

Force gauge ZW 5.0



Factory calibrated
Measurement ranges of 500 N to 5000 N
Measure the top load in positive
and negative direction of force

Tensile and compression applications
Force measurement in many different fields

Designed,
developed and
made in Germany

This fully electronic force gauge is suitable for measuring tensile and compression forces. It is available for various measurement ranges between 500 N and 5000 N. The force gauge consists of a miniature sensor and a hand-held terminal which are connected by a spiral cable. The display of the hand-held terminal can show the current measured values as well as the peak values of both load directions.

The sensor, a shear-force load cell, is insensitive to transverse forces. This ensures that the force gauge provides very accurate measurements. In many applications where space is limited, the miniature version of the shear-force load cell is extremely useful. The two mounting threads on the sensor offer numerous installation possibilities; we offer spherical rod ends and eyebolts as accessories to aid installation.

You can request the firmware version, the date of the last calibration and the serial number of your device via an easy-to-use menu. In this menu, you can also set the auto-off time for saving the batteries, the desired measuring rate and the display contrast.

Four batteries of type AA which can be easily replaced by the user supply the force gauges with power.

Technical data

Type	ZW 5.0 / 500 N	ZW 5.0 / 1000 N	ZW 5.0 / 2000 N	ZW 5.0 / 3000 N	ZW 5.0 / 5000 N
Nominal load [N]	500	1000	2000	3000	5000
Overload	1.2x nominal load				
Display	12digits, 2 lines				
Sensitivity/display increments* [N]	0.1	1	1	1	1
Accuracy	±0.25% f.s. ** (under tension <i>or</i> compression)				
Operating temperature	0°C to +50°C				
Storage temperature	-20°C to +70°C				
Measuring rate	configurable: 10, 20 or 100 Hz				
Power supply	4 x battery type AA				
Operating time	> 8 h continuous operation				
Auto off time	configurable: 8, 30, 60 min / off				
Dimensions of the transducer [mm]	L 40 x W 20 x H 40				
Mounting thread	2 x M8		2 x M10		
Hand terminal's dimensions [mm]	L 145 x W 78 x H 44				
Material of the transducer	Alu			Steel	
Housing of the hand terminal	ABS				
Total weight (without accessoires) [kg]	0.5			0.6	
Cable	Unitronic LiYD11Y, 4 x 0.14 mm ² , length 0.5 m (extended 4 m)				
Protection class of the transducer	IP 67				
Protection class of the hand terminal	IP 40				

* other sensitivities on request

** f.s. = full scale value



Calibration

- » Factory calibrated
- » Under tension and/or compression
- » Display in N
- » Optional: ISO or DAkkS calibration

Options

- » Mechanical overload protection for compression loads

Accessories for ZW 5.0

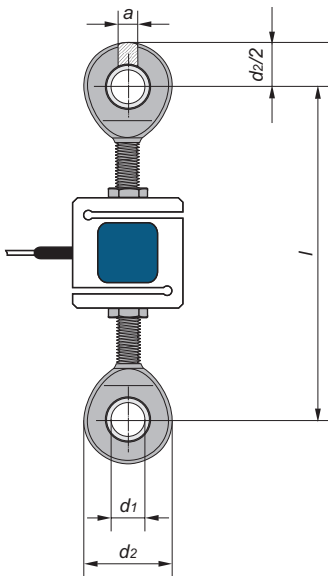
Product	Description	Figure	
Spherical rod ends (for adaption)	EM8 for ZW 5.0 / 500 N / 1000 N EM10 for ZW 5.0 / 2000 N / 3000 N / 5000 N		○
Eyebolts (for adaption)	Thread M8 for ZW 5.0 / 500 N / 1000 N Thread M10 for ZW 5.0 / 2000 N / 3000 N / 5000 N		○
Carrying case	Plastic material, for one force gauge		○
Extension connection cable	Length 5 m, including connection socket hand-held terminal		○

● requirement | ● requirement / selection | ○ optionally available

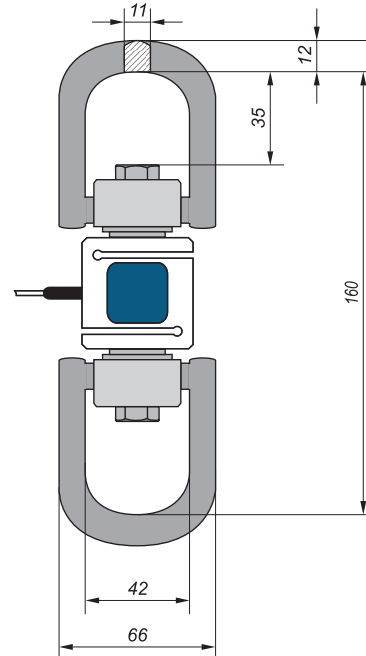
Dimensions ZW 5.0 with accessories

Dimensions in mm

Transducer with spherical rod ends (optional)



Transducer with eyebolts (optional)



Type	ZW 5.0 / 500 N / 1000 N	ZW 5.0 / 2000 N / 3000 N / 5000 N
a [mm]	5	6
l [mm]	110	122
d1 [mm]	8	10
d2 [mm]	23	28