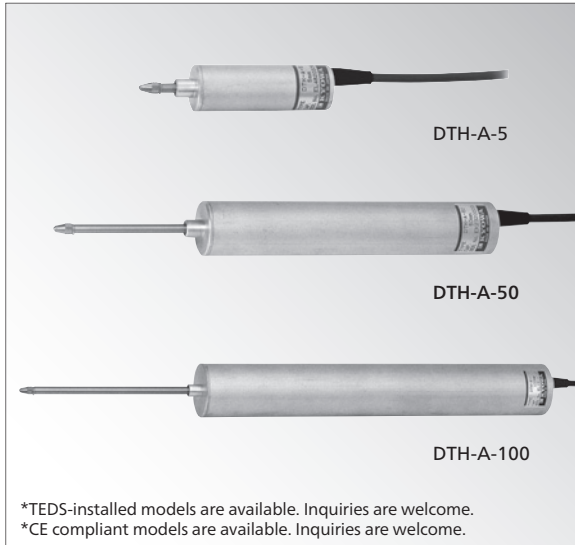


DTH-A

- Large output, small measuring force
- 5 to 100 mm

Displacement Transducer

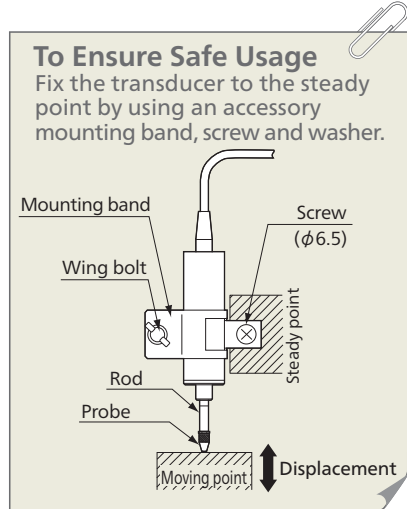
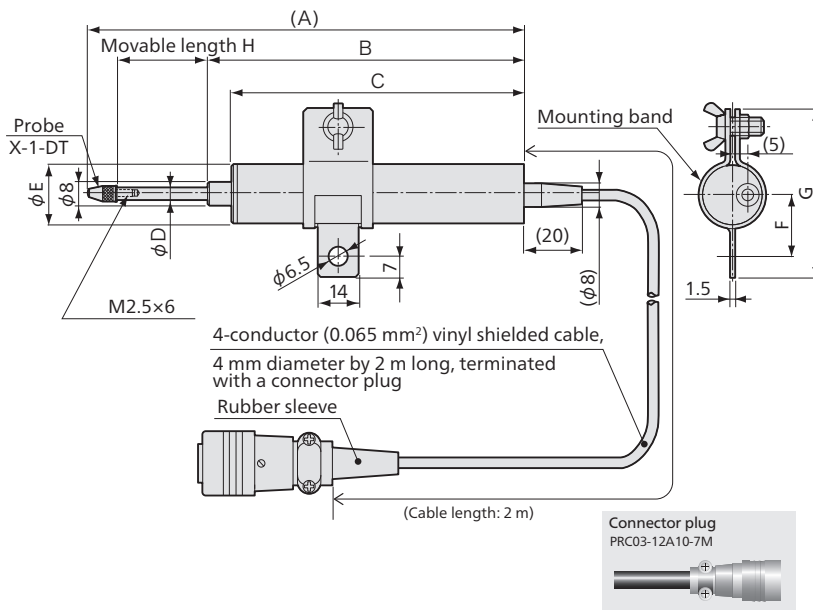


Compact & lightweight Excellent temperature characteristics Nonlinearity $\pm 0.1\%$ RO

- Large output of 5 mV/V
- Small measuring force: 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.

Dimensions



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 Ω $\pm 1\%$
Output Resistance	350 Ω $\pm 1\%$
Cable	4-conductor (0.065 mm ²) vinyl shielded cable, 4 mm diameter by 2 m long, terminated with a 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.
Degree of Protection	IP50 (IEC 60529)

Others

Initial Unbalance	With the rod fully extended is approx. -6000 to -5000 $\times 10^{-6}$ strain.
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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)

Probe X-1-DT: 1
Protection tube: 1

Optional Accessories Extension rods EB-50, EB-100, EB-200 (Page 2-151)
Replacement probes X, XS, SH (Page 2-151)
Magnet base MB-B (Page 2-151)

(Note 1) Do not apply any displacement in other than expansion/contraction direction of the rod.

Models	Rated Capacity	Measuring Force (Approx.)	(A)	B	C	ϕD	ϕE	F	G	Movable Length H	Weight (Approx.)*
DTH-A-5	5 mm	1.5 N	85	68	60	4	20	21	57	6	30 g
DTH-A-10	10 mm		97	75	67					11	35 g
DTH-A-20	20 mm		123	91	83					21	40 g
DTH-A-30	30 mm	150	108	100	31					40 g	
DTH-A-50	50 mm	3 N	210	148	140					51	75 g
DTH-A-100	100 mm	4 N	360	248	240	5	35	28.5	72	101	200 g

*Excluding cable



Displacement Transducers