Be smart. **Measure it.**

S415 OEM

Compact Thermal Mass Flow Meter

Inline

COMPACT DESIGN
Can be installed anywhere

SMARTPHONE ANDROID APP
For remote configuration

POINT-OF-USE INSTALLATION
No straight pipe section required

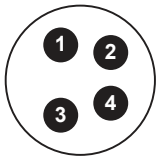
TOTAL FLOW
No bypass measurement

ACCURATE RESULTS
Integrated flow conditioner

Benefits

- Convenient installation, great flexibility, can be installed anywhere
- Available as DN8, DN15, DN20, DN25 and DN32 G (G-thread, female)
- Accuracy of 3 % o.RDG, turn down ratio 50: 1
- The economic thermal mass flow solution
- Integrated flow conditioner - no straight inlet sections needed
- Various signal outputs allow users to connect the sensor to any system

Connection



Every sensor includes the 5m cable M8 with open ends

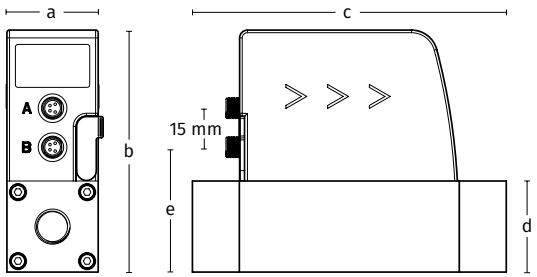
Sensor with Modbus/MBUS include 1 cable

Sensor with Analog output includes 2 cables

Pin assignment connector plug M8

Output Version	Connector	Pin 1	Pin 2	Pin 3	Pin 4
Modbus	A	D-	-VB	+VB	D+
	B	D-	GND	NA	D+
Pulse and analog	A	I-	-VB	+VB	I+
	B	I-	P	P	I+
M-bus	A	M-bus	-VB	+VB	M-bus
	B	M-bus	NA	NA	M-bus
Wire colour		brown	white	blue	black

Dimensions



Dimensions in mm	a	b	c	d	e
DN8/DN15	35.0	93.0	120.4	35.0	48.0
DN20/DN25	48.0	106.0	178.0	48.0	61.0
DN32	60.0	118.0	222.0	60.0	73.0

Display Direction

Standard direction

SI units

Reverse direction

SI units

Standard direction

Imperial units

Technical Data

Measurement

Flow	
Accuracy	3 % o.RDG ±0.3 % FS
Selectable units	l/min, cfm, kg/h, m3/h
Measuring range	see table below
Repeatability	1 % o.RDG
Sensor	Thermal mass flow sensor
Sampling rate	3/sec
Turndown ratio	50:1
Response time (t90)	2 sec
Consumption	
Selectable units	m^3, ft3, l, kg
Reference conditions	
Selectable conditions	20 °C 1000 mbar (ISO1217) 0 °C 1013 mbar (DIN1343) freely adjustable

Signal / Interface & Supply

Analog output	
Signal	4 ... 20 mA, isolated
Scaling	0 ... max flow
Load	250R
Update rate	3/sec
Pulse output	
Signal	Max 30 V, 200 mA
Scaling	1 pulse per consumption unit
Fieldbus	
Interface/Protocol	RS-485/Modbus/RTU M-Bus
Supply	
Voltage supply	15 ... 30 VDC
Current consumption	120 mA @ 24 VDC

General data

Configuration	
Wireless	S4C-FS App for mobile phones
Display	
Integrated	4 digit LED
Material	
Process connection	Aluminum alloy
Housing	PC + ABS
Sensor	Glass coated resistive sensor
Metal parts	Aluminum alloy
Miscellaneous	
Electrical connection	2 x M8 (4 pole)
Protection class	IP54
Approvals	CE, RoHS, FCC
Process connection	G-thread
Weight	0.45 ... 1.3 kg (depends on model)

Operating conditions

Medium	Air, N_2
Medium quality	ISO 8573: 4.4.3 or better
Medium temperature	0 ... 50 °C
Medium humidity	< 90 % rH, no condensation
Operating pressure	0 ... 10 bar(g)
Ambient temperature	0 ... 50 °C
Ambient humidity	< 95 % rH
Storage temperature	-30 ... 70 °C
Transport temperature	-30 ... 70 °C
Pipe sizes	DN8, DN15, DN20, DN25, DN32

S415 Measuring Range — Standard Configuration

Process connection	DN8	DN15	DN20	DN25	DN32
Standard range (S)	250	1000	2000	3500	6000
Low range (L)	50	200	400	700	1200

Stated measuring ranges for S415 OEM under following conditions:

- Standard flow in air in l/min
- Reference pressure: 1000 mbar
- Reference Temperature: +20 °C

Ordering

Please use the following tables to assist in placing your order with our sales staff.

S415 OEM Thermal Mass Flow Meter (Inline)

Order No.	Code	Description
S695 415	S415	S415 OEM mass flow meter G inner thread, 3 % o. RDG, 24 VDC 5 m cable with M8 connector and open ends included
Size		
S695 415	0	DN8
S695 415	1	DN15
S695 415	2	DN20
S695 415	3	DN25
S695 415	4	DN32
Range		
	S	Standard range version
A1453	L	Low range version
Output		
A1450	A	Analog 4 ... 20 mA, Pulse Output
A1451	B	Modbus/RTU output
A1452	C	M-Bus output
Gas type		
A1007	A	Air
A1010	D	N_2
Units		
	A	With SI units Standard
A1458	B	With imperial units
Display direction		
	A	Standard display direction
A1460	B	Reverse display direction

Example: **S4150SBAB**

DN8, Standard range, Modbus/RTU, Air, imperial units

S415 OEM Accessories

Order No.	Description
A554 3315	T-BOX for S415 Modbus/M-Bus systems, including 2 m cable with M8 connector
A554 0109	Mains power supply 100-240 VAC / 24 VDC, 0.5 A, 2 m cable with M8 connector
A553 0137	Connection cable to S551, 5 m

www.suto-itec.com sales@suto-itec.com

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