

Force measuring pin MEMS, type 0201

For the flexible measurement of the rope load in sheaves

BROSA force measuring pins MEMS are a further development of the tried and tested BROSA force measuring pins that enable the direct measurement of the rope load in crane booms. An integrated MEMS sensor allows the calculation of the suspended load depending on the position of the boom. Thanks to the integration of two measurement systems, the complexity of the design can be further reduced. Any possible parasitic influences are thus reduced to a minimum.

Applications

- Pulley head
- Tip of the boom
- Determination of rope load

Features

- Customer-specific design
- Optional integrated angle measurement
- Integrated amplifier
- High overload capacity
- Temperature compensated
- High EMC resistance



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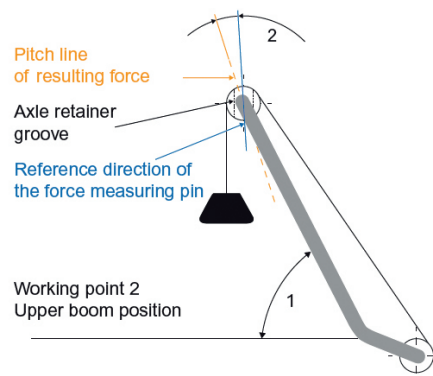
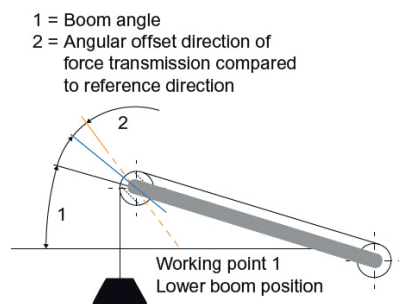
Technical data

Accuracy	≤ 3 % FS
Measurement range	10 kN to 10 000 kN
Maximum load	150 %, optional 300 %
Breaking load	300 %, optional 500 %
Linearity error	≤ 1 % FS
Hysteresis	≤ 1 % 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, CANopen, optional safety
Protection class	IP 66 / 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
Emission	DIN EN 55025
Climatic tests	DIN EN 60068-2
Vibration resistance	DIN EN 60068-2
Electrical connections	M12x1, 5-pins
Electrical protection classes	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 (PI e)*

* Used in parent systems according to DIN EN ISO 13849-1



ISO 9001:2008
ISO 14001:2004



94/9/EG