Flow/Flow Rate/Selection Guide

How to find the right sensor?
In order to find the right sensor please consider your application requirements. If you provide information about the sensor, our technical service will be able to assist you.

Subsequently, a sensor version of the sensor with the appropriate process connection will be recommended:
- Fluid temperature
- Fluid pressure
- Fluid compatibility
- Measurand
- Ambient temperature

Only the remote version can be supplied complete with signal processing unit. For remote sensors, the signal processing unit must be connected in the explosion hazardous area. It is thus important to know the class of Ex-zone (category I or II) at which the sensor has to be applied because sensor versions are also available for explosion hazardous areas.

Flow Sensors and Flow Meters

Overview
Flow Sensors and Flow Meters
Flow speed in flow control is essential to ensure the correct operation and efficiency of systems. Monitoring flow rates and flow speeds is crucial for maintaining the performance of systems such as cooling circuits, exhaust systems, and air-conditioning systems. In order to monitor these, flow sensors are employed, which can be electronic flow sensors or flow meters.

### Flow speed or flow rate monitoring

Flow sensors and flow meters play a vital role in ensuring smooth operation and efficiency in various systems. They are used to detect not only limit values but also accuracy and reproducibility. The current flow speeds and flow rates are monitored to ensure that the system is operating within the desired parameters.

### Monitoring Flow Speed and Flow Rates

#### Flow Sensors

**Compact device for liquid media**
- Flow sensors for liquid media require a high degree of protection against external influences.
- Suitable for use in explosion hazardous areas (zone 0 and 1).
- Suitable for all nominal pipe diameters.
- Chemical resistant sensor materials: Hastelloy, titan, ceramics, plastic.
- Suitable for all flow media, including liquids and gaseous media.
- High protection class IP68, high temperature version up to 120 °C.
- Pressure resistance up to 100 bar from DN20.
- Adjustable range between 0.5 m/s and 30 m/s.
- Adjustable range between 1 ml/min and 80 l/min.
- Short response time within seconds.

**Remote probes for liquids**
- Suitable for liquids with low electrical conductivity.
- Adjustable range between 1 cm/s and 20 m/s.
- Adjustable range between 0.5 m/s and 30 m/s.
- Adjustable range between 1 ml/min and 20 l/min.
- Short response time within seconds.

**Flow meters for liquid media**
- Suitable for liquid media with high electrical conductivity.
- Adjustable range between 1 ml/min and 20 l/min.
- Adjustable range between 0.5 m/s and 30 m/s.
- Adjustable range between 1 cm/s and 20 m/s.
- Short response time within seconds.

**Flow meters for gaseous media**
- Suitable for gaseous media with high electrical conductivity.
- Adjustable range between 0.5 m/s and 30 m/s.
- Adjustable range between 1 ml/min and 80 l/min.
- Short response time within seconds.

### Intrinsically safe sensors for the explosion hazardous area

**Flow sensors for explosion hazardous area**
- Suitable for installation in explosion hazardous areas (zone 0 and 1).
- Suitable for all nominal pipe diameters.
- Pressure resistance up to 100 bar from DN20.
- Adjustable range between 0.5 m/s and 30 m/s.
- Adjustable range between 1 ml/min and 80 l/min.
- Short response time within seconds.

### Flow Speed and Flow Rate Monitoring

- Flow sensors for liquid media are used to detect flow rates or flow speed to the control system and air-conditioning systems. In order to monitor tasks in cooling circuits, exhaust systems, and air-conditioning systems, flow sensors and flow meters are employed.
- Flow speed or flow rate monitoring of liquid and gaseous media plays an important role in ensuring smooth operation and efficiency in various systems. They are used to detect not only limit values but also accuracy and reproducibility. The current flow speeds and flow rates are monitored to ensure that the system is operating within the desired parameters.