

Product Description

Web Tension Sensor BZH

Special Features

- Compact design
- Easy modification to different bearing designs and sizes
- High overload protection utilising mechanical stops
- High resonant frequency

Scope of Supply

Web tension sensor with fixed cable (PVC), 5 m in length with straight receptacle as standard (Option T)

Additional Accessories

- **Option L:** Right angle receptacle
- **Option S:** Right angle plug
- **Option F:** Use in potentially explosive atmospheres with connection version T (Adaption Modul J-Box contained in the scope of supply)



Application

Direct measurement of web tension forces, e.g. in moving webs of paper, textile, plastic, metal

The web tension sensors of the series BZH are of a compact pillow block design and suitable for a variety of applications.

The sensors basically consist of two mounting plates which are connected by measuring elements. The mounting plates are designed to accommodate pillow block bearings of the following manufactures: INA, FAG, SKF and NSK.

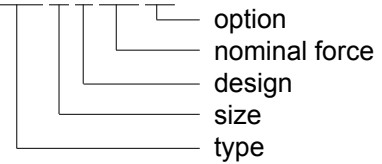
The measuring elements function according to the double beam principle. The acting forces are captured by strain gauges applied to the measuring elements.

HAEHNE offers for all its sensors a corresponding range of amplifiers to condition the measuring signal and deliver the bridge voltage supply. The signals at the output terminals of the amplifier are proportional to the acting horizontal force. They can be digitally displayed or used as instantaneous values in a closed control loop.

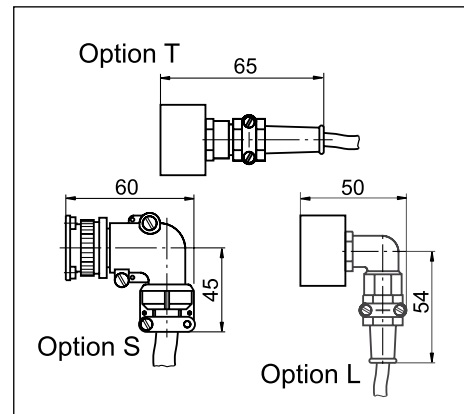
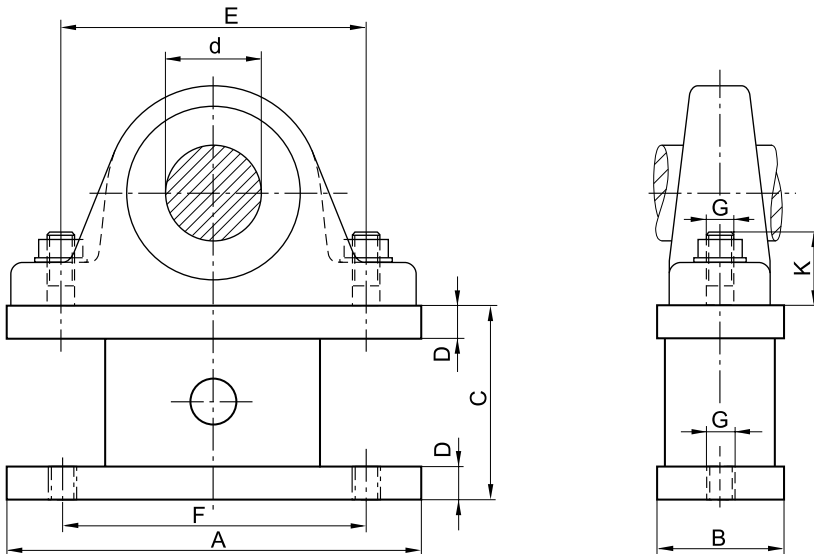
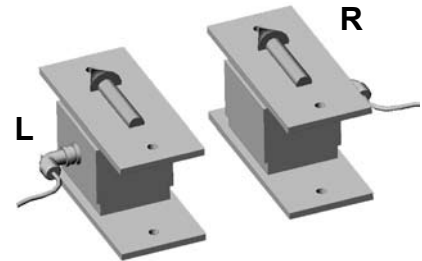
Technical Data	Values (%) based on nominal force		
Sizes 15 to 40	160 N to 1600 N		
Sizes 50 to 75	630 N to 6300		
Max. operating force	160 %		
Absolute max. force	1000 %		
Nominal ratings (with option F: J-box necessary)	1,5 mV / V		
Combined error	0,5 %		
Reproducibility	max. ± 0,1 %		
Non-linearity	max. ± 0,3 %		
Hysteresis	max. ± 0,3 %		
Zero drift	max. 50 ppm / °C		
Nominal ambient temperature	+10 ... + 60 °C		
Operational temperature range	- 10 ... + 75 °C		
Nominal resistance of the strain gauge bridge	700 Ω		
Bridge supply voltage	10 VDC		
Special enclosure protection	IP 67		
Enclosure protection	Standard T IP 52	Option S IP 50	Option L IP 54

Ordering Example:

BZH15R160-TF



When ordering please specify „L“ (left) or „R“ (right) in order to determine unequivocally the measurement direction and the cable connector exit.



***Examples of suitable bearings**

FAG - SG2xxS

INA - ASExx

NSK - P2xx

SKF - SY5xxM

SKF - SYJ5xx

Size	Nominal force F _{nom} [N]	Axis d [mm]	Bearing- typ*	Dimensions [mm]							
				A	B	C	D	E	F	G	K
15	160 250 400 630 1000 1600	12/15/17	xx=03	130	55	80	10	95	115	M10	30
20		20/25	xx=04/05	140	55	80	10	100	120	M10	30
30		30/35	xx=06/07	170	60	90	15	124	124	M12	35
40		40/45	xx=08/09	195	60	90	15	142	142	M12	35
50	630 1000 1600 2500 4000 6300	50	xx=10	210	70	117	16	155	155	M16	35
55		55	xx=11	225	70	125	20	175	175	M16	45
60		60	xx=12	245	70	125	20	185	185	M16	45
70		65/70	xx=13/14	270	80	135	25	205	205	M20	55
75		75	xx=15	280	80	135	25	215	215	M20	55