

IMPRESS

SENSORS & SYSTEMS

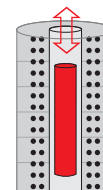
Unit 6B, Mercury House, Calleva Park
Aldermaston, Berkshire, RG7 8PN
Tel: +44 (0)118 981 7980
Fax: +44 (0)118 981 7990
e-mail: info@impress-sensors.co.uk
Website: www.impress-sensors.co.uk

Pressure - Temperature - Level - Flow - Analytical - Control - Indication - Data logging

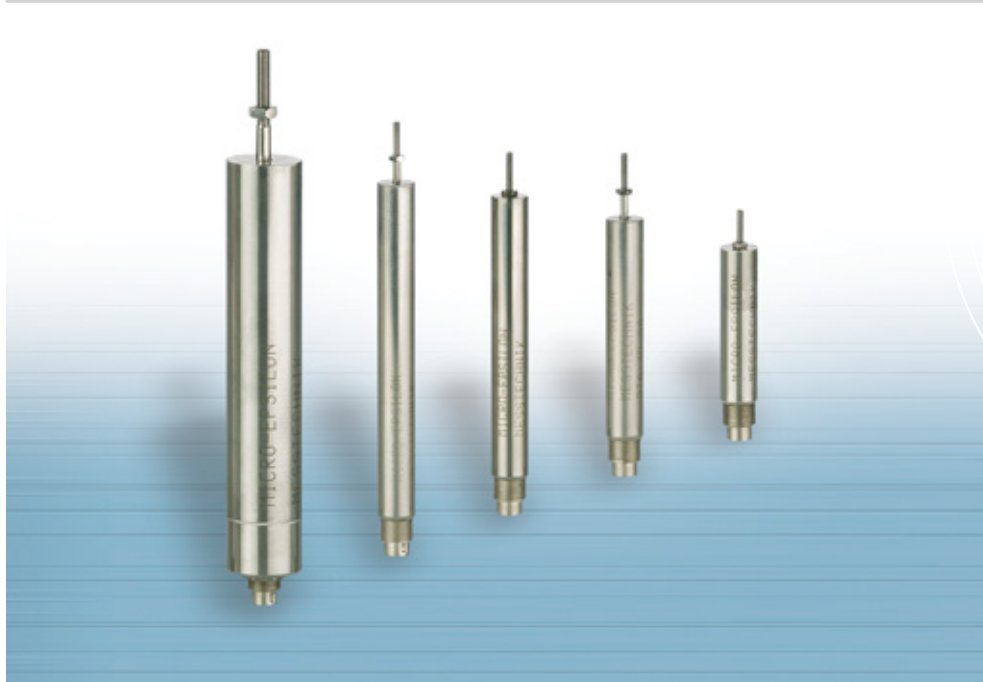
More Precision.

induSENSOR

Linear inductive displacement sensors



LVDT series: Displacement sensors with external electronics



Measurement ranges $\pm 1 \dots \pm 25$ mm

Extremely accurate also under difficult ambient conditions

Long-term stability

Wear-free

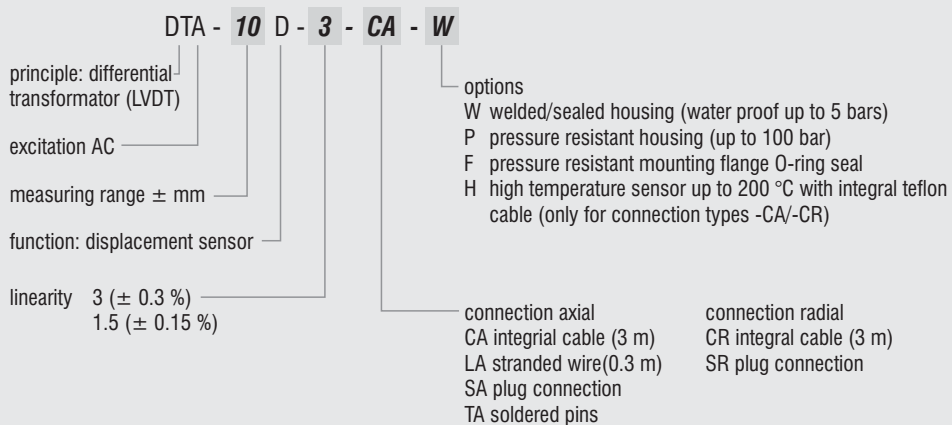
Easy installation

Displacement sensors have a plunger which moves freely in the sensor housing. The plunger is joined to the object by a thread to transfer the movement of the measurement object. The measurement process in the sensor takes place without contact and is therefore wear-free. The displacement sensors are mainly used to measure and monitor movements, displacements, positions, strokes, deflections, dislocations, etc. in vehicles, machines and systems.

The high sensor resolution is limited only by the noise in the sensor electronics. A further advantage of the symmetrically constructed sensors in the LVDT series is the zero-point stability of the systems. The sensors are supplied with an excitation frequency of 1 to 5 kHz depending on the measurement range and an excitation amplitude of 2.5 to 5 Vrms. Matched sensor electronics are available in this respect.

With appropriate setting possibilities for the excitation frequency and amplitude, the sensors can also be operated with alternative electronics.

Article



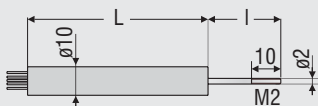
Model	DTA-1D-			DTA-3D-			DTA-5D-			DTA-10D-			DTA-15D-					DTA-25D-							
Connection	TA	CA	SA	TA	CA	SA	TA	CA	SA	LA	CA	SA	LA	CA	CR	SA	SR	LA	CA	CR	SA	SR			
Measuring range	±1 mm			±3 mm			±5 mm			±10 mm			±15 mm					±25 mm							
Linearity	standard ±0.3 %			6 μm			18 μm			30 μm			60 μm			90 μm					150 μm				
	option ±0.15 %			3 μm			9 μm			15 μm			30 μm			45 μm					75 μm				
Excitation frequency	5 kHz						2 kHz						1 kHz												
Excitation amplitude	5 V _{eff}												2.5 V _{eff}												
Sensitivity	133 mV/Vmm			85 mV/Vmm			53 mV/Vmm			44 mV/Vmm			45 mV/Vmm					33 mV/Vmm							
Temperature range	-20 °C ... 80 °C																								
	-20 °C ... 120 °C																								
Storage temperature	-40 °C ... +80 °C / +120 °C																								
Temperature stability	zero ±50 ppm/°C																								
	sensitivity ±100 ppm/°C																								
Housing	stainless steel including magnetic shielding																								
Bending radius cable	20 mm																								
Outer cable diameter	~4.6 mm																								
Protection class	IP67																								
Shock	IEC 68-2-29																								
	IEC 68-2-27																								
Vibration	IEC 68-2-6																								
10 Hz ... 58 Hz ±1.5 mm / 58 Hz ... 500 Hz ±20 g																									

FSO = Full Scale Output

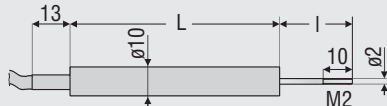
Basic model	DTA-1D-			DTA-3D-			DTA-5D-			DTA-10D-			DTA-15D-					DTA-25D-						
Connection	TA	CA	SA	TA	CA	SA	TA	CA	SA	TA	CA	SA	LA	CA	CR	SA	SR	LA	CA	CR	SA	SR		
Length of housing L mm	30	40	40	47	57	57	63	73	73	78	87	87	93	106.5					129.5	143.5				
Length of plunger l ¹ mm	19			29			30			35			51					62						
Housing diameter mm	10												20											

1) Plunger in zero position (±10 % of measuring range ±1 mm)

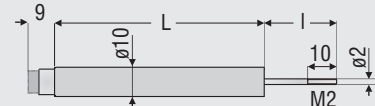
sensor types with measuring range up to ±10 mm (inner diameter ø2.7 mm)



type - TA with axial solder pins

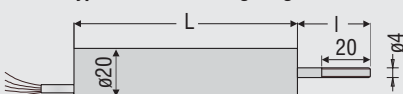


type - CA with integral cable

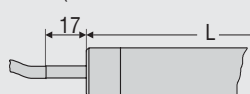


type - SA with axial plug connection

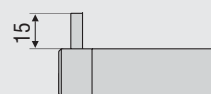
sensor types with measuring range ±15 mm and ±25 mm (inner diameter ø4.8 mm)



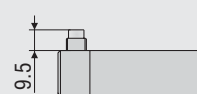
type - LA with axial stranded wire



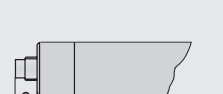
type - CA with integral cable



type - CR with integral cable (radial)

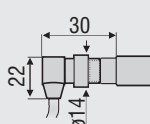


type - SR with radial plug connection

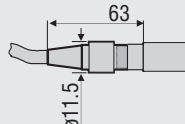


type - SA with axial plug connection

female connector 90°
dimensions apply for all models



female connector
dimensions apply for all models



More Precision.

Sensors and systems

for displacement, position and dimension

Sensors and measurement devices

for non-contact temperature measurement

Measurement systems

for online/offline quality control