
# Z2R – Float Flow Meter with regulator on inlet

- Quality design
- High corrosion resistance
- Reliable measurement principle
- Low weight and small dimensions

# Usage

Flowmeters with float series Z2R with pressure regulator on inlet are designed for measurement actual volume or mass flow of liquids and gases. The instantaneous flow rate is read directly on the meter. Flowmeter is provided with a pressure regulator, which is used to maintain a constant flow with fluctuating operating pressure. Medium may be not too polluted liquids and gases if the used flowmeter materials are resistant to temperature and pressure.

Float is buoyed by flow force and its upper edge is showing on the measuring scale the actual flow rate. The dependence of the float stroke and the flow rate is for a given measuring tube and float determined empirically using calibrating medium and mathematical correction is carried out to change the density and viscosity. Built-in regulator maintains for liquids and gases constant flow rate at variable inlet pressure and constant outlet pressure.

# Technical data

| | |
|---|---|
| Operating temperature of the medium | max. 100°C |
| Max. operating pressure (without shocks) | 1 MPa |
| Accuracy | 2% |

# Material

Materials of main parts

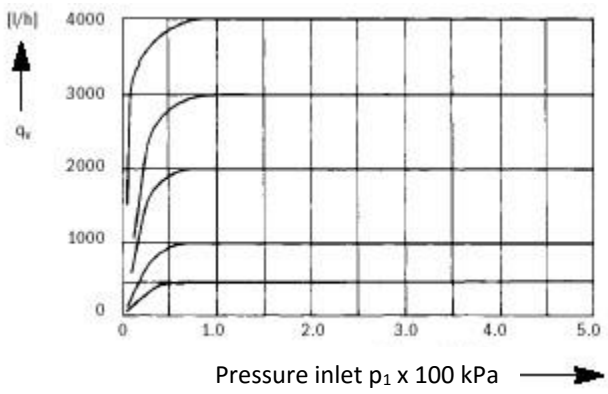
| | |
|---|---|
| Connection fittings | DIN 1.4541, PVDF, nickel-plated brass |
| Float | stainless steel (PP, PVC, PVDF, Al alloy) |
| Measuring tube | borosilicate glass |
| Sealing elements | Viton, PTFE/FFKM |

# Measuring ranges

Measurement range of each meter is placed on the scale and calibrated individually. On scale are indicated the operating conditions of the medium and its type. Scale is possible to change if medium or calibration conditions are changed. The ratio of the maximum and minimum measured values are 10 to 1.

**Characteristics of the regulator**

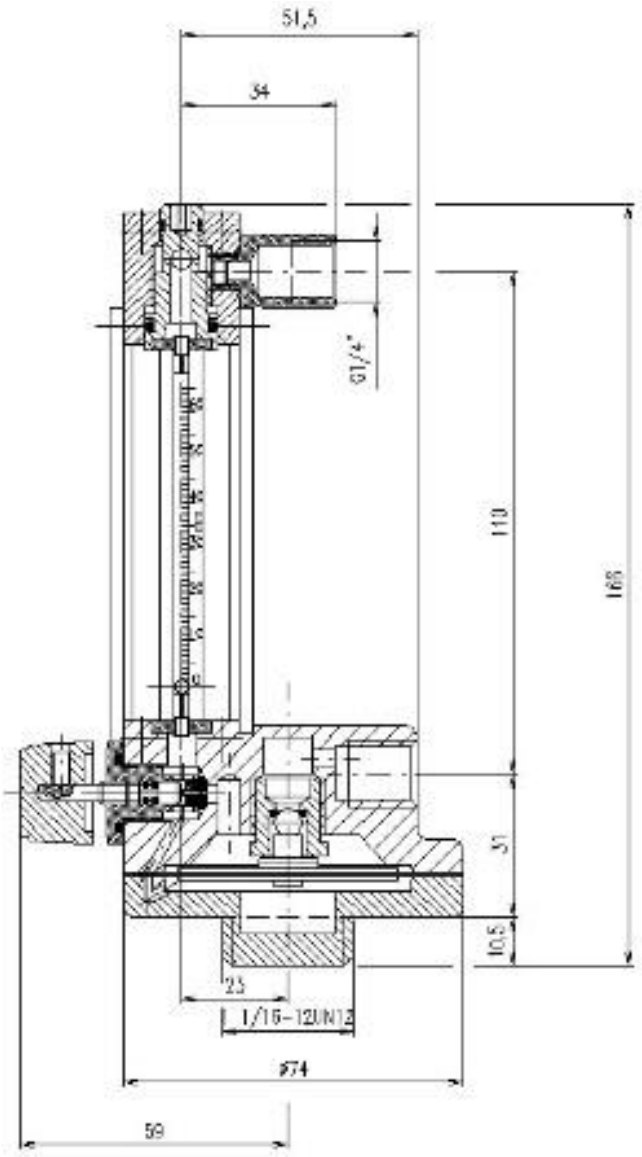
Example: variable inlet pressure ≤ 0.5 MPa, air at 20°C and 101.3 kPa abs. Qv = flow



# Installation, operation and maintenance

Working position vertical with media flow from the bottom. Before connecting the flowmeter it is necessary to ensure the purity of the pipeline.
Operation and maintenance is limited to checking for leaks and cleaning the measuring tube. Avoid pressure shocks that could cause damage to the measuring tube.

**Connecting dimensions**




# Ordering

- Measuring range
- Measured medium
- Measuring units
- Connection dimensions
- Density
- Viscosity
- Temperature
- Pressure
- Temperature

# Caution

Max. allowable operating pressure of the pressure regulator (at 20°C): 1.6 Mpa
Max. operating temperature of the pressure regulator: 80°C (optional 100°C)
For operating of the regulator is necessary minimum pressure (see. regulator characteristics)
Pressure regulator is not a pressure reduction valve