

**Description**

This fully electronic scale is suitable for measuring tensile and compressive loads. It is available for various load ranges between 50 kg and 500 kg. On request, this scale can be supplied for use as a force sensor; the load ranges are then between 500 N and 5000 N. The dynamometer consists of a miniature sensor and a hand display which are connected by a spiral cable.

The sensor, a shear-force load cell is insensitive to transverse forces. This ensures that the scale 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.

A 9V block battery, which can be quickly and easily changed by the user, supplies power to this dynamometer. To conserve the battery, the scale switches off automatically after 8 min if the load does not change.

Features

- | Low weight of scale
- | Nominal loads: between 50 kg and 500 kg, or between 500 N and 5000 kN
- | Taring
- | Call up for maximum reading
- | 9V block battery
- | Spherical rod ends and eyebolts as optional accessories

Applications

- | Dynamometer
- | Force sensor
- | Tensile and compressive applications
- | Weighing operations or force measurement in many different fields

Selection table

Type	Nominal load	Sensitivity / display increments	Mounting threads	Weight of scale (without mountings)	Material of sensor
ZW 5.0 / 50	50 kg / 500 N	0.01 kg / 0.1 N	2 x M8	0.5 kg	Al.
ZW 5.0 / 100	100 kg / 1000 N	0.1 kg / 1 N	2 x M8	0.5 kg	Al.
ZW 5.0 / 200	200 kg / 2000 N	0.1 kg / 1 N	2 x M10	0.5 kg	Al.
ZW 5.0 / 300	300 kg / 3000 N	0.1 kg / 1 N	2 x M10	0.6 kg	Steel
ZW 5.0 / 500	500 kg / 5000 N	0.1 kg / 1 N	2 x M10	0.6 kg	Steel

Technical data

Overload	1.2x nominal load
Measurement rate	10 measurements / sec
Display	4-figures
Accuracy	±0.25 % f.s.
Power supply	9V-block battery
Operating period	8 h continuous
Auto off time	8 min
Operating temperature range	0 °C to +50 °C
Storage temperature range	-20 °C to +70 °C
Degree of protection	
of hand display	IP 40
of sensor	IP 67
Housing of hand display	ABS
Dimensions of hand display	83 mm x 156 mm x 30 mm (b x l x h)
Dimensions of sensor	20 mm x 40 mm x 40 mm (b x l x h)
Spiral cable	Length 0.5 m / extended length 4 m

Calibration

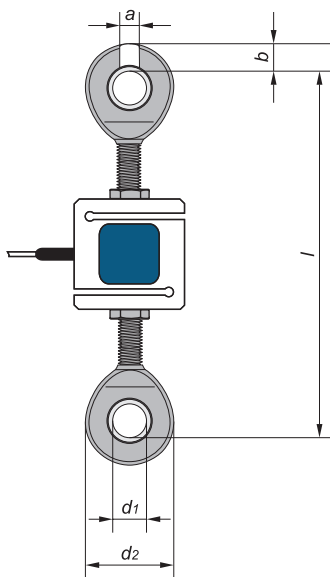
As a scale	
For tension <i>or</i> compression:	display in kg
As a force sensor	
For tension <i>or</i> compression:	display in N
For tension <i>and</i> compression:	display in N
	Accuracy on request

Options

Mechanical overload protection for compression loads
Accessories: spherical rod ends, eyebolts for installation

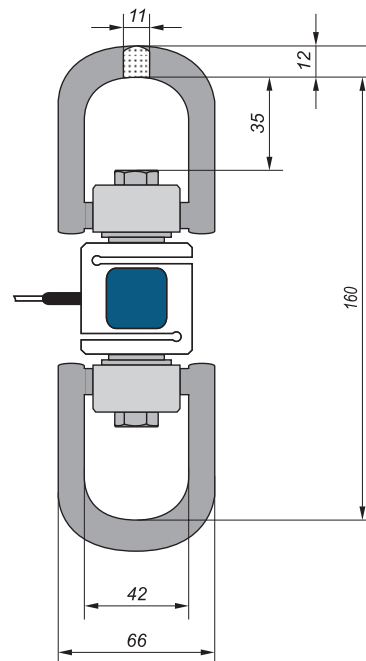
Dimensions

Sensor with spherical rod ends (optional)



Type	a	b	l	d1	d2
ZW 5.0 / 50 / 100	5	7.5	116	8	23
ZW 5.0 / 200 / 300 / 500	6	9	130	10	28

Sensor with eyebolts (optional)



Dimensions in mm