

D5 & D6 LVDT Displacement Transducer

- High cycle life
- Stainless steel
- High accuracy
- Infinite resolution
- Miniature



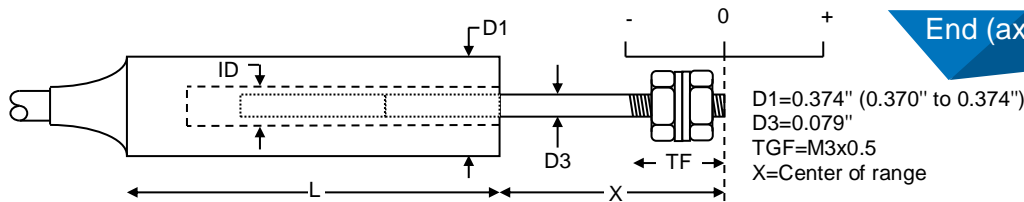
These transducers are for displacement / position measurement. They make an accurate position measurement of the movement of the armature (the sliding part) relative to the body of the displacement transducer.

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.

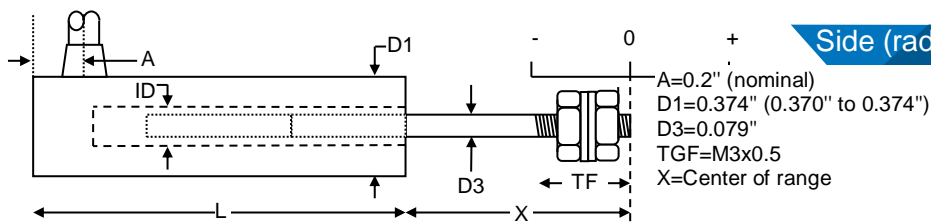
The LVDTs are available as either unguided or spring return versions.

Unguided version.

On our D5-D6 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. Our D5-D6 unguided position measurement transducers are appropriate where external guidance is available and give truly non-contact operation



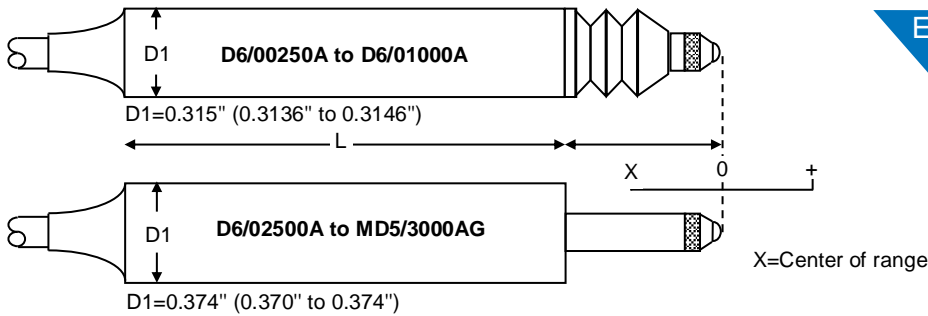
Type	Range	Linearity error (% F.S.)	L	X (nom)	ID	Total weight	Armature weight	TF	Inward over-travel	Sensitivity (nom)
D6/02500U	±2.5mm (±0.1")	±0.5/±0.25/±0.1	1.69"	0.8"	0.114"	0.6oz	0.06oz	0.60"	0.06"	375mV/V
D6/05000U	±5mm (±0.2")	±0.5/±0.25/±0.1	2.20"	1.0"	0.114"	0.7oz	0.06oz	0.73"	0.08"	700mV/V
D5/300HK	±7.5mm (±0.3")	±0.5/±0.25/±0.1	2.28"	1.2"	0.100"	0.7oz	0.06oz	0.73"	0.15"	502mV/V
D5/400HK	±10mm (±0.4")	±0.5/±0.25	2.48"	1.3"	0.100"	0.9oz	0.07oz	0.73"	0.17"	576mV/V
MD5/500HK	±12.5mm (±0.5")	±0.5/±0.25	3.11"	1.4"	0.100"	1.2oz	0.08oz	0.73"	0.17"	775mV/V
MD5/1000HK	±25mm (±1")	±0.5/±0.25	4.50"	1.9"	0.100"	1.2oz	0.11oz	0.72"	0.16"	475mV/V
MD5/2000HK	±50mm (±2")	±0.5/±0.25	8.25"	2.9"	0.100"	2.2oz	0.19oz	0.73"	0.20"	535mV/V
MD5/3000HK	±75mm (±3")	±0.5/±0.25	11.75"	3.9"	0.100"	3.1oz	0.26oz	0.73"	0.20"	525mV/V



Type	Range	Linearity error (% F.S.)	L	X (nom)	ID	Total weight	Armature weight	TF	Inward over-travel	Sensitivity (nom)
D6/02500URA	±2.5mm (±0.1")	±0.5/±0.25/±0.1	1.77"	0.8"	0.115"	0.6oz	0.06oz	0.60"	0.06"	375mV/V
D6/05000URA	±5mm (±0.2")	±0.5/±0.25/±0.1	2.34"	1.0"	0.115"	0.7oz	0.06oz	0.73"	0.08"	700mV/V
D5/300HKRA	±7.5mm (±0.3")	±0.5/±0.25/±0.1	2.37"	1.2"	0.100"	0.7oz	0.06oz	0.73"	0.15"	502mV/V
D5/400HKRA	±10mm (±0.4")	±0.5/±0.25	2.57"	1.3"	0.100"	0.9oz	0.07oz	0.73"	0.17"	576mV/V
MD5/500HKRA	±12.5mm (±0.5")	±0.5/±0.25	3.20"	1.4"	0.100"	1.2oz	0.08oz	0.73"	0.17"	775mV/V
MD5/1000HKRA	±25mm (±1")	±0.5/±0.25	4.59"	1.9"	0.100"	1.2oz	0.11oz	0.73"	0.16"	475mV/V
MD5/2000HKRA	±50mm (±2")	±0.5/±0.25	8.34"	2.9"	0.100"	2.2oz	0.19oz	0.73"	0.20"	535mV/V
MD5/3000HKRA	±75mm (±3")	±0.5/±0.25	11.84"	3.9"	0.100"	3.1oz	0.26oz	0.73"	0.20"	525mV/V

Spring return version.

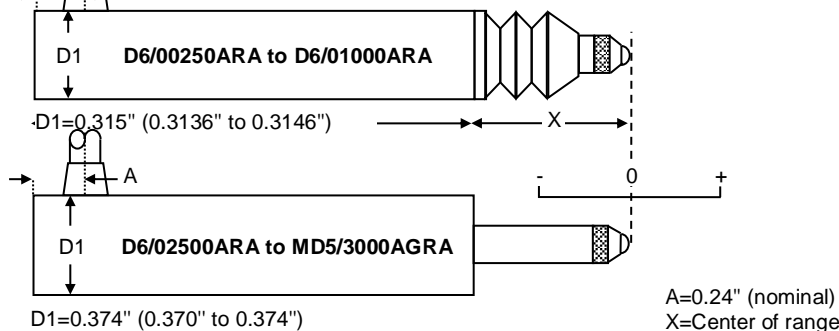
Our D5-D6 spring displacement transducer has bearings to guide the armature inside the measurement sensor and a spring which pushes the armature to the fully out position. Our D5-D6 spring return LVDTs are appropriate where it is not possible to connect the transducer armature to the moving component being measured.



End (axial) exit cable.

Type	Range	Linearity error (% F.S.)	L	X (nom)	Total weight	Spring force at X	Spring rate	Inward over-travel	Outward over-travel	Sensitivity (nom)
D6/00250A	±0.25mm (±0.01")	±0.5/±0.25	1.94"	0.5"	0.4oz	2oz	11oz/inch	0.02"	0.02"	38mV/V
D6/00500A	±0.5mm (±0.02")	±0.5/±0.25	1.94"	0.5"	0.4oz	2oz	11oz/inch	0.01"	0.01"	75mV/V
D6/01000A	±1mm (±0.04")	±0.5/±0.25/±0.1	2.06"	0.5"	0.4oz	1oz	11oz/inch	0.07"	0.03"	150mV/V
D6/02500A	±2.5mm (±0.1")	±0.5/±0.25/±0.1	2.39"	0.5"	0.9oz	3oz	9oz/inch	0.05"	0.05"	375mV/V
D6/05000A	±5mm (±0.2")	±0.5/±0.25/±0.1	3.08"	0.5"	1.1oz	3oz	7oz/inch	0.04"	0.05"	700mV/V
D5/300AG	±7.5mm (±0.3")	±0.5/±0.25/±0.1	3.44"	0.6"	1.2oz	4oz	6oz/inch	0.04"	0.06"	502mV/V
D5/400AG	±10mm (±0.4")	±0.5/±0.25	3.88"	0.7"	1.4oz	5oz	4oz/inch	0.10"	0.05"	576mV/V
MD5/500AG	±12.5mm (±0.5")	±0.5/±0.25	4.76"	0.9"	1.7oz	5oz	4oz/inch	0.10"	0.05"	775mV/V
MD5/1000AG	±25mm (±1")	±0.5/±0.25	7.56"	1.4"	2.7oz	10oz	4oz/inch	0.05"	0.11"	475mV/V
MD5/2000AG	±50mm (±2")	±0.5/±0.25	13.74"	2.6"	4.9oz	1lbs	4oz/inch	0.17"	0.13"	535mV/V
MD5/3000AG	±75mm (±3")	±0.5/±0.25	20.67"	3.9"	7.3oz	1lbs	3oz/inch	0.20"	0.20"	525mV/V

Side (radial) exit cable.



Type	Range	Linearity error (% F.S.)	L	X (nom)	Total weight	Spring force at X	Spring rate	Inward over-travel	Outward over-travel	Sensitivity (nom)
D6/00250ARA	±0.25mm (±0.01")	±0.5/±0.25	1.98"	0.5"	0.4oz	2oz	11oz/inch	0.02"	0.02"	38mV/V
D6/00500ARA	±0.5mm (±0.02")	±0.5/±0.25	1.98"	0.5"	0.4oz	2oz	11oz/inch	0.01"	0.01"	75mV/V
D6/01000ARA	±1mm (±0.04")	±0.5/±0.25/±0.1	2.10"	0.5"	0.4oz	1oz	11oz/inch	0.07"	0.03"	150mV/V
D6/02500ARA	±2.5mm (±0.1")	±0.5/±0.25/±0.1	2.50"	0.5"	0.9oz	3oz	9oz/inch	0.05"	0.05"	375mV/V
D6/05000ARA	±5mm (±0.2")	±0.5/±0.25/±0.1	3.27"	0.5"	1.1oz	3oz	7oz/inch	0.04"	0.05"	700mV/V
D5/300AGRA	±7.5mm (±0.3")	±0.5/±0.25/±0.1	3.54"	0.6"	1.2oz	4oz	6oz/inch	0.04"	0.06"	502mV/V
D5/400AGRA	±10mm (±0.4")	±0.5/±0.25	4.00"	0.7"	1.4oz	5oz	4oz/inch	0.10"	0.05"	576mV/V
MD5/500AGRA	±12.5mm (±0.5")	±0.5/±0.25	4.88"	0.9"	1.7oz	5oz	4oz/inch	0.10"	0.05"	775mV/V
MD5/1000AGRA	±25mm (±1")	±0.5/±0.25	7.68"	1.4"	2.7oz	10oz	4oz/inch	0.05"	0.11"	535mV/V
MD5/2000AGRA	±50mm (±2")	±0.5/±0.25	13.82"	2.6"	4.9oz	1lbs	4oz/inch	0.17"	0.13"	535mV/V
MD5/3000AGRA	±75mm (±3")	±0.5/±0.25	20.91"	3.9"	7.3oz	1lbs	3oz/inch	0.20"	0.20"	525mV/V

Position
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Displacement
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Specification	
Excitation/supply (acceptable)	0.5V to 7V rms, 2kHz to 10kHz (sinusoidal)
Excitation/supply (calibrated)	5V rms, 5kHz (sinusoidal)
Linearity error (Standard)	±0.5% F.S.
Linearity error (Optional on some models)	±0.25% F.S.
Linearity error (Optional on some models)	±0.1% F.S.
Temperature coefficient (span)	±0.006% F.S. /°F (typical)
Operating temperature range	-4°F to 257°F
Electrical termination	6.6ft (integral cable) Longer available to order.



Due to our policy of on-going development, D5-D6 specifications may change without notice. Any modification to our D5-D6 may affect some or all of the specifications for our equipment. All D5-D6 dimensions and specifications are nominal.

D5-D6 - WARNING - PERSONAL INJURY

Do not use our D5-D6 as safety, emergency stop or feedback devices in any application where the failure of this product could result in damage to equipment, personal injury or death.

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