

PREWAQ PRESSURE WAVE ANALYZER AND QUANTIFIER

Product Datasheet

APPLICATION

The measuring system **PREWAQ** offers measurement of pressure wave parameters generated by any kind of explosion. This universal tool could be applied not only under open sky but could be also designed for measurement in closed space (e.g. explosion chamber).

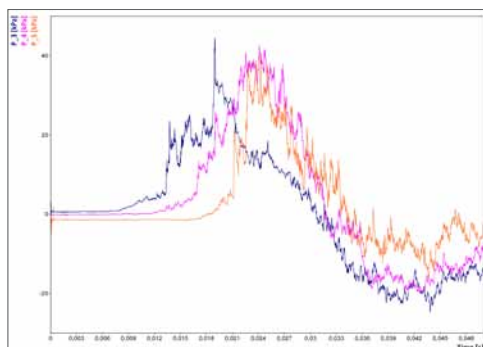
The DT modification of the system is used for measurement of extremely fast explosions driven by detonation mechanism and parameters change in order of tens microseconds.

The DF modification is intended for measurement of explosions driven by deflagration mechanism so the change of parameters happen in order of tens of milliseconds.

According to required measurements (type, speed and maximal measured values) the **PREWAQ** is equipped by the set of sensors together with appropriate cables and perhaps even with stands or holders.

FEATURES

- Measurement of up to either 4 or 8 input channels according to PREWAQ version.
- Simultaneous measurement of pressure, temperature (heat radiation), velocity of detonation and/or light.
- System is intended for measurement, storage and evaluation of explosion parameters.
- Recording and control system is protected by case with IP54/20.
- Battery supply for up to two hours of operation and optional armor covering.
- Graphical output of measured data in formats suitable for spreadsheet and database editors are a standard.
- User-friendly software for apparatus operation, data recording and evaluation.



TECHNICAL PARAMETERS

Datalogger

Standard measurement rate: up to 2 Ms/s/channel
4 or 8 channels
case
cables

Pressure measurement unit

Pressure sensor

Standard pressure range: 0 - 69 MPa
Resonance frequency: more than 1.5 MHz
Sensitivity: about 0.050 ± 0.017 mV/psi

Signal conditioner

Bandwidth: -3 dB, 100 Hz to 500 kHz
for short cable up to 5 m

Thermal radiation measurement unit

Coaxial thermocouple MCT 19 with M2 thread and counter nut

Smallest temp. change: 0.5 K
Heat flux: 20 KW/m² to 20 MW/m²

Amplifier

Output voltage: ± 3.5 V
Amplifier steps: x100, x1000

Portable data processor

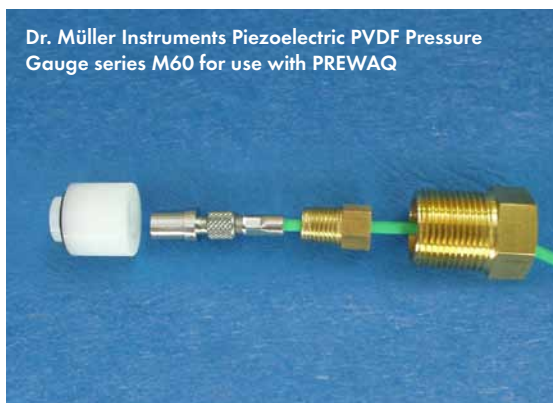
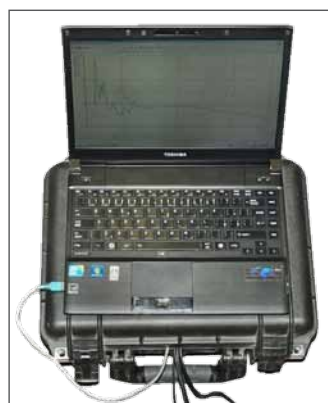
Min. configuration: 2 GHz processor, 2 GB RAM, 17" display, DVD-RW, HDD 160 GB, WLAN, BT, LAN, USB, Windows 7

SHIPPING DATA

Package dimensions (W x L x H): TBD
Package gross weight: TBD
Custom code: 9031 20 00

INSTALLATION REQUIREMENTS

Electric power source: 230 V / 50 Hz, 500 W (Recommended)



Dr. Müller Instruments Piezoelectric PVDF Pressure Gauge series M60 for use with PREWAQ