

FEATURES

- Small design easy to mount
- Optional IP rating improvement
- Extended temperature range available
- Other male/female threads available

APPLICATIONS

- Strain measurement on finger-like command
- Connector and cable traction tests
- Miniature press-fit device
- Robotics regulation
- Small size actuators
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XFTC310

Miniature Load Cell

SPECIFICATIONS

- **Range from 0-2N to 0-2KN**
[0.45 lbf to 450 lbf]
- **Tension and Compression**
- **High Overload Capacity**

The **XFTC310** series has been specifically developed to measure tension and compression in static and dynamic applications. The miniature size and lightweight facilitate testing where these conditions are necessary.

The sensing element is fitted with a fully temperature compensated Wheatstone bridge equipped with high stability micro-machined silicon strain gages. The use of silicon strain gages optimises the load cell's performance at low ranges and frequencies.

TE CONNECTIVITY designed other mechanical interfaces such as standard as **XFTC300** with two male threads and **XFTC320** with two female threads.

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

CHARACTERISTICS (typical values at temperature 23°C)

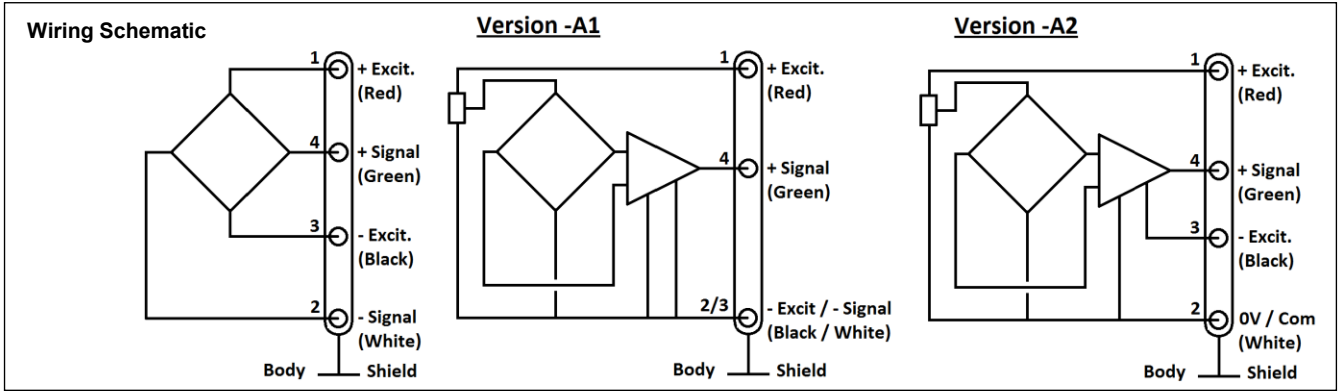
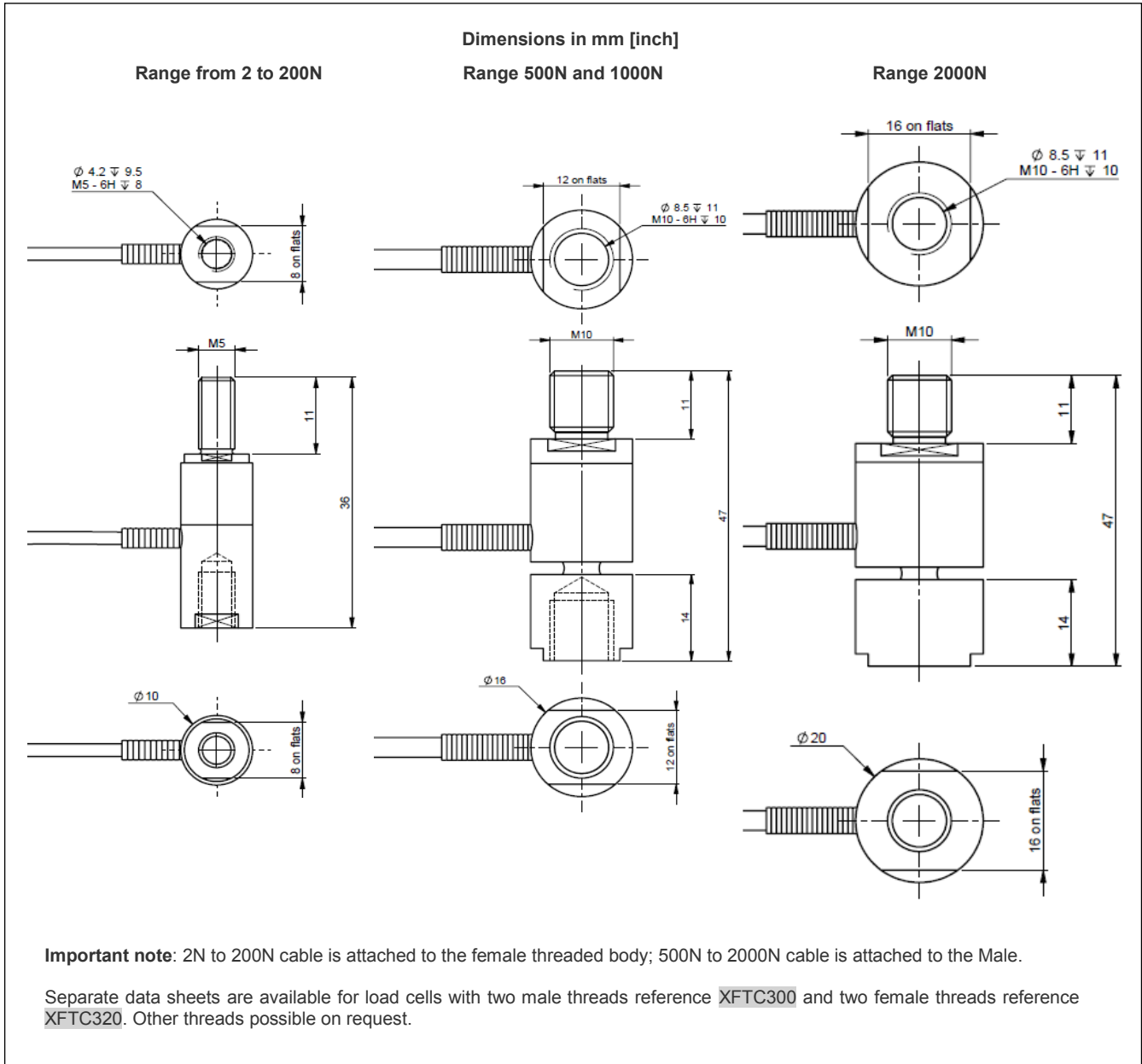
Etendue de mesure (N)	2	5	10	20	50	100	200	500	1k	2k
Etendue de mesure (lbf)	0.45	1.12	2.25	4.50	11.24	22.48	44.96	112.40	224.8	449.6
Matière	Aluminium						Acier inoxydable			
Raideur (N/m)	2.6E+05	7.2E+05	1.1E+06	2.1E+06	2.7E+06	2.1E+06	5.1E+06	9.1E+07	1.4E+05	2.6E+05
Raideur (lbf/ft)	1.8E+04	4.9E+04	7.7E+04	1.4E+05	1.9E+05	1.4E+05	3.5E+05	6.2E+06	9.3E+03	1.8E+04
Signal (version Standard)	±100 mV									
Signal (version A1)	Etendue de mesure non disponible							±2Vcc ±0.2V		
Signal (version A2)	Etendue de mesure non disponible							±5Vcc ±0.25V		
Impédance d'entrée (version standard)	1000 ohms							1500 ohms		
Impédance de sortie (version standard)	1000 ohms							500 ohms		
consommation (version A1 A2)	< 30 mA									
Impédance de sortie (version A1 A2)	1 kohms max									

Version	Standard	A1	A2
Tension d'alimentation	10Vcc	10Vcc à 30Vcc	±12Vcc à ±18Vcc
Déséquilibre	<±10 mV	2.5Vcc ±0.2V	0V ±0.25V
Surcharge admissible	2x l'EM		
Surcharge sans destruction	3x l'EM		
Linéarité	< ±0.5% de l'EM		
Hystérésis	< ±0.5% de l'EM		
Plage d'utilisation en température (OTR)	-40°C à +120°C		
Plage de compensation en température (CTR)	0°C à +60°C		
Dérive de zéro dans la plage compensée	< 2% de l'EM/50°C		
Dérive de sensibilité dans la plage compensée	< 2%/50°C		
Isolement	> 100 Mohms		
Indice de protection	IP50		

Notes

1. Signal goes positive in tension with standard wiring configuration. Other signal output on request
2. Shielded cable with 4 wires (AWG36/28), standard length 2 m [6.5 ft] with strain relief spring
3. Material: Body in stainless steel or aluminum alloy depending on F.S
4. Output impedance standard, available <100Ω on request.
5. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

DIMENSIONS & WIRING SCHEMATIC (IN METRIC)



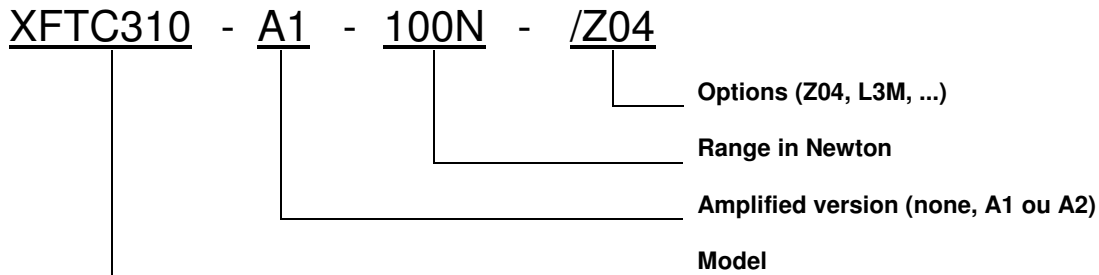
XFTC310

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)
Z36	CTR +20 to +150°C (68°F to 302°F) (OTR -40°C à +150°C (-40°F to 302°F)) - Available only on version standard 200N / 500N / 1kN / 2kN
TS	Tolerance on signal $\leq \pm 2\%$ FS - Available only on version A1 / A2
L00M	Special cable length, replace "00" with total length in meter

ORDERING INFO



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