



Description

90610-TH is through hole compression Load cell, specially designed for fastener testing where the compression loading of sensor is induced by tensile loading of the fastener. It is strain gauge based with full temperature compensation over 0 to 60 °C. It is easy to install and use. It can be used to measure suspended load by mounting the load cell on flat surface and apply load to top surface by the leg mount passed through the hollow center. Fastener testing can be done by passing it through hole. Then apply force by tightening the nut. Washers at both ends are recommended to avoid damage to the cell's loading surfaces.

Applications

- Fastener Testing
- Bolt Force Measurement
- Material Testing
- Weighing hanging load, suspended load
- Rock Bolt
- Civil Engineering Testing
- Robotics & Industrial Automation
- Injection Molding Machines
- Tensile force for Prestressed concrete suspension weighing
- Pulling Force Measurement
- Tablet Manufacturing Machine
- Press Calibration

Key Features

High accuracy available As per standard ISO 376:2011

Complete Environmental Protection – Meets IP 65

Electro less nickel-plated tool steel & stainless steel constructions

A high-temperature version can be provided on request

Wide range of capacities from 5 TF to 500 TF.

Standardized output (2.0 mV/V) and customized output can be provided on request

Calibration in mV/V/Ω

Can be **customized** to suit customer's need

Technical Specifications

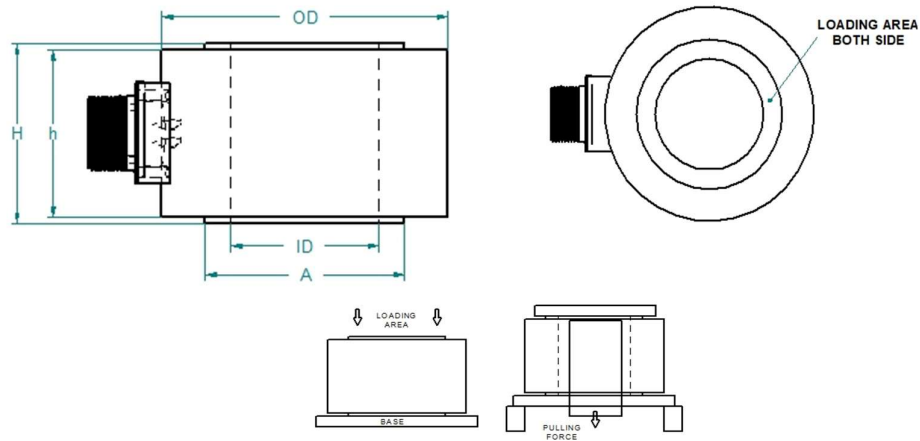
STANDARD CAPACITY		5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 300, 500	-TF
PERFORMANCE	Non - Linearity	< $\pm 0.5\%$ FSO (From 5% to 100% range)	
	Hysteresis	< $\pm 0.25\%$ FSO	
	Non-Repeatability	< $\pm 0.10\%$ FSO	
	Creep (30 minutes)	< $\pm 0.03\%$ FSO	
	Zero Balance	$\pm 1.0\%$ FSO	
ELECTRICAL	Output	2.00 mV/V	
	Excitation Voltage	Maximum 15 VDC (Suggested 5VDC / 10 VDC)	
	Input Resistance	$770 \pm 20.0 \Omega$ (Ohms)	
	Output Resistance	$700 \pm 3.0 \Omega$ (Ohms)	
	Insulation Resistance	(100 VDC) > 1000 Mega Ω (Ohms)	
STRUCTURE	Safe Overload Of Rated Capacity	150%	
	Ultimate Overload of Rated Capacity	250%	
	Allowable Side Load	50%	
	Deflection	< 0.4 mm at FSO	
	Finish Product	Electro less nickel-plated tool steel / SS 17-4 PH	
	As per IS/IEC 60529:2001	IP65	
TEMP.	Operating Temperature	0°C to 60°C (Optional 90°C, 120°C, 150°C)	
	Compensated Temperature	10°C to 50°C (Optional 90°C, 120°C, 150°C)	
	Temperature Effect on Output	< 0.0025 % FSO/ °C	
	Temperature Effect on Zero	< 0.0030 % FSO/ °C	
OPTIONAL	ATEX	II 3D EX tc IIIC T60°C DC, II 3G EX ec IIC GC	
	High Temperature Cable	Teflon Cable	
	High Temperature Range	40°C to 90°C (Temperature Effect on Output & Zero : < 0.020% FSO/ °C)	
	Accessories	DLC-6 DLC-6M DIGITAL LOAD CONTROLLER (MULTI. O/P)	

90610-TH

THROUGH HOLE LOAD CELL



Dimension (mm)



CAPACITY-TF	ID*	A**	OD-APPX	H-APPX	H	CABLE
5	15	20	84	50	47	5 Meter
10	20	28	84	50	47	5 Meter
15	30	38	84	50	47	5 Meter
20	35	45	84	50	47	5 Meter
30	40	56	84	50	47	5 Meter
50	45	63	84	50	47	5 Meter
75	55	77	150	100	95	5 Meter
100	60	86	150	100	95	5 Meter
150	75	106	150	100	95	5 Meter
200	90	125	150	100	95	5 Meter
300	120	160	220	150	145	5 Meter
500	150	204	300	200	195	5 Meter

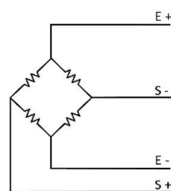
All dimensions are in mm.

Specifications are subject to Change.

*May vary to fit customers requirement

**May vary depending upon ID

Electrical Termination



Excitation(E+)	Red
Signal(S-)	White
Excitation(E-)	Black
Signal(S+)	Green
Shield	