FN6163-2 Gearbox Load Cells

- **Compression measurements**
- **Telemetry based transmission**
- **Power supply to sensor via telemetry**
- **System includes FN6114 and FN6115**

DESCRIPTION

The FN6163-2 transducer is part of a whole measurement system, which allows verifying the correct pre-straining of the shafts and differentials in a gearbox. Made to the design of the original short secondary shaft, it accurately measures the axial forces in a typical range of 10 kN.

Through wireless signal transmission and power supply the transducer is extremely easy to mount and use. The system includes FN6162, FN6164 and FN6165 transducers as well as a PC based software for interactive configuration.

For a new example of similar application, which uses a sensor designed as a copy of a complex component, please read also the datasheet of FN7385.

With many years of experience as a designer and manufacturer of sensors, Measurement Specialties, Inc. often works with customers to design or customize sensors for specific uses and testing environments.

FEATURES

- Exact design of the piece it replaces
- High sensor accuracy (CNL&H < 1% FS)
- Optional integrated amplifier
- Minimal cross effects

APPLICATIONS

- Process machine control
- Calibration tool
- Automotive industries

STANDARD RANGES

Model	**FN6163-2**
Range in N **[in lbf]**	10k [2k]

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PERFORMANCE SPECIFICATIONS

All values are typical at temperature 20±1ºC

PARAMETERS	
Operating Temperature Range (OTR)	-0 to 60° C [-4 to 176° F]
Compensated Temperature Range (CTR)	0 to 50º C (32 to 140° F)
Zero Shift in CTR	< 3% F.S. / 50º C [100° F]
Sensitivity Shift in CTR	< 3% of reading / 50º C [100° F]
Ranges (F.S.)	10 kN
Over-Range	
Without Damage	1.5 x F.S.
Accuracy	
Combined non-linearity and hysteresis	±1% F.S.

Electrical Characteristics

Model	**FN6163-2**
Supply Outage	6 – 8.5 Vdc
F.S. Output	4 V ±0.2V
Zero Offset	0.5 V ±0.100 V
Insulation under 50Vdc	≥100MΩ

Notes

1. Electrical Termination: Connector output including mate
2. Wiring schematic depends on the sensor and number of channels
3. Materials: Body in stainless steel cover in aluminium alloy
4. Protection index: IP50

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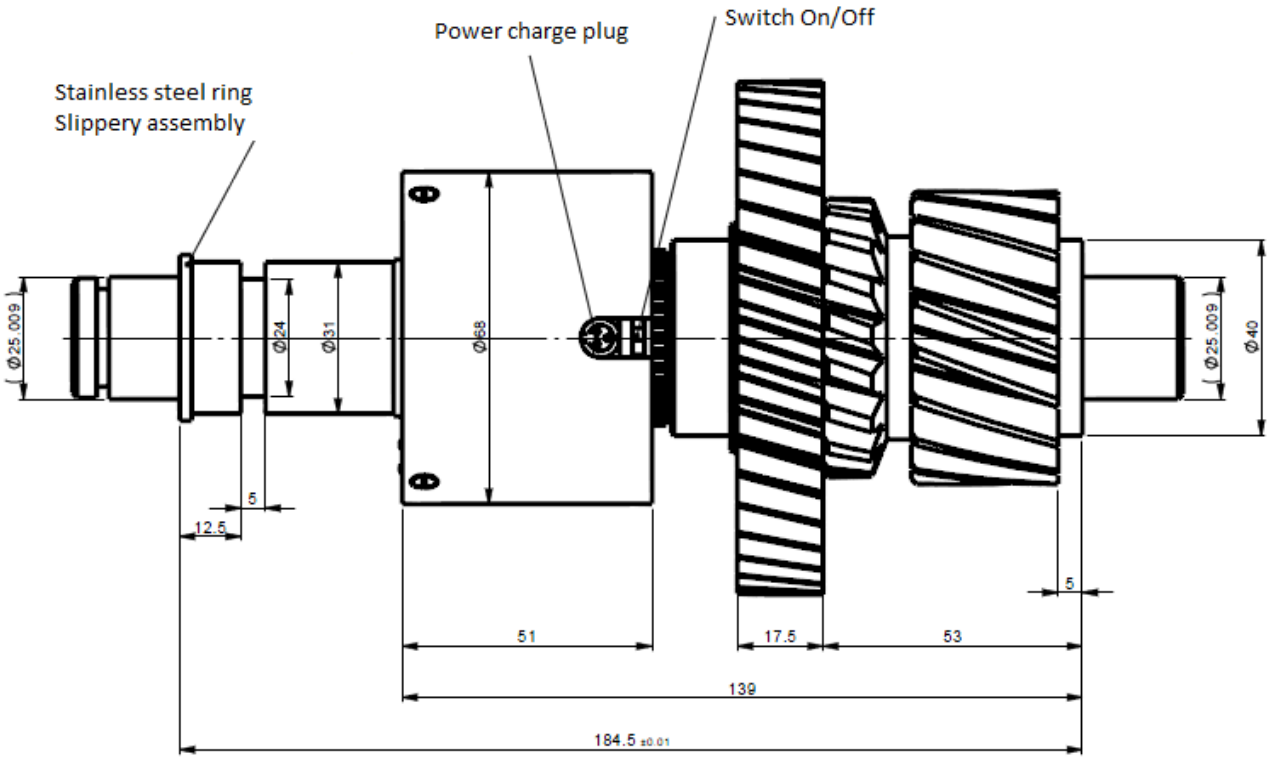
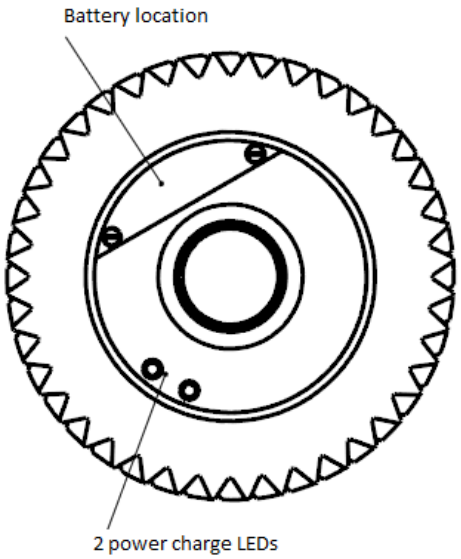
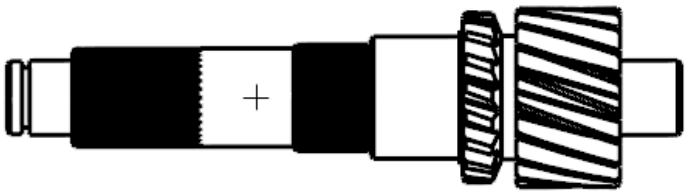
DIMENSIONS & WIRING SCHEMATIC (IN METRIC)







Original mechanic without equipment

Dimensions are in mm.
The drawings correspond to FN6163-2 and can change depending on technical specifications.

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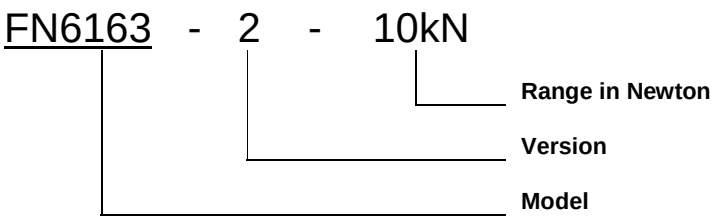
ORDERING INFO



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