

FEATURES

- Same housing for all ranges
- Mechanical stops in option
- Optional:
Tension Pull Plate
Load Button
- Integrated amplifier optional

APPLICATIONS

- Process control equipment
- Regulation load cell
- Robotics and effectors
- Laboratory and Research
- Dedicated to low and medium quantity volume

FN3050

Load Cell Tension and Compression

SPECIFICATIONS

- Range from 100 N to 20000 N (22.5 lbf to 4496 lbf)
- Accuracy: 0.1% F.S.
- Stainless steel or aluminum
- Connector or cable gland output
- Build in amplifier per request

The rugged **FN3050** load cell is highly suited for process industry and test bench applications. Dimensions are identical in standard ranges from 0-100 N to 0-20000 N so during testing the sensor can be interchanged for another of a different range without mechanical modifications. The sensor design minimizes transverse effects. For high-level output, a model with integrated amplifier is available as are numerous other options.

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.

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)

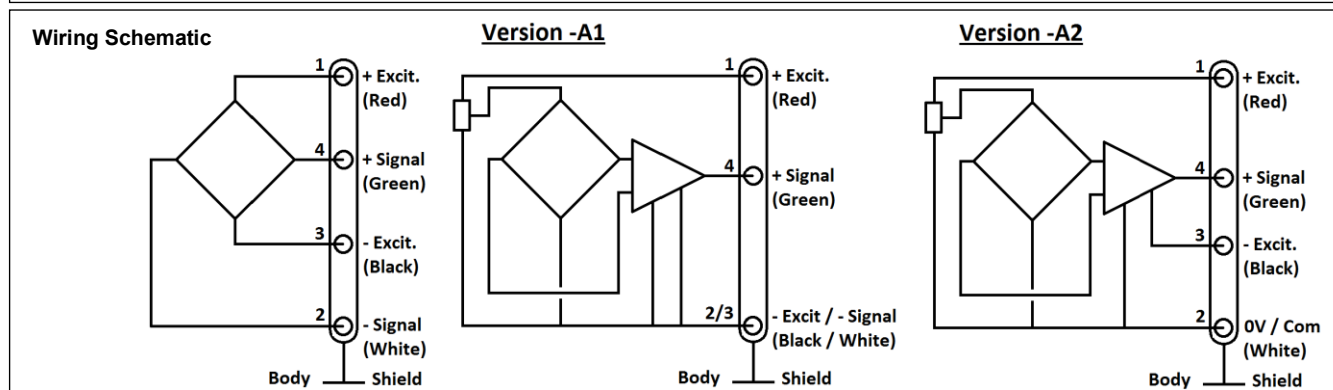
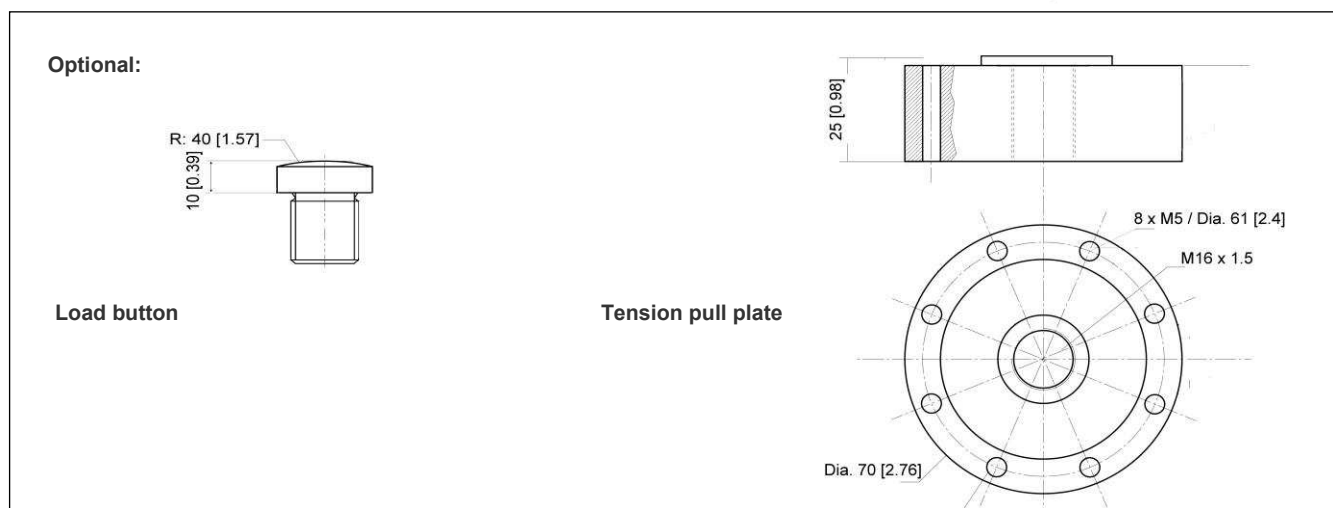
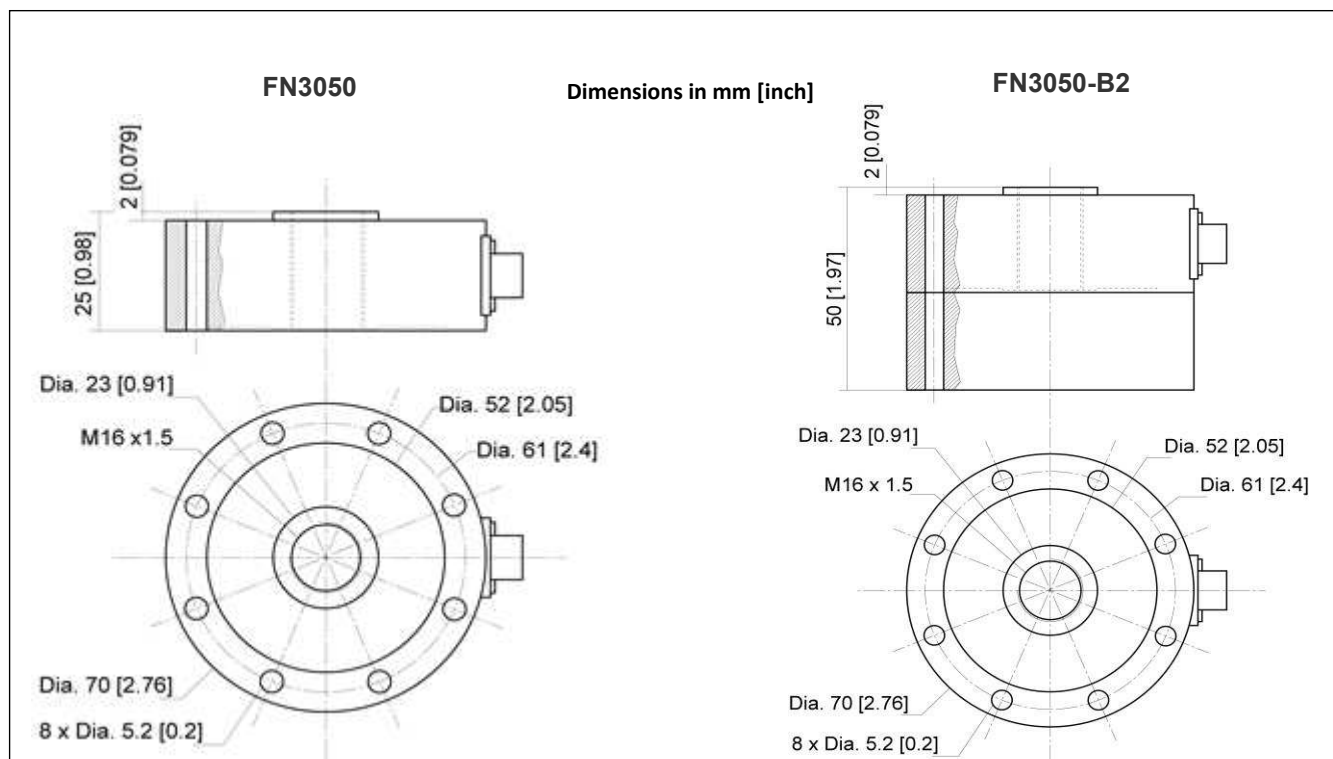
Ranges (FS) (N)	100	200	500	1k	2k	5k	10k	20k
Ranges (lbf)	22.48	44.96	112.4	224.8	449.6	1124	2248	4496
Material	Aluminium			Stainless Steel		Aluminium	Stainless Steel	
Stiffness (N/m)	1.2E+06	2.7E+06	9.9E+06	1.7E+07	3.9E+07	2.3E+08	5.4E+08	8.7E+08
Stiffness (lbf/ft)	8.4E+04	1.8E+05	6.8E+05	1.2E+06	2.7E+06	1.6E+07	3.7E+07	5.9E+07
Linearity & hysteresis	< ±0.3% FS			-				
Linearity	-			< ±0.1% FS				
Hysteresis	-			< ±0.1% FS				

Version	Standard	A1	A2
Power supply	10Vdc	10Vdc à 30Vdc	±12Vdc à ±18Vdc
Sensitivity (FSO)	±15mV	±2Vdc ±0.2V	±5Vdc ±0.25V
Offset	<±1 mV	2.5Vdc ±0.2V	0V ±0.25V
Input Impedance / Consumption	700 ohms	<30mA	
Output Impedance	700 ohms	1000 ohms	
Overrange Without Damage	1.5x FS		
Overrange Without Destruction	3x FS		
Operating Temperature Range (OTR)	-20°C to +80°C (-4°F to 176°F)		
Compensated Temperature Range (CTR)	0°C to +60°C (32°F 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: Connector output including mate
3. Body in stainless steel or aluminium alloy depending on F.S.
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)



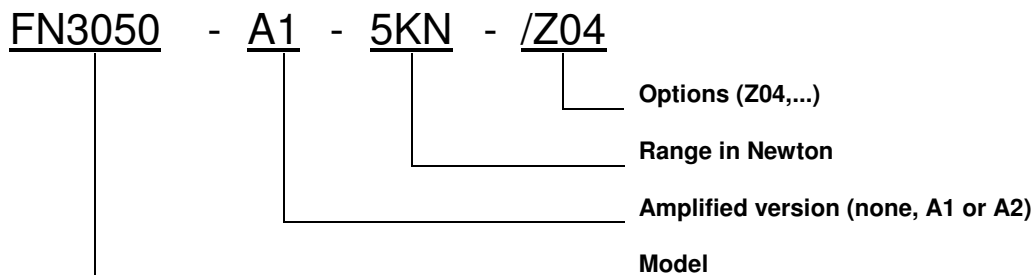
FN3050

Load Cell Tension and Compression

OPTIONS

B2	Mechanical stops (compression only, models ≤ 2000 N) Overrange Without Damage 10x FS
Z04	CTR -40°C to +90°C (-40°F to 194°F) (OTR -40°C to +90°C (-40°F to 194°F))
Z35	CTR +20°C to +120°C (68°F to 248°F) (OTR -20°C to +120°C (-4°F to 248°F))
Z36	CTR +20 to +150°C (68°F to 302°F) (OTR -20°C to +150°C (-4°F to 302°F)) - not available with A1/A2

ORDERING INFO



SUPPLIED ACCESSOIRES

EFMX-4M: mating plug Jaeger 530-801-006 with clamp 530-841-006 standard and Z04
EFMX-4H: mating plug Jaeger 530-804-006 with clamp 530-844-006 for Z35 or Z36 option

RECOMMENDED ACCESSORIES

OPTEH004: Hemispherical load button
OPTFF006: Tension pull plate

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Tel: 1-800-522-6752
Email : customercare.lcsb@te.com

EUROPE

Measurement Specialties (Europe), Ltd.,
a TE Connectivity Company
Phone: +31 73 624 6999
Email: customercare.lcsb@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
Tel: +86 400-820-6015
Email: customercare.shzn@te.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[EFN30-2KN-C20011](#)