

Test set for measurement of electrode forces

For 10 kN, 20 kN welding tongs

Model FSK01

WIKA data sheet FO 54.15

Applications

Measurement of electrode forces for spot welding equipment

Special features

- Measuring ranges 10 kN, 20 kN
- Relative linearity error 0.2 % F_{nom}
- Low overall weight of approx. 6 kg
- Maximum/Minimum value memory
- Electrode diameter 14 ... 20 mm



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Description

The test set is used for the monitoring of electrode forces for spot welding equipment. The set consists of a force transducer and display unit. To test the forces acting between the electrodes, the force transducer is held between the electrodes. The concave force introduction surfaces centre the force transducer. When the welding electrodes come together, the magnitude of the applied force can be read off the indicator.

The force transducer is designed as a shear beam load cell. It is insensitive to lateral forces and moments. The output signal is fed to the indicator via a cable. This also supplies the force transducer with its operating voltage. Alternatively, the supply voltage can also be taken from a PLC.

In this type of force transducer, proven thin-film sensor technology is integrated. The laser-welded sensor has all

the advantages of conventional glued film strain gauges, without, however, being affected by their major disadvantages (temperature behaviour of the adhesive and creep).

Calibration

Force transducer and indicator are calibrated together as a measuring chain. A repeat calibration is recommended every 12 months. This service can be carried out quickly and reliably by WIKA.

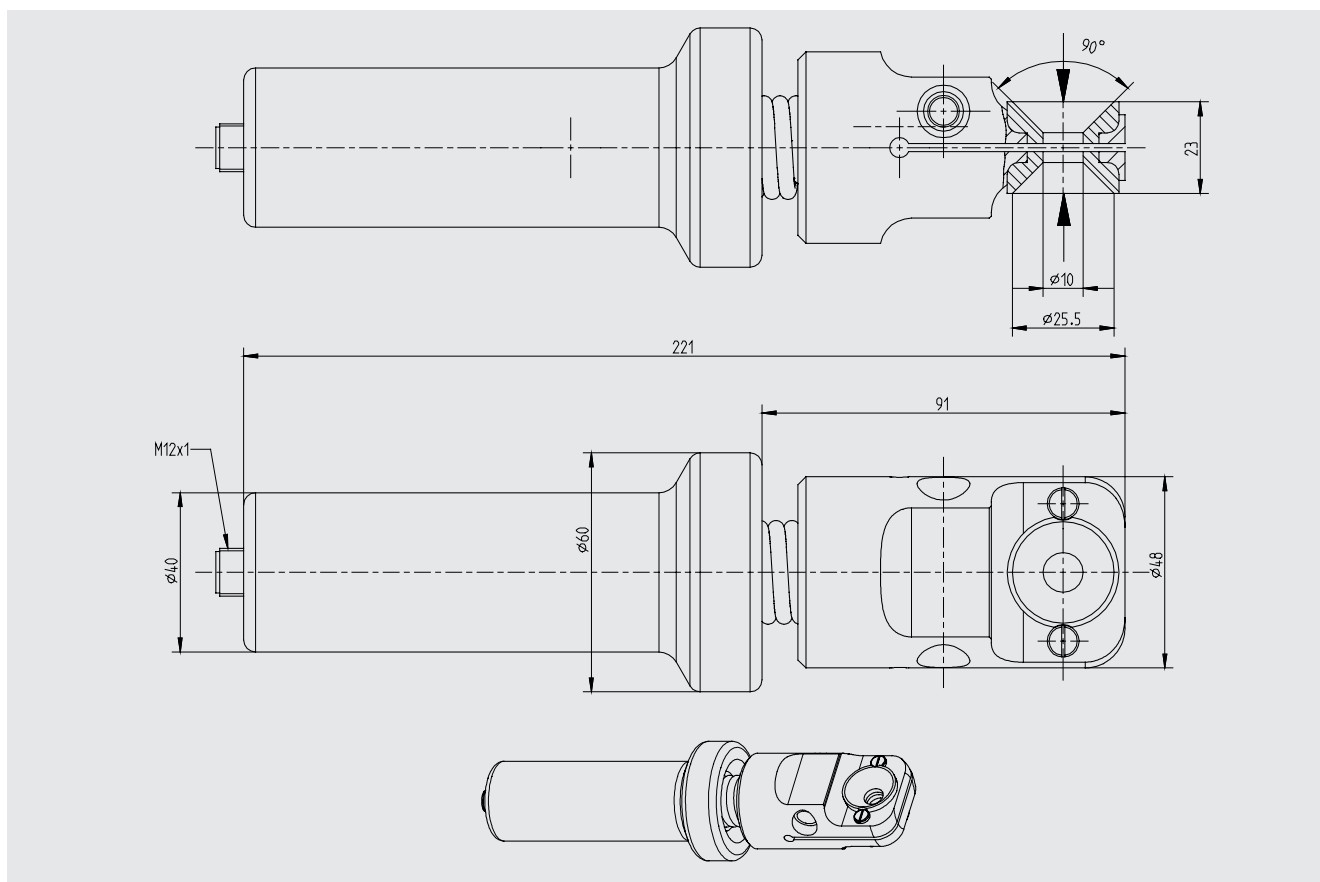
Scope of delivery

Hand-held indicator, force transducer, plastic case, charger, 2 m signal cable, manufacturer's test certificate

Specifications per VDI/VDE/DKD 2638

Model FSK01	
Rated force F_{nom} kN	10, 20
Relative linearity error d_{lin}	$< 0.2 \% F_{nom}$
Indicator	LC display, 5 digit, illuminated
Additional display functions	MIN, MAX, HOLD, AVG, TARE, LGT
Interface	serial, for measured value transmission
Operating time	8 h (per charging of the rechargeable battery)
Service temperature range $B_{T, G}$	-20 ... +60 °C
Ingress protection (per IEC/EN 60529)	Force transducer IP67, indicator IP40
Weight	4.3 kg
Dimensions of the case (W x H x D)	445 x 165 x 350 mm

Dimensions in mm



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