

## 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	

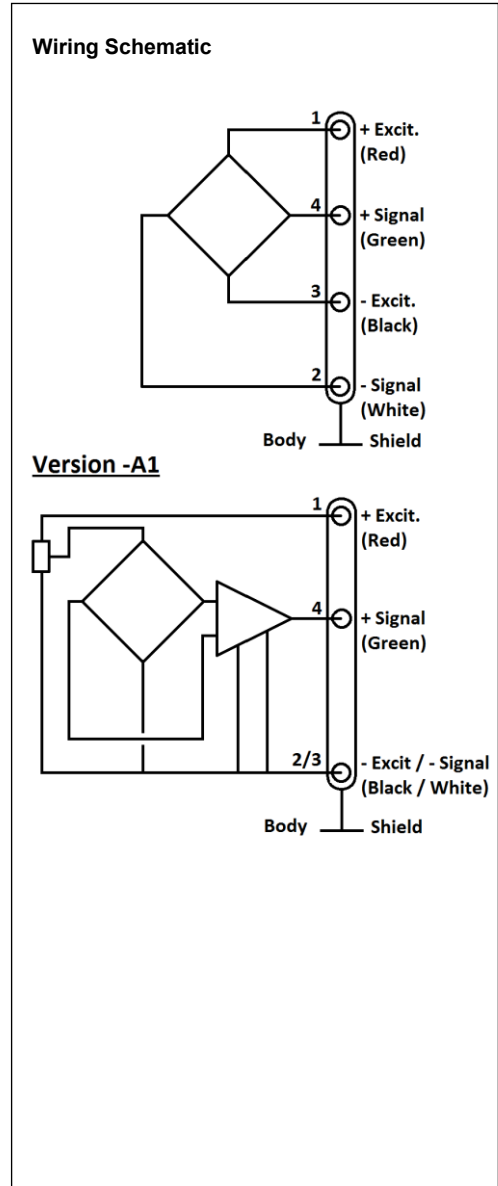
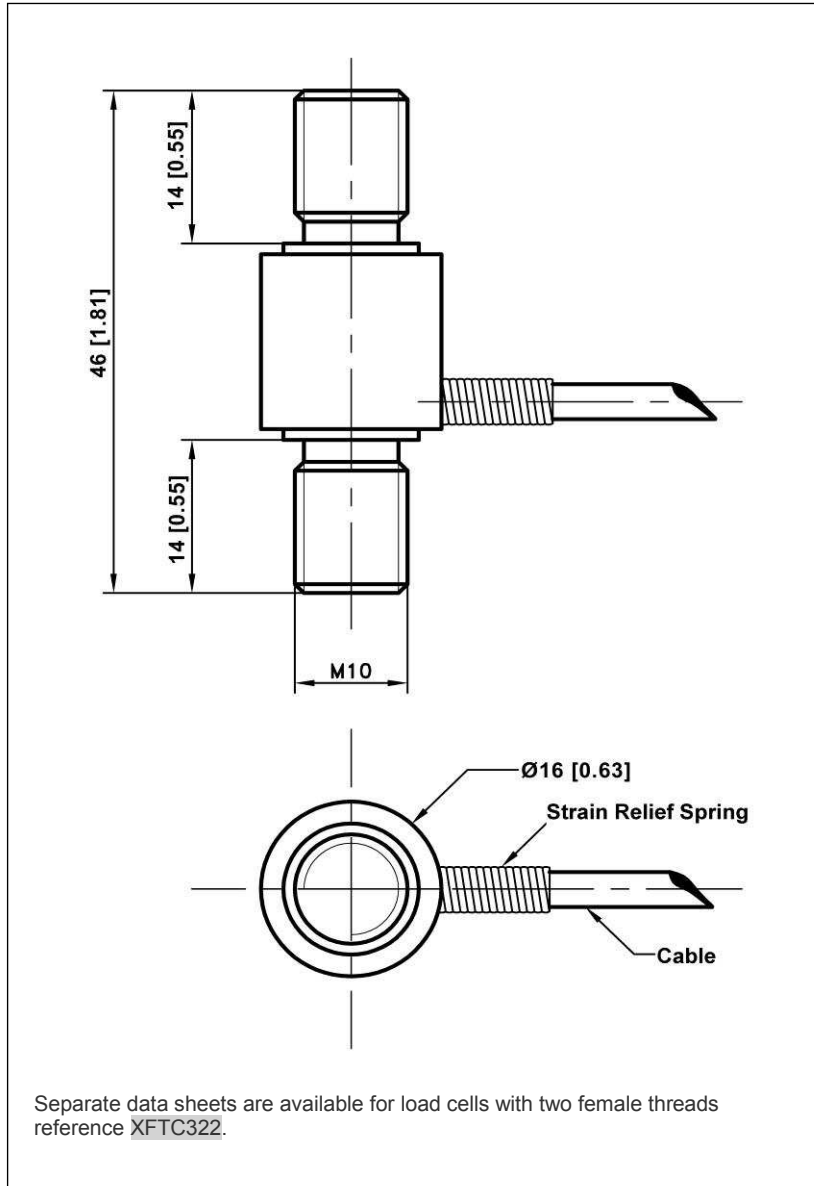
**Temperature restriction notes**

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)**



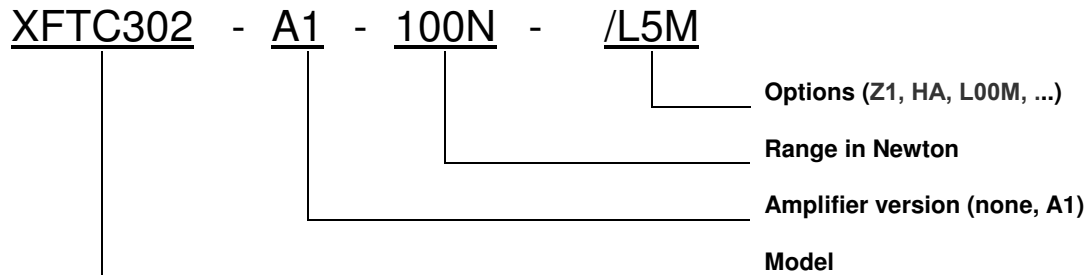
## XFTC302

Miniature Load Cell High Temperature

### 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 à +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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