Turbine-Flowmeter

for high accuracy measurement

- Lightweight
- Viskosity compensated for Water, Oil and Mixtures
- Safe, fast Installation
- Suitable at high temperatures and moisture
- Good EMV resistance
Turbine flow meters

TrigasDM turbine flowmeters are the ideal solution for a sophisticated flow measurement of liquids in applications with:

- High accuracy
- Fast response times
- Compact design
- High reliability in continuous operation
- Changing conditions of viscosity and temperature

TrigasDM turbine flowmeters are suitable for a wide range of applications. These include monitoring the flow of fuels and coolants in engine development, dosing of exact quantities in food and pharmaceutical applications, flow monitoring of ultrapure water in research and development, fuel consumption, etc.

Advantages

- New rotor design for improved linearity and 15% less pressure loss
- Asymmetric housing design for a perfect flow profile in small spaces
- Reliable and accurate digital pulse output
- Precision ceramic ball bearings for perfect repeatability as well as accuracy at low flow rates
- Wide measuring range up to 1:130
- Pickoffs with integrated temperature sensors for temperature compensation (optional also integrated into the sensor housing)
- Dimensions compatible with Cox AN/ANC and Flow Technology FT/NT Series
- High accurate measuring chain calibrations available

Specifications

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1) The K-factors and frequency data are representative values. Each turbine is calibrated according to customer specifications and delivered with an individual calibration protocol.
2) RF = Frequency modulated pickoff
3) Mag = Magnetic pickoff (sinusoidal output)
Linearizing electronics

The TrigasDM flow transmitters support with their complex linearization technology and their real-time compensation for viscosity and temperature the excellent accuracy of the TrigasDM measuring chains. Choose between the test bench version TriLIN, the compact electronic Mini TriLIN or Lysis, which is designed for mobile applications.

Choose according to your application:

**TriLIN**
The TriLIN flow transmitter is a sophisticated electronic for flowmeter linearization and viscosity correction. The user can program several calibration curves as well as fluid property tables to cover different applications. With a variety of different connectors it can be easily adapted to the customer’s installation, even to upgrade flowmeters of other manufacturers.

- TriLIN: Linearization without temperature compensation
- TriLIN+T: Linearization + temperature compensation
- TriLIN+T Display: Linearization + temperature compensation + 4-Digit-Display

**Lysis**
The Lysis flow transmitter is designed especially for mobile applications and is one of the few electronics suitable for temperatures of -40 °C to 125 °C. Used in combination with a TrigasDM flowmeter, the advanced algorithm for linearization and temperature compensation provides a measurement chain accuracy of 0.1% of reading.

Accuracy can be verified on demand by the special measuring chain calibrations of our accredited TrigasFI calibration laboratories, also according to DIN ISO 17025.

**Mini TriLIN**
The Mini TriLIN is designed for direct installation on a turbine flowmeter. With a pickoff with integrated temperature sensor, Mini TriLIN can also provide viscosity compensation. Adaption to flowmeters of other manufacturers is available on request.

All TrigasDM electronics are accessible by the customer. A modem or programming adapter (USB connection to PC) and a Windows based program with intuitive user interface enables to provide programing, troubleshooting and live monitoring of input/output channels.

The software allows access to all relevant settings and internal adjustments without restrictions or user lock-outs. Recalibration and adjustment is therefore possible by any qualified service organization.

**Why TrigasDM?**
TrigasDM is a specialist for high precision flowmeters. Every single sensor is manufactured according to high quality standards. The complete production is tested and calibrated on the ISO 17025 accredited test benches of the TrigasFI laboratories with an uncertainty of up to 0.03% OR. Rely on the experience of specialists!
**SMART-Pickopff & Lysis**

**Combination designed for mobile measuring applications**

The Lysis flow transmitter is designed for installation in harsh environments. The compact design is ideal for installation in small spaces, while the light weight construction prevents resonance from induced vibrations. Therefore, Lysis is the best choice for mobile measurement technology in test vehicle installations.

**Lysis Linearizing electronics**

The TrigasDM SMART pickoff with built-in memory chip allows the storing of calibration and fluid property data. When Lysis is connected to a turbine flowmeter equipped with the SMART pickoff, it immediately detects and downloads the data stored in the pickoff and uses them to calculate compensated flowrates.

Lysis can be used with any TrigasDM flowmeter as a true plug-and-measure solution. The high protection class IP68 includes also SMART pickoff and connector. Additionally the temperature rating of -40°C...125°C for Lysis V5 guarantees a safe operation in wet and harsh conditions.

The optional CAN bus output connects Lysis quick and easy to the infrastructure of the test area. Ability for storing and reading of TEDs data allows onsite access to transducer identification, calibration, correction data, and manufacturer-related information.

For installation in the trunk, Lysis is also available in a robust rectangular IP65 housing, as well as the space saving Multilysis with up to 8 measuring channels.

**About us**

As a specialist for flow measurement technology, TrigasDM manufactures high-quality flowmeters, electronics and calibrators for liquids and gases and customizes them to the customers’ needs. Our ISO 17025 certified calibration laboratory TrigasFI provides high accuracy calibrations and adjustments. Well known automotive and aerospace appreciate our products and services since over 30 years.

**Made in Germany**

We are located in Neufahrn, 20km north of Munich, near to the airport. Design, production and testing of our products are performed exclusively at our facility, made in Germany by TrigasDM.

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Quality made in Germany