DISPLACEMENT

SSA Seawater Submersible LVDT Displacement Transducer

- High cycle life
- Seawater submersible
- Stainless steel
- Infinite resolution

These transducers are for displacement / position measurement. They make an accurate position measurement of the movement of the armature (the sliding part) relative to the body of the displacement transducer.

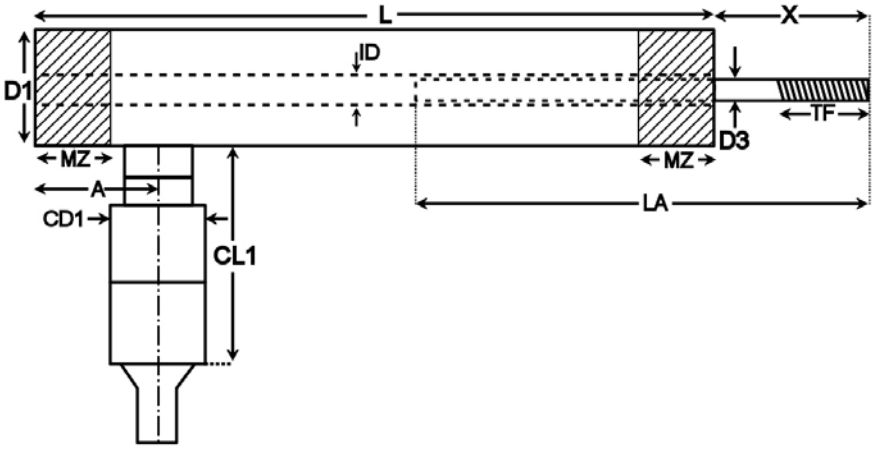
This transducer uses the Linear Variable Differential Transformer (LVDT) principle which means that it is probably the most robust and reliable position sensor type available. The strength of the LVDT sensor's principle is that there is no electrical contact across the transducer position sensing element which for the user of the sensor means clean data, infinite resolution and a very long life.

Our submersible displacement transducers are designed to make measurements whilst submerged in suitable liquids. Fluids which are non-magnetic can be allowed to flood the armature tube without affecting the operation of the transducer.

The SS series LVDTs are specially designed for use in sea water and heavy industrial environments with some corrosive chemicals. These LVDTs are made of welded 316 stainless steel and have a through bore plus very heavy construction. Therefore, the SS series LVDTs are capable of withstanding the most arduous industrial applications as well as 10 years seawater submersion at a depth of up to 2.3km.

Unguided version.

On our unguided LVDTs the armature assembly is a separate component, to make a measurement the user must guide the armature inside the body without touching the sides. Unguided position measurement transducers are appropriate where external guidance is available and give truly non-contact operation



A = 48mm
CD1 = 35mm
CL1 = 92mm
D1 = 38.1mm
D3 = 10mm
ID = 13mm
MZ = 27mm (Optimum sensor mounting zone)
TF = M10x1.5, 30mm

Type	Range	Linearity error (% F.S.)	L	X	LA	Total weight	Armature weight	Sensitivity (nom)
SSA500	±12.5mm	<±0.5	224mm	53mm	145mm	1.1kg	90g	0.3V/V
SSA1000	±25mm	<±1	251mm	66mm	170mm	1.2kg	100g	0.4V/V
SSA2000	±50mm	<±0.5	346mm	91mm	265mm	1.7kg	160g	0.3V/V
SSA3000	±75mm	<±0.5	435mm	117mm	349mm	1.9kg	210g	0.5V/V
SSA4000	±100mm	<±0.5	536mm	142mm	440mm	2.1kg	260g	0.7V/V

Specification	
Excitation/supply (acceptable)	1V to 7V rms, 1kHz to 5kHz (sinusoidal)
Excitation/supply (calibrated)	5V rms, 5kHz (sinusoidal)
Temperature coefficient (zero)	±0.01% F.S. /°C (typical)
Temperature coefficient (span)	±0.01% F.S. /°C (typical)
Operating temperature range	-40°C to 60°C
Electrical termination	2m (integral cable)
Maximum static pressure	23MPa

All dimensions and specifications are nominal.

Due to our policy of on-going development, specifications may change without notice. Any modification may affect some or all of the specifications for our equipment.

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