X-Y load pin, type 0201

For measuring forces with an unknown direction and magnitude
As type 0203 also in a flameproof Ex version

BROSA X-Y load pins are a further development of the proven BROSA force measuring pins. They make it possible to determine the resulting force as a function of the forces in the X and Y directions. By integrating two measuring systems, the complexity of the design can be further reduced. Possible parasitic influences are thus reduced to a minimum. A calibration that corresponds to the respective installation situation ensures precise measurement and therefore high measurement accuracy.

Applications

- Guide rollers
- Cable end
- Chassis
- Mechanical engineering
- Hydraulic / pneumatic cylinders
- 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

X-Y load pin, type 0201 / 0203

Technical data

Accuracy	≤ 1 % FS
Measuring range	20 kN to 10 000 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 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 db IIC T4 Gb / IECEx Ex db 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