

Tension load cell, type 0111

For the exact measurement of tensile and compressive forces
As type 0113 also in a flameproof Ex version

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 measuring ranges of up to 8000 kN. Applications under the most difficult environmental conditions are permanently possible thanks to proven strain gauge technology and sophisticated amplifiers with reliable and exact measurement results. BROSA tension load cells are manufactured from a single workpiece without welding, even with single or double-sided fork ends. Maritime or continental coatings are offered as permanent corrosion protection. A calibration that corresponds to the respective installation situation ensures precise measurement and therefore high measuring accuracy.

Applications

- Boom pendants
- Rope endpoint
- Torque support
- Offshore, ship and harbor cranes
- Chemical industry
- Petrochemistry

Features

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



Tension load cell, type 0111 / 0113

Technical data

Accuracy	≤ 0.5 % FS
Measuring range	10 kN to 8000 kN; higher on request
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	Fine grained steel

Options

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



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