



FEATURES

- Detachable tongue and cable
- Tension only
- Very robust for crash
- Easy cable replacement for customer

ONS

- Crash test on-board equipment
- Security absorbers
- Parachute belt and anchor testing

AP
PLI
CA
TI

FN4070

Seat Belt Buckle Sensor

SPECIFICATIONS

- Ranges from 1 kN to 50 kN (200 to 10k lbf)
- Crash-testing
- Compatible with most seat belt anchors
- Easy and economical maintenance
- Accuracy $\pm 0.5\%$ FS

The sensor **FN4070** measures the effort generated on the anchor point of seat belts during crash tests.

Designed with a replaceable tongue, the load cell can be easily and quickly re-used.

Its cable output can be renewed by the customers and technicians to allow a reactive and cost-effective in-house maintenance of the device.

A similar product, **FN4080**, can measure lower ranges down to 250N.

With many years of 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.

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

STANDARD RANGES

Ranges in N (FS)	1k	5k	10k	25k	50k
Ranges in Lbf (FS)	200	1k	2k	5k	10k

PERFORMANCE SPECIFICATIONS (typical values at temperature 23±3°C)

Parameters	
Operating Temperature Range (OTR)	-20 to 80 °C [-4 to 176 °F]
Compensated Temperature Range (CTR)	0 to 60°C [32 to 140°F]
Zero Shift in CTR	<0.5% F.S. /50°C [/100 F°]
Sensitivity Shift in CTR	<1 % of reading /50 °C [/ 100°F]
Over-Range	
Without Damage	1.5 x F.S.
Without Destruction	3 x F.S.
Accuracy	
Combined Non-Linearity & Hysteresis	<±0.5% F.S

Electrical Characteristics

Model	FN4070
Supply Outage	10Vdc
Sensitivity "FSO"	2mV/V
Zero Offset	<±5 %FS
Insulation under 50Vdc	≥100MΩ

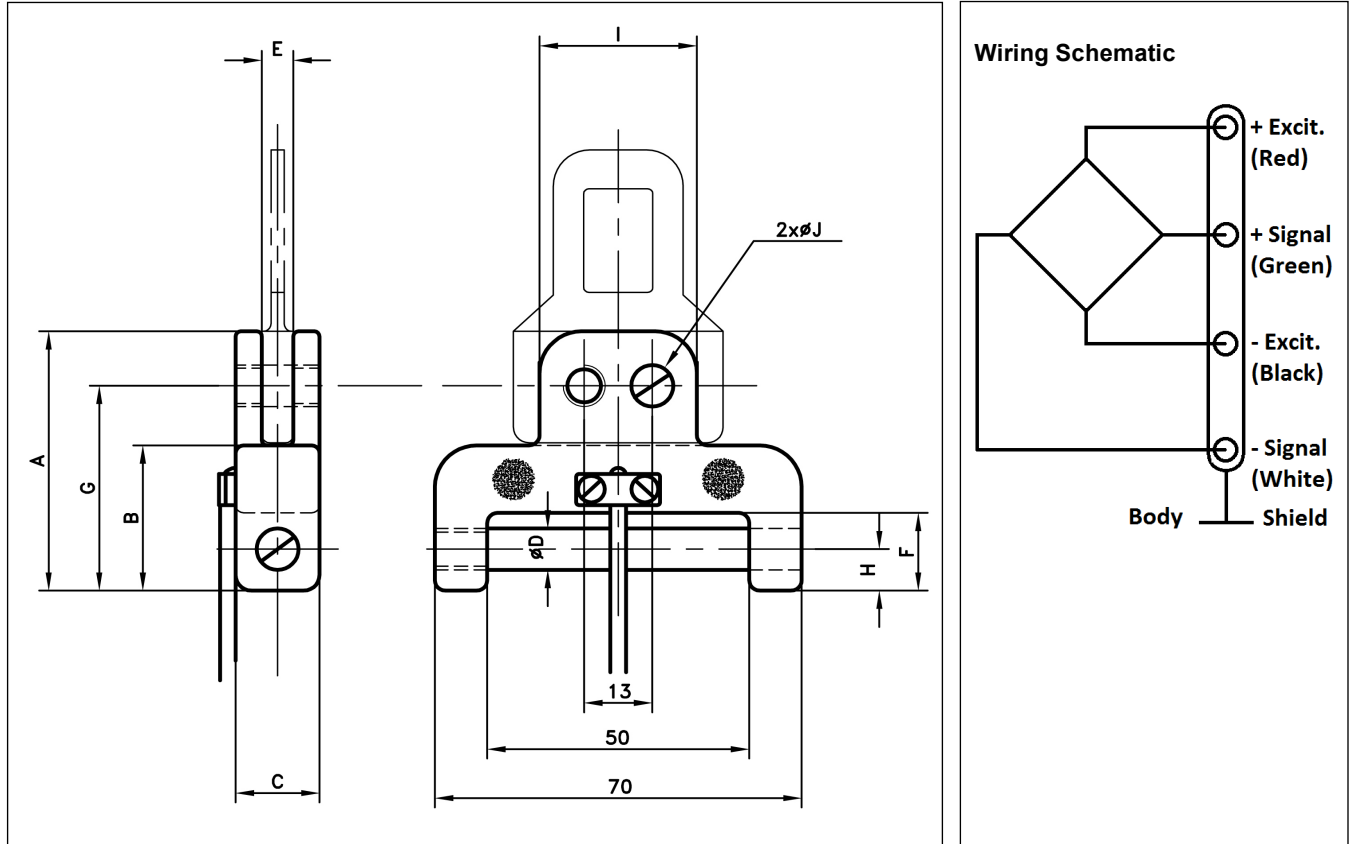
Notes

1. Shielded Φ3 cable with 4 wires (AWG36/28), standard length 2 m [6.5 ft]
2. Material: Body in stainless steel or aluminium alloy depending on F.S.
3. Protection Index IP50 (other levels available on request)
4. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

FN4070

Seat Belt Buckle Sensor

DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



Dimensions in mm [inch]

Full Scale Range in N [in Lbf]	1k [200]	5k [1k]	10k [2k]	25k [5k]	50k [10k]
A	36 [1.42]	50 [1.97]	50 [1.97]	61 [2.40]	92 [3.62]
B	24 [0.94]	28 [1.10]	28 [1.10]	37 [1.46]	55 [2.17]
C	12 [0.47]	15 [0.59]	15 [0.59]	19 [0.75]	29 [1.14]
D	6.2 [0.24]	8.2 [0.32]	8.2 [0.32]	12.2 [0.48]	18.5 [0.73]
E	3 [0.12]	6 [0.24]	6 [0.24]	8 [0.31]	12 [0.47]
F	13 [0.51]	15 [0.59]	15 [0.59]	24 [0.94]	37 [1.46]
G	30.5 [1.20]	39.5 [1.56]	39.5 [1.56]	50.5 [1.99]	75.5 [2.97]
H	7 [0.28]	8 [0.31]	8 [0.31]	12 [0.47]	18.5 [0.73]
I	24 [0.94]	30 [1.18]	30 [1.18]	30 [1.18]	40 [1.57]
J	5.2 [0.20]	8.2 [0.32]	8.2 [0.32]	8.2 [0.32]	12.2 [0.48]
Material	Aluminum	Stainless Steel			

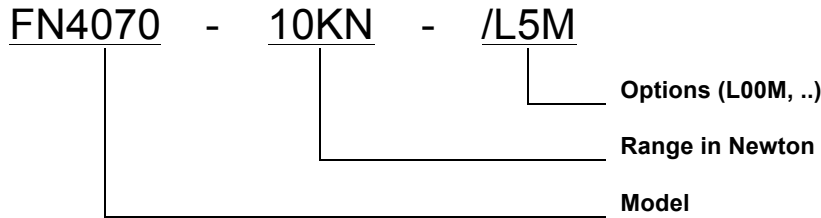
FN4070

Seat Belt Buckle Sensor

OPTIONS

L00M: Additional cable length option, replace "00" with total length in meters

ORDERING INFORMATION



NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Vibration Design Center
32 Journey - Suite 150
Aliso Viejo, CA 92656
United States USA
Tel: 1-949-716-0877
Fax: 1-949-916-5677
CustomerCare.lcsb@te.com

EUROPE

Measurement Specialties (Europe), Ltd.
a TE Connectivity Company
26 Rue des Dames
78340 Les Clayes-Sous-Bois, France
Tel: +33 (0) 130 79 33 00
Fax: +33 (0) 134 81 03 59
CustomerCare.lcsb@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057 China
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
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.