

FEATURES

- ◆ Compact and ergonomic design
- ◆ Tension measurements
- ◆ High accuracy regardless force application point

APPLICATIONS

- ◆ On-board equipment testing
- ◆ Production quality control
- ◆ Laboratory and Research

FN2317 HandBrake Load Cell

SPECIFICATIONS

- ◆ Ranges 500 N and 1000N (100 and 200 lbf)
- ◆ Compatible with most handbrakes
- ◆ “Easy to mount” through clamping collars
- ◆ High accuracy $\pm 0.5\%$ FS

The **FN2317** is designed with the purpose of allowing quick and easy installation when measuring forces applied to the handle of the hand brake in automobiles. Clamping collars facilitate the prompt and uncomplicated installation of the load cell under the hand brake. As such, the **FN2317** is compatible with most models of hand brakes.

Through careful placement of metallic strain gages inside, the sensors provides accurate measurements regardless of the point of application of force.

With many years of experience as a designer and manufacturer, TE Connectivity (TE) offers solutions to automotive industry and can supply standard or custom 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) | 500 | 1000 |
| Ranges in lbf (FS) | 100 | 200 |

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. |

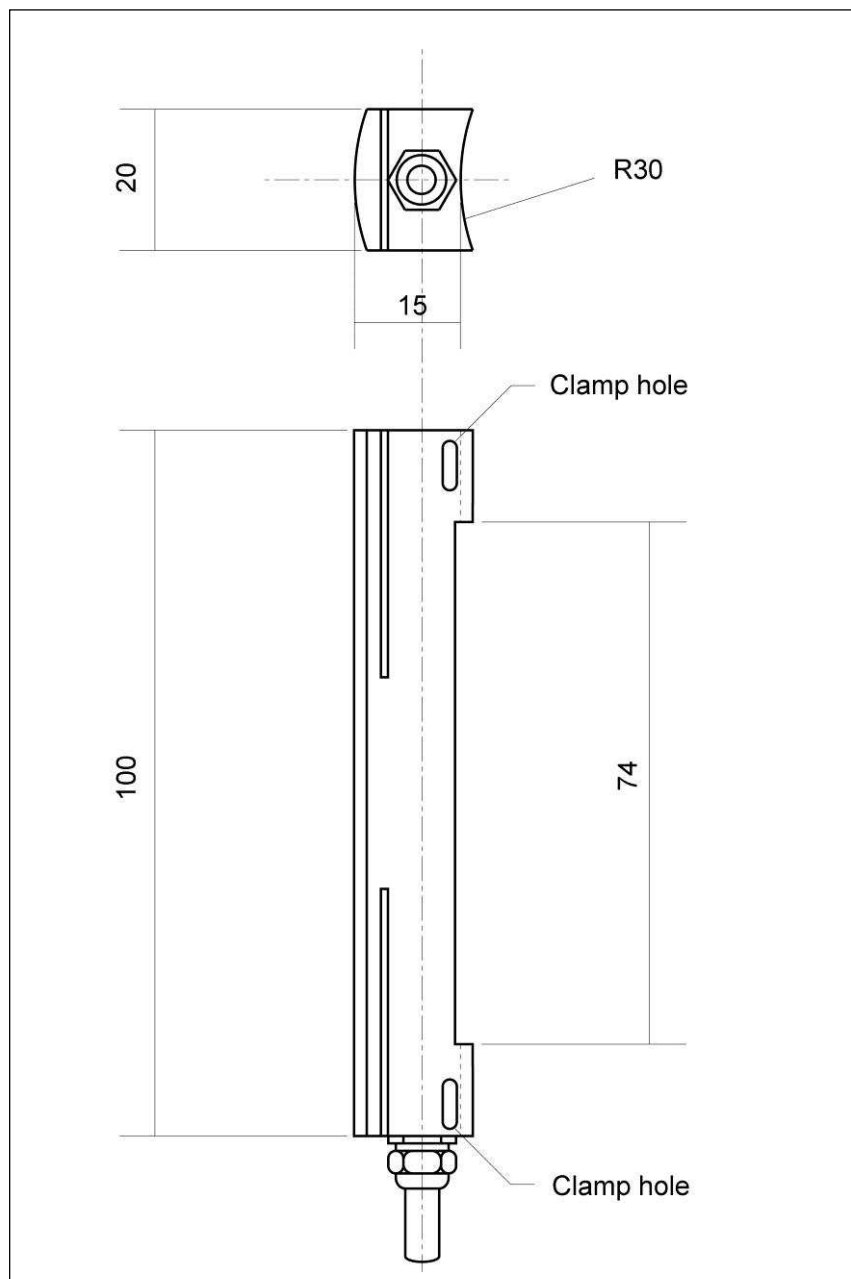
Electrical Characteristics

| Model | FN2317 | FN2317-A1 | FN2317-A2 |
|--------------------------------|-------------|-------------------|------------------------|
| Supply Outage | 10Vdc | 10 – 30Vdc | ±15Vdc (±12 to ±18Vdc) |
| Sensitivity "FSO" ⁴ | ±1.5mV/V | 4V ±0.2V | 5V ±0.2V |
| Zero Offset ⁴ | ±5% F.S. | 0.5V ±0.2V | 0V ±0.2V |
| Input Impedance/Consumption | 350 to 700Ω | <50mA | 50mA |
| Output Impedance | 350 to 700Ω | 1 kΩ ⁵ | 1 kΩ ⁵ |
| Insulation under 50Vdc | ≥100MΩ | ≥100MΩ | ≥100MΩ |

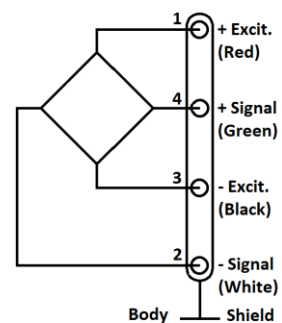
Notes

1. standard electrical termination: cable gland with 5mm shielded cable, 2meters length
2. Material: stainless steel.
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

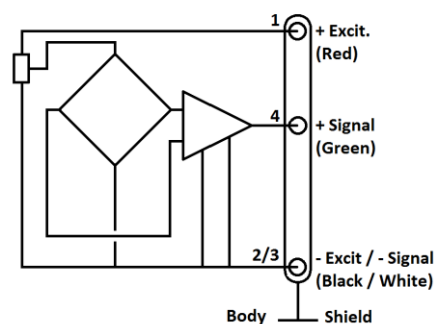
DIMENSIONS & WIRING SCHEMATIC (IN METRIC)



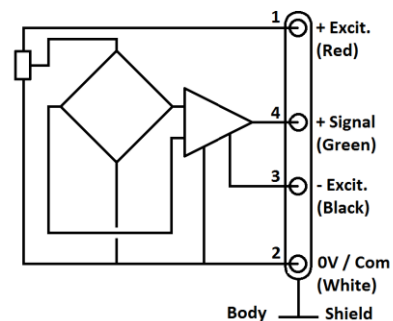
Wiring Schematic



Version -A1



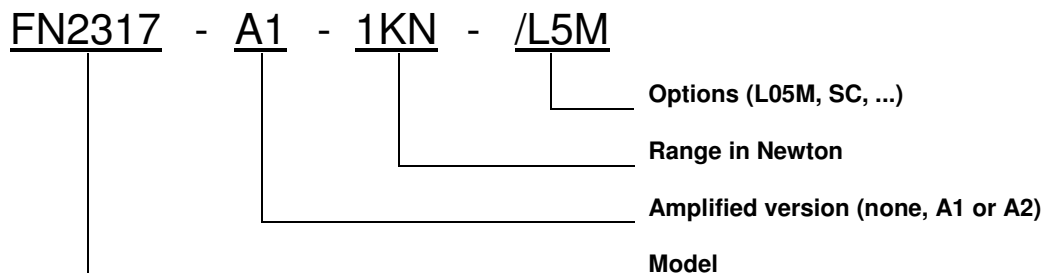
Version -A2



OPTIONS

| |
|---|
| A1 : Amplified Tension output with unipolar power supply |
| A2 : Amplified Tension output with bipolar power supply |
| SC : LEMO Integrated connector output instead of standard cable gland, Mating supplied |
| L00M : Special cable length, replace "00" with total length in meters |

ORDERING INFORMATION



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