

## FEATURES

- Wide range of temperature compensated
- Optional IP rating improvement
- Heavy duty
- High stiffness

## APPLICATIONS

- Dynamic strain cylinder regulation
- Miniature press-fit device
- Fatigue test benches
- Robotics regulation
- Heat room environment

## Miniature Load Cell

### SPECIFICATIONS

- Range from 0-5kN to 0-10kN [0-1.124 klb to 2.248klbf]
- Tension and/or Compression
- High Temperature Range : -55 to 175 ° C [-67 to 347 ° F]

The **XFTC322** 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 **XFTC322** has the capacity of measuring heavy loads of up to 10 kN [2 klb], while providing excellent temperature stability.

With two threaded M10 studs, the **XFTC322** is easily installed in industrial or OEM applications. A strain relief spring strengthens the cable output.

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.

**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                |                               |

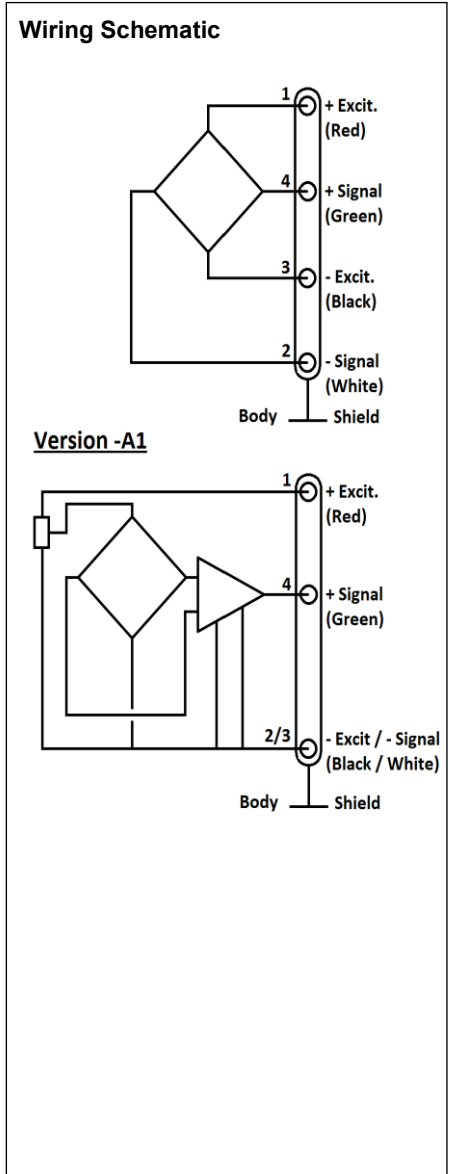
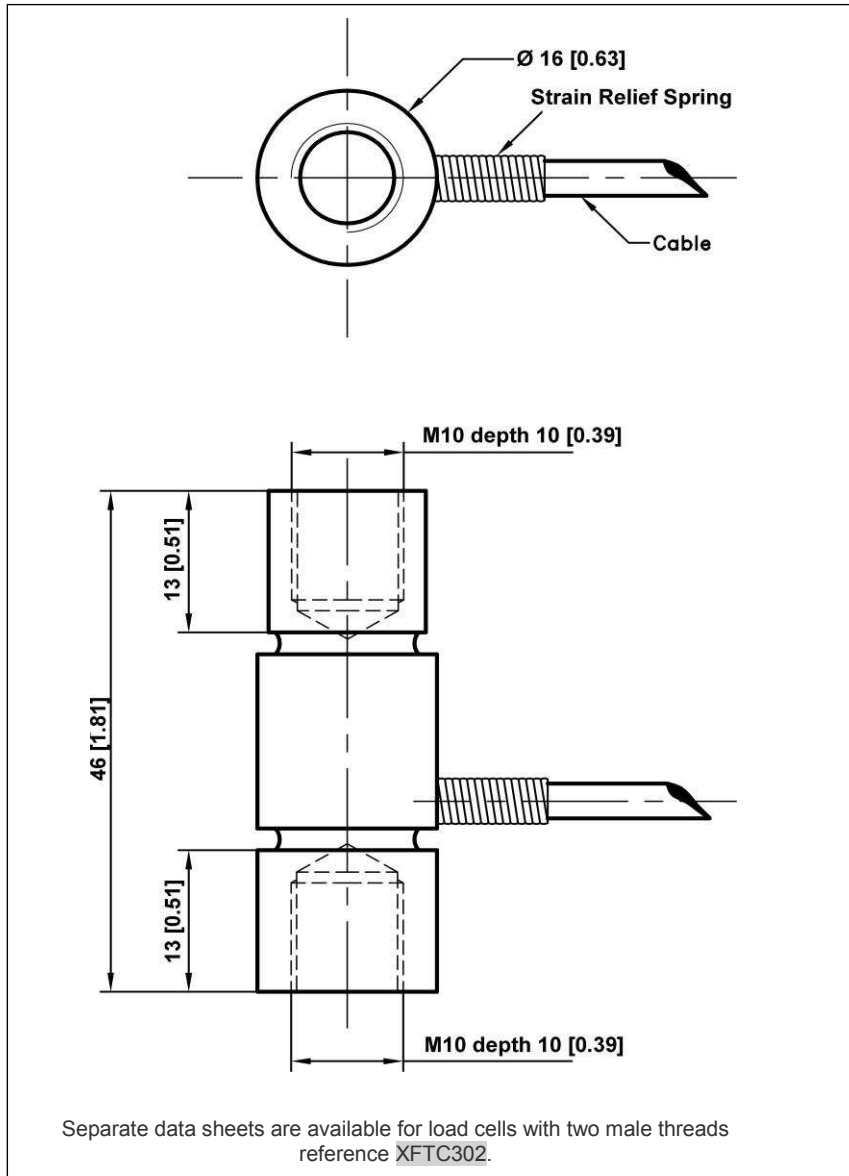
**Temperature restriction notes**

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. Other signal output 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 50082-1s

**DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)**



**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**