

Type MA 25

Application

The hand-held instrument MA 25 with digital indication can be used for the measurement of pressure, under-pressure and differential pressure of gaseous and non-aggressive media.

Three different ranges are available:

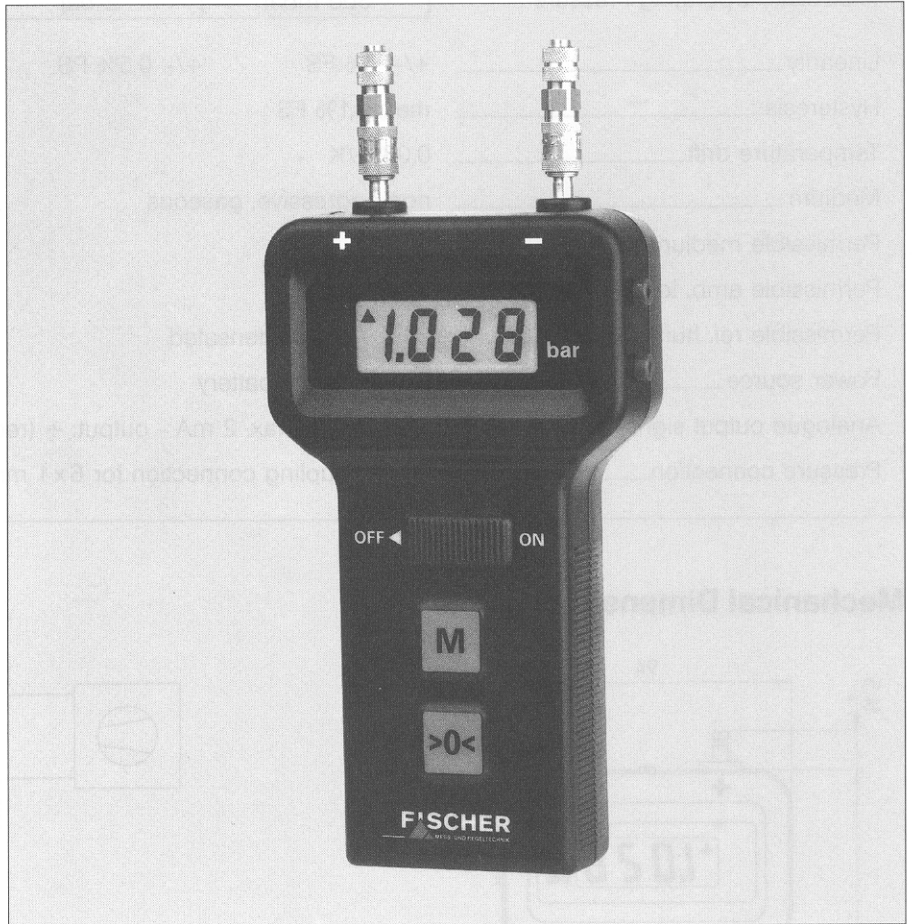
- 0 – 20 mbar
- 0 – 200 mbar
- 0 – 2 bar

Range of applications:

- filter-monitoring of air-conditioning systems
- maintenance of gas-burners in heating installations
- other service and maintenance work in industrial process.

Essential Characteristics

- nonsystem-connected hand-held pressure gauge for portable application
- high overload protection
- rugged design
- high resolution
- quick-coupling connection



Construction and Principle of Operation

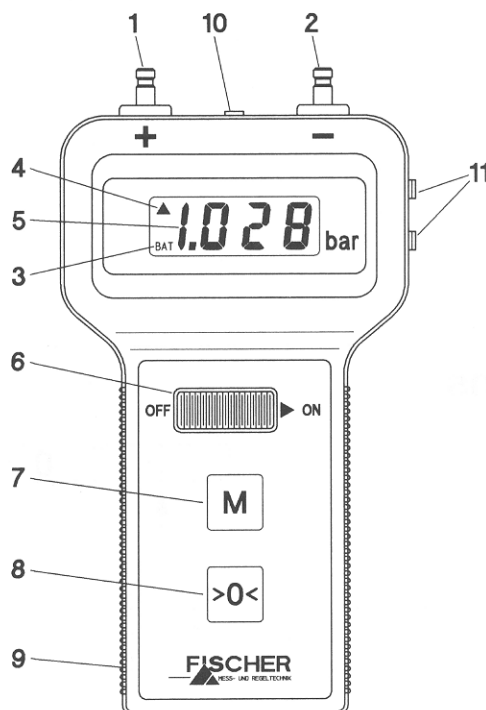
The basic element of the portable instrument MA 25 is a piezoresistive sensor, which consists of a measuring circuit on a silicium diaphragm.

Due to the piezoelectric effect, the application of pressure to the system causes a change of the resistance values of this bridge circuit.

This change of resistance (imbalance of the bridge circuit) is evaluated in an electronic circuitry and is indicated on a 3 1/2-digit indication (LCD).

The hand-held pressure gauge MA 25 is provided with a digital temperature compensation which is controlled by microcontroller program.

The mechanical pressure connections are realized by quick-couplings.



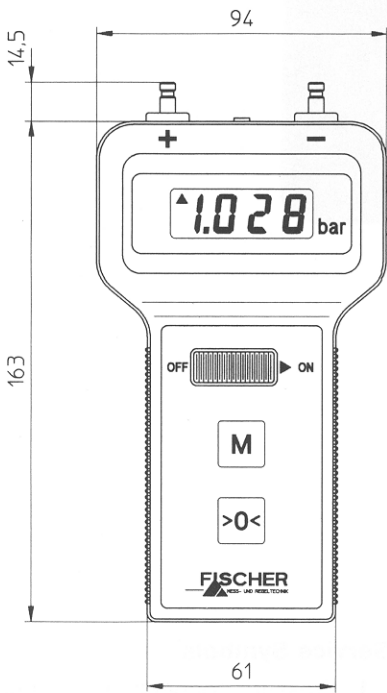
Service Symbols

1. Pressure connection (– minus)
2. Pressure connection (+ plus)
3. Low-battery indication
4. Measuring value recorded
5. 3 1/2 digit display
6. Switch ON / OFF
7. Storage key „Memory”
8. AUTO - ZERO key
9. Battery case (on the backside of instrument)
10. Connection for power supply
11. Analogue output signal

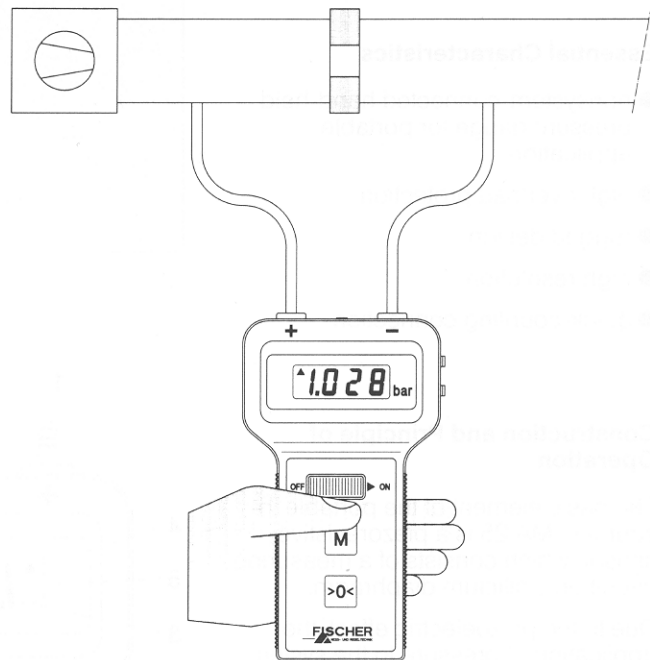
Technical Data

| | | | |
|--------------------------------|--|-------------|-------------|
| Pressure Ranges | 0–20 mbar | 0–200 mbar | 0–2 bar |
| Max. static Operating Pressure | 300 mbar | 2 bar | 4 bar |
| Linearity | +/- 1% FS | +/- 0,5% FS | +/- 0,5% FS |
| Hysteresis | max. 0,1% FS | | |
| Temperature drift | 0,08%/K | | |
| Medium | non-aggressive, gaseous | | |
| Permissible medium temperature | 70 °C | | |
| Permissible amb. temperature | 0–50 °C | | |
| Permissible rel. humidity | 80%, non-condensated | | |
| Power source | 9 V transistor battery | | |
| Analogue output signal | 0–2 V DC, max. 2 mA - output: + (red); - (black) | | |
| Pressure connection | quick-coupling connection for 6 x 1 mm | | |

Mechanical Dimensions



Application Example



Ordering Instructions

Type MA 25



Pressure ranges

| | | | |
|------------------|---|---|---|
| 0– 20 mbar | ▷ | 4 | 3 |
| 0–200 mbar | ▷ | 4 | 4 |
| 0– 2 bar | ▷ | 4 | 5 |