

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

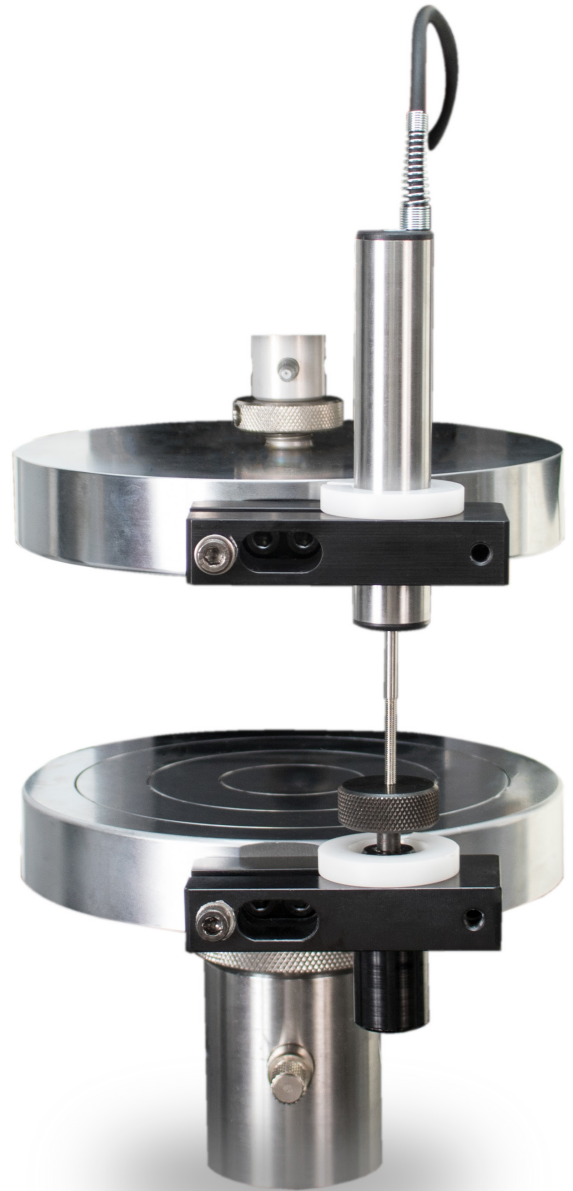
- Easy to use
- Wide variety of mounting configurations
- Variable stroke ranges
- Suitable for high and low-temperature operation (see specification table)
- Self-identifying for ease of calibration

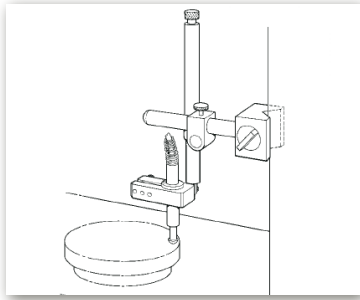
Application Range

- Precision displacement measurements

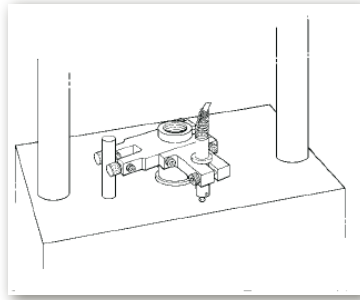
Principle of Operation

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, 4200, 4400, 4500, 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.

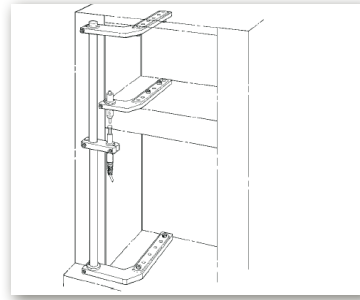




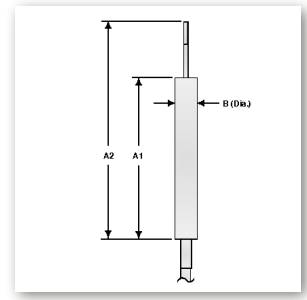
Model 2601 Magnetic Base Lvdtd Holder



Model 2601 Actuator Motion Device



Model 2601 Crosshead Motion Detector



Lvdtd Dimensions

Specifications

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

System Accuracy

3300	-	±0.50	±0.50	±0.50	±0.50	±0.50
4200	-	±0.85	±0.85	±0.90	±0.90	±0.90
4500	-	±0.50	±0.50	±0.55	±0.55	±0.55
5500*	-	±0.50	±0.50	±0.50	±0.50	±0.50
5800	-	±0.50	±0.50	±0.50	±0.50	±0.50
5900	-	±0.50	±0.50	±0.50	±0.50	±0.50
8500	-	±0.50	±0.50	±0.55	±0.55	±0.55
8800	-	±0.50	±0.50	±0.50	±0.50	±0.50

Percentage of Full-Scale

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

*5500 compatibility requires 2601-550 calibration kit.

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