

FEATURES

- Wide temperature compensation range
- Optional IP rating improvement
- Heavy duty
- Integrated Amplifier optional
- Easy to customized signal and design

APPLICATIONS

- Dynamic strain cylinder regulation
- Miniature force & temperature tests
- Motor sport clutch monitoring
- Robotics regulation
- Heat room environment

XFTC302

Miniature Load Cell High Temperature

SPECIFICATIONS

- Range from 0-5kN to 0-10kN
[0-1.124klbf to 2.148klbf]
- Tension and Compression
- High Temperature Range : -55 to +175° C
[-67 to +347° F]

The **XFTC302** series has been specifically developed to measure tension and/or compression in static and dynamic applications.

Fitted with metallic strain gages in a Wheatstone bridge circuit, the **XFTC302** has the capacity of measuring heavy loads of up to 10,000 N, 2000 lbf while providing excellent temperature stability. With two threaded M10 studs, the **XFTC302** is easily installed in industrial or OEM applications. A strain relief spring strengthens the cable output.

For lower force and temperature ranges, TE CONNECTIVITY developed another product **XFTC301**. This other models covers the ranges from 2N to 2000N.

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

PERFORMANCE SPECIFICATIONS (typical values at temperature 23° C)

Ranges (FS) (N)	5 k	10 k
Ranges (lbf)	1124.0	2248.1
Stiffness (N/m)	3.4E+08	6.8E+08
Stiffness (lbf/ft)	2.3E+07	4.7E+07

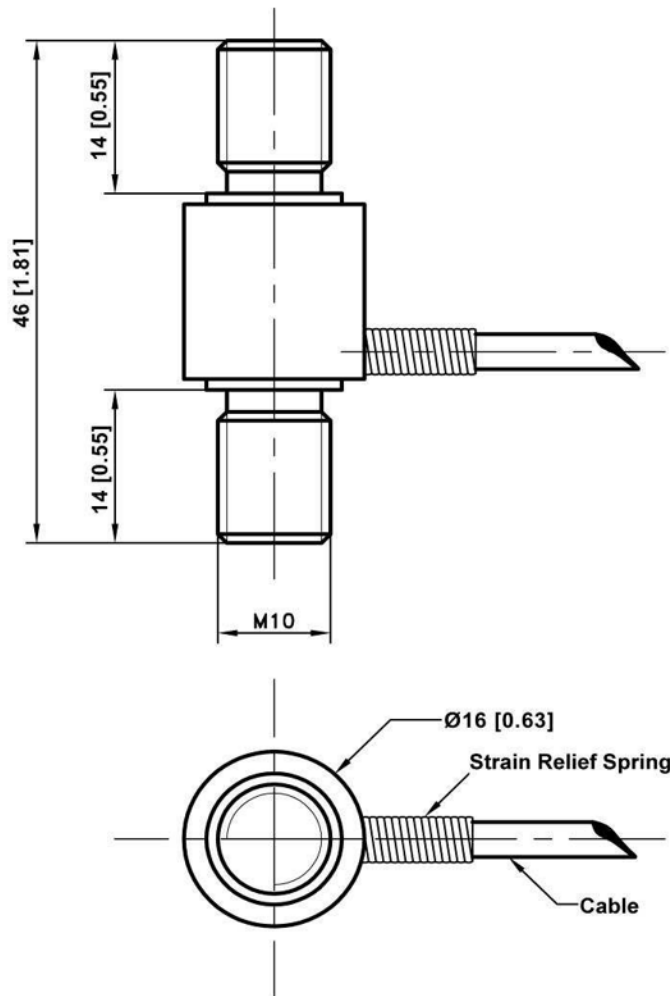
Version	Standard	A1
Power supply	10Vdc	10Vdc to 30Vdc
Sensitivity (FSO)	10 mV	±2Vdc ±0.2V
Offset	<±1 mV	2.5Vdc ±0.2V
Input Impedance / Consumption	700 ohms	<30mA
Output Impedance	350 ohms	1 kohms max
Operating Temperature Range (OTR)	-55°C to +175°C (-67 to 347°F)	-40°C to +85°C (-40 to 185°F)
Compensated Temperature Range (CTR)	0°C to +150°C (32 to 302°F)	0°C to +85°C (32 to 185°F)
Overrange Without Damage	2x FS	
Overrange Without Destruction	3x FS	
Linearity	< ±0.5% FS	
Hysteresis	< ±0.5% FS	
Thermal Zero Shift in CTR	< 1% FS/50°C	
Thermal Sensitivity Shift in CTR	< 1%/50°C	
Insulation	> 100 Mohms	
Protection Index	IP50	
Material	Stainless steel	

Temperature restriction notes

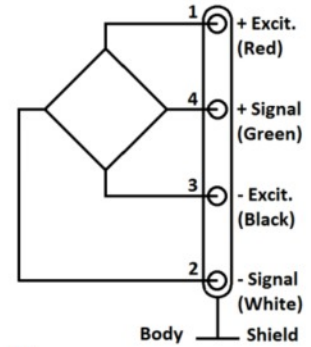
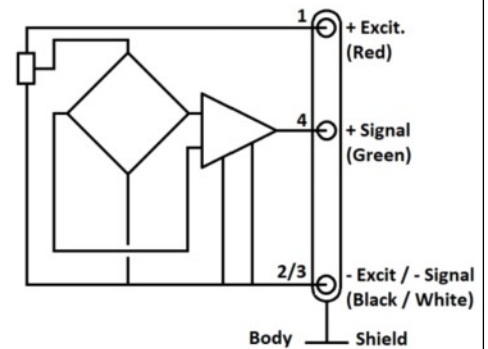
Sensors integrating an **A1** amplifier have their OTR limited from -40°C to 85°C [-40°F to 185°F] max. due to internal components.

Notes

1. Signal goes positive in tension with standard wiring configuration. Custom outputs available on request
2. Shielded cable with 4 wires (AWG28), standard length 2 m [6.5 ft] with strain relief spring
3. Output impedance standard, available <100Ω on request.
4. CE compliance according to EN 61010-1, EN 50081-1, EN 50082-1

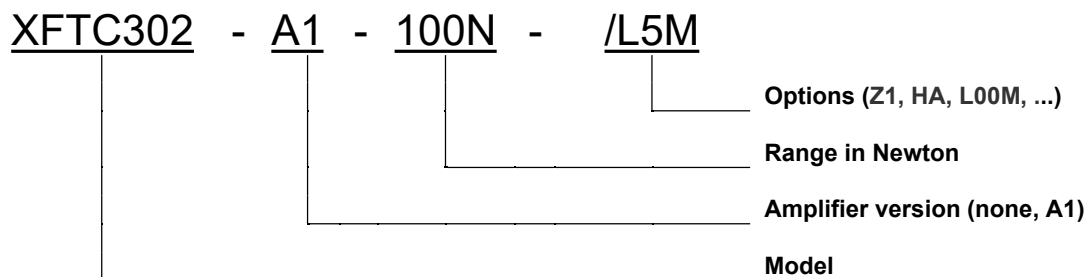
DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)

Separate data sheets are available for load cells with two female threads reference [XFTC322](#).

Wiring Schematic**Version -A1**

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) Not available on A1 version
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) Not available on A1 version
Z36	CTR +20°C to +150°C (68°F to 302°F) Not available on A1 version
HA	Accuracy (CNL&H) $\leq \pm 0.5\%$ F.S.
L5M, L10M, L15M	Special cable length (ex : L5M = 5m length) (Standard cable length 2m)

ORDERING INFO

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