

XFL225D

Compression Miniature Load Cell

SPECIFICATIONS

- 0-10 N to 0-5 kN [0-2.25 lbf to 0-1.12 klbf]
- Diameter 25mm [0.98"]
- For Static and Dynamic Applications
- Strain Relief Spring

The **XFL225D** is a very flat miniature load cell with a temperature compensation module integrated into the output cable. This design allows TE CONNECTIVITY to manufacture extremely small sensors without sacrificing thermal zero and sensitivity performance.

The sensing element is fitted with a fully temperature compensated Wheatstone bridge equipped with high stability micro-machined silicon strain gages.

The **XFL225D** can withstand considerable overloads and measure strain during compression in static and dynamic applications. A strain relief spring strengthens the cable output. This sensor is available in a load washer model (the diameter of the hole is 8.2 mm) to measure bolt tightening forces.

With a long standing experience as a designer and manufacturer of sensors, TE CONNECTIVITY often works with customers to design or customize sensors for specific uses and testing environments.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

FEATURES

- Load Washer Model
- Flat sensor
- Inside hole Φ 8mm or flat surface
- Temperature compensated

APPLICATIONS

- Strain table measurement
- Micro component assembly tools
- Screw and insert test benches
- Press fit monitoring
- Laboratory

PERFORMANCE SPECIFICATIONS (typical values at temperature 23°C)

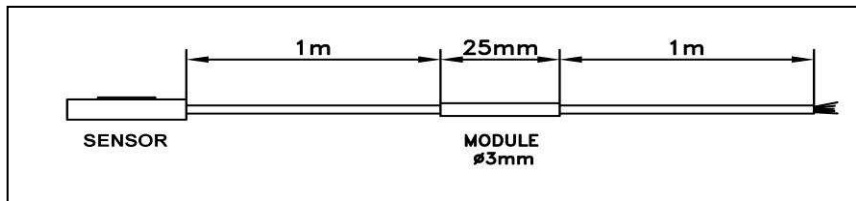
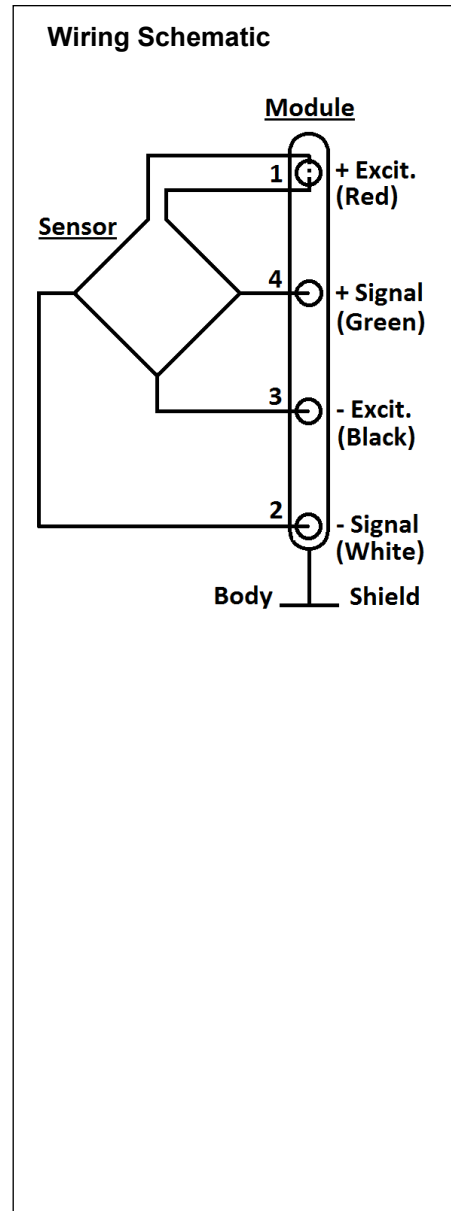
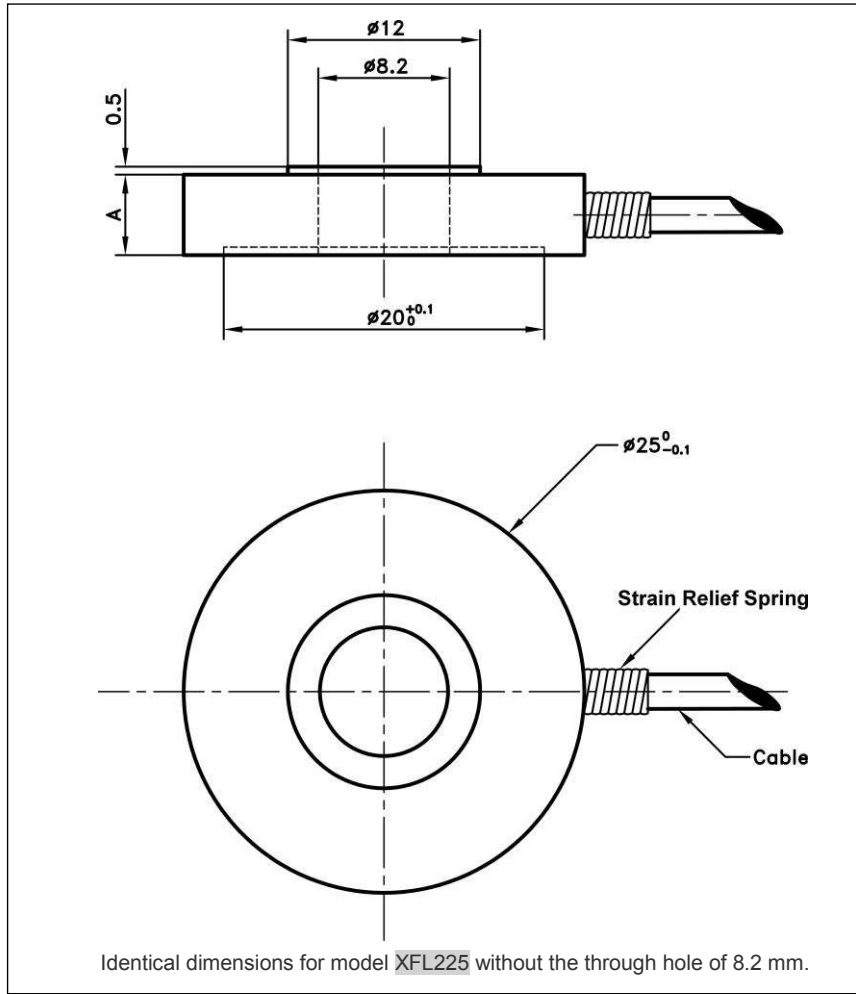
Ranges (FS)	10 N	20 N	50 N	100 N	200 N	500 N	1 kN	2 kN	5 kN
Ranges (lbf)	2.248	4.50	11.24	22.48	45.0	112.4	225	450	1124
Material	Aluminium				Stainless Steel				
Stiffness (N/m)	1.2E+06	2.5E+06	6.8E+06	1.3E+07	2.8E+07	5.7E+07	8.3E+07	1.8E+08	3.4E+08
Stiffness (lbf/ft)	8.2E+04	1.7E+05	4.7E+05	8.9E+05	1.9E+06	3.9E+06	5.7E+06	1.2E+07	2.3E+07

Specifications	
Power supply	10Vdc
Overrange Without Damage	2 x FS
Overrange Without Destruction	3 x FS
Sensitivity (FSO)	150 mV
Offset	<±10 mV
Input Impedance	1500 ohms
Output Impedance	500 ohms
Linearity	< ±1% de l'EM
Hysteresis	< ±1% de l'EM
Operating Temperature Range (OTR)	-40°C to +120°C (-40 to 250°F)
Compensated Temperature Range (CTR)	0°C to +60°C (32 to 140°F)
Thermal Zero Shift in CTR	< 2% de l'EM/50°C
Thermal Sensitivity Shift in CTR	< 2%/50°C
Insulation	> 100 Mohms
Protection Index	IP50

Notes

1. Signal goes negative in compression with standard wiring configuration
2. Electrical Termination: Cable: Shielded cable with 4 wires (AWG36), standard length 2 m [6.5 ft] with strain relief spring ; Compensation module at 1m [3.25 ft] from transducer
3. Material: Body in stainless steel or aluminum alloy depending on F.S.
4. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



Dimensions in mm [inch]

F.S. Ranges in N	10 - 20 - 50 - 100	200 - 500 - 1000	2000 - 5000
A	3 [0.12]		5 [0.2]

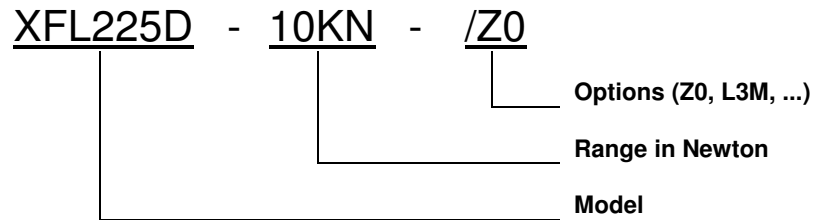
XFL225D

Miniature Load Cell

OPTIONS

Z0	CTR -40°C to +20°C (-40°F to 68°F)
Z04	CTR -40°C to +90°C (-40°F to 194°F)
Z1	CTR -20°C to +40°C (-4°F to 104°F)
Z3	CTR +20°C to +80°C (68°F to 176°F)
Z35	CTR +20°C to +120°C (68°F to 248°F)
L5M,L10M,L15M	Special total cable length (ex: "L05M= 5m length).(Standard total cable length = 2m)
M0.25M , M0.5M	Special distance between sensor and module(ex:M0.5M=0.5m) .(Standard distance =1m)

ORDERING INFO



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