

Web Tension Sensor BZA

Scope of supply

Force sensor in flange design
with 5 m cable (PVC) and
connection variant S:
Plug connection, right-angled, MIL

Variants

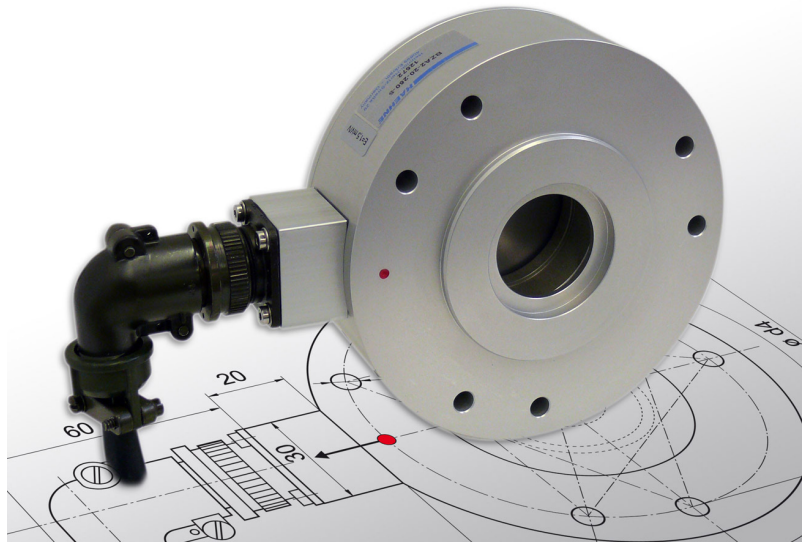
S1: Plug connection, right-angled,
M12, metal
S2: Plug connection right-angled,
M12, moulded

Additional Options

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

Additional Accessories

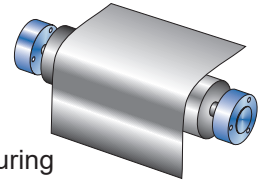
Sealing ring*not in explosive areas
Self-aligning ball bearing
2 Snap rings
Bearing support blocks



Special Features

- Very cost effective solution
- Light weight design made of high-strength aluminium
- Nominal force ranges follow the geometric progression
- Up to tenfold overloading

The force sensors of the BZA series are suitable for the direct measurement of front tension forces which occur in the manufacturing and further processing of web shaped materials.

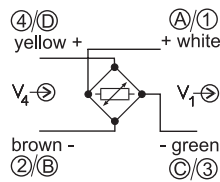
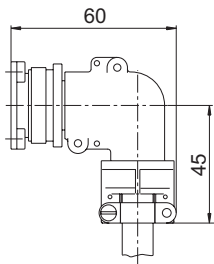


The sensors are used like any common flange house bearings for the measurement of tension forces. Depending on the flow of the web and the distribution of the load, the sensors can be used single sided or as a pair of sensors.

The radial force sensors of the series BZA are manufactured very cost effectively in a proprietary process. They consist primarily of three parts: a flange housing, the inner seat of bearing, and a closed cover disk. The inner seat of bearing serves also as double beam measuring element of high linearity and stiffness. The strain gauges wired as full bridges deliver a signal proportional to the force. HAEHNE offers for all its sensors a corresponding range of amplifiers to condition the measuring signal and deliver the bridge voltage supply.

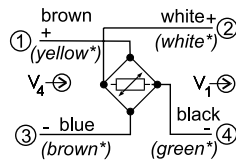
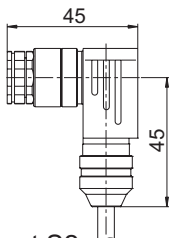
Connections

Variant S



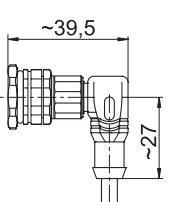
V_4 Supply voltage
 V_1 Signal voltage

Variant S1



* Alternative color coding

Variant S2

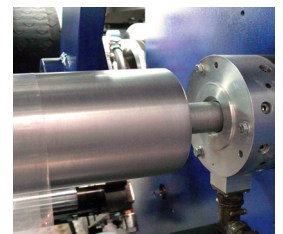


Ordering example

BZA1-15-400-SF

Type	
Size	
Shaft- $\varnothing$	
Nom. force	
Variants/ Options	

Individual coloring on request



Values (%) based on nominal force

*Nominal ambient temperature	+10... +60° C (+50...+140° F)
*Operational temperature range	-10... +70° C (+14... +158° F)
*) A cable in motion reduce the value to 50° C (122 °F)	
Nominal resistance of strain gauge bridge	1000 Ω
Max. bridge supply voltage	10 VDC
Sensor cable (standard)	PVC grey, 4 x 0,34 mm²
Protection class with sealing ring	Variant S - IP50
	Variants S1, S2 - IP67



BZA PB EN 08 18.indd

Dimensions in mm (1 mm = 0.03937 inches)

Technical modification reserved