

### Protective solutions

#### Applications

The YM-1 overpressure meter is used for measuring and monitoring of the internal overpressure in NBC-protected Civil Defence and military shelters. Design of the meter is a liquid manometer with blast protected intake fitting making the meter suitable for installations where meter connection pipe may be subject to blast pressure.

#### Specification

Manufacturer of YM-1 overpressure meter is Temet, Helsinki Finland.

Measuring range -100 to +500 Pa. The measuring accuracy is better than  $\pm 10$  Pa at the range of -100...+300 Pa and  $\pm 20$  Pa at the range +300...+500 Pa.

Completely non corroding materials

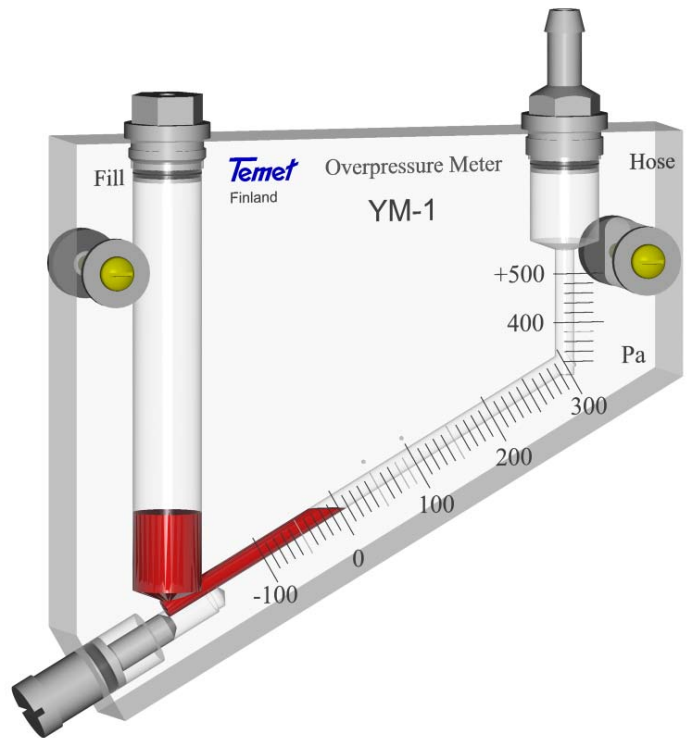
Zero adjustment range is  $\pm 30$  Pa

Protected against blast and shock

#### Design Criteria

The overpressure meter is made in accordance with specific provisions issued by the Finnish Ministry of Interior. The YM-1 overpressure meter is type tested and approved for use by the Technical Research Centre of Finland / VTT Building Technology, an Independent Testing Authority mandated to perform type inspection for shelter equipment and systems by the Finnish Ministry of Interior. Type test reports as well as additional test data are available upon request.

The overpressure meter is designed to function within the operating temperature range of -20 ...+60°C.



Overpressure meter YM-1

#### Test and performance data

The overpressure meter YM-1 is designed and tested to withstand long duration blast loads having peak reflected overpressure of 300 kPa. Additionally the meter withstands a static pressure of 300kPa positive and 20kPa negative acting from the outside. All of the above mentioned blast loadings are exerted on the meter through its connection pipe. The manometer liquid remains in the meter even when the meter is subject to the specified blast and static pressure loads.

The overpressure meter is tested with a mechanical shock of the installation base having a rapid change in velocity of 2.5 m/s and an acceleration of 30 g. The meter is also tested to withstand a vibration test with maximum acceleration of 10 g at frequency of 25 Hz while retaining its full functional ability.

#### Type test report

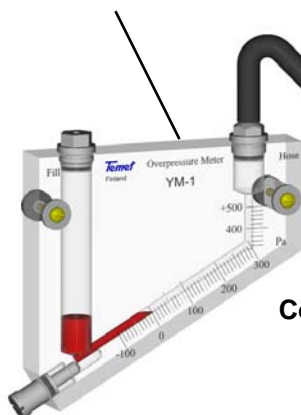
VTT type test report available upon request.

### Components required for Overpressure meter YM-1 installation



Manometer liquid

Overpressure meter YM-1

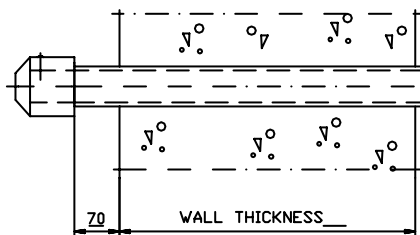


Connection hose



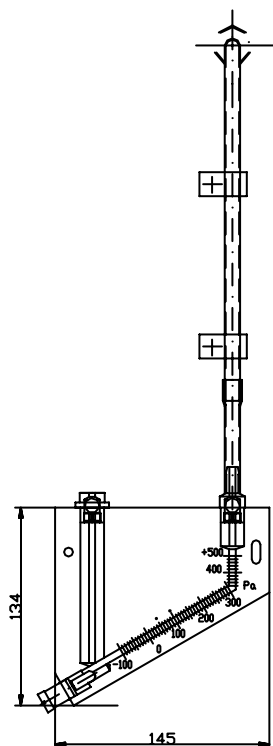
Wall sleeve

PROTECTED SIDE



CLAMP

NAIL PLUG



MANOMETER LIQUID

### Overpressure meter YM-1 typical installation

Design - Production – Installation – Maintenance - Consultation