

TEST AND MEASUREMENT INSTRUMENTS

WELD TESTER TE1600

The TE1600/RS232 "WELD TESTER" is a portable instrument purposely designed for measuring the parameters of resistance welding. By using the RS232 port and by means of a female DB9serial cable, the measurement instrument may be connected to a PC for displaying and recording the measured data. Our TE1600/RS232 transfers the data acknowledged by the PC after each measurement automatically, without needing to press any button. By using probes of different kind, the same instrument enables to measure both the welding current and the force at the electrodes. The power of the 32-bit microprocessor and the accuracy of the 12-bit A/D converter make the instrument a highly performing one. It is suitable for measuring on standard machines in alternate current (AC), direct current three-phase rectified and medium frequency machines (DC) and capacitor discharge machines: **AC:** Measures the true effective value (RMS), maximum value and average value; the peak value: positive and negative values; the conduction angle in degrees; the welding time in cycles & in cycle steps. **DC:** The average value, the maximum value and the welding time in ms.

CD: Measures the welding time in ms; the current true effective value (RMS); the current slope up time; the maximum RMS current value; the current slope down time.

Pre -and post-blanking function: with programmable time gap; it prevents the measurement errors when the slope function is used and it allows the checkout of the correct first insertion delay. **Storage:** Stores the values



measured during the last 10 welds.

Force Measurement: Measures the welding force, the maximum force value, the value at the beginning and at the end of the welding time. **Blanking function:** It prevents the measurement errors due to high impact force and it allows to estimate the latter.

Wide availability of measurement transducers, including air pressure transducers. Automatic recognition of the connected sensor, BNC output to display the current wave-shape on oscilloscope. Supply by means of alkaline batteries 4 x 1.5 V (size AA).

WELD TESTER TE1700

The TE1700 "WELD TESTER" is a portable instrument purposely designed for measuring the parameters of resistance welding. By using probes of different kind, the same instrument enables measurement of the welding current, the force at the electrodes, the voltage at the electrodes, the energy, the resistance and the thermal current. It is possible to adjust the analyzer through the LCD touch screen, an indispensable and highly performing diagnostic tool which offers a graphic display of the waveforms of the selected signals. It is suitable for measuring on standard machines in alternate current (AC), direct current three-phase rectified and medium frequency machines (DC/MFDC) and capacitor discharge machines (CDW):

AC: Measurement of the current true effective value



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(RMS); the peak current value both positive and negative; the conduction angle in degrees; the welding time in cycles & in cycle steps; RMS voltage value, the peak voltage values both positive and negative.

DC/MFDC: Measurement of the RMS value and of the current maximum value, the slope time and welding time in ms, the RMS and peak voltages.

CDW: Measurement of the welding time in ms; the current true effective value (RMS), the current slope up time, the maximum RMS current value, the current slope down time, the peak voltage values.

Blanking Function: Initial and final blanking function with programmable time interval, it prevents measurement errors in the presence of slope and allows to verify the correct first insertion delay, Pulse mode, up to a maximum of 9 Measurements of the welding force, it displays the maximum and average force values at the beginning and at the end of the welding time.

Blanking function: It prevents measurement errors due to high impact force and it allows to estimate the latter.

Wide availability of measurement transducers. Automatic recognition of the connected sensor, Storage of the measured values (30.000 max) and statistical analysis of the last 100 welds.

USB 2.0 output: It enables the use of a flash memory drive for storing data and waveforms (in bitmap and csv formats).

Bluetooth® port: For displaying and recording the measured data.

Our TE1700 transfers the data acknowledged by the PC after each measurement automatically, without needing to press any button. Supply by means of Ni-Mh batteries and battery charger included in the standard supply. Battery life of approximately 24 hours depending on usage. Suitcase for carrying the measurement instrument and the accessories. Welding tables included. Possibility of setting 3 limits windows. Integrated clock.

Test And Measurement Transducers



PART NO	DESCRIPTION
1631	Rigid current transducer coil diam. Min.32 - 36 Max. mm with cable L=2 m Max.
1632	Rigid current transducer coil diam. Min 40-45-46 Max. mm with cable L=2m Max.
1633	Rigid current transducer coil diam. Max 80mm with cable L=2 m Max.
1635	Flexible transducer coil. 160 with cable L=2 m Max.
1636	Flexible transducer coil. 270 with cable L=2 m Max.
1661	Force transducer 200 daN 440 ib with cable L=2m
1662	Force transducer 2.000 daN 4.400 ib with cable L=2m
1673	Force transducer with reduced overall dimension 200 daN 440 ib with cable L=2m
1675	Force transducer with reduced overall dimension 1.200 daN 2.640 ib with cable L=2m
1663	Force transducer 10.000 daN 22.000 ib with cable L=2m
1664	Pressure transducer 10 bar - 145 Psi
1438	Shielded lead 50 OHM BNC-BNC L=1m for connecting to oscilloscope
22414	Female Db9 serial cable for PC COM port
47331	Carrying case