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MASTERPIECES
MADE IN GERMANY

Data sheet

FLOWSONIQ®

FSQ/S1

H2O SPEC

OVERVIEW

Operation

- Ultrasonic flow meter
  and totalizer
  (transit-time difference method)

Applications

- Cooling systems and cooling circuits
- Semiconductor production
- Mechanical engineering and plant construction
  - Laser systems
  - Welding machinery
- Special vehicle construction
- Water treatment
- Process water applications

Features

- Precise measurement of flow rate and total volume even for non-electrically conductive media
- Local display (LCD) for flow rate and total volume
- Large measuring range
- High chemical resistance
- Parameters programmable via buttons
- Signal output adjustable: current, voltage or frequency output
- Installation in any orientation
  (individually pre-assembled housing)
- Minimum pressure drop
- Two limit value relays (changeover contact)
- Threaded connection
- No moving parts

Installation information

- Please refer to the operating instructions for FSQ/S1-15 for installation and operating instructions.
- **Download from: www.meister-flow.com**

FSQ/S1 D 1 R0001 07-25 E M

OPERATING DATA

Max. operating pressure	25 bar
Pressure drop	see diagram below
Media temperature	-20 °C - 100 °C
Ambient temperature	-10 °C - 60 °C
Accuracy	± 2,0 % of full scale
Measured value acquisition	
Response time	0,8...8 s
	factory setting approx. 1,6 s
Flow direction	adjustable in device
Standard direction horizontal	from left to right
Standard direction vertical	from bottom to top

MEASURING RANGES

Type	**Measuring range for H_2O**
FSQ/S1-15	0,5 – 80 l/min

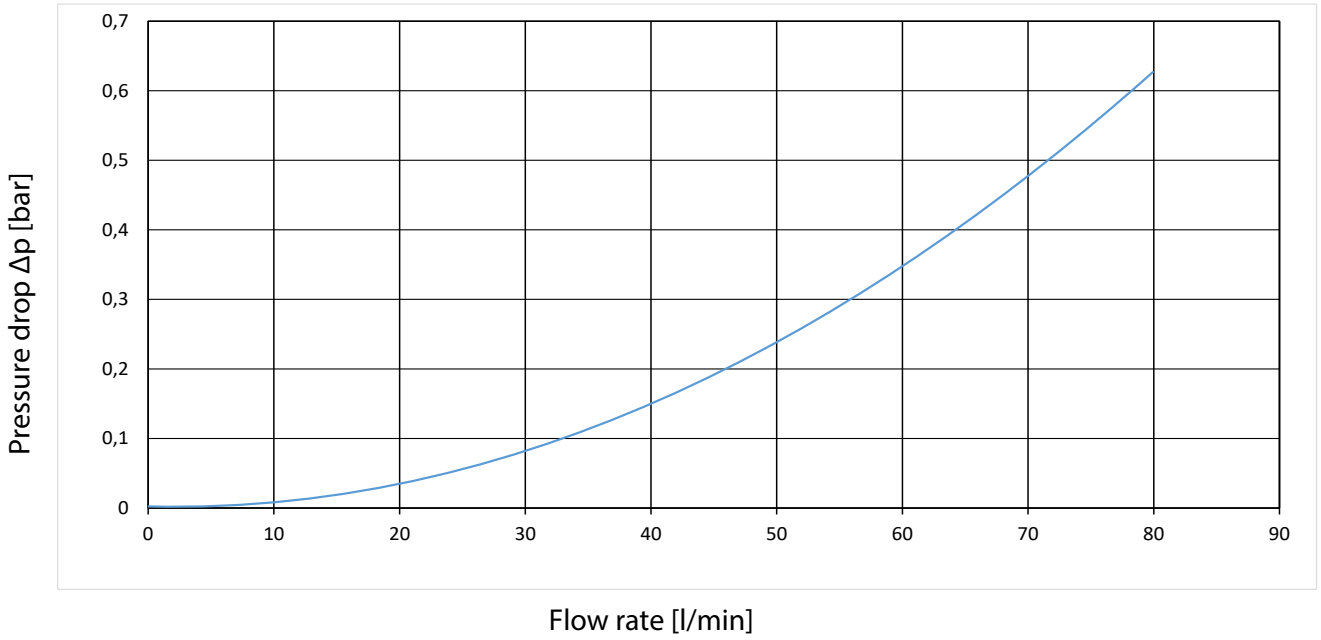
MEDIA

Acoustically conductive liquids,

solids content < 10 vol.%

DIAGRAMS

Pressure drop diagram



MATERIALS

Brass-version	
Parts in contact with media	
Measuring tube:	Brass CW614N (CuZn39Pb3)
Sensors:	Stainless-steel 1.4571 (AISI 316 Ti)
Seals:	FKM (optional EPDM)
Parts not in contact with media	
Display housing:	Aluminium die-cast

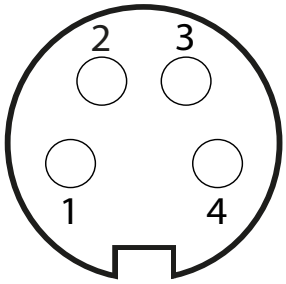
Stainless steel-version	
Parts in contact with media	
Measuring tube:	Stainless-steel 1.4571 (AISI 316 Ti)
Sensors:	Stainless-steel 1.4571 (AISI 316 Ti)
Seals:	FKM (optional EPDM)
Parts not in contact with media	
Display housing:	Aluminium die-cast

ELECTRICAL DATA

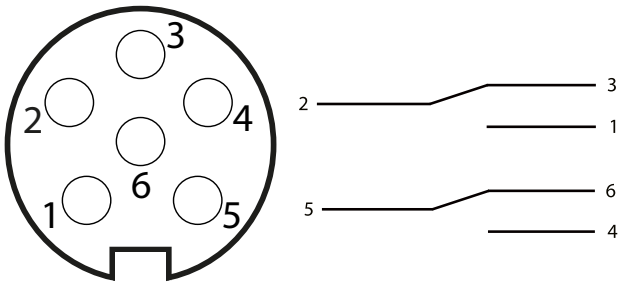
Outputs	
Current output	4 - 20 mA
Voltage output	0 - 10 V
Frequency output	programmable, max. 32 kHz
Ri:	2 kΩ
Limit value relays	
Number:	2
Type:	Changeover
	30 VDC / 1 A
Power supply	+24 VDC ± 15 %
Power consumption	200 mA max.
Display	LCD 2 x 16 digits, illuminated

ELECTRICAL CONNECTION

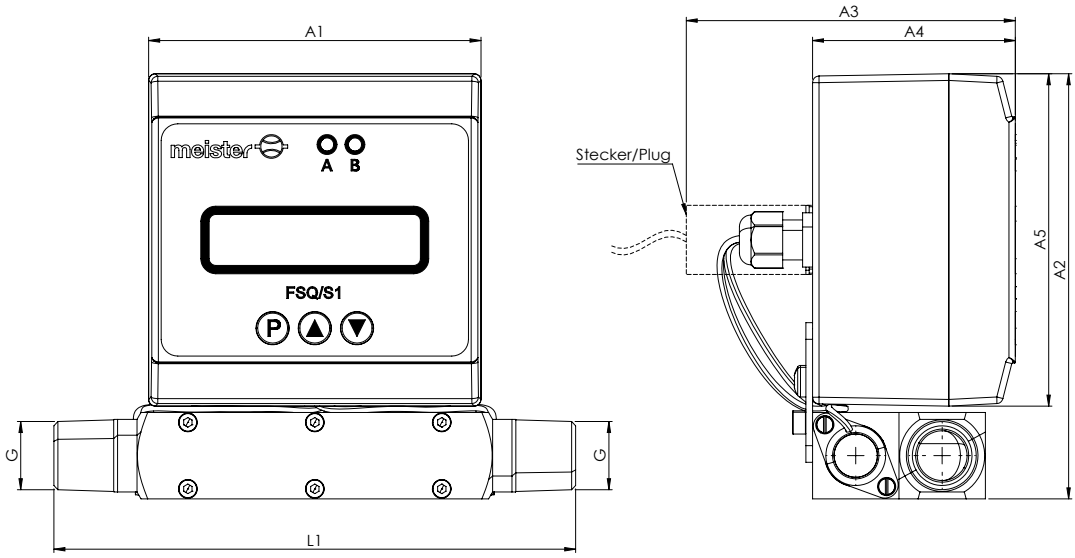
Electrical connection	plug
	4 - pin: for supply, current, voltage or frequency output (included in the scope of delivery)
	6 - pin: for relay outputs (included in the scope of delivery)
Ingress protection:	IP 65
Pin assignment 4-pin device socket:	**supply, output signal**
Pin 1:	4 - 20 mA, 0 - 10 V or
	frequency output
	(adjustable on site)
Pin 2:	GND
Pin 3:	GND
Pin 4:	+24 VDC ± 15 %



Pin assignment 6-pin device socket:	**Relay outputs**
Pin 1:	Relay 2, normally open contact
Pin 2:	Relay 2, center contact
Pin 3:	Relay 2, normally closed contact
Pin 4:	Relay 1, normally open contact
Pin 5:	Relay 1, center contact
Pin 6:	Relay 1, normally closed contact



TECHNICAL DRAWING



DIMENSION TABLE

Type					Dimensions [mm]				Weight
	G	DN	L1	A1	A2	A3	A4	A5	approx. [g]
FSQ/S1-15	R 1/2"	15	157	100	128	99	61	100	1634

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