

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

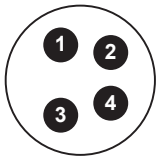
Integrated flow conditioner



Benefits

- ✓ Multiple material option for measuring section: Aluminium or Stainless steel SUS316L/1.4404
- ✓ Convenient installation, great flexibility, can be installed anywhere
- ✓ Available as DN8, DN15, DN20, DN25, DN32, DN40 and DN50 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

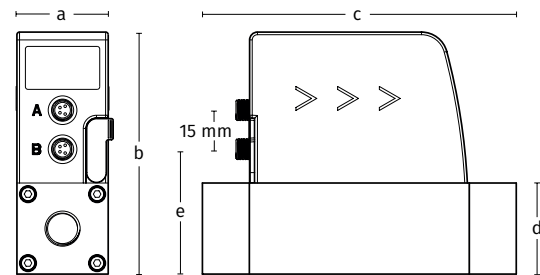


Every sensor includes the 5m cable M8 with open ends
 Sensor with Modbus/MBUS include 1 cable
 Sensor with Analog output includes 2 cables

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
DN40	72.0	130.0	252.0	72.0	85.0
DN50	85.0	143.0	310.0	85.0	98.0

Display Direction



Technical Data

Measurement

Flow

Accuracy	3 % o.RDG $\pm$ 0.3 % FS
Selectable units	l/min, cfm, kg/h, m ³ /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 , ft ³ , l, kg
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Reference conditions

Selectable conditions	20 °C 1000 mbar (ISO1217) 0 °C 1013 mbar (DIN1343) freely adjustable
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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
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Supply

Voltage supply	15 ... 30 VDC
Current consumption	120 mA @ 24 VDC

General data

Configuration

Wireless	S4C-FS App for mobile phones
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Display

Integrated	4 digit LED
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Material

Process connection	Aluminum alloy or SUS316L/1.4404
Housing	PC + ABS
Sensor	Glass coated resistive sensor
Metal parts	Aluminum alloy or SUS316L/1.4404

Miscellaneous

Electrical connection	2 x M8 (4 pole)
Protection class	IP54
Approvals	CE, RoHS, FCC
Process connection	G-thread
Weight	0.45 ... 2.36 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 ... 16 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, DN40, DN50

S415 OEM Measuring Range Standard Configuration

Process connection	DN8	DN15	DN20	DN25	DN32	DN40	DN50
Standard range (S)	250	1000	2000	3500	6000	10000	14000
Low range (L)	50	200	400	700	1200	2000	2800

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.	Description
E695 415	S415 OEM mass flow meter G inner thread, 3 % o. RDG, 24 VDC, 5 m cable with M8 connector and open ends included
Size	
E695 4150	DN8, Aluminium
E695 4151	DN15, Aluminium
E695 4152	DN20, Aluminium
E695 4153	DN25, Aluminium
E695 4154	DN32, Aluminium
E695 4155	DN40, Aluminium
E695 4156	DN50, Aluminium
E695 0415	DN8, Stainless steel
E695 1415	DN15, Stainless steel
E695 2415	DN20, Stainless steel
E695 3415	DN25, Stainless steel
Range	
A1464	Standard range version
A1453	Low range version
Output	
A1450	Analog 4 ... 20 mA, Pulse Output
A1451	Modbus/RTU output
A1452	M-Bus output
Gas type	
A1007	Air
A1010	N ₂
Units	
A1466	With SI units Standard
A1458	With imperial units
Display direction	
A1462	Standard display direction
A1460	Reverse display direction

Ordering Example

Example	S415 OEM DN8, Aluminium, Modbus/RTU, Air, imperial units
Order Code	E695 4150.A1451.A1007.A1458

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

