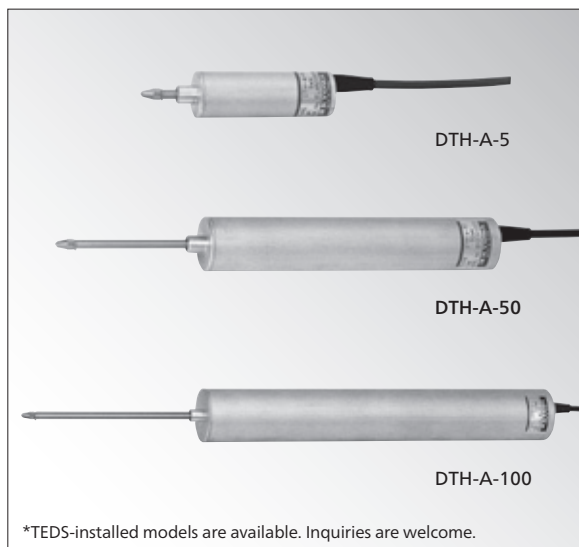


DTH-A

Displacement Transducer

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



*TEDS-installed models are available. Inquiries are welcome.

Compact & Lightweight Excellent Temperature Characteristics Nonlinearity $\pm 0.1\%$ RO

- Large output of 5 mV/V
- Small measuring force of approx. 1.5 to 4 N

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

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 $\pm 0.1\%$ $\pm 0.15\%$ (DTH-A-5)

Environmental Characteristics

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

Electrical Characteristics

Safe Excitation	6 V AC or DC
Recommended Excitation	1 to 4 V AC or DC
Input Resistance	350 $\Omega \pm 1\%$
Output Resistance	350 $\Omega \pm 1\%$
Cable	4-conductor (0.065 mm ²) vinyl shielded cable, 4 mm diameter by 2 m long, terminated with connector plug PRC03-12A10-7M (Shield wire is not connected to the case.)

Mechanical Properties

Frequency Response	DC to approx. 2 Hz
Measuring Force	See table below.
Weight	See table below (Excluding cable).

Standard Accessories Mounting band: FXB-5A x1 for DTH-A-5 to 30
FXB-50A x2 for DTH-A-50
FXB-100A x2 for DTH-A-100

Optional Accessories (For details, see page 2-159.)

Extension rods EB-50, EB-100, EB-200

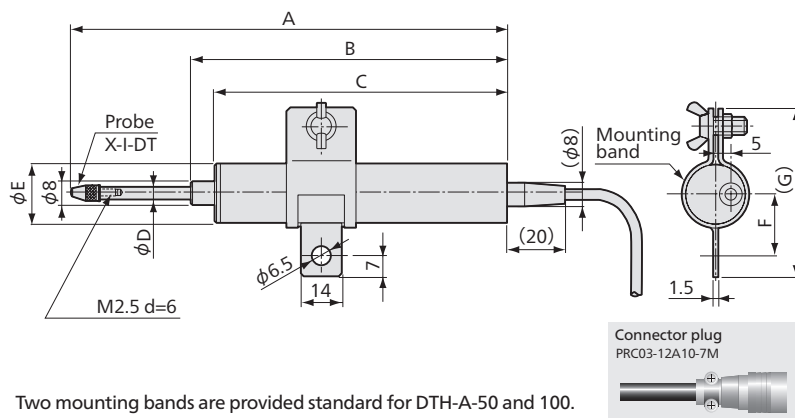
Replacement probes X, XS, SH

Magnet base MB-B

Notes:

1. Initial unbalance with the rod fully extended is approximately 2.5 to 3 mV/V.
2. Do not apply any displacement in other than expansion/contraction direction of the rod.

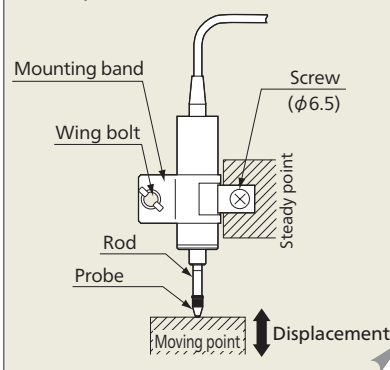
Dimensions



Two mounting bands are provided standard for DTH-A-50 and 100.

To Ensure Safe Usage

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



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

● Static measurement ● Dynamic measurement

DTH-A
Recommended
products for
combination

