Rod end load cell, type 0110

For the exact measurement of tensile and compressive forces

BROSA rod end load cells have a compact design and can withstand even extreme loads thanks to the use of high-strength stainless steel. Thanks to the design variants with internal and external threads for tensile and compressive forces as well as suitable rod ends, the sensor is extremely versatile. Applications under the most difficult environmental conditions are permanently possible for BROSA rod end load cells thanks to proven strain gauge technology and sophisticated amplifiers with reliable and precise measurement results. A calibration that corresponds to the respective installation situation ensures precise measurement and thus high measuring accuracy.

Applications

- Torque support
- Boom pendants
- Test rigs

Features

- Customer-specific design
- Integrated amplifier
- High overload capacity
- Durable design (verification on request)
- Temperature compensated
- High EMC resistance

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Technical data

Accuracy	≤ 0.5 % FS
Measuring range	10 kN to 1500 kN
Limit load	≥ 150 %, optional 300 %
Breaking load	≥ 300 %, optional 500 %
Linearity error	≤ 0.5 % FS
Hysteresis	≤ 0.5 % FS
Reproducibility	≤ 0,1 % FS
Temperature range	-40 to +80 °C
Temperature coefficient	≤ 0,0035 % / °K
Supply voltage	9 to 36 VDC
Output signal	4 to 20 mA, optional redundant CANopen, optional Safety PROFINET, optional PROFIsafe IO-Link, optional redundant PL c
Degree of protection	IP 67, optional IP 69, according to DIN EN 60529
Interference immunity	Up to 200 V/m HF, 100 mA BCI according to ISO 11452, DIN EN 61000-4, ISO 7637
Interference emission	DIN EN 55025
Climatic tests	DIN EN 60068-2
Vibration resistance	DIN EN 60068-2
Electrical connections	M12x1, 5-pins
Electrical protection	Reverse polarity protection, overvoltage protection and short-circuit protection
Material	Stainless steel

Options

Safety classification according to DIN EN ISO 13849-1	PL c, PL d (PL e*)
Explosion protection	ATEX Ex i
Ex classification	II 2G Ex ib IIC T4 Gb / IECEx Ex ib IIC T4 Gb
Passive Design	Output ~ 1 mV / V

Other requirements can be implemented by agreement.
* When used in higher-level systems according to DIN EN ISO 13849-1

ISO 9001
ISO 14001
2014/34/EU