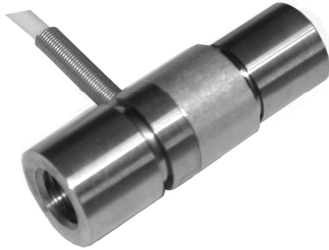


XFTC322 Miniature Load Cell



- Range from 0-5kN to 0-10kN [0-1 klb to 2 klb]
- Tension and/or Compression
- High Stiffness
- For Static and Dynamic Applications
- Threaded Female Mechanical Fitting
- High Temperature Range : -55 to 175 ° C [-67 to 347 ° F]
- High Level Output Model with Integrated Amplifier

DESCRIPTION

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 many years of experience as a designer and manufacturer of sensors, Measurement Specialties, Inc. often works with customers to design or customize sensors for specific uses and testing environments.

To meet your needs we also offer complete turnkey systems. The matched components (sensor, power, amplifier and digital display) are formatted, calibrated and ready for immediate use.

FEATURES

- Wide range of temperature compensated
- Optional IP rating improvement
- Heavy duty
- High stiffness
- Easy to customized signal and design

APPLICATIONS

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

STANDARD RANGES

F.S. Ranges in N	5k	10k
F.S. Ranges in lbf	1k	2k
Stiffness in N/m	2×10^9	4×10^9
Stiffness in lbf/ft	1.4×10^8	2.7×10^8
Material	Stainless Steel	Stainless Steel

XFTC322 Miniature Load Cell

PERFORMANCE SPECIFICATIONS

All values are typical at temperature 20±1°C

PARAMETERS		
Operating Temperature Range (OTR)	Without electronic	-55 to 175° C [-67 to 347° F]
	With A1 option	-55 to 125° C [-67 to 257° F]
Compensated Temperature Range (CTR)	Without electronic	0 to 150° C [32 to 302° F]
	With A1 option	0 to 100° C [32 to 212° F]
Zero Shift in CTR	<1% F.S. / 50° C [/100° F]	
Sensitivity Shift in CTR	<1% of reading / 50° C [/100° F]	
Range (F.S.)	0-5kN to 0-10kN [0-1klbf to 0-2 klbf]	
Over-Range		
Without Damage	1.5 x F.S.	
Without Destruction	3 x F.S.	
Accuracy		
Linearity	≤±0.5%F.S.	
Hysteresis	≤±0.5% F.S.	

Temperature restriction notes

For sensor which integrated the A1 amplifier, the OTR is limited from -40°C to 85°C [-40°F to 185°F] maximum due to internal components.

Electrical Characteristics

Model	XFTC322	XFTC322-A1
Supply Voltage	10Vdc	10 – 30Vdc
F.S. Output ⁴	±10mV	±2V ±5% F.S.
Zero Offset ⁴	<±5% F.S.	2.5V ±5% F.S.
Input Impedance/Consumption	700Ω	<30mA
Output Impedance	350Ω	<1 kΩ ⁵
Insulation under 50Vdc	≥1000MΩ	≥100MΩ

Notes

1. Shielded cable with 4 wires (AWG28), standard length 2 m [6.5 ft] with strain relief spring
2. Material: Body in stainless steel ; Two female threaded studs M10 or [3/8-24 UNF] (metric thread is standard)
3. Protection Index: IP50 (other levels available on request)
4. Standard output signal, custom outputs available on request
5. Output impedance standard, available <100Ω on request.
6. CE compliance according to EN 61010-1, EN 50081-1, EN 50082-1

XFTC322 Miniature Load Cell

DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)

Separate data sheets are available for load cells with two male threads
reference XFTC302.

Wiring Schematic

Version -A1

Dimensions in mm [inch]

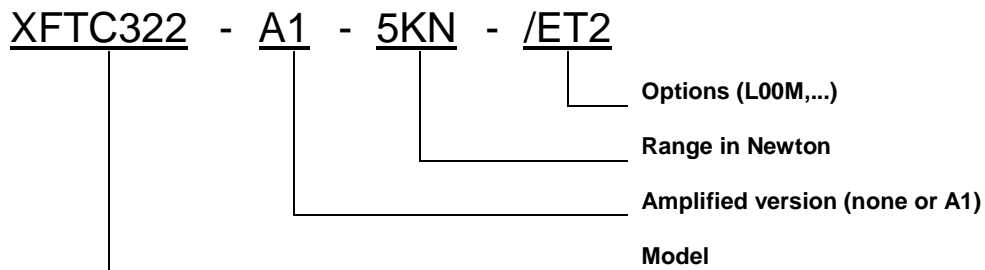
Full Scale Range in N [in lbf]	5k [1k]	10k [2k]
Material	Stainless Steel	Stainless Steel
Stiffness in N/m	2×10^9	4×10^9
Stiffness in lbf/ft	1.4×10^8	2.7×10^8

XFTC322 Miniature Load Cell

OPTIONS

A1	: Tension output with unipolar power supply
ET2	: CTR -40 to 120° C [-40 to 248° F] (not compatible with A1 option)
ET4	: CTR -40 to 175° C [-40 to 347° F] (not compatible with A1 option)
HA	: Accuracy (CNL&H) $\leq \pm 0.5\%$ F.S.
TS	: Tolerance on F.S. output $\leq \pm 2\%$ F.S. (only for A1 option)
L00M	: special cable length, replace "00" with total length in meters

ORDERING INFO



联系方式



深圳市亿为测控电子有限公司
Shenzhen Bill-Well Measurement & Control Electronics Co., Ltd.

广东省深圳市南山区创业路怡海广场东座2407 邮编：518000

电话：+86 755 2641 9890 传真：+86 755 2641 9680

电子邮箱：sales@bill-well.com