

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

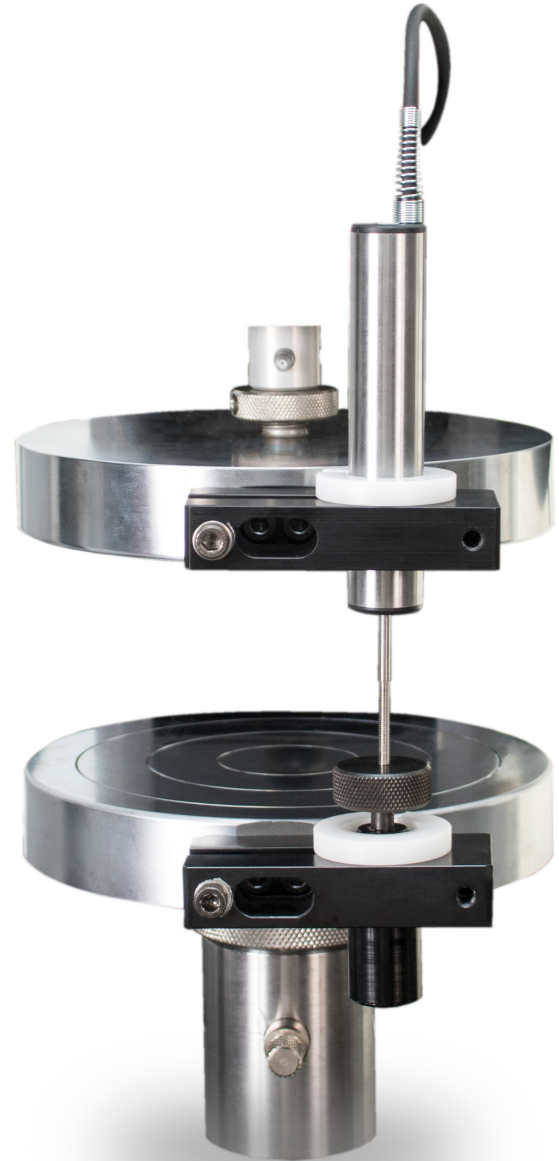
- Easy to use
- Wide variety of mounting configurations
- Variable stroke ranges
- Suitable for high and low-temperature operation (see specification table)
- Self-identifying for ease of calibration

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 will interface with 3300, 3400, 5500*, 5800, 5900, 6800, 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 and a magnetic base LVDT holder.



PERFORMANCE SPECIFICATIONS

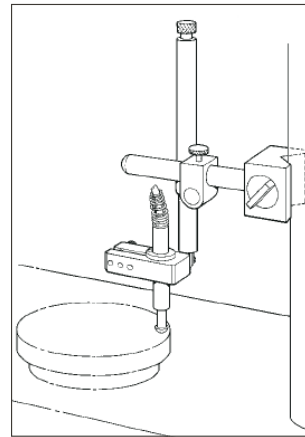
Catalog Number	Model Number	Measuring Range*		Maximum Stroke		Spring Rate	Force at Electrical Zero (mid Stroke)	Temperature Range	Temperature Coefficient: Zero-Shift	Temperature Coefficient: Sensitivity	Non-linearity of Transducer
		mm	in	mm	in						
2601-041	AX/0.5/S	±0.5	±0.02	±1.5	±0.06	24	70	-10 to +80	<0.01	<0.03	±0.1
2601-042	AX/2.5/S	±2.5	±0.1	±6.0	±0.24	9	70	-10 to +80	<0.01	<0.01	±0.1
2601-043	ACR15	±15	±0.6	±22	±0.89	3.3	110	-40 to +100	<0.005	<0.01	±0.1
2601-044	ACR50	±50	±2	±62	±2.4	1.95	150	-40 to +100	<0.005	<0.01	±0.1
2601-045	ACR100	±100	±4	±125	±4.9	1.19	120	-40 to +100	<0.005	<0.01	±0.1

Note: ± Full Scale

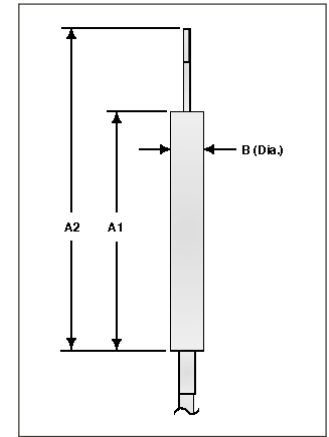
SYSTEM ACCURACY (% OF FULL SCALE)

Catalog Number	3300	3400	5500*	5900	6800	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	±0.60	±0.60	±0.60	±0.60	±0.60	±0.60
2601-044	±0.60	±0.60	±0.60	±0.60	±0.60	±0.60
2601-045	±1	±1	±1	±1	±1	±1

Note: Also compatible with Legacy 42/43/44/45/58/8500. 5500 compatibility requires 2601-150 calibration kit



2601 Magnetic Base LVDT Holder



LVDT Dimensions

LVDT DIMENSIONS

		2601-041	2601-042	2601-043	2601-044	2601-045
Barrel Length (A1)	mm	22.5	77	97	280	450
	in	0.875	2.638	3.82	11.02	17.72
Effective Length at Electrical 0 (A2)	mm	29.7	81.75	142	365	595
	in	1.169	3.218	5.59	14.37	23.42
Barrel Diameter (B Diam.)	mm	8	8	19	19	25
	in	0.315	0.315	0.75	0.75	0.98

www.instron.com



Worldwide Headquarters
825 University Ave, Norwood, MA 02062-2643, USA
Tel: +1 800 564 8378 or +1 781 575 5000

European Headquarters
Coronation Road, High Wycombe, Bucks HP12 3SY, UK
Tel: +44 1494 464646