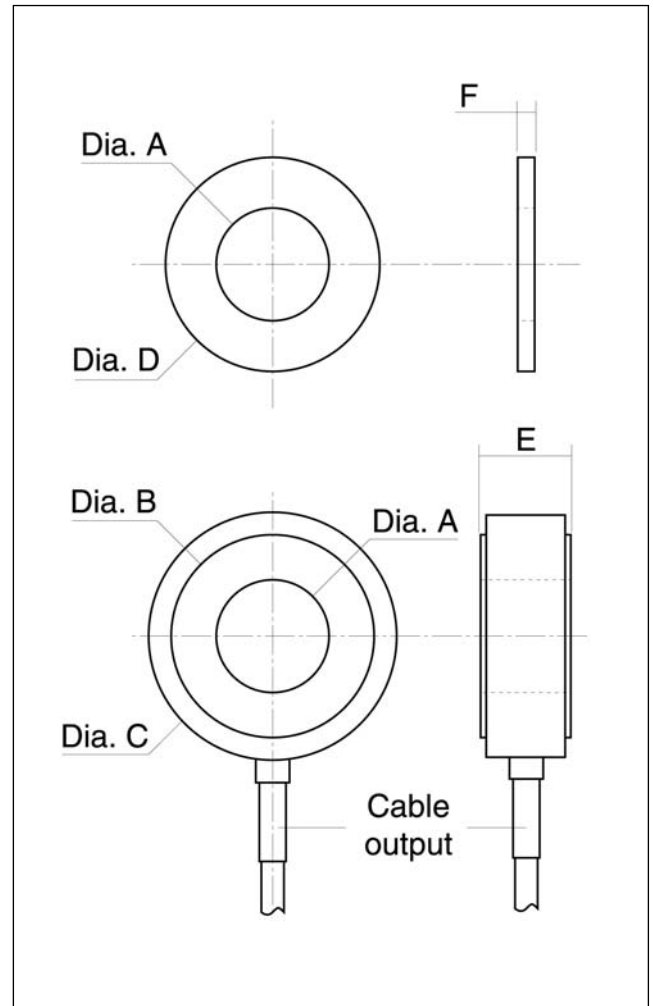




- Full Scale Range from 0-20 kN to 0-320 kN
- Compression
- For Static and Dynamic Applications
- Support Washer Provided

FGP-GS Sensors' washer load cell, model FMT, is designed to measure clamping and screwing forces. It is available in standard ranges from 0-20 to 0-320 kN. The sensor design reduces the hysteresis and sensitivity variations associated with torque generated by friction during tightening. The FMT has a high stiffness and can be used in static and dynamic applications.

With many years of experience as a designer and manufacturer of sensors, FGP Sensors has the expertise to customize and/or design sensors for specific uses and testing environments. To meet your needs we also offer complete turnkey systems. Our conditioning electronics can power the sensor, amplify the electronic signal, and display the data digitally. A turnkey measurement system arrives with matched components, formatted, calibrated and ready for your immediate use.



Dimensions in mm

F.S. in kN	Model	A	B	C	D	E	F
20	FMT-6	6.1	11	18	12.7	6.5	1.5
35	FMT-8	8.1	14.5	21	19	10	1.5
55	FMT-10	10.1	18	25	22	11	2
80	FMT-12	12.1	22	29	25	11.5	2
110	FMT-14	14.1	25.5	32	28	12.5	2
140	FMT-16	16.1	29	36	32	13.5	3.2
180	FMT-18	18.1	32.5	39	34	15	3.2
220	FMT-20	20.1	36	43	38	16	3.2
270	FMT-22	22.1	40	48	44	17	3.2
320	FMT-24	24.1	43.5	50	48	19	3.2

Technical Specifications

Range (F.S.)

0-20, 0-35, 0-55, 0-80, 0-110, 0-140, 0-180, 0-220, 0-270, 0-320 kN

Over-range

Without Damage : 1.5 x F.S.

Without Destruction : 3 x F.S.

Accuracy

Combined Non Linearity & Hysteresis : from 1 to 5% F.S.

Note : Accuracy can be 1% F.S. in ranges between 10 to 100% F.S. if mounting instructions are observed

Temperature Range

Operating Temperature Range (OTR) : -20 to 80 °C

Compensated Temperature Range (CTR) : 0 to 60 °C

Zero Shift in CTR : <0.5% F.S. / 60 °C

Sensitivity Shift in CTR : <2.10⁻⁴ / °C of reading

Electrical Characteristics

Supply Voltage	10 Vdc
F.S. Output	1.5 to 2 mV/V
Zero Offset	<±5% F.S.
Input Impedance	700 Ω
Output Impedance	700 Ω
Insulation under 50 Vdc	≥100 MΩ

Electrical Termination

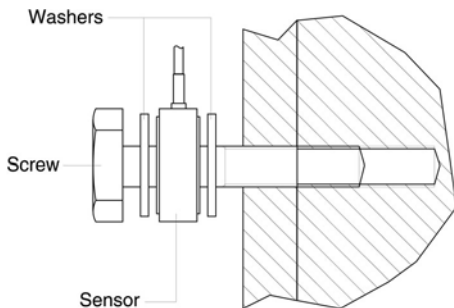
Shielded cable, standard length 2 m with strain relief spring

Mechanical Characteristics

Material : Body in stainless steel, cover in aluminium alloy

Support Washer : Steel

Tightening Torque



Due to the FMT's small size and stiffness, a certain number of mounting precautions should be observed during installation:

- The force should be uniformly distributed over the surface of the sensor.
- Surfaces in contact with the sensor should be uniform and parallel.
- We recommend that washers (supplied by FGP Sensors) be mounted between the surfaces and the sensor so that the washers are crushed during tightening. This helps to distribute the force more evenly.

Product References

Transducer

Model

FMT

Type

According to Ø A

6

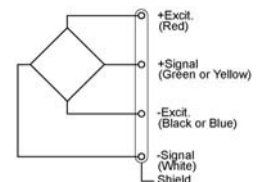
Option(s)

LC"X" : Additional cable length in m

LC2

"X" = Custom value

Wiring Schematic



All specifications are nominal. They are subject to change without notice and assume correct loading of the device. Current specifications see web-site. 20/04/2004



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