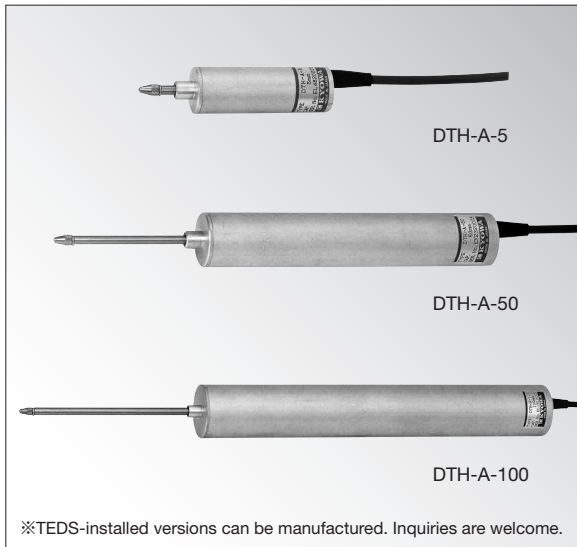


DTH-A

Displacement Transducers

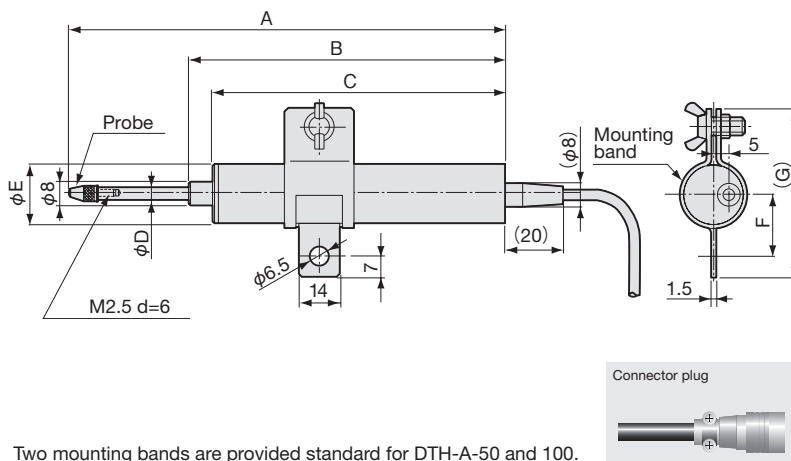


Compact and Lightweight Design, Excellent Temperature Characteristics, and Highly Accurate with Nonlinearity $\pm 0.1\%$ RO

- Large output of 5 mV/V (10000 μ m/m)
- Small measuring force of approx. 1.5 to 4 N

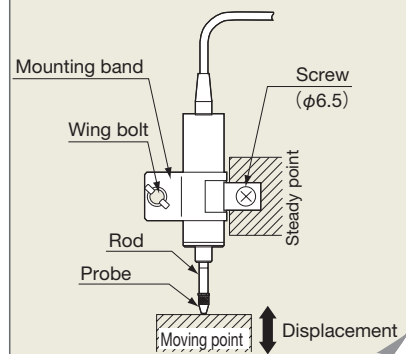
DTH-A series displacement transducers adopt a strain gage for the sensing element to ensure long-term stable measurement. They can widely be used for measurement of structural relative displacement or absolute displacement from a steady point.

Dimensions



To Ensure Safe Usage

Fix the transducer to the steady point, using accessory mounting band, screw and washer.



- Large Output·Small Measuring Force
- 5 to 100 mm

Specifications

Performance

Rated Capacity :	See table below.
Nonlinearity :	Within $\pm 0.1\%$ RO
Hysteresis :	Within $\pm 0.1\%$ RO
Repeatability :	0.1% RO or less
Rated Output :	5 mV/V (10000 μ m/m) $\pm 0.1\%$

Environmental Characteristics

Safe Temperature Range :	-10 to 70°C (noncondensing)
Compensated Temperature Range :	0 to 60°C (noncondensing)
Temperature Effect on Zero Balance :	Within $\pm 0.01\%$ RO/°C
Temperature Effect on Output :	Within $\pm 0.01\%$ /°C

Electrical Characteristics

Safe Excitation Voltage :	6V AC or DC
Recommended Excitation Voltage :	1 to 4V AC or DC
Input Resistance :	Input Resistance: 350 $\pm 1\%$
Output Resistance :	Output Resistance: 350 $\pm 1\%$
Cable :	4-conductor (0.065mm ²) vinyl shielded cable, 4 mm diameter by 2 m long, terminated with connector plug (Shield wire is not connected to mainframe.)

Mechanical Properties

Frequency Response Range :	DC to approx. 2 Hz
Measuring Force :	See table below.
Weight :	See table below.

Standard Accessories Mounting band : 1 for DTH-A-5 to 30
2 for DTH-A-50 and 100

Optional Accessories (For details, refer to page 2-141.)

Extension rods EB-50/100/200

Replacement probes X/XS/SH

Magnet base MB-B

Notes:

1. Initial unbalance with the rod fully extended is approximately -5000 to -6000 μ m/m.
2. Do not apply any displacement in other than expansion/contraction direction of the rod.

Model	Rated Capacity	Measuring Force (Approx.)	A		B	C	ϕD	ϕE	F	(G)	Weight (Approx.)
			MAX	MIN							
DTH-A-5	5mm	1.5N	84.4	78.4	68	60	4	20	21	57	30g
DTH-A-10	10mm	2.2N	96.4	85.4	75	67					35g
DTH-A-20	20mm	2.2N	122.4	101.4	91	83					40g
DTH-A-30	30mm	2.2N	149.4	118.4	108	100					40g
DTH-A-50	50mm	3N	209.5	158.5	148	140	4	25	23.5	62	75g
DTH-A-100	100mm	4N	359.5	258.5	248	240	5	35	28.5	72	200g