



# 24 V Operated DC LVDTs

... Series DSA

The DSA series of DC LVDTs are range of DC-input DC-output displacement transmitters housed in stainless steel body. These transducers are equipped with in- built electronics.

DSA series Transmitters operate from a **24 V DC supply** which makes them suitable for use in industrial plants with the same ease as that of any process transmitter. Any signal conditioner or amplifier is not required for their operation.

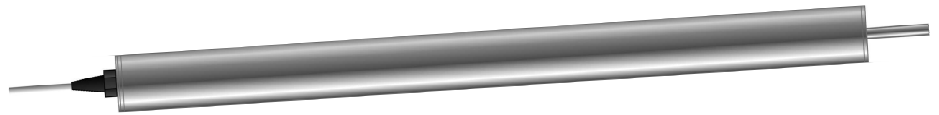
Applications for these transducers include measurement of displacement and linear position, deflection or deformation measurement in automated material testing machines for soil testing machines, automation of textile machinery etc.

AGMPL also manufactures Digital Indicators, controllers and interface and software for computerized measurement compatible with these transducers.

All transducers are supplied factory calibrated with test certificate traceable to NPL thru NABL accredited Test agency.

## Features

- ▶ Allows use of very long cables from LVDT to electronics without loss of signal.
- ▶ Stainless steel housing allows use in harsh environment of a process plant.



| Model                          | 025DSA | 050DSA  | 075DSA  | 100DSA  | 150DSA  | 200DSA  | 250DSA  | 300DSA  | 350DSA  | 375DSA  |
|--------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Full Stroke Range (mm)         | 0...50 | 0...100 | 0...150 | 0...200 | 0...300 | 0...400 | 0...500 | 0...600 | 0...700 | 0...750 |
| Body Length (mm)               | 234    | 390     | 496     | 530     | 755     | 975     | 1170    | 1460    | 1670    | 1780    |
| Mech. stroke (mm)              | 60     | 110     | 160     | 220     | 320     | 430     | 540     | 640     | 740     | 770     |
| Non-linearity error (% FSR, ±) | 0.3    | 0.4     | 0.5     | 0.5     | 0.5     | 0.5     | 0.5     | 0.75    | 1       | 1       |

**Note:** The models described above are standard models. Some examples of Similar LVDTs with other customer specified full stroke ranges are: 080DSA (FSR 0 to 160 mm) ; 135DSAS (FSR 0 to 270 mm). For Such LVDTs specs are given on the quotation.

## Specifications

**Power Source (Input) Voltage:**  
24 V DC , nominal; 18 to 36 V DC.

**Power Consumption:**  
Approximately 2 watts at 24 VDC.

**Output Signal Voltage:**  
0 to 10 V DC or 4 to 20 mA.  
0 V / 4 mA output when core rod is fully pressed in (standard).  
DC LVDTs can be supplied with 0 V/4 mA factory set at fully extended position of core-rod also (optional).

**Output type — voltage or current and 'zero' position must be specified on your order.**

**Output Sensitivity (mA/mm):**  
16 / (Electrical Full Stroke Range in mm)

**Resolution:** Infinite

**Ripple at output:**  
Less than 0.5% peak-to-peak of output at full stroke.

**Frequency Response:**  
DC to 20 Hz; up to 10% degradation at 20 Hz

**Ambient Temperature Range:**  
Up to 60 deg C

**Temperature Coefficient:**  
0.05% of output per degree C

**Insulation Resistance:**  
100 Meg ohm at 500 VDC between input and output windings and between windings and LVDT housing. For best performance, housing should be connected to earth.

## Cable:

4-conductor, 7/0.2 mm, Shielded, PVC insulated, 5 meter long.

(LVDTs with longer integral cables can also be ordered at additional cost).

## Protection:

Against surge voltage , over voltage, reverse polarity voltage of power supply and output short circuit.

## Body Diameter:

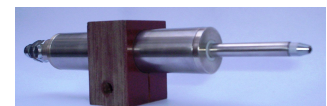
32 mm

## Weight of transducer:

Consult Factory.

## Accessories (at extra cost)

### Spring loaded core rod:



Available upto 200 mm of Electrical stroke ranges. Consult factory for longer strokes.

### Body Clamp:

Standard body clamps are made of fiber based Bakelite.

Custom designed body clamps, as per user's dimensions, made of steel bottom portion and fiber top portion are also available.

