FTMG-ISD20AX0

FTMg

FLOW SENSORS

SICK
Sensor Intelligence.

FTMG-ISD20AX0 | FTMg

FLOW SENSORS

Illustration may differ

Ordering information

Type	Part no.
FTMG-ISD20AX0	1100212

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

Detailed technical data

Features

Measurement principle	Calorimetric (flow, temperature), piezoresistive (pressure)
Medium	Compressed air (air quality ISO 8573-1:2010 [3:4:4]), helium, argon, nitrogen, carbon dioxide
Nominal width measuring tube	DN 20
Measuring range	9.4 l/min ... 1,884.9 l/min, standard measuring range [1] 1,884.9 l/min ... 2,827.4 l/min, extended measuring range [1]
Process temperature	–20 °C ... +60 °C
Process pressure	0 bar ... 16 bar
Communication interface	IO-Link V1.1
Temperature measurement	✓
Pressure measurement	✓
Indication	✓ 128 x 128 pixels, adjustable rotary OLED display (90° steps) and 4 pushbuttons

[1] Reference conditions according to DIN 1343 (atmospheric pressure 1,013 mbar, compressed air temperature 0 °C).

Performance

Minimum flow velocity	≥ 0.5 m/s
Maximum flow velocity	≤ 150 m/s
Accuracy of sensor element	± 3 % From measured value + 0.3 % of the measuring range end value (standard measuring range) according to ISO 8573-1:2010 [3:4:4] ± 8 % From measured value + 1 % of the measuring range end value (extended measuring range)
Reproducibility	± 1.5 % From measured value
Response time	< 0.3 s
Temperature measurement	
Accuracy (temperature)	± +2 °C

Reproducibility (temperature)	± +0.5 °C
Pressure measurement	
Accuracy (pressure)	± 1.5 % from measuring range
Non-linearity (pressure)	± 0.5 % from measuring range
Reproducibility (pressure)	± 0.2 % from measuring range

Electronics

Supply voltage	17 V DC … 30 V DC [1]
Power consumption	< 12 W at 24 V DC without output load
Initialization time	≤ 10 s
Protection class	III
Connection type	Round connector M12 x 1, 5-pin
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)
Output load	4 mA … 20 mA, max. 500 ohm at Uv > 15 V
Lower signal level	3.5 mA … 3.8 mA
Upper signal level	20.5 mA … 21.5 mA
Digital output	≤ 100 mA
Signal voltage HIGH	> Uv - 2 V
Signal voltage LOW	≤ 2 V
Inductive load	≤ 1 H
Capacitive load	≤ 100 nF (2.5 nF, IO-Link mode)

[1] All connections are reverse polarity and overload protected. Q1 and Q2 are short-circuit protected.

Mechanics

Process connection	G ¾ (according to DIN ISO 228-1)
Wetted parts	Stainless steel 1.4305, PA6, Viton®, aluminum
Housing material	PC+ABS, PA66+PA6I GF50, PC, TPE, stainless steel 1.4301
Enclosure rating	IP65/IP67 (according to IEC 60529)
Weight	Approx. 755 g

Ambient data

Ambient operating temperature	–20 °C … +60 °C
Ambient storage temperature	–40 °C … +85 °C
Max. rel. humidity (not condensing)	90 %

Classifications

ECl@ss 5.0	27371815
ECl@ss 5.1.4	27371815
ECl@ss 6.0	27371815
ECl@ss 6.2	27371815
ECl@ss 7.0	27371815
ECl@ss 8.0	27371815
ECl@ss 8.1	27371815

ECl@ss 9.0	27371815
ECl@ss 10.0	27371815
ECl@ss 11.0	27371815
ETIM 5.0	EC002580
ETIM 6.0	EC002580
ETIM 7.0	EC002580
UNSPSC 16.0901	41112501

Dimensional drawing (Dimensions in mm (inch))

Industrial version, unit: mm (inch), decimal separator: period
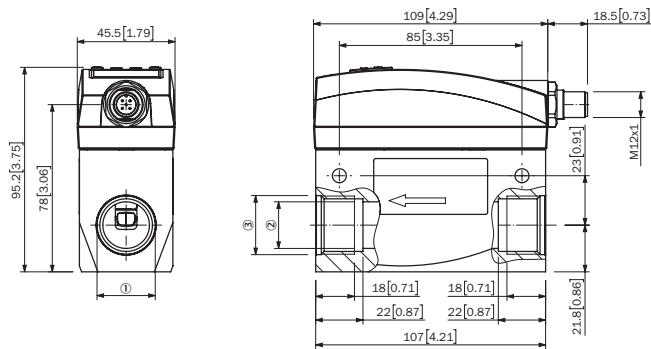
Type	DN	1	2	3
FTMG-ISD15AXX	15	G 1/2	Ø 16.1	Ø 22
FTMG-ISD20AXX	20	G 3/4	Ø 21.7	Ø 27.5
FTMG-ISD25AXX	25	G1	Ø 27.3	Ø 33.5

Recommended services

Additional services ➜ www.sick.com/FTMg

	Type	Part no.
Function Block Factory		
• **Brief description:** The Function Block Factory supports common programmable logic controllers (PLCs) from various manufacturers, such as Siemens, Beckhoff, Rockwell Automation and B&R. More information on the FBF can be found here.	Function Block Factory	On request

Online data sheet

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:

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