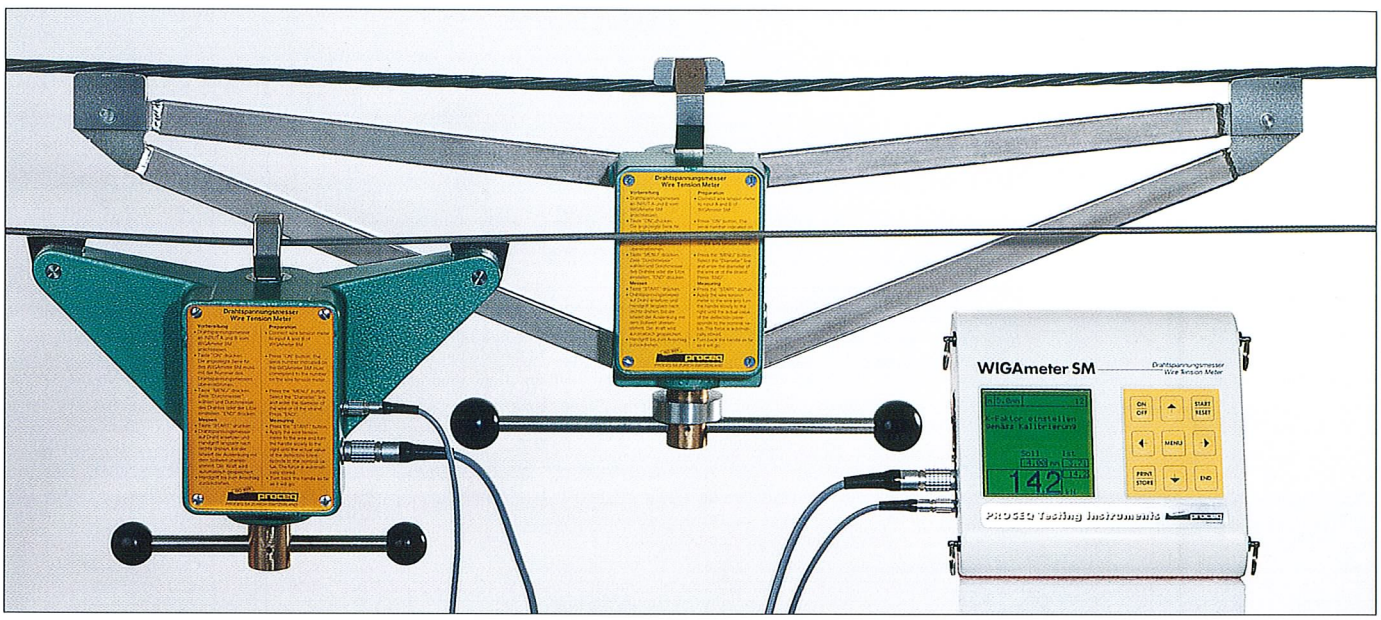
Wire Tension Meter SM 55C1/SM 150C1

The tensile force in highly stressed steel wires or strands can be measured very accurately by means of wire tension meters.

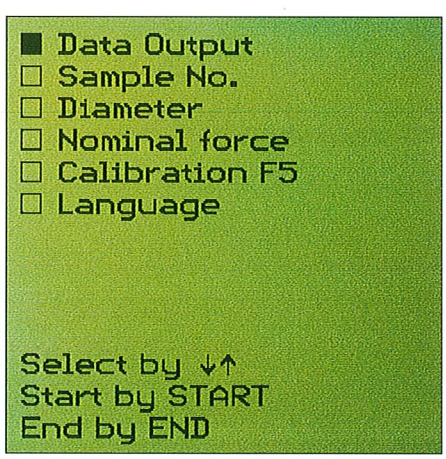


Typical usings

- Checking initial stress in pre-stressing beds, on wire-wound vessels and piping and on single prestressed elements.
- Checking tension in guy ropes on masts and antennas.
- Measuring tensile forces in messenger wires and cables of overhead transmission lines, etc.

Measuring range SM 55C1	
Ø 4 mm	7 - 18 kN
Ø 5 mm	11 - 28 kN
Ø 6 mm	16 - 40 kN
Ø 7 mm	22 - 54 kN
Measuring range SM 150C1	
Ø 7 mm	22 - 54 kN
Ø 3/8"	29 - 73 kN
Ø 1/2"	56 - 140 kN

User-friendly menu system



The basic settings are stored even after the unit has been switched off.

Simple to operate

Preparation

- Connect wire tension meter to WIGAmeter SM.
- Press "ON" button.
- Press the "MENU" button. Select the "Diameter" line and enter the diameter of the wire or of the strand. Press "END".

Measuring

- Press the "START" button.
- Apply the wire tension meter to the wire and turn the handle slowly to the right until the actual value of the deflection corresponds to the nominal value. The force is automatically stored.
- Turn back the handle as far as it will go.

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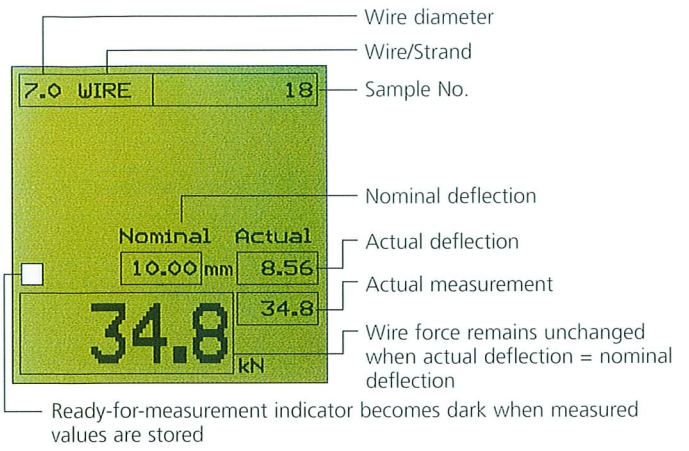
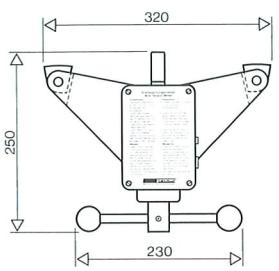
Indication of all information on a large clear display

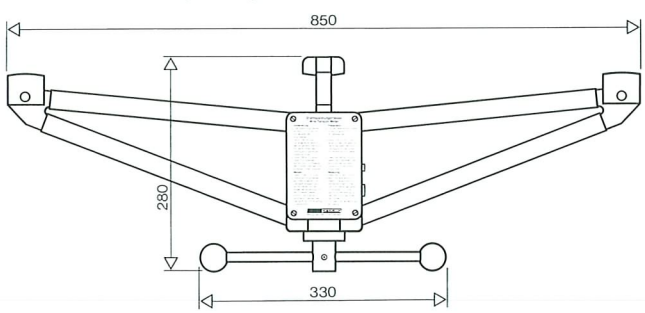


Measuring range of SM 55C1 **Ø 4 ÷ 7 mm**
7 kN to 54 kN depending on wire diameter



The usual measuring range of concrete prestressing wires and strands with a nominal ultimate strength of 1770 N/mm² is: approx. 35 to 80% of the ultimate strength.

Measuring range of SM 150C1 **Ø 7 ÷ 13 mm**
22 kN to 140 kN depending on wire diameter



Adjustable wire and strand diameter

SM 55C1: Wires and strands of diameter 4 to 7 mm in 0.1 mm steps

SM 150C1: Wire diameter 7 mm
Strand diameter of 7 to 13 mm
in 0.1 mm steps.

Wire rods with diameters over 7 mm cannot be measured.

Calibration F5

The WIGAmeter SM permits calibration in 5 steps for a maximum of 5 wire or strand types in the associated measuring range. For each load level, the instrument calculates and stores individual corrections at the press of a button. The errors from the system-related measurement and instrument characteristics are thus corrected, resulting in an accuracy of measurement of < 3% of the tensile force.

The instruments are calibrated at the factory for one or more wire or strand types according to customer requirements. The calibration for 2 wire or strand types is included in the sale price.

Rechecking, recalibration and additional calibrations can be carried out by the user himself. A tensile tester is required.

Data output

The sample numbers and peak values are stored. The entire memory content can be viewed on the display by scrolling. The data are transmitted to EPSON-compatible printers via the RS 232 interface. Under WINDOWS, the data can be transmitted to the PC without special software and can be imported into and processed in EXCEL data files.

Form supplied

WIGAmeter SM display unit
for SM 55C1 and SM 150C1 with non-volatile memory for 500 measured values, display on 128 x 128 graphic LCD.
Interface RS 232.
Socket for external 9 V DC supply.
Temperature range –10° C to + 60° C.
Battery operation with six 1.5 V, LR 6 batteries for 60 hours.
2 cables, carrying strap, operating instructions and carrying case 325 x 295 x 105 mm, total weight 2 kg.

Wire tension meter SM 55C1
for wires and strands of diameter 4 to 7 mm.
Weight of the unit 4 kg, including carrying case 400 x 280 x 130 mm, total weight 5.5 kg.

Wire tension meter SM 150C1
for wires of diameter 7 mm and strands of 7 to 13 mm.
Weight of the unit 6 kg, including carrying case 910 x 340 x 130 mm, total weight 13 kg.

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Subject to change
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