



Main features

- Range of measurement: from 10 to 100 kN
- Accuracy class: 0,1%
- All stainless steel construction
- Corrosion resistant
- Internally generated calibration signal
- Grade of protection: IP65 (DIN 40050)

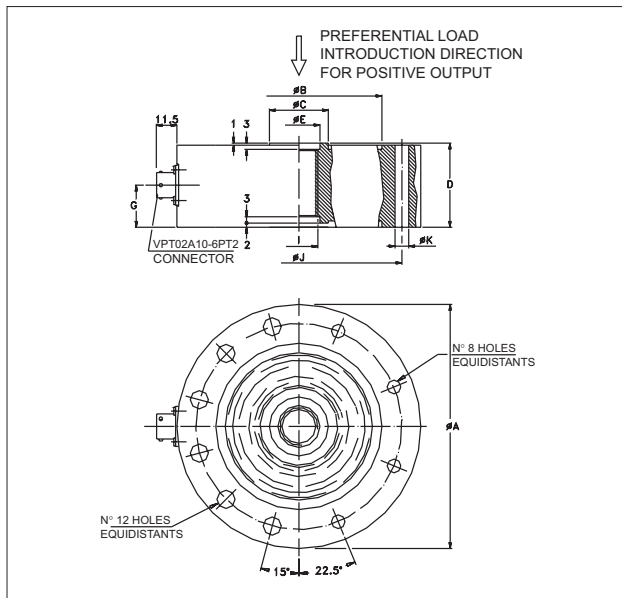
The TH series force transducers are ideal for systems that measure tension or compression force in industrial applications, where accuracy and reliability are important, even in harsh environments.

The disposition of the (8) strain gauges of the measurement bridges uses the deformation produced by the shear force of the applied load. It is thus possible to make accurate force transducers that are rugged and insensitive to lateral loads. The transducer is machined from a solid block of stainless steel and contains no welds or joints. The electrical circuit is protected by sealed formed stainless steel plates.

TECHNICAL DATA

Accuracy	0,1%	
Nominal full scale load (Ln)	10...100 kN	
Nominal output at FSO	2mV/V	
Output tolerance at Ln	<± 1% FSO	
Combined errors: Non linearity Hysteresis, Repeatability	< ± 0,1% FSO	
Creep (after 30 min. at Ln)	< ± 0,06% FSO	
Zero load out of balance signal	< ± 1% FSO	
Calibration signal *	80%FSO ± 1%	
Thermal drift in compensated range	Sensitivity Zero Calibration	< ± 0,02% FSO°C < ± 0,02% FSO°C < ± 0,02% FSO°C
Nominal input resistance	700 Ohm	
Nominal output resistance	> 10 GOhm	
Nominal supply voltage	10 V	
Maximum supply voltage	18 V	
Compensated temperature range	-20...+50°C	
Maximum temperature range	-20...+60°C	
Storage temperature range	-30...+80°C	
Permitted static load	130% Ln	
Maximum applicable load	150% Ln	
Rupture load	> 300% Ln	
Carico statico laterale max.	150% Ln	
Maximum elastic deformation at Ln	< 0,1 mm	
Grade of protection (DIN40050)	IP65	
Electr. connections: Connector	VPT02A10-6PT2	
Elastic element material	Stainless steel	
Case material	Stainless steel	
* The exact value is indicated on the instrument nameplate.		

MECHANICAL DIMENSIONS

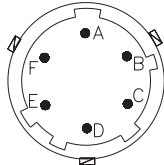
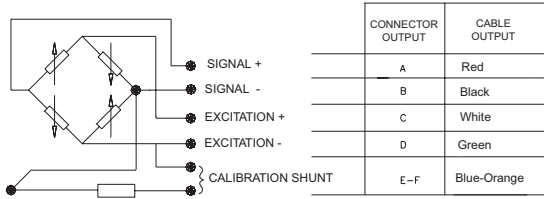


	Ln (kN)				
	10	20	30	50	100
∅ A	116			154	
∅ B	79			110	
∅ C	28			59	
D	40			45	
∅ E	20			35	
I	M18x1,5			M30x2	
∅ J	98			130	
∅ K	6,5			11	
Wires nr.	8xM6			12xM10	
Nm*	20			90	

Dimensions mm. (± 0,1)

* Recommended torque with UNI 5931 screws of resistance class 10.9 according to UNI 3740.

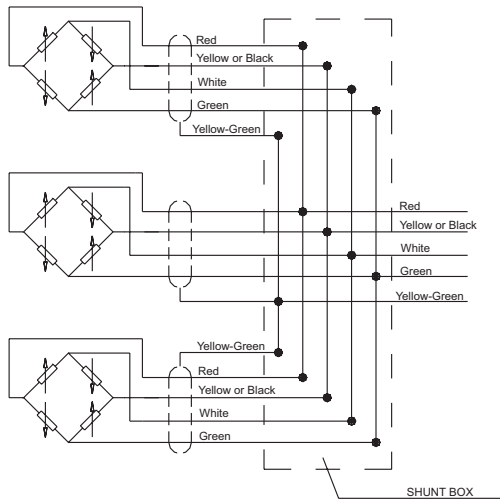
ELECTRICAL CONNECTIONS



VPT02A10-6PT2
CONNECTOR

If the transducer is supplied complete with prewired connection cable, the colour code is that indicated in the table.

Cells connected in parallel



In systems that use several cells, the parallel connection automatically sums the loads on each individual cell.

Using this method of measurement, the maximum load will be the sum of the loads on the individual cells and the sensitivity will be the average value of these cells. It is important that the user ensures that no cell is stressed beyond its maximum rating under any load condition.

CONVERSION TABLE

Kg	N	Lb
1	9.807	2.205
0.102	1	0.225
0.454	4.448	1

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice.

OPTIONAL ACCESSORIES

Female cable connector
Grade of protection IP65

CON 300

6-pin connector with 8m (25ft) cable
6-pin connector with 15m (50ft) cable
6-pin connector with 25m (75ft) cable
6-pin connector with 30m (100ft) cable

C08W
C15W
C25W
C30W

Other lengths

**consult
factory**

ORDER CODE

Force transducer **TH**

MEASUREMENT RANGE (kN)	
0 - 10	KN1D
0 - 20	KN2D
0 - 30	KN3D
0 - 50	KN5D
0 - 100	KN1C

If request, it is possible to supply models with non-standard mechanical and/or electrical features.

Es.: TH - KN5D

TH force transducer, with measurement range 0 - 50 kN.