Product family overview

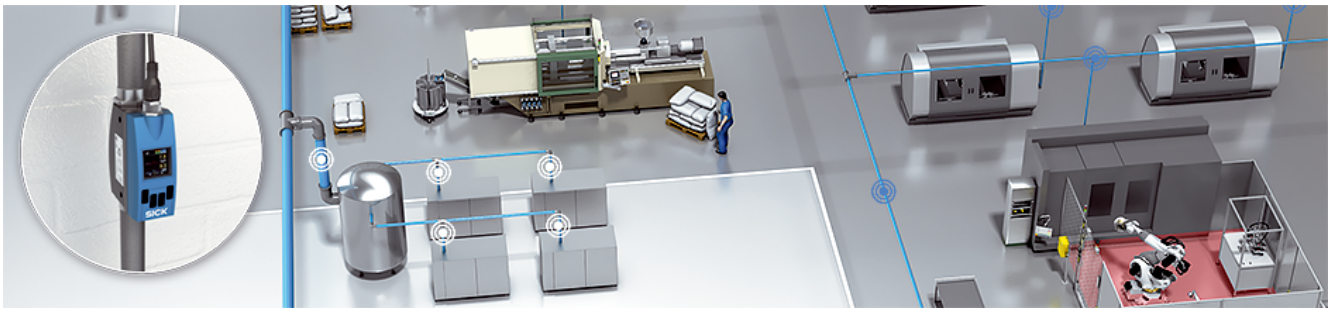
FTMg

Flow sensor with energy measurement

FLOW SENSORS

SICK
Sensor Intelligence.

Advantages



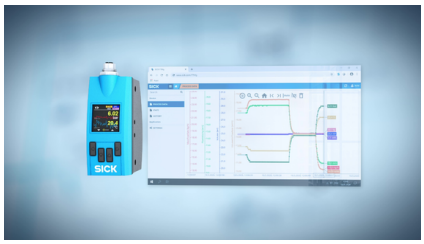
Saving costs effectively with data transparency

Compressed air is one of the most expensive types of energy, which is why energy efficiency and energy transparency are playing an increasingly important role in factory automation. The investment costs, for example for procuring powerful compressors, are enormous. To save on follow-up costs, you must ensure loss-free operation of compressed air systems. The FTMg (Flow Thermal Meter for gases) energy consumption flow meter stands for efficient energy management in accordance with DIN EN ISO 50001. It helps system operators to detect leaks in the compressed air system early on and plan maintenance work.

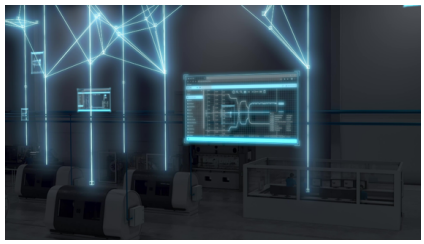
The FTMg offers an integrated data monitoring function and automatically saves the measurement data of the last seven days. This allows changes and fluctuations in energy consumption to be reliably detected. With its data transparency, the sensor provides efficient assistance in finding leaks in compressed air systems and helps minimize energy loss as well as save money.

Reliable flow monitoring in compressed air systems and pneumatic applications

Measurement of 8 parameters in one sensor, including energy in kWh



Easy operation thanks to integrated web server



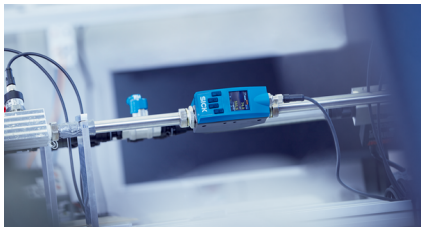
Ready for Industry 4.0 – MQTT and OPC UA ensure optimal cloud connectivity

Optimize energy efficiency and increase cost efficiency by detecting and preventing unnecessary input of energy and leaks

Countless mounting options and simple handling

The FTMg is characterized by its light and compact construction. This makes installation easy, even with limited space. The display, which can be rotated in 90° increments, means that reading measured values is always convenient, regardless of the installation position of the sensor in the pipeline. Various reference standards according to DIN or ISO can be easily selected via the FTMg menu. Even individually defined reference values are easy to set using the device. Configurable outputs also allow for simple adaptation to the desired application.

Flexible configuration – setting of different reference standards according to DIN or ISO possible



Flexible installation thanks to light and compact construction

Intuitive operation via large, contrast-rich OLED display with plain text

Support operational efficiency with quick, easy installation and intuitive operation

Technical data overview

Measurement principle	Calorimetric (flow, temperature), piezoresistive (pressure)
Medium	Compressed air (air quality ISO 8573-1:2010 [3:4:4]), helium, argon, nitrogen, carbon dioxide
Output signal	1 analog output 4 mA ... 20 mA +1 digital/analog output (PNP, NPN, push-pull, 4 mA ... 20 mA / switchable) +1 digital output (PNP, NPN, push-pull, switchable), IO-Link V1.1 (COM3 / 230K4 baud) Ethernet TCP/IP, OPC UA, MQTT, integrated web server
Nominal width measuring tube	DN 15 DN 20 DN 25 (depending on type)

Product description

The FTMg energy consumption flow meter measures gas flow and temperature as well as the process pressure, making it a cost-saving multi-talent. With high measurement dynamics and low pressure loss, it measures non-corrosive gases with extreme efficiency. The contrast-rich color display enables easy operation of the FTMg and allows for representation of several measured values as a process diagram. Internal data logging over seven days and integrated static evaluation help detect even the smallest leaks in a pneumatic system. PoE also enables simple web-based connection to a PC or a cloud to make energy consumption more transparent. All measurement data can be transmitted via IO-Link or with switching and analog signals.

At a glance

- Measures compressed air and non-corrosive gases such as argon, helium, carbon dioxide and nitrogen
- Calorimetric measurement principle with a measurement accuracy of ± 3% M.V. and ± 0.3% M.E.V.
- Measurement of gas flow and temperature as well as process pressure and energy consumption with only one sensor
- Low pressure loss
- High measurement dynamics for cylinder and leakage monitoring

Your benefits

- Transparent compressed air consumption measurement according to DIN EN 50001
- Complete overview of the flow, pressure and temperature of gases increases system reliability
- IO-Link or Ethernet interfaces (communication with OPC UA) for simple system integration and data availability
- Cost savings thanks to reduced energy consumption and increase in production efficiency
- Intuitive configuration with large, contrast-rich OLED display saves time and money during commissioning
- Only one installation and commissioning process for the collection of flow, pressure and temperature data

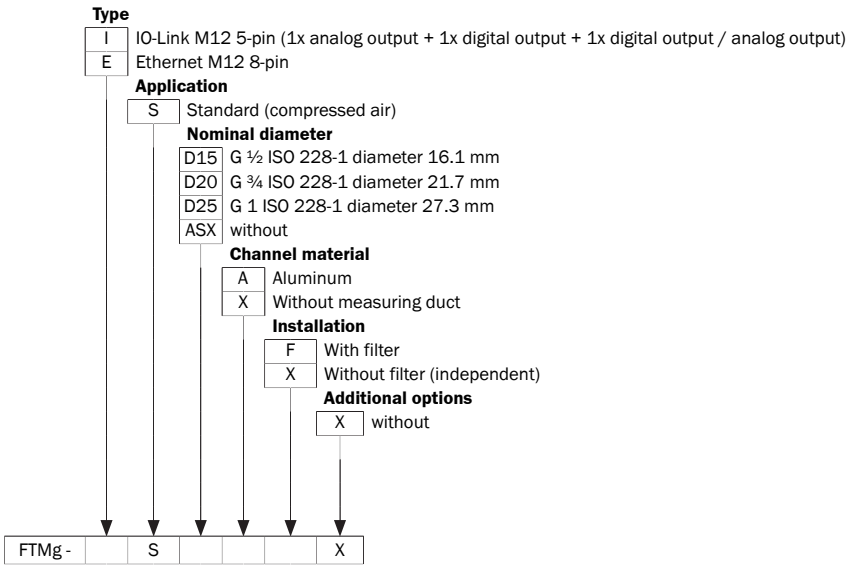
Fields of application

- Consumption and leakage monitoring in compressed air systems
- Monitoring of the energy consumption of compressed air in the supply network
- Measurement of inert gases in packaging with modified atmospheres in the food and beverage industry
- Flow measurement of non-corrosive gases such as Ar, He, CO_2, N_2

Type code

Other models and accessories ➜ www.sick.com/FTMg

Type code



Not all variants of the type code can be combined!

Ordering information

Other models and accessories ➜ www.sick.com/FTMg

- **Nominal width measuring tube:** DN 15
- **Maximum flow velocity:** ≤ 150 m/s
- **Wetted parts:** Stainless steel 1.4305, PA6, Viton®, aluminum
- **Process connection:** G ½ (according to DIN ISO 228-1)
- **Process temperature:** –20 °C ... +60 °C
- **Process pressure:** 0 bar ... 16 bar

Output signal	Type	Part no.
1 analog output 4 mA ... 20 mA +1 digital/analog output (PNP, NPN, push-pull, 4 mA ... 20 mA / switchable) +1 digital output (PNP, NPN, push-pull, switchable), IO-Link V1.1 (COM3 / 230K4 baud)	FTMG-ISD15AX0	1100211
Ethernet TCP/IP, OPC UA, MQTT, integrated web server	FTMG-ESD15AX0	1100214

- **Nominal width measuring tube:** DN 20
- **Maximum flow velocity:** ≤ 150 m/s
- **Wetted parts:** Stainless steel 1.4305, PA6, Viton®, aluminum
- **Process connection:** G ¾ (according to DIN ISO 228-1)
- **Process temperature:** –20 °C ... +60 °C
- **Process pressure:** 0 bar ... 16 bar

Output signal	Type	Part no.
1 analog output 4 mA ... 20 mA +1 digital/analog output (PNP, NPN, push-pull, 4 mA ... 20 mA / switchable) +1 digital output (PNP, NPN, push-pull, switchable), IO-Link V1.1 (COM3 / 230K4 baud)	FTMG-ISD20AX0	1100212
Ethernet TCP/IP, OPC UA, MQTT, integrated web server	FTMG-ESD20AX0	1100215

- **Nominal width measuring tube:** DN 25
- **Maximum flow velocity:** ≤ 150 m/s
- **Wetted parts:** Stainless steel 1.4305, PA6, Viton®, aluminum
- **Process connection:** G 1 (according to DIN ISO 228-1)
- **Process temperature:** –20 °C ... +60 °C
- **Process pressure:** 0 bar ... 16 bar

Output signal	Type	Part no.
1 analog output 4 mA ... 20 mA +1 digital/analog output (PNP, NPN, push-pull, 4 mA ... 20 mA / switchable) +1 digital output (PNP, NPN, push-pull, switchable), IO-Link V1.1 (COM3 / 230K4 baud)	FTMG-ISD25AX0	1100213
Ethernet TCP/IP, OPC UA, MQTT, integrated web server	FTMG-ESD25AX0	1100216

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com