

Shear force sensor, type 0210

For the precise force measurement at supporting points

BROSA shear force sensors are designed on the basis of the shear beam principle and can be easily adapted to local conditions and requirements. Their small dimensions make them easy to retrofit: both for low installation heights and in situations where installation was not originally planned. Thanks to the robust design made of high-quality stainless steel, the shear force sensors are extremely reliable in continuous use. A calibration that corresponds to the respective installation situation ensures precise measurement and therefore high measuring accuracy.

Applications

- Production lines
- Torque support
- Elevating work platforms

Features

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



Shear force sensor, type 0210

Technical data

Accuracy	≤ 0.5 % FS
Measuring range	3 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
Measuring direction	Positive and / or negative (+ / -)

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