

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.

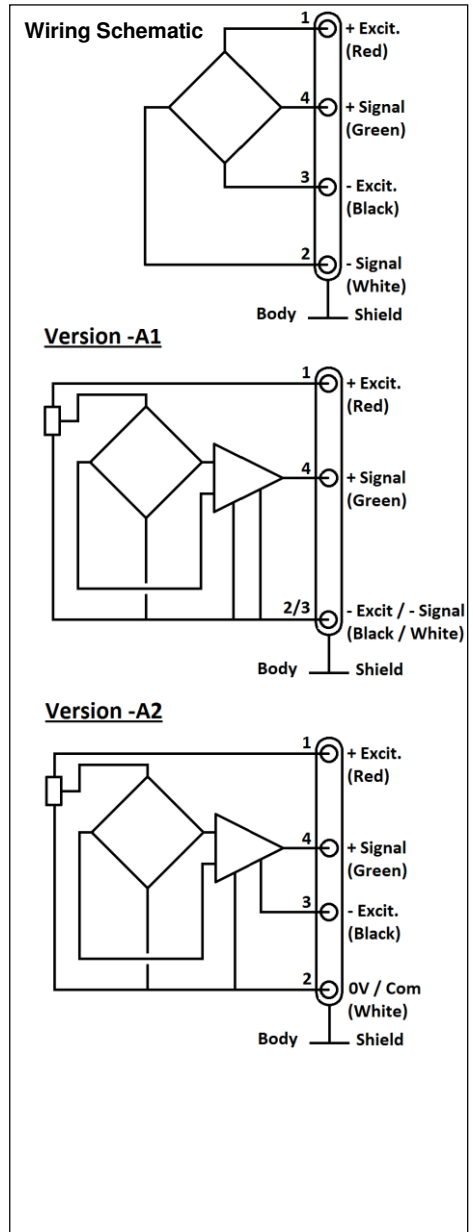
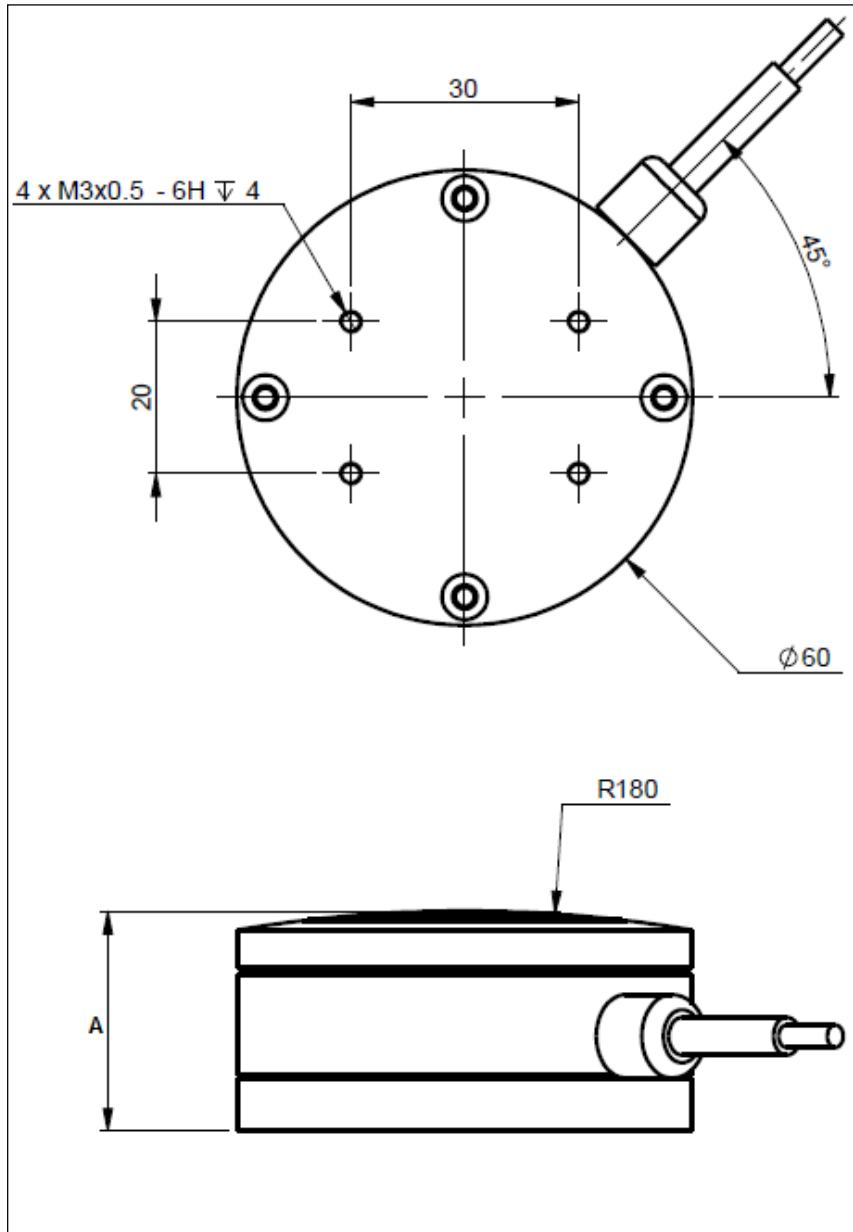
Electrical Characteristics

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 5mm 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

DIMENSIONS & WIRING SCHEMATIC (IN METRIC)

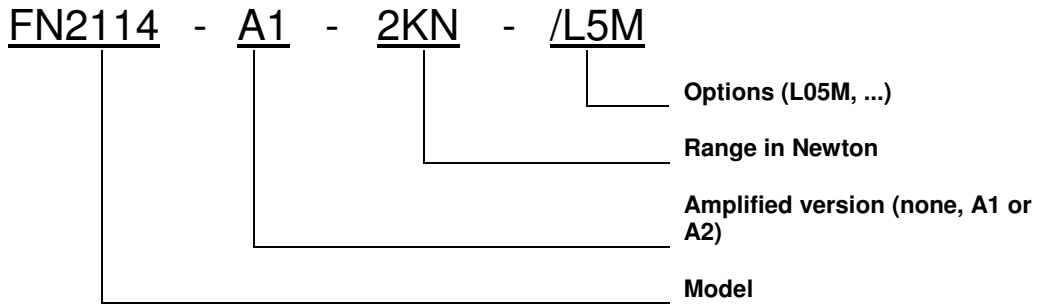


Dimension A :
 28 mm for ranges 200N, 500N
 29 mm for ranges 1kN, 1.5kN, 2kN, 2.5kN

OPTIONS

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

ORDERING INFORMATION



NORTH AMERICA

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

EUROPE

Measurement Specialties (Europe), Ltd.
a TE Connectivity Company
Tel: +33 (0) 800-440-5100
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

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