



Series **xxxDSV** DC-DC LVDTs are designed to operate from a 24 V DC power supply and provide an analogue output of 0 to 10 V for full stroke displacement. With this output they can be easily interfaced with PLC, Data acquisition and Control system or any Digital indicator.

Both the LVDT sensor and its electronics are housed in a cylindrical Stainless steel body. They are most appropriate for precision linear displacement measurements.

### Applications

- ◆ Linear Displacement Measurement
- ◆ Position Feedback
- ◆ Automated Material Testing Machines and Test Rigs

### Features

- ◆ Easy to interface, external signal conditioner not required.
- ◆ Good Linearity
- ◆ Calibration Certificate supplied with each unit
- ◆ Stainless steel body and core-rod

### Specifications:

**Full stroke ranges (FSR):** 20, 50, 100, 200, 300, 400 mm  
*LVDTs with non-standard FSR can also be supplied*

#### Model: xxxDSV-vv-t

Where: xxx is FSR in mm; e.g. 050 for 50 mm FSR.

DSV is name of series

vv : Nominal Voltage of operating power supply

t: threads on core rod — M: M6 male, F: M3 female

#### Operating power supply

24 V DC (Nominal), Range: 18 to 36 V DC ; vv— 24

12 V DC (Nominal), Range: 9 to 18 V DC; vv— 12

#### Power supply reverse polarity protection:

LVDT and its circuit is protected against accidental reverse polarity connection of the power supply leads.

#### Output for Full stroke: 0 to 10 V DC;

*Against special orders LVDTs with other outputs such as 0 to 5 V DC or 0 to 2 V DC are also supplied.*

#### Output Ripple: Less than 25 mV p-p

#### Output Polarity:

Zero at full in-stroke, Increases with outward movement of the core rod.

#### Output overload and short circuit protection:

Electronic circuit remains protected under overload and output short circuit.

#### Output current capability: 15 mA

#### Allowable Ambient Temperature Range:

Storage: -50 to 80 Deg C; Operating: -20 to +70 Deg C

#### Temperature Effect on output: $\leq 0.02\%$ FSO/degC

**Input-output cable:** Integrally connected, 3-meter long, 4-core, PVC sheathed, braid shielded.

#### Core-rod:

6 mm diameter; SS304, bush guided.

Free end:

M6 x 20 mm long Male threads OR

M3 x 10 deep, female threads

*When specified with order, spring return core-rod with M3 female threads is available for LVDTs up to 200 mm FSR at additional cost.*

Model	020DSV	050DSV	100DSV	200DSV	400DSV
FSR (mm):	20 (+/-10)	50 (+/-25)	100 (+/-50)	200 (+/-100)	400 (+/-200)
Linearity (% of FSR)	0.25 %	0.25 %	0.25%	0.3%	0.4%
Body Diameter (mm)	22	22	22	22	22
Body Length (mm)	190	250	300	540	984

#### Accessories at extra cost

*These are described in detail in Datasheet: A-01*

- ◆ Body Clamp for fixing LVDT body
- ◆ Spring return core rod with internal spring
- ◆ Hardened Ball Tip for use with spring return core rod.
- ◆ Mounting Flange
- ◆ Ball bearing tip for rotating targets
- ◆ Nylon faced tip for soft targets
- ◆ Heavy duty magnetic base for locating LVDT
- ◆ Rod-end bearings
- ◆ Calibration benches.
- ◆ Mains operated 24 V output power supply unit

