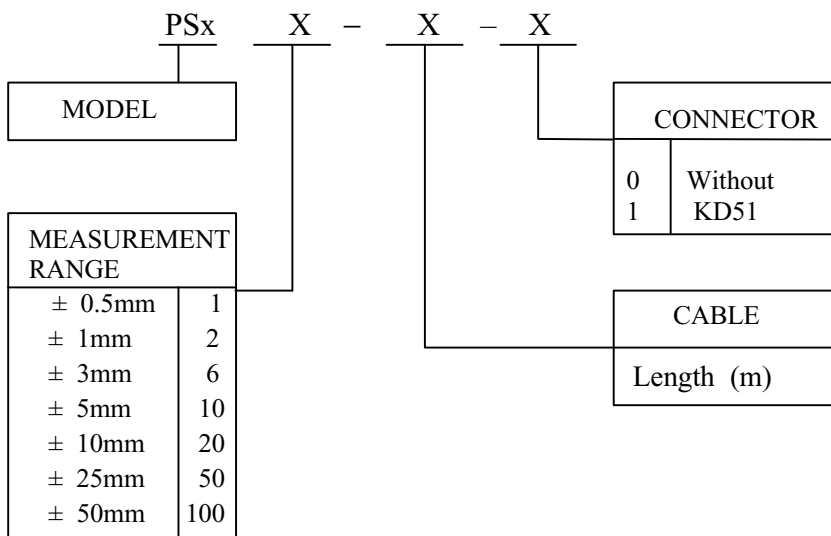
DIMENSIONS AND CIRCUIT DIAGRAM



PSx transmitter	PSx1	PSx2	PSx6	PSx10	PSx20	PSx50	PSx100
Measurement range (mm)	±0,5	±1	±3	±5	±10	±25	±50
A(mm), for the electrical zero	104	104	135	141	180	280	448
B (mm)	71	71	93	111	143	223	371

ORDERING INFORMATION

Specify the model according to the ordering code:



Order example:

PSx20 – 3 – 0

PSx – Linear displacement transducer

20 – Measurement range ± 10mm

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.

PELLIRON® Ltd



VYDAS INTERNATIONAL MARKETING
Swan House PBC Lynchborough Rd
Passfield Hampshire GU30 7SB UK

Tel: 44 (0)1428 751822 Fax: 44 (0)1428 751833

Email: info@vydas.co.uk Web: www.vydas.co.uk