

Shear force sensor, type 0210

For the precise force measurement at supporting points

BROSA shear force sensors are built based on the shear beam principle and can easily be adapted to the local conditions and requirements. Thanks to their small dimensions shear force sensors can easily be retrofitted both in case of a low installation height and in situations in which an installation had originally not been intended. The shear force sensors are extremely reliable when in permanent use thanks to the robust design made of high-quality stainless steel.

Applications

- Production lines
- Torque support
- Elevating work platforms

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	≤ 0.5 % FS
Measurement range	3 kN to 50 kN
Maximum 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
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	Stainless steel

Options

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



ISO 9001:2008
ISO 14001:2004



94/9/EG