

## FEATURES

- ◆ Optional Rod Ends
- ◆ Accuracy: 0.1% F.S.
- ◆ Integrated Amplifier optional
- ◆ Low Cost

## APPLICATIONS

- ◆ Process Control Equipment
- ◆ Weighing Calibration Tool
- ◆ Robotics and Effectors
- ◆ Laboratory and Research

## FN3030

### Load Cell Tension and Compression

#### SPECIFICATIONS

- ◆ **S-Beam Load Cell**
- ◆ **50 N to 100,000 N (11.2 lbf to 22,480 lbf)**
- ◆ **Stainless Steel or Aluminum**
- ◆ **Cable Gland or Connector Output**
- ◆ **Built In Amplifier per Request**

The **FN3030** measures tension and compression in standard ranges from 0-50 N to 0-100 000 N. The **FN3030** is well suited for customization in industrial applications and protection levels can be upgraded for use in hostile environments. Additionally, for high-level output a model with integrated amplifier is available.

With a long-standing experience as a designer and a manufacturer of sensors, TE CONNECTIVITY often works with customers to design or customize sensors for specific uses and testing environments.

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

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

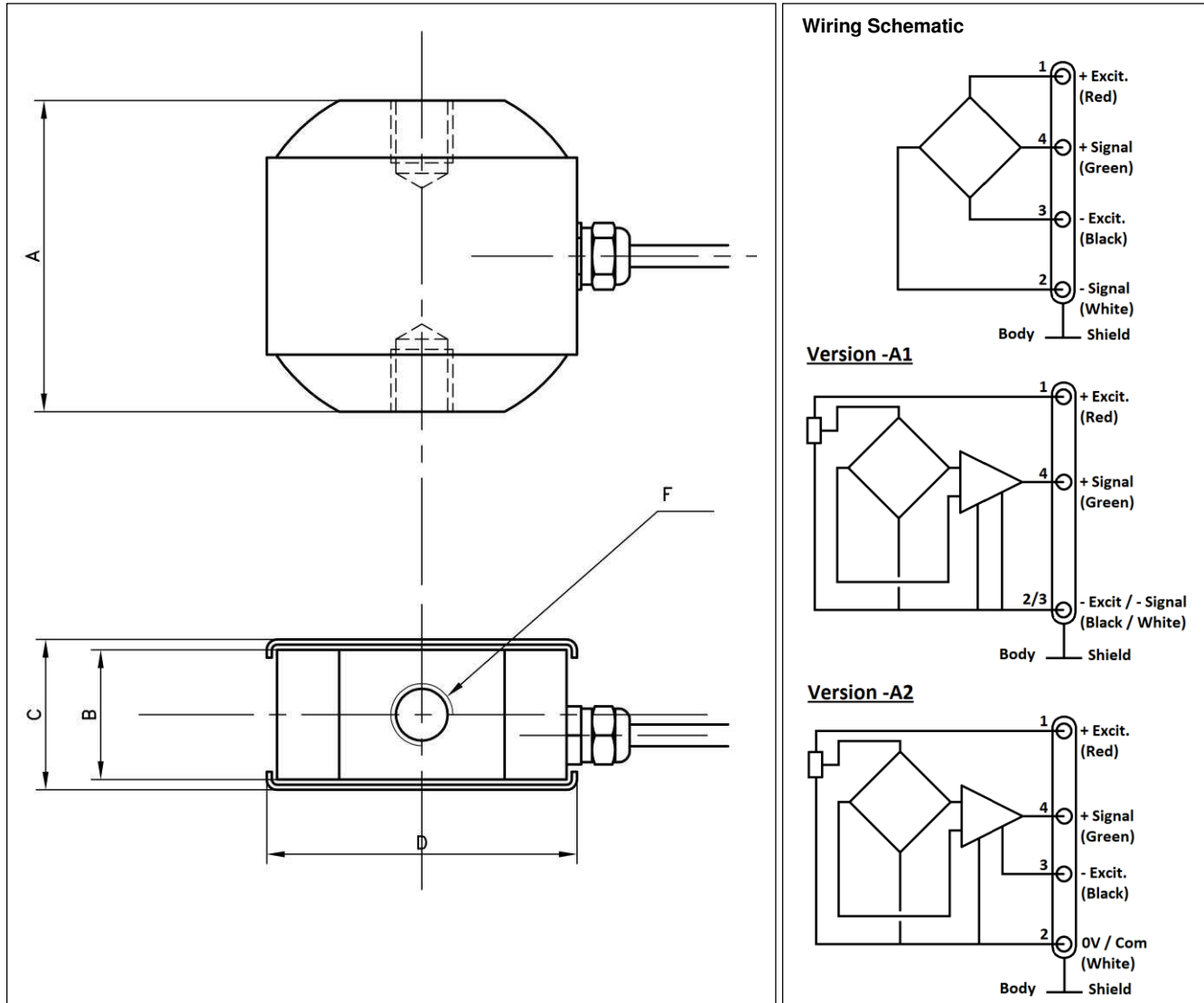
**CHARACTERISTICS** (typical values at temperature 23°C)

Ranges (FS) (N)	50	100	200	500	1k	2k	5k	10k	20k	50k	100k
Ranges (lbf)	11.2	22.5	45.0	112.4	224.8	449.6	1124	2.25k	4.50k	11.2k	22.5k
Material	Aluminium						Stainless Steel				
Stiffness (N/m)	8.0E+05	1.4E+06	2.2E+06	1.4E+07	2.1E+07	3.0E+07	8.1E+07	9.6E+07	1.3E+08	2.0E+08	3.0E+08
Stiffness (lbf/ft)	5.5E+04	9.3E+04	1.5E+05	9.9E+05	1.4E+06	2.1E+06	5.5E+06	6.6E+06	9.1E+06	1.4E+07	2.1E+07
Version	Standard			A1				A2			
Power supply	10Vdc			10Vdc to 30Vdc				±12Vdc to ±18Vdc			
Sensitivity (FSO)	±20mV			±2Vdc ±0.2V				±5Vdc ±0.25V			
Offset	<±1 mV			2.5Vcc ±0.2V				0V ±0.25V			
Input Impedance / Consumption	350 ohms			<30mA							
Output Impedance	350 ohms			1 kohms max							
Overrange Without Damage	1.5x FS										
Overrange Without Destruction	3x FS										
Combined Non-Linearity & Hysteresis	< ±0.1% FS										
Operating Temperature Range (OTR)	-20°C à +80°C (-4 to 176°F)										
Compensated Temperature Range (CTR)	0°C à +60°C (32 to 140°F)										
Thermal Zero Shift in CTR	< 0.5% FS/50°C										
Thermal Sensitivity Shift in CTR	< 1%/50°C										
Insulation	> 1000 Mohms										
Protection Index	IP50										

**Notes**

1. Signal goes positive in tension with standard wiring configuration. Other signal output on request
2. Electrical Termination: Cable gland termination; 2 m cable length standard
3. Material: Body in stainless steel or aluminum alloy depending on F.S., with stainless steel cover
4. Output impedance < 100Ω on request
5. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

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



Dimensions in mm [inch]

F.S. Ranges in N	50 - 100 - 200		500 - 1k - 2k		5k - 10k		20k		50k		100k	
	mm	[inch]	mm	[inch]	mm	[inch]	mm	[inch]	mm	[inch]	mm	[inch]
A	60	[2.36]	60	[2.36]	60	[2.36]	75	[2.95]	110	[4.33]	130	[5.12]
B	25	[0.98]	25	[0.98]	25	[0.98]	30	[1.18]	40	[1.57]	55	[2.17]
C	29	[1.14]	29	[1.14]	29	[1.14]	34	[1.34]	40	[1.57]	55	[1.77]
D	60	[2.36]	60	[2.36]	60	[2.36]	60	[2.36]	80	[3.15]	110	[4.33]
F (Thread)	M6 depth 6		M12 depth 12		M12 depth 12		M16 x 2 depth 16		M20 x 1.5 depth 20		M32 x 2 depth 32	

## FN3030

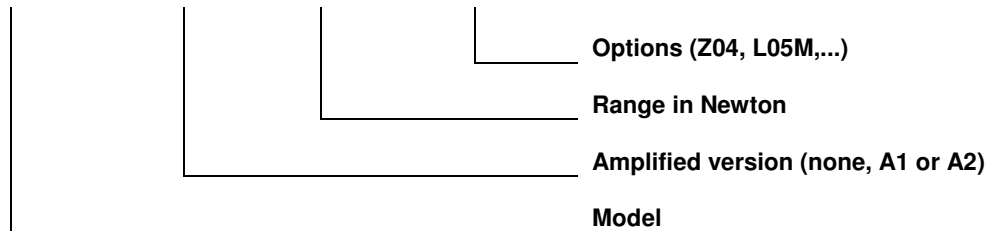
Load Cell Tension and Compression

### OPTIONS

Z04	CTR -40°C to +90°C (OTR -40°C to +90°C)
Z35	CTR +20°C to +120°C (OTR -20°C to +120°C)
Z36	CTR +20 to +150°C (OTR -20°C to +150°C) - Not available on A1 / A2 versions
HA	Accuracy (CNL&H) $\leq \pm 0.05\%$ F.S. (only on FS 50N to 10kN)
SC	Connector output instead of standard cable gland
L00M	Special cable length, replace "00" with total length in meters

### ORDERING INFO

FN3030 - A1 - 5KN - /Z04



### SUPPLIED ACCESSOIRES (ONLY WITH SC OPTION)

**EFMX-4M**: mating plug Jaeger 530-801-006 with clamp 530-841-006 for option /SC; /Z04/SC

**EFMX-4H**: mating plug Jaeger 530-804-006 with clamp 530-844-006 for option /SC; /Z35/SC; /Z36/SC

### RECOMMENDED ACCESSORIES

**OPTERxxx**: Rod Ends

**OPTEHxxx**: Hemispherical Load Button