

FEATURES

- Compression only
- Integrated amplifier optional
- Rugged design

APPLICATIONS

- On-board vehicle equipment
- Test bench equipment
- Laboratory and research

FN2114 Pedal Load Cell

SPECIFICATIONS

- Ranges 200 to 2500 N (40 to 500 Lbf)
- Aluminum body
- Cable Gland Output
- Accuracy 1% regardless force application point

The **FN2114** load cell has been developed for pedal load testing. Its size allows the sensor to be easily installed on the pedals of any vehicle or a fatigue/endurance test bench.

Since the forces to be investigated on the brake, clutch or accelerometer pedals are different, and vary from a small car to a heavy goods vehicle, TE CONNECTIVITY offers different measurement ranges as standard.

With an internal mechanical decoupling system, accuracy is 1% F.S., regardless of the point of force application. Integrated amplifier for high level output is optionally available for all ranges.

A similar pedal load cells with thicker dimension exists as model **FN2570**.

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)	200	500	1000	2000	2500
Ranges in lbf (FS)	40	100	200	400	500

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% FS /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	≤±1% F.S.

Electrical Characteristics

Model	FN2114	FN2114-A1	FN2114-A2
Supply Outage	10Vdc	10 – 30Vdc	±15Vdc (±12 to ±18Vdc)
Sensitivity “FSO” ⁴	±2mV/V	4V ±0.2V	5V ±0.2V
Zero Offset ⁴	±5% F.S.	0.5V ±0.2V	0V ±0.2V
Input Impedance/Consumption	700Ω	<50mA	50mA
Output Impedance	700Ω	1 kΩ ⁵	1 kΩ ⁵
Insulation under 50Vdc	≥100MΩ	≥100MΩ	≥100MΩ

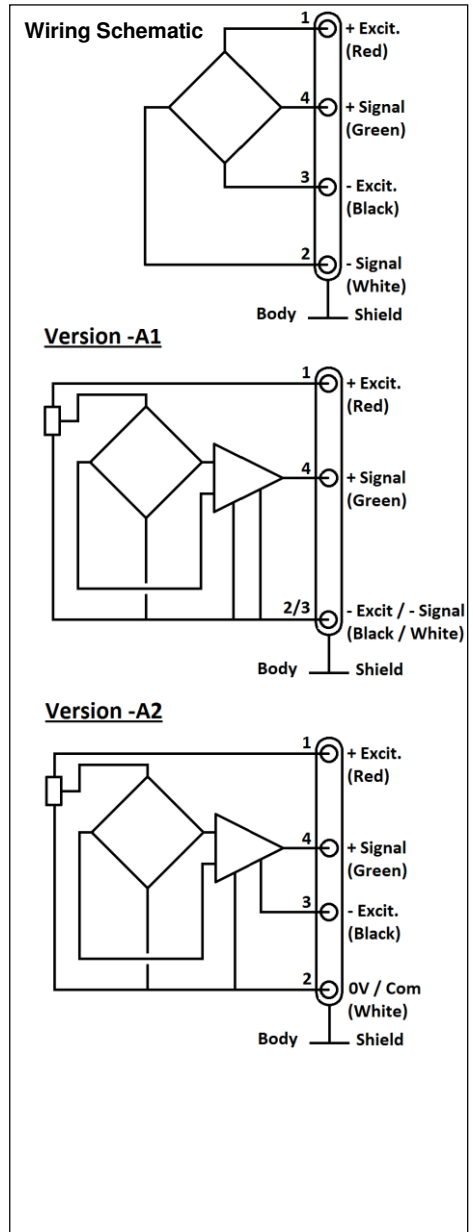
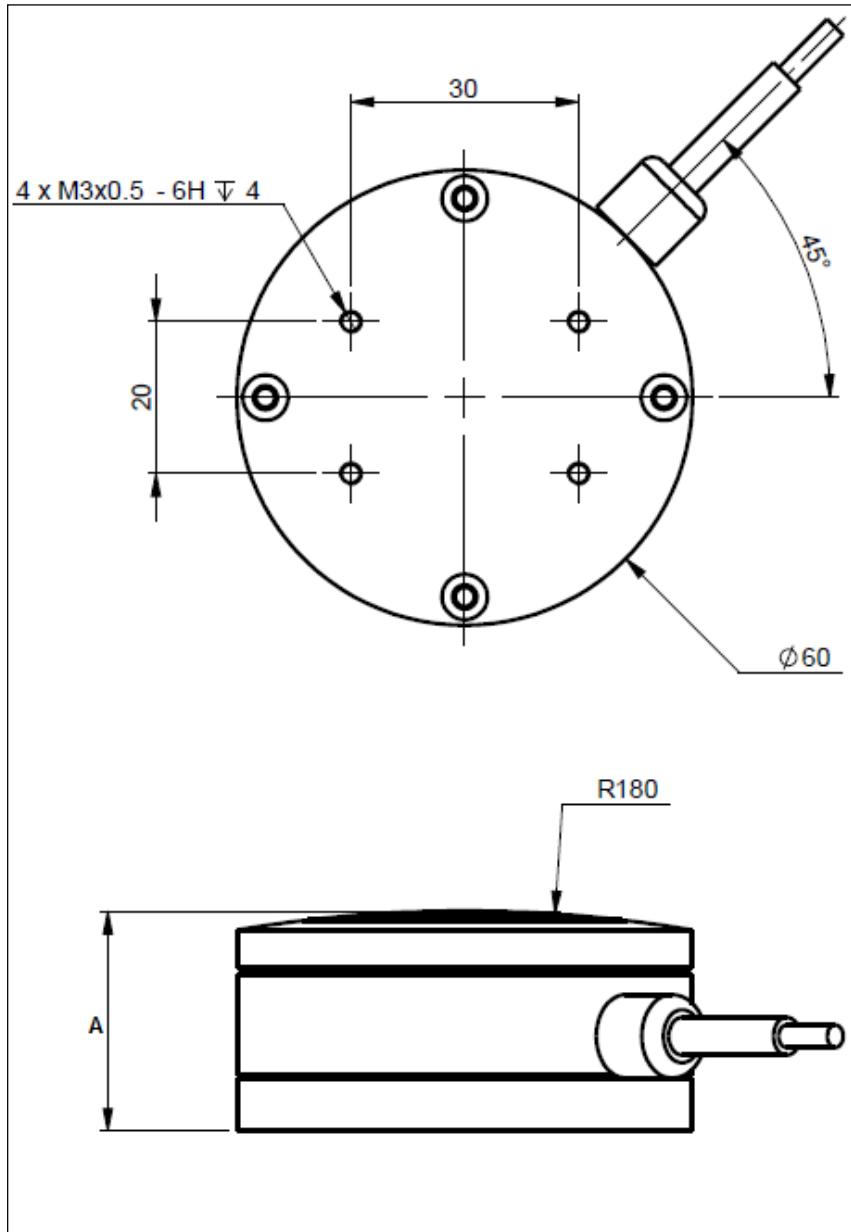
Notes

1. Standard electrical termination: cable gland with Φ3mm shielded cable, 2 meters length
2. Material: aluminum alloy.
3. Protection Index: IP50
4. Other signal output on request
5. Output impedance < 100Ω on request
6. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

FN2114

Pedal Load Cell

DIMENSIONS & WIRING SCHEMATIC (IN METRIC)

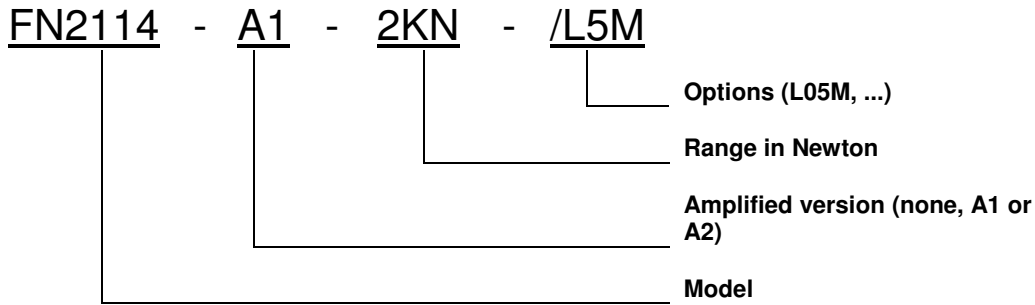


Dimension A :
28 mm for ranges 200N, 500N
29 mm for ranges 1kN, 1.5kN, 2kN, 2.5kN

OPTIONS

L00M : special cable length, 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.