BROSA

Loads of innovation

Tension load cell, type 0111

For the exact measurement of tensile and compressive forces

BROSA tension load cells are made of high-quality fine grained steel. Depending on the requirements, precise measurements with high stability can be achieved even in extreme measurements ranges up to 8000 kN. Thanks to the proven and tested strain-gauge technology and fully developed amplifiers providing reliable and exact measurement results, BROSA tension load cells can be permanently used under the most extreme environmental conditions. BROSA tension load cells are made from one workpiece without welding even in case of one-sided or two-sided yoke ends. A maritime or continental finishing is offered to provide permanent corrosion protection.

Applications

- Boom pendants
- Rope endpoint
- Torque support

Features

- Customer-specific design
- Integrated amplifier
- High overload capacity
- Designed for endurance strength
- Temperature compensated
- High EMC resistance

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Technical data

Accuracy	≤ 0.3 % FS
Measurement range	10 kN to 8000 kN
Maximum load	≥ 150 %, optional 300 %
Breaking load	≥ 300 %, optional 500 %
Linearity error	≤ 0.3 % FS
Hysteresis	≤ 0.3 % 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
Protection class	IP 67, optional IP 69K, 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
Emission	DIN EN 55025
Climate tests	DIN EN 60068-2
Vibration resistance	DIN EN 60068-2
Electrical connections	M12x1, 4-pins
Electrical protection classes	Reverse polarity protection, overvoltage protection and short- circuit protection
Material	Fine grained steel

Options

Safety classification acc. to DIN EN ISO 13849-1	PL c, PL d (PL e)
Explosion protection	ATEX Ex i, Ex d
Passive design	Output ~ 1 mV / V

ISO 9001:2008
ISO 14001:2004

94/9/EG

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