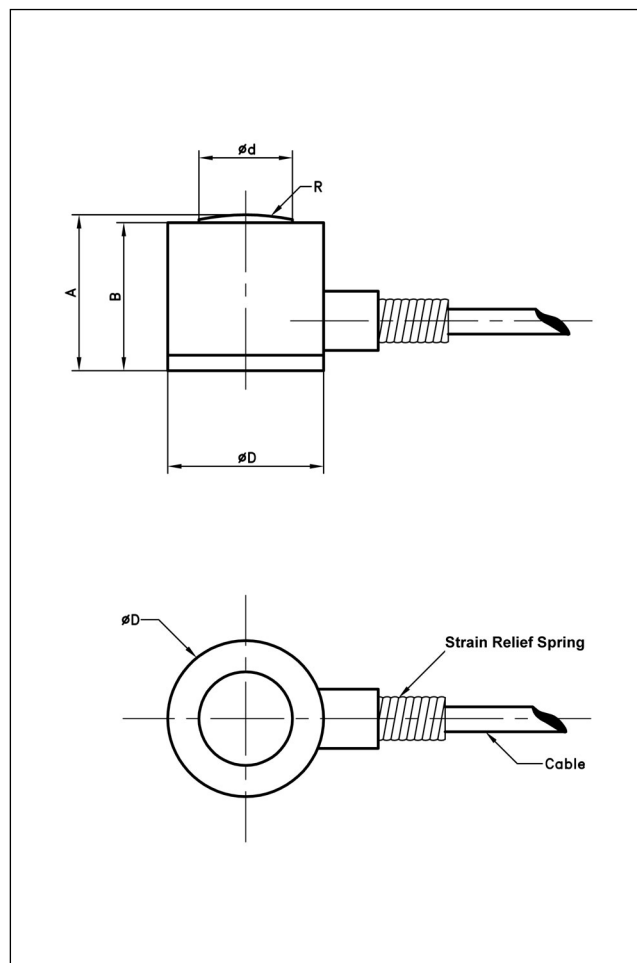




- Full Scale Range 0-2 N to 0-10 000 N
- Compression
- High Stiffness
- Integrated Spherical Load Button
- For Static and Dynamic Applications
- High Overload Capacity

The miniature size and light weight of the XFC200R facilitates testing where these conditions are necessary. Unlike sensors with flat force application surfaces, the XFC200R incorporates a spherical load button resulting in more precise measurements. Its high stiffness, for the size and measurement ranges, allows measurements in dynamic applications. A strain relief spring strengthens the cable output. The sensing element is fitted with a fully temperature compensated Wheatstone bridge equipped with high stability micro-machined silicon strain gages.

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.

Mechanical Characteristics

Full Scale Range in N	Former Reference	A	B	Ø D	Ø d	R	Material	Stiffness in N/m	Over-range w/o damage	Over-range w/o destruction
2 - 5	XFC-101	10	9.5	10	3	15	AU4G	3.7×10^5 to 1.4×10^6	x4	x6
10 - 20 - 50	XFC-101	10	9.5	10	5	15	AU4G	6.1×10^6 to 6.6×10^7	x4	x6
100 - 200	XFC-101	10	9.5	10	5	15	Stainless Steel	1.1×10^8 to 3.2×10^8	x3	x5
500 - 1000	XFC-100	10	9.5	10	6	15	AU4G	2.1×10^8	x2	x3
2000	XFC-100	10	9.5	10	6	15	Stainless Steel	7.3×10^8	x2	x3
5000 - 10 000	XFC-160	16	15	16	12	30	Stainless Steel	1.2×10^9 to 2.2×10^9	x2	x3

Technical Specifications

Range (F. S.)

From 0-2 N to 0-10 000 N (see table on reverse side)

Over-range

Without damage : 2 to 4 x F.S. (see table on reverse side)
Without destruction : 3 to 6 x F.S. (see table on reverse side)

Accuracy

Linearity : $\leq \pm 0.5\%$ F.S.
Hysteresis : $\leq \pm 0.5\%$ F.S.

Temperature Range

Operating Temperature Range (OTR) : -40 to 120 °C
Compensated Temperature Range (CTR) : 0 to 60 °C
Zero Shift in CTR : $< 2\%$ F.S. / 60 °C
Sensitivity Shift in CTR : $< 2\%$ of reading / 60 °C

Electrical Characteristics

Supply Voltage	10 Vdc
F.S. Output	100 mV, 50 mV for 500 N model
Zero Offset	$\leq \pm 10$ mV
Input Impedance	1000 to 3000 Ω
Output Impedance	500 to 1000 Ω
Insulation under 50 Vdc	≥ 100 M Ω

Electrical Termination

Shielded cable with 4 Teflon wires (AWG36/28), standard length 2 m with strain relief spring

Mechanical Characteristics

Material : Body in stainless steel or aluminium alloy (AU4G), (see table on reverse side)
Protection Index : IP 20

Product References

Sensor

Model

Full Scale Range (F.S.)

In N

Option(s)

HA : Accuracy (CNL&H) $\leq \pm 0.5\%$ F.S.
ET1 : CTR -20 to 100 °C
ET2 : CTR -40 to 120 °C (aluminium alloy only) OTR=CTR
ET3 : CTR -40 to 150 °C (stainless steel only) OTR=CTR
LC"X" : Additional cable length in m

XFC200R

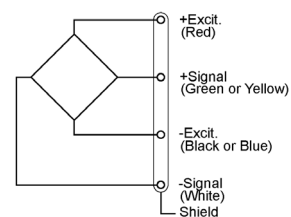
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ET1

"X" = Custom value

* Order Flat Force application surface with reference XFC200.

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.



Force • Torque • Pressure • Acceleration
Standard Sensors and Custom Specials !

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