



## 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  $90^\circ\text{C}$  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  $90^\circ\text{C}$  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)**

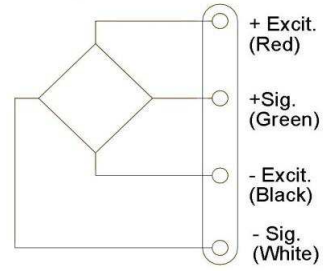
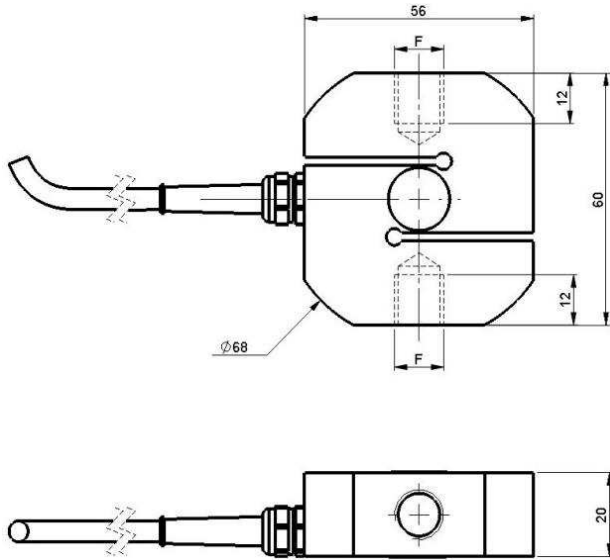
Range (FS)	kN	0.5	1	2	5	10
Over range	% FS	150				
Sensitivity "FSO"*	mV/V	1 ±2%	2 ±2%			
Power supply	Vdc	10 regulated				
Power supply min/max **	Vdc	1 à 10				
Bridge resistance	Ω	350				
Bridge resistance min/max	Ω	340/500				
Zero Offset	±% FS	2				
Insulation under 50Vdc	>MΩ	5000				
Linearity	±% 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 <sup>7</sup>	1.5.10 <sup>7</sup>	2.6.10 <sup>7</sup>	6.2.10 <sup>7</sup>	7.6.10 <sup>7</sup>
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

**DIMENSIONS (in mm) & WIRING**



**Cable shield is not connected to sensor's body**

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

**ORDERING INFORMATION**

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