

## Force Sensor BZV-K01 and 02

### Scope of Supply

Web tension sensor in pillow block design with 5 m cable (PUR) and connection variant T: cable gland, straight

### Variant

N2: Plug connection, straight, M12, moulded

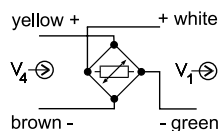
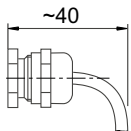
### Additional Options

E: Design for flatness measuring roll, grinded pairwise  
 U: Metal protection hose, fixed connected  
 F: For use in explosive areas incl. J-Box

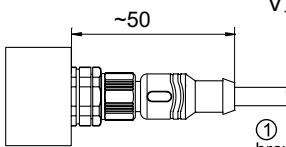


### Connections

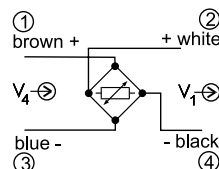
#### Variant T



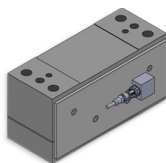
#### Variant N2



$V_4$  Supply voltage  
 $V_1$  Signal voltage



Plug shows towards the center



### Additional Option

#### Option U



### Ordering Example: BZV-K02-50k-TE

Type	
Size	
Nominal force	
Variants/ Options	

### Special Features

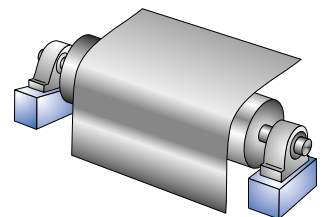
- Nominal force from 5 up to 100 kN
- Compact design
- Easy modification to different bearing designs and sizes
- High overload protection utilizing mechanical stops
- Torsion resistant measuring block made of stainless steel

The web tension sensors of the series BZV-K are of a compact pillow block design and suitable for a variety of applications. The sensor is mounted in between the pillow block bearing and the machine frame.

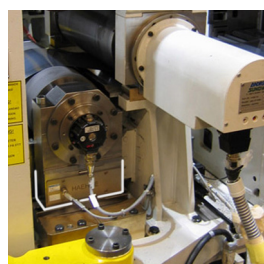
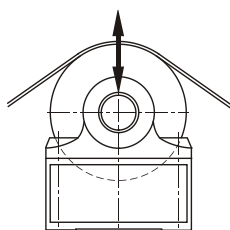
All BZV - devices capture the vertical forces of web tension.

The voltage supply to the full bridge and the processing of the measuring signals is effected by way of a suitable amplifier of the standard HAEHNE product program.

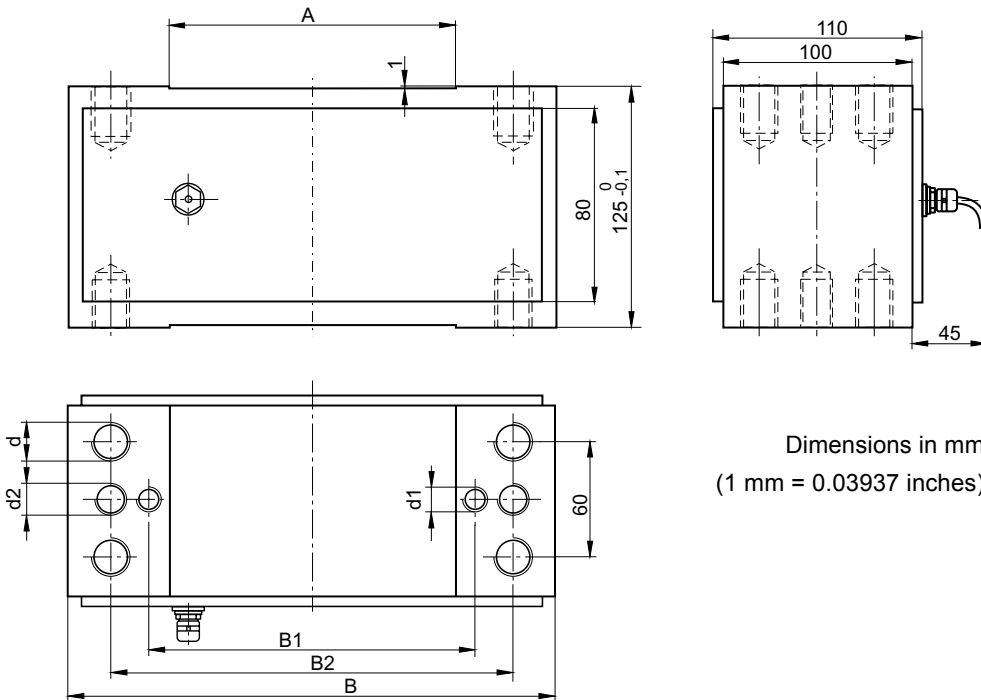
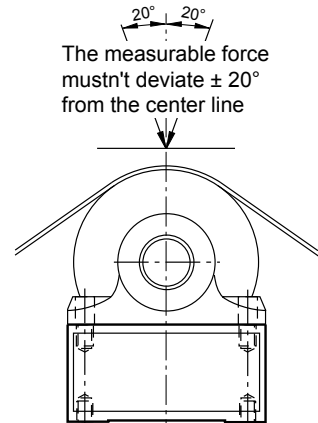
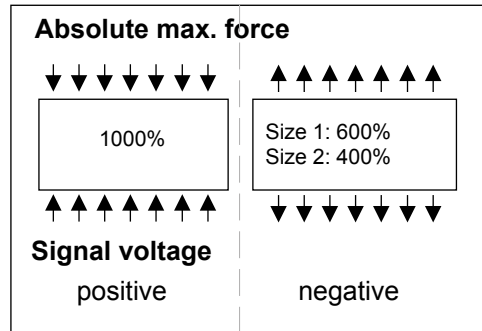
The signals at the output terminals of the amplifier are proportional to the acting vertical force. They can be digitally displayed or used as instantaneous values in a closed control loop.



Measuring direction of sensor



Technical Data		% Values based on nominal force
Measuring range		5; 10; 20; 50; 100 kN
Max. operating force		160 %
Absolute max. force		1000 %
Nominal ratings:	Standard Option E	1,0 mV / V 0,5 mV / V
Combined error		0,5 %
Reproducibility		max. ± 0,05 %
Non-linearity		max. ± 0,3 %
Hysteresis		max. ± 0,3 %
Zero drift		max. 50 ppm / C°
Nominal ambient temperature		+ 10 ... +60° C (+50...+140° F)
Operational temperature range		- 10 ... +70° C (+14... +158° F)
Nominal resistance of the strain gauge bridge		700 Ω
Max. bridge supply voltage		10 VDC
Enclosure protection		IP 67
Weight size 01; 02 in kg		25; 33



Dimensions in mm  
(1 mm = 0.03937 inches)

**Option E:** Dimensions and tolerances as attached drawing

Size	Measuring Range	A	B	d*	B1	d1	B2	d2
01	5; 10; 20 kN	130	255 <sup>0</sup> <sub>-0,2</sub>	M20x30	170 ±0,2	M12x20	210 ±0,2	M16x24
*available for fixing additional mounting plates					for pillow block ø 35 ...45 mm		for pillow block ø 40 ...55 mm	
02	10; 20; 50; 100 kN	150	345 <sup>0</sup> <sub>-0,3</sub>	M20x30	230 ±0,2	M16x24	290 ±0,2	M20x30
*available for fixing additional mounting plates					for pillow block ø 50 ...65mm		for pillow block ø 65 ...85mm	