Web Tension Sensor BZR5

Scope of supply
Force sensor in flange design
with 5 m cable (PVC) and
connection variant S1: Plug connection,
right angled, M12, metal

Variant
T: Cable gland, straight with
flexible spring cable shield

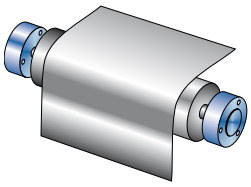
Additional Option
F: For use in explosive areas,
incl. J-Box

Additional Accessories
Sealing ring
Self-aligning ball bearing
2 Snap rings
Bearing support blocks

Special Features

- High overload protection - due to mechanical stops
- Small space requirement
- High Accuracy
- Stainless steel design possible

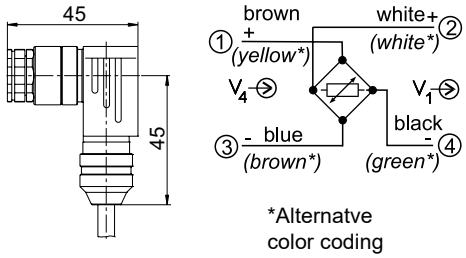
The radial force sensors BZR5 are suitable for the direct measurement of large and very large tension forces which occur in the manufacturing and further processing of web shaped materials. The devices are used in the conventional device for the measurement of front tension forces. Depending on the flow of the web and the distribution of the load, the measuring rolls can be equipped with single or pairs of sensors.



The sensors are of a compact flange design and suitable for a variety of applications. The sensors basically consist of the seat of the bearing, the measuring elements and the housing with cover disks. The measuring elements function according to the transverse beams principle. The acting forces are captured by strain gauges applied to the measuring elements. The full bridge strain gauge are designed for maximum signal usage and temperature compensation. HAEHNE offers for all its sensors a corresponding range of amplifiers to condition the measuring signal and deliver the bridge voltage supply. Optional multiple metallic coatings of the housing and the potted electrical connections make them suitable for measurement under extreme environmental conditions and aggressive media.

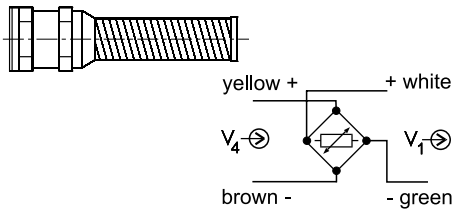
Connections

Variant S1



*Alternatve
color coding

Variant T



V_4 Supply voltage
V_1 Signal voltage

Ordering Data

BZR5-80A25k-T

Type
Size
ø Shaft
Design
Nominal force
Variants / Options

HAEHNE Elektronische Messgeräte GmbH · Heinrich-Hertz-Str. 44 · D-40699 Erkrath Germany · Telefon 0211/9 2591-0 · Fax 0211/9 2591-20
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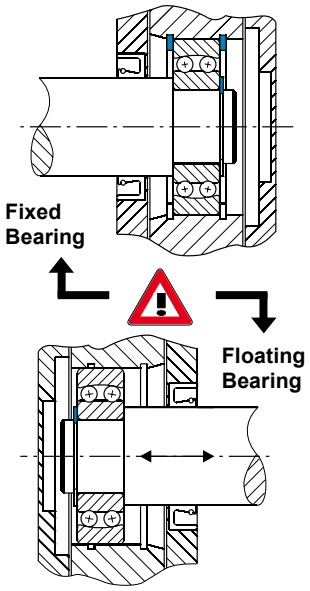
BZR 5

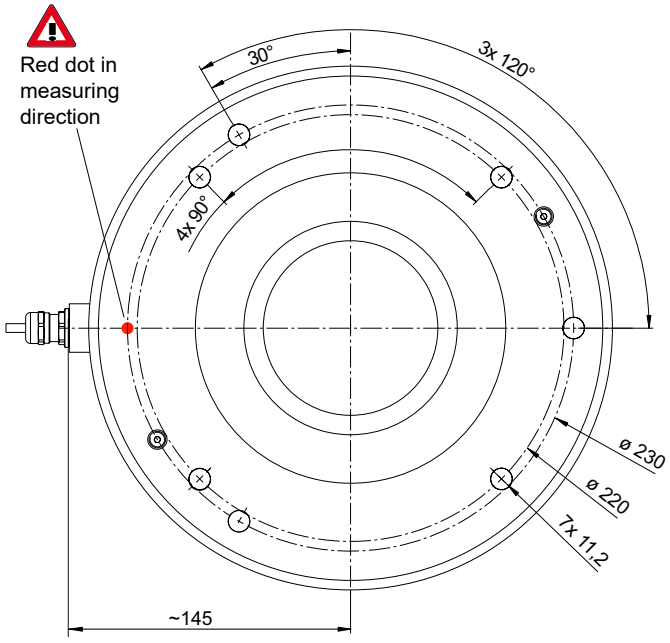
HAEHNE

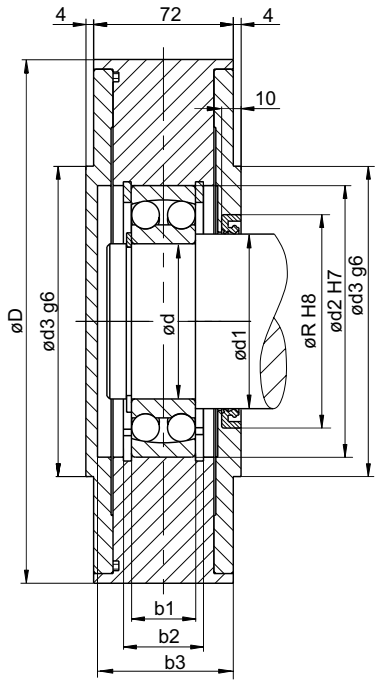
Technical Data	Values (%) based on nominal force
Size	5
Nominal force (Measuring range)	5; 10; 25 kN
Max. operating force	160 %
Absolute max. force	1000 %
max. axial force	50 %
max. transversal force	50 %
Nominal rating	1 mV/V
Combined error	0,5 %
Reproducibility	0,1 %
Nominal ambient temperature	+ 10 ... + 60° C (+50...+140° F)
Operational temperatue range	- 10 ... + 70° C (+14... +158° F)
Nominal resistance of strain gauge bridge	700 Ω
Bridge supply voltage	10 V DC
Enclosure protection	Variante S1: IP 67

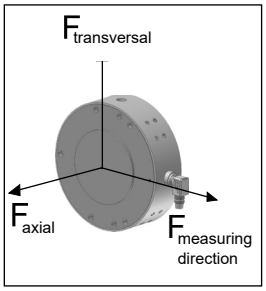
Installation Notice



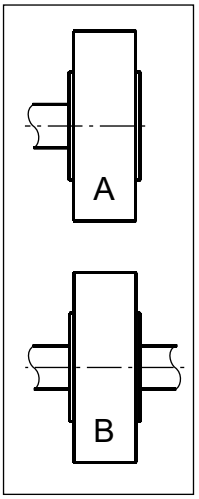
Bearings and shaft sealing ring are not contained in the scope of supply







Design



Size	Nominal Force [kN]	d	d1	d2	d3	D	b1	b2	b3	R	recom. bearing
5	5; 10; 25	65	75	120	160	270	31	39,3	69	90	2213
		70	80	125			31	39,3		100	2214
		75	85	130			31	39,3		130	2215
		80	90	140			33	41,3		110	(2)2216
Self-aligning ball bearing											

Technical modifications reserved

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