

## 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.

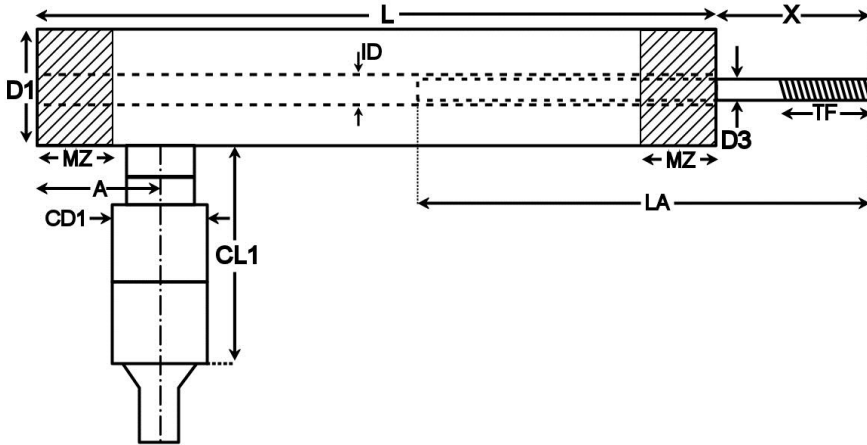
This transducer uses the Linear Variable Differential Transformer (LVDT) principle which means that it is probably the most robust and reliable position sensor type available. The strength of the LVDT sensor's principle is that there is no electrical contact across the transducer position sensing element 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 7546ft.

# 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 = 1.87"
- CD1 = 1.38"
- CL1 = 3.6"
- D1 = 1.5"
- D3 = 0.39"
- ID = 0.512"
- MZ = 1.1" (Optimum sensor mounting zone)
- TF = M10x1.5, 1.2"

Type	Range	Linearity error (% F.S.)	L	X	LA	Total weight	Armature weight	Sensitivity (nom)
SSA500	±12.5mm (±0.5")	<±0.5	8.8"	2.09"	5.7"	2.3lb	3.2oz	0.3V/V
SSA1000	±25mm (±1")	<±1	9.9"	2.60"	6.7"	2.6lb	3.5oz	0.4V/V
SSA2000	±50mm (±2")	<±0.5	13.6"	3.58"	10.4"	3.6lb	5.6oz	0.3V/V
SSA3000	±75mm (±3")	<±0.5	17.1"	4.61"	13.7"	4.1lb	7.4oz	0.5V/V
SSA4000	±100mm (±4")	<±0.5	21.1"	5.59"	17.3"	4.5lb	9.2oz	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)	±0.006% F.S. /°F (typical)
Temperature coefficient (span)	±0.006% F.S. /°F (typical)
Operating temperature range	-40°F to 140°F
Electrical termination	6.6ft (integral cable)
Maximum static pressure	3336psi

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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