



FN9620

Force Load Cell

SPECIFICATIONS

- High tensile strength Stainless Steel
- Quick availability & stock
- Ranges from $\pm 500\text{N}$ to $\pm 10,000\text{N}$
- Non-linearity $\pm 0.05\%$ FS
- -40 to 90°C temperature operating range
- Integral shielded cable

The **FN9620** is a S-Beam load cell with ranges from 500N to 10kN, designed to operate in hostile environments from -40 to 90°C with IP68 ingress protection.

It provides high stiffness for high cycle use, low off-axis load sensitivity and high level of accuracy.

To ease its use for Process Control Automation equipment, the sensor's sensitivity (in mV/V) is calibrated with 2% tolerance.

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

FEATURES

- High tensile strength Stainless Steel
- Metric or Imperial thread
- Surcharge sans destruction 300%
- Safe over load 300%
- 3 meters Integral cable
- IP68-1m water column

APPLICATIONS

- Structure Testing
- Test Benches
- Process Control & Automation
- Mechanical resistance of materials
- Laboratory and Research

PERFORMANCE SPECIFICATIONS (typical values at temperature 23°C)

| Range (FS) | kN | 0.5 | 1 | 2 | 5 | 10 |
|-------------------------------------|----------|-------------------------------|---------------------|---------------------|---------------------|---------------------|
| Over range | % FS | 150 | | | | |
| Sensitivity “FSO”* | mV/V | 1 ±2% | 2 ±2% | | | |
| Power supply | Vdc | 10 regulated | | | | |
| Power supply min/max ** | Vdc | 1 à 10 | | | | |
| Bridge resistance | Ω | 350 | | | | |
| Bridge resistance min/max | Ω | 340/500 | | | | |
| Zero Offset | ±% FS | 2 | | | | |
| Insulation under 50Vdc | >MΩ | 5000 | | | | |
| Linearity | ±% FS | 0.05 | | | | |
| Hysteresis | ±% FS | 0.03 | | | | |
| Repeatability | ±% | 0.02 | | | | |
| Symmetry | ±% | 0.25 | | | | |
| Creep (20mn) | % | 0.025 | | | | |
| Side Load sensitivity ** | % | 1 | | | | |
| Eccentric Load sensitivity | %/mm | 0.1 | | | | |
| Safe overload | % | 300 | | | | |
| Deflection | mm | 0.033 | 0.065 | 0.075 | 0.08 | 0.13 |
| Stiffness | N/m | 1.5.10 ⁷ | 1.5.10 ⁷ | 2.6.10 ⁷ | 6.2.10 ⁷ | 7.6.10 ⁷ |
| Natural frequency | kHz | 1 | 1 | 1.25 | 1.95 | 2.15 |
| Operating Temperature Range (OTR) | °C | -40 to +90 | | | | |
| Compensated Temperature range (CTR) | °C | -10 to +45 | | | | |
| Thermal Zero Shift in CTR | ±% FS/°C | 0.008 | 0.004 | | | |
| Thermal Sensitivity shift in CTR | ±% /°C | 0.01 | 0.005 | | | |
| Ingress Protection | | IP68 – 1m water column – 100h | | | | |
| Side load limit | % FS | 100 | | | | |
| Bending moment limit | N.m | 15 | 30 | 60 | 150 | 300 |
| Weight (without cable) | kg | 0.45 | | | | |
| Cable length*** | m | 3 | | | | |
| Material | | Stainless steel | | | | |

* Signal goes positive in traction with standard wiring configuration

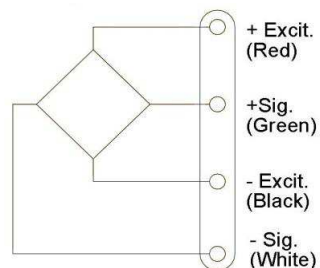
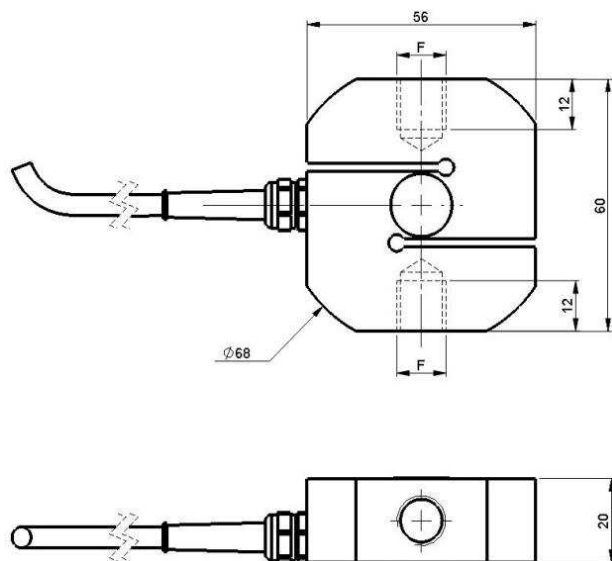
** Load = 10% range

*** 4 conductors shielded Ø5 -neoprene jacket

FN9620

Force Load Cell

DIMENSIONS (in mm) & WIRING



Cable shield is not connected to sensor's body

| | |
|----------|--------------|
| Thread | F |
| Metric | M12x1.75-6H |
| Imperial | 1/2-20UNF-2B |

ORDERING INFORMATION

| FN9620 | - | M | - | 10KN |
|--------|---|-------------------------------------|---|------------------------------------|
| Model | - | Thread | - | Range |
| FN9620 | - | M : M12x1.75-6H X : 1/2-20UNF-2B | - | 0.5KN 1KN 2KN 5KN 10KN |

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Phone: +1 800 522 6752
Email: customercare.frm@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
Phone +86 400 820 6015
Email: customercare.shzn@te.com

神州融安科技（北京）有限公司
电话：010-62127688、82057633
地址：北京市海淀区花园路2号牡丹科技楼B座三层B308室
网址：www.ronganchi na. cn

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.