



## **PNy SERIES AC/DC LVDT-s MINIATURE TRANSDUCERS AIR/SPRING ACTUATION 5 mm to 10 mm RANGES**

### **APPLICATION**

The PNy series AC/DC LVDT is specifically designed for small precision measurements. These are equipped with a return spring. It can be used for low deformation precision measurements i.e. kinescope screen curvature inspection.

### **CHARACTERISTICS**

- Captive spring return armature (PNy series)
- Spring and pneumatic mechanism (PNy5p)
- High stability and accuracy
- Very high repeatability
- High mechanical durability
- High precision and quality of work

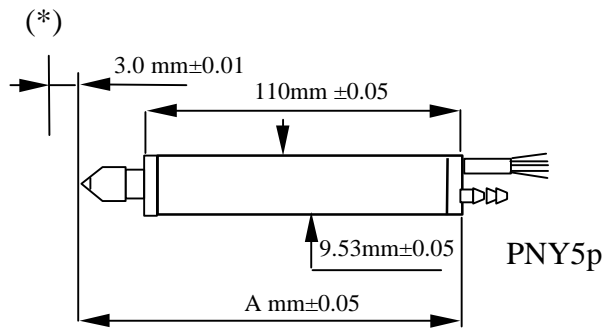
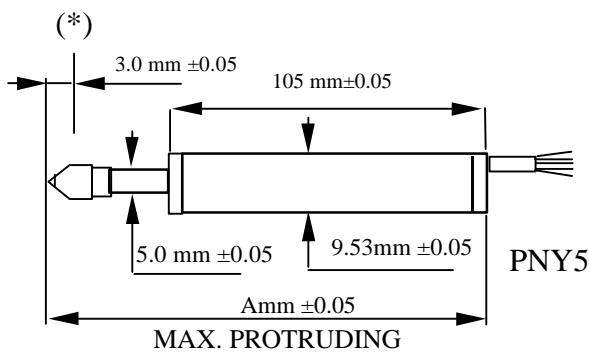
### **PRINCIPLE OF OPERATION**

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. Transmitters are made in two versions: PNy5 and Pny10 provided with the return spring and dPNy5p provided with the spring and pneumatic mechanism. In the same housing is an electronic circuit.

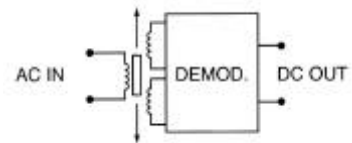
### **SPECIFICATIONS**

Measurement Ranges	$\pm 2.5$ mm for PNy5 and PNy5p; $\pm 10$ mm for PNy10
Power Supply	3.6V rms , 10mA, 3kHz
Output Signal	$\pm 1.2$ V DC $\pm 10$ %
Load Impedance	10k $\Omega$
Insulation Resistance	20M $\Omega$
Linearity	$\leq 0.5\%$ , option $\leq 0.25\%$
Operating Temperature	0°C to 70°C
Repeatability	0.001mm
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
Operating Pressure for PNy5p	0.4 bar to 0.7 bar

## DIMENSIONS AND CIRCUIT DIAGRAM



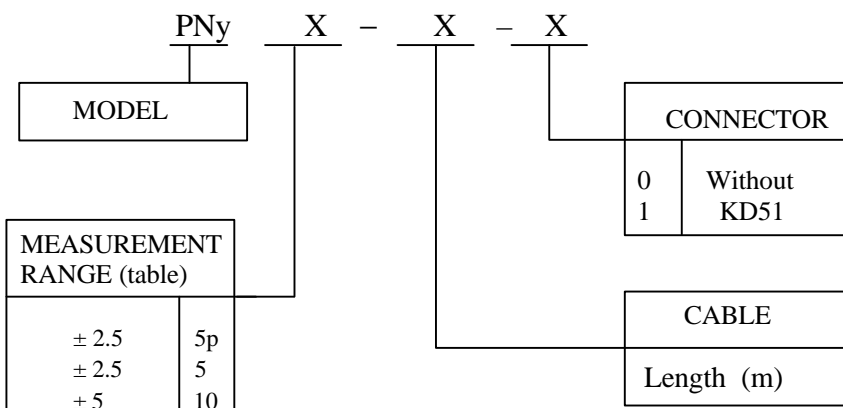
PNy transmitter	PNy5	PNy5p	PNy10
Measurement range (mm)	±2.5	±2.5	±5
A(mm)	126	120	136



(\*) electrical zero;

### ORDERING INFORMATION

Specify the model according to the ordering code:



### Ordering example:

PNy10 - 3 - 0

PNy - Linear displacement transmitter

10 - Measurement range ± 5mm

3 - 3m length cable

0 - No connector

Notes:

1. Standard version: 0.5m length of cable
2. Measurement conditions: the load 10 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

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 370031-37745-2700-1-03, 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](mailto:peltron@home.pl)