PTDT Potentiometer-Type Displacement Transducers

Features:

- Full-scale ranges from 250mm to 4000mm
- Rugged, low profile design
- Wheatstone bridge output circuits
- Compatible with all strain gage signal instrumentation.
- Measurement possible with strain amplifier
- Compact, lightweight, and easy to install
- Low measuring force of the wire
- Stainless steel wire is used (SUS 304)
- Standard cable or optional connections.
- Easy to install and use.

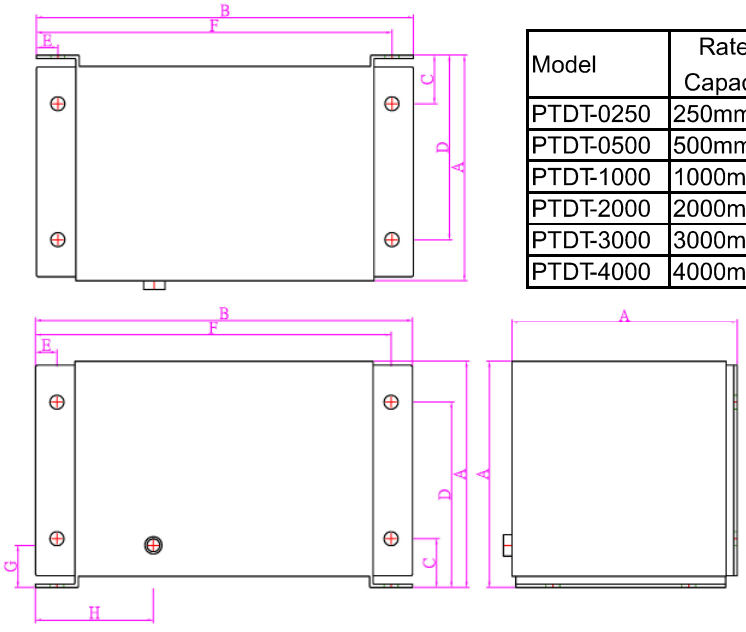
Applications:

- Automotive
- Strain/Stress Analysis
- Material Elasticity Measuring
- Material Test
- Actuator Stroke Measuring
- Automation

Description:

PTDT Displacement Transducers are designed to measure displacement by converting expansion / contraction of a sensing wire to electric signal by potentiometer with bridge circuit. Those models are available with rated capacity 250 mm to 4000 mm, all providing a high rated output of 5 mV/V. In addition, measuring force of the wire is constant, thereby making these transducers easy to use.

The PTDT Displacement Transducers provides a voltage signal linearly proportional to the extension of a retractable stainless steel cable. Used for indicating the displacement of the test structure, member or part to which the cable is attached, installation is quick and easy. Simply attach the base of the sensor to a reference surface, the cable to the component being displaced, and the electrical leads to any instrument accepting strain-gage signal inputs. With the certified calibration data and wiring instructions provided with each sensor, you will be making displacement measurements in minutes.



Model	Rated Capacity	A	B	C	D	E	F	G	H
PTDT-0250	250mm	84	118	22.5	65	10	108	19.5	43
PTDT-0500	500mm	84	118	22.5	65	10	108	19.5	43
PTDT-1000	1000mm	105	176	22.5	86	10	166	19.5	55
PTDT-2000	2000mm	105	176	22.5	86	10	166	19.5	55
PTDT-3000	3000mm	105	176	22.5	86	10	166	19.5	55
PTDT-4000	4000mm	105	176	22.5	86	10	166	19.5	55

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Specification:

MODEL		PTDT-0250	PTDT-0500	PTDT-1000	PTDT-2000	PTDT-3000	PTDT-4000
Measurement Range	mm	250 mm	500 mm	1000 mm	2000 mm	3000 mm	4000 mm
Accuracy	% FS	0.25	0.15	0.10	0.10	0.10	0.10
Resolution		Analog, infinite, limited only by instrumentation)					
Repeatability		Greater of ±0.025 mm or 0.02% FS					
Cable Retraction Force (min)	N	1.0	2.3	2.3	1.8	1.1	1.0
Cable Extension Force (max)	N	1.8	4.3	4.3	3.3	2.2	1.8
Cable Acceleration	g	3	11	11	5	4	3
Vibration	g, Hz	Up to 10, 0 - 2000					
Shock	g, mS	100, 0.1					
Sensor		Plastic-hybrid precision potentiometer					
Bridge Resistance	ohms	350					
Maximum Supply Voltage - Bridge	V	20					
Output - Bridge	mV/V FS	5.0 typical					
Case		Powder-painted aluminum alloy					
Cable		4-Conductor (0.08mm2) shield cable, 4 mm diameter by 3m long					
Electrical Connector		Optional :Highly reliable TAJIMI circular socket accept independent bridge inputs (PRC03-23A10-7F Bulkhead Mount Receptacle 7pin). Mating Plug is include (PRC03-32A10-7F5 Jack 7pin).					
Weight	kg	1.1 kg			1.8 kg		
Dimension	mm	81x81x112			102x102x178		
Operating Temperature	°C	- 40 to 93					
TC of Sensor	ppm/ °C	157					
Humidity	% RH	100 at 32 °C					

Level: Normally symmetrical about ground; Either side may be grounded with no effect on performance.

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●Model and optional :

PTDT-xxxx	Measurement Range xxxx mm
Model PTDT-xxxx	Standard: Cable Length, 3 meter long
Model PTDT-xxxx-Cyy	Optional: Customer Cable yy meter long
Model PTDT-xxxx-Cyy-PT1	Optional: Cable Length, yy meter long with TAJIMI circular Mating Plug
Model PTDT-xxxx-ST1	Optional: TAJIMI circular socket
Model PTDT-xxxx-ST1-PT	Optional: TAJIMI circular socket with Mating Plug
Model PTDT-xxxx-Sx-Px	Optional: Customer socket with Customer Mating Plug, Please description.