

THERMAL MASS FLOW METER S415



SMARTPHONE ANDROID APP
For remote configuration



Monitor consumption at point of use — optimize compressed air and vacuum system efficiency



S415 FEATURES



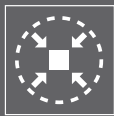
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POINT-OF-USE INSTALLATION

No straight pipe section required



COMPACT DESIGN

Can be installed anywhere



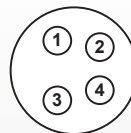
TOTAL FLOW

No bypass measurement



ACCURATE RESULTS

Integrated flow conditioner



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

S415 BENEFITS

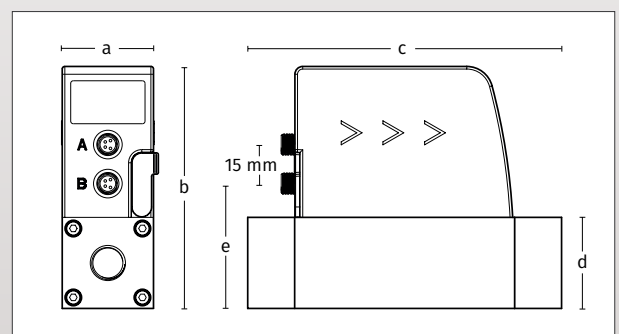
- Convenient installation, great flexibility, can be installed anywhere
- Available as DN8, DN15, DN20, DN25 and DN32 G (female thread)
- Accuracy of 3 % o.RDG, turn down ratio 50: 1
- The economic thermal mass flow solution

The more accurate you can monitor gas flow, the more likely you will discover weak points in the process flow, thus ensuring continuity and profitability.

Asymmetric velocity profiles, swirl, and other factors caused by bends in pipes can lead quickly to inaccurate readings. And it is often not possible to place flow meters at hard-to-reach places.

The solution is our new generation of compact, easy-to-install, reliable and cost-effective flow and consumption meters: the S415.

S415 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

S415 TECHNICAL DATA

Measurement	
Flow	
Accuracy	3 % o.RDG ±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
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	
Protocol	Modbus/RTU
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 under following conditions:

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

S415 DISPLAY DIRECTION



S415 ORDERING

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



Visit our website or e-mail us:
www.suto-itec.com
sales@suto-itec.com

S415 Thermal Mass Flow Meter (Eco Version)		
Order No.	Code	Description
S695 415	S415	S415 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

S415 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

Example: S4150SBAB

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