

LVDT DEFLECTION SENSORS

2601 Series

The 2601 Series Linear Variable Differential Transformer (LVDT) displacement transducers are measuring devices that measure the displacement of the load frames. They are best suited for situations where measuring strain on the specimen is difficult or impossible including compression and tensile tests. LVDT's are preferred to crosshead extension readings because they eliminate errors due to frame and fixture compliance. They feature an LVDT as the active element, and are designed for use on both electromechanical and hydraulic Instron® testing systems.

FEATURES AND BENEFITS

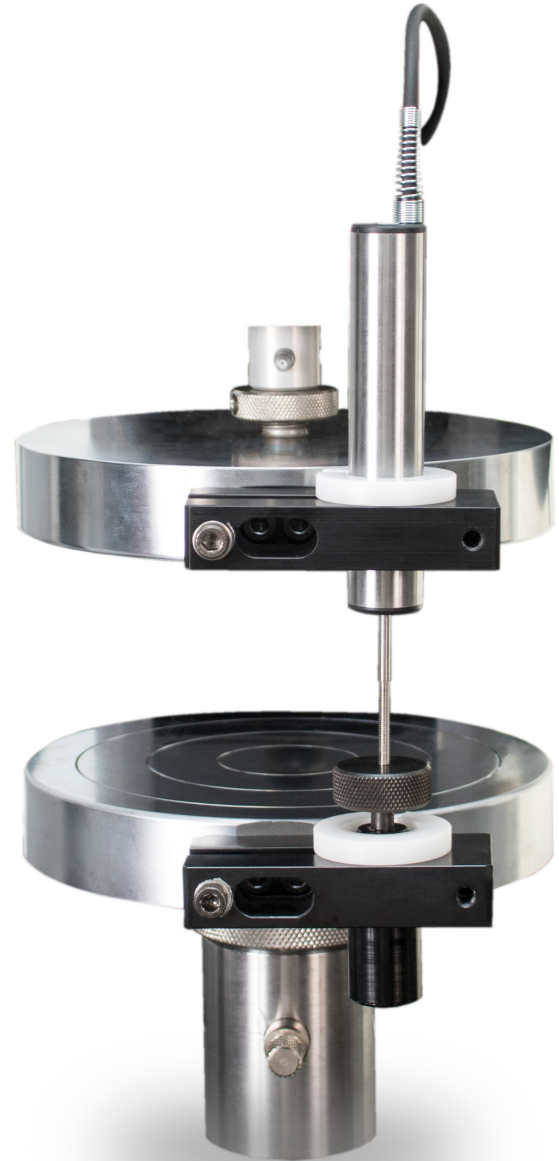
- Easy to use
- Wide variety of mounting configurations
- Variable stroke ranges
- Suitable for high and low-temperature operation (see specification table)
- Self-identifying for ease of calibration

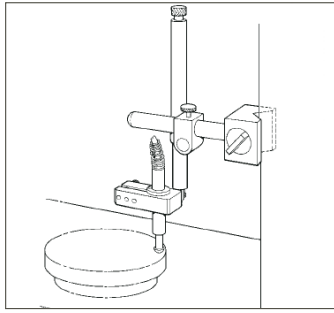
APPLICATION RANGE

- Precision displacement measurements

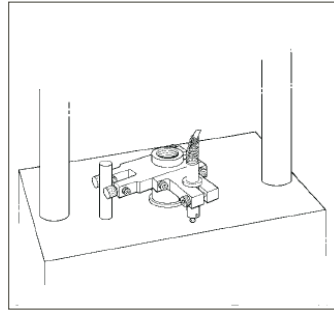
PRINCIPLE OF OPERATION

There are ten models in the 2601 LVDT Series, with stroke ranges from ± 0.5 mm (0.2 in) to ± 100 mm (4 in). The LVDTs allow accurate measurement of linear displacement and are spring loaded for contact with the reference surface. The LVDTs are AC excited, and, with an adapter, will interface with 3300, 5500, 5800, 5900, 8500, and 8800 series testing systems. The LVDTs are fully rationalized and have self-contained calibration resistors, which allows auto-calibration on these systems. All models may be mounted using one of a number of mounting configurations depending on the specimen type, the Instron model, and the test type. Mounting configurations include an LVDT platen displacement indicator, a crosshead motion detector, a magnetic base LVDT holder, and an actuator motion detector.

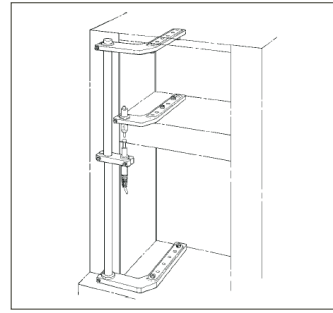




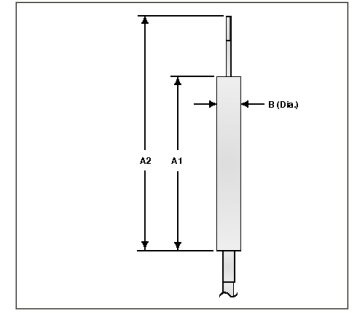
2601 Magnetic Base LVDT Holder



2601 Actuator Motion Device



2601 Crosshead Motion Detector



LVDT Dimensions

SPECIFICATIONS

Catalog Number	Model Number	Linear Stroke		Maximum Stroke		Spring Rate	Force at Electrical Zeromid Stroke	Temperature Range	Temperature Coefficient Zero	Sensitivity	Non-linearity of Transducer
		mm	in	mm	in	g/mm	g	°C	% / °C	% / °C	%
2601-041	AGZ0.5	±0.5	±0.02	±1.5	±0.06	15	40	10 - 80	<0.005	<0.01	±0.25 (of full scale)
2601-042	AG2.5	±2.5	±0.1	±6.0	±0.24	13	90	10 - 80	<0.005	<0.005	±0.25 (of full scale)
2601-043	AGR15	±15	±0.6	±22	±0.89	3.3	110	40 - 100	<0.005	<0.008	±0.3 (of full scale)
2601-044	AGR50	±50	±2	±62	±2.4	1.95	150	40 - 100	<0.005	<0.008	±0.3 (of full scale)
2601-045	AGR100	±100	±4	±125	±4.9	1.19	120	40 - 100	<0.005	<0.008	±0.3 (of full scale)

SYSTEM ACCURACY

Catalog Number	3300	5500	5800	5900	8500	8800
2601-041	±0.50	±0.50	±0.50	±0.50	±0.50	±0.50
2601-042	±0.50	±0.50	±0.50	±0.50	±0.50	±0.50
2601-043	±0.50	±0.50	±0.50	±0.50	±0.55	±0.50
2601-044	±0.50	±0.50	±0.50	±0.50	±0.55	±0.50
2601-045	±0.50	±0.50	±0.50	±0.50	±0.55	±0.50

Note:

1. Also compatible with Legacy 42/43/44/4500

PERCENTAGE OF FULL-SCALE

		2601-041	2601-042	2601-043	2601-044	2601-045
Effective Length (A)1	mm	22.5	77	97	280	450
	in	0.875	3.003	3.78	10.92	17.55
Effective Length at Electrical 0 (A2)	mm	30.5	94	142	365	595
	in	1.187	3.673	5.54	14.24	23.21

Note:

1. 5500 compatibility requires 2601-150 calibration kit

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