

Force measuring bearing BZU-series

Stainless steel version, protection class IP67

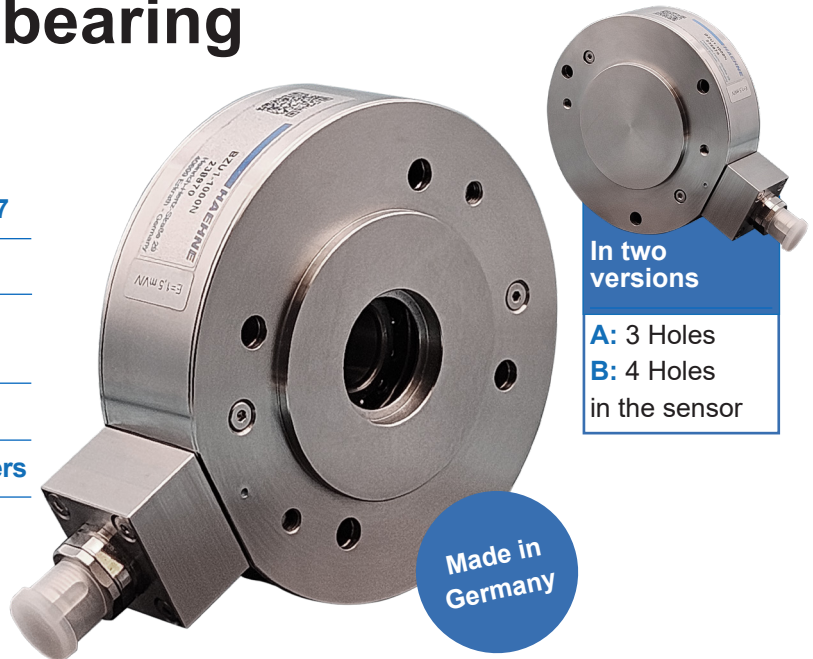
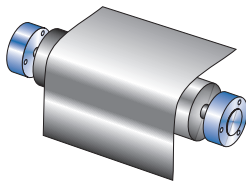
High degree of protection and accuracy

**High overload capacity
due to mechanical stops**

Low space requirement

Compatible with modern strain gauge amplifiers

Mounting type



**In two
versions**

A: 3 Holes
B: 4 Holes
in the sensor

**Made in
Germany**

FORCE MEASURING BEARING

The force measuring bearings in the **BZU-series** are designed to measure the tensile forces that occur during the production and processing of web materials. The flange bearing design is ideal for mounting on machine walls, but can also be mounted in conjunction with bearing blocks like a pedestal bearing. The force measuring sensors essentially consist of the bearing seat, the sensor elements and the housing with side covers.

The measuring elements are arranged according to the double bending beam principle. The forces acting on the bearing are recorded there recorded with strain gauges. For optimum signal utilization and temperature compensation the strain gages are connected to a full bridge. A downstream amplifier from the **HAEHNE** range processes the measurement processing the measurement signals and supplies power to the strain gauge full bridge.

OPTIONS

Angled plug connection

S1: M12 (Metal)

S2: M12 (injected)

Straight connector

N1: M12 (Metal)

N2: M12 (injected)

Plug connection with cable

W5: 5m cable

W10: 10m cable

W20: 20m cable

ADVANCED OPTIONS

F Designed for operation in hazardous area, incl. J-Box

Elevated temperature

H1: up to 120°C

Increased accuracy

G2: 0,2%

L1: grease nipple

Increased protection class

Q1: for greases and oils

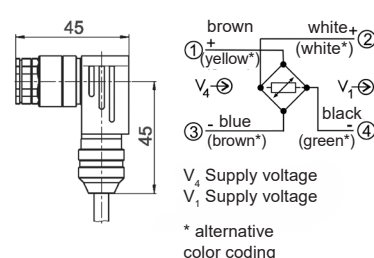
Q2: for acids and alkalis

Vacuum version

V: up to 10⁻⁷ millibar

CONNECTION

Cable socket S1



ORDERING EXAMPLE

BZU1-17A4-400-S1

Type

Size

Shaft journal ø

Design

Cover

Nominal force

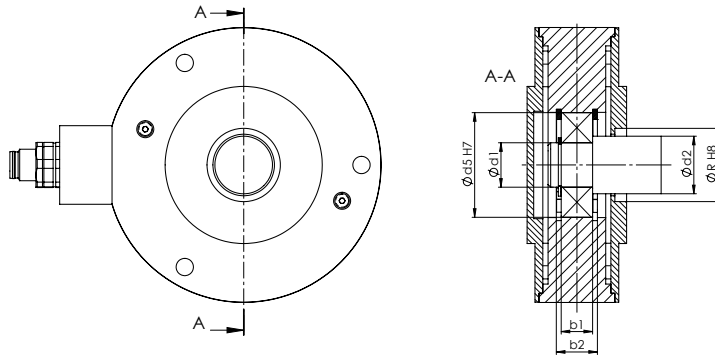
Variants/Options

SCOPE OF DELIVERY

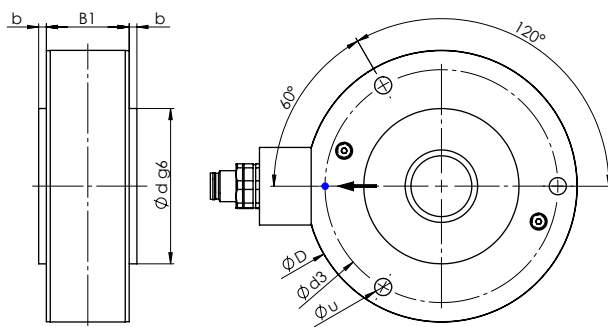
Force measuring bearing in flange design with 5 m cable (PVC) and connection variant S1: plug connection, angled, M12, metal

ADDITIONALLY AVAILABLE

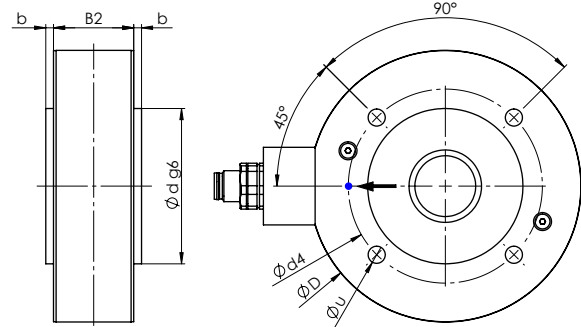
- Shaft seals*not in hazardous areas
- Various bearings
- Circlips
- Bearing pedestal



Size	Nominal force F [N]	$\varnothing d1$	$\varnothing d2$	$\varnothing d5$	$\varnothing R$	b1	b2	Bearing
BZU1	200; 500; 1000	15	20	35	26	11	14,2	1202
		17	22	40	28	12	15,7	1203
BZU2	250; 500; 1000; 2000	20	25	52	32	15	19,3	1304
		25	32	52	42	15	19,3	1205
BZU3	500; 1000; 2500; 5000	35	45	80	68	21	26,3	1307
		40	50	80	70	18	23,3	1208
BZU4	2500; 5000; 10000; 15000	50	65	110	85	27	35,3	1310/21310
		60	70	110	90	28	36,3	2212/22212



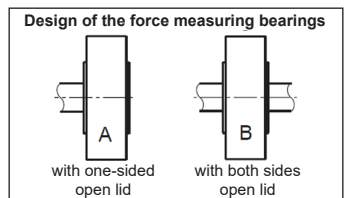
3-HOLE VERSION



4-HOLE VERSION

Size	$\varnothing D$	$\varnothing d$	b	$\varnothing u$	$\varnothing d3$	B1	$\varnothing d4$	B2
BZU1	105	60	3	6,6	90	32	75	31
BZU2	125	70	4	6,6	105	40	95	40,1
BZU3	175	100	4	9	155	57	135	57,9
BZU4	225	130	4	11	200	67	175	67,9

Technical data	% values related to the nominal force
Sizes	1, 2, 3, 4
Nominal forces (kN)	50 ... 15.000 N
Max. Working force	160%
Limit force	2.000%
Nominal characteristic value	1,5 mV/V
Accuracy	$\pm 0.2 \%$
Reproducibility	0,05%
Measuring range	100:1
Nominal temperature range	+10...+60°C
Service temperature range	-10...+70°C
Bridge resistance	1000 Ohm
Max. Supply voltage	10 VDC
Protection class	up to IP 67
Material	Stainless steel



Installation instructions (fixed/floating bearing) see practical guide



follow us on
LinkedIn