THERMAL MASS FLOW METERS
S415 / S418

SMARTPHONE ANDROID APP
For remote configuration

FLOW AND CONSUMPTION SENSORS

Monitor your flow —
optimize process efficiency

S415 / S418 FEATURES

SMARTPHONE ANDROID APP
For remote configuration

POINT-OF-USE INSTALLATION
No straight pipe section required

COMPACT DESIGN
Can be installed anywhere

TOTAL FLOW
No bypass measurement

EASY PROCESS MONITORING
Effective and inexpensive recording

ACCURATE RESULTS
Integrated flow conditioner

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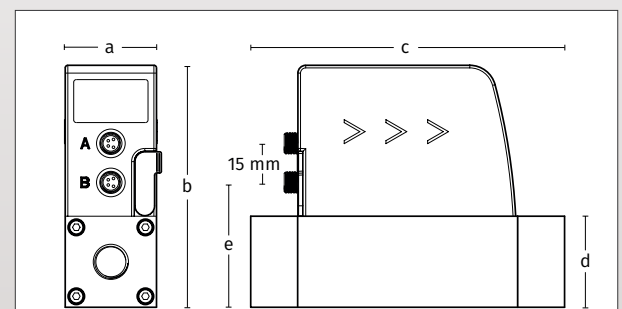
Asymmetric velocity profiles, swirl, and other factors caused by bends in pipes can lead quickly to inaccurate readings. And it is often not possible to place flow meters at hard-to-reach places.

The solution is our new generation of compact, easy-to-install, reliable and cost-effective flow and consumption meters: the S415 and the S418.

S415 / S418 BENEFITS

- Convenient installation, great flexibility, can be installed anywhere
- Available as DN8, DN15, DN20 and DN25 (G female thread)
- Eco version S415: Accuracy of 3% o.RDG, measuring volume 50: 1
- Pro version S418: Accuracy of 1.5% o.RDG, measuring volume 100: 1
- Pro version S418: Integrated data logger and pressure gauge option

S415 / S418 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

S415 / S418 TECHNICAL DATA

General Specifications	
Inner thread	DN8, DN15, DN20, DN25
Process connection	G inner thread (ISO 228-1)
Pressure range	0 ... 1.0 MPa
Ambient / Transport temperature	0 ... +50°C / -30 ... +70°C
Medium conditions	0 ... +50°C / rH < 90% no condensation
Power supply	18 ... 30 VDC / 120 mA
Output signal	(A) Analogue 4 ... 20 mA, pulse (B) RS-485 (Modbus/RTU) (C) Digital M-Bus
LED display	4-Digit / S415: Flow / S418: Flow + Pressure (option)
Material	Process connection: aluminium alloy Wetted parts: aluminium alloy Top casing: PC + ABS
Classification	IP54
Electrical connection	2 x M8, 4 poles
Approvals	CE, RoHS

Configuration	S415 (Eco)	S418 (Pro)
Turndown ratio	50:1	100:1
Accuracy (at 6 bar, 20°C, rH < 40%)	3% of reading	1.5% of reading
Measured gas	Air, N_2	Non-corrosive gases, up to 2 calibrated gases
Response time (T90)	1 sec	0.1 sec
Interface	Wireless for Service App	Wireless for Service App, USB for logger readout
Data logger	None	Memory size: 8,000,000 samples Channels: up to 4 channels (Flow, Consumption, Temperature, Pressure) Sampling rate: 1 sec ... 1 h
Pressure sensor option	None	Range: 0 ... 1.0 MPa Accuracy: 1% F.S.

Calibrated Gas Types	S415 (Eco)		S418 (Pro)	
The S415 can be calibrated for Air or N_2 The S418 can be calibrated for up to two gases. Standard is Air.	A	Air	A	Air
	D	N_2	B	CO_2
			C	O_2 (oil & grease free)
			D	N_2
			E	N_2O
			F	Ar
			G	Natural gas
			H	H_2 (real gas calibration)
			I	Other gas (specify)
			J	He (real gas calibration)
			K	C_3H_8
			Z	No gas

Thread / Measuring Range	Standard Configuration			
Process connection	DN8	DN15	DN20	DN25
Measuring range (S) in l/min	250	1000	2000	3500
Low range (L) in l/min	50	200	400	700

Stated measuring ranges under following conditions:

- Standard flow in air
- Reference pressure: 1000 hPa
- Reference Temperature: +20°C

S415 / S418 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 Gas types Air or N$_2$ Measuring range (S)* 5 m cable with M8 connector and open ends included
Size		
S695 415	0	DN8 G thread connection
S695 415	1	D15 G thread connection
S695 415	2	D20 G thread connection
S695 415	3	D25 G thread connection
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
A1458	B	with imperial units instead of SI units

Example: S4150SBAB
Pressure sensor, DN8, Standard range, Modbus/RTU, Air, imperial units

S415/418 Accessories

Order No.	Description
A554 3315	T-BOX for S415 / S418 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 S415 / S418 to S551, 5 m
M599 7020	S4A data analysis software, for data logger S418

S418 Thermal Mass Flow Meter (Pro Version)

Order No.	Code	Description
S695 418	S418	S418 mass flow meter with integrated data logger G inner thread, 1.5% o. RDG, 24 VDC Gas types A-K and B-Z Measuring range (S)* 5 m cable with M8 connector and open ends included
Size + Pressure sensor option		
S695 418	0	DN8 G thread connection
S695 418	1	DN15 G thread connection
S695 418	2	DN20 G thread connection
S695 418	3	DN25 G thread connection
S695 418	5	DN8 G thread connection, Pressure sensor 10 barg 1% F.S
S695 418	6	DN15 G thread connection, Pressure sensor 10 barg 1% F.S
S695 418	7	DN20 G thread connection, Pressure sensor 10 barg 1% F.S
S695 418	8	DN25 G thread connection, Pressure sensor 10 barg 1% F.S
Range		
	S	Standard range version
A1453	L	Low range version
Output		
A1455	A	Analog 4 ... 20 mA, Pulse Output
A1456	B	Modbus/RTU output
A1457	C	M-Bus output
Gas type 1		
A1007	A	Air
A1008	B	CO$_2$
A1009	C	O$_2$ (Oil- & grease-free cleaned)
A1010	D	N$_2$
A1011	E	NO$_2$
A1012	F	Argon
A1013	G	Natural Gas
A1014	H	H$_2$ (Real gas calibration)
A1015	I	Other Gas (Please specify)
A1016	J	He (Real gas calibration)
A1017	K	C$_3$H$_8$
	Z	No Second Gas
Gas type 2 (same selections as above)		
Units		
	A	with SI units
A1459	B	with imperial units instead of SI units

Example: S4187LBAZA
Pressure sensor, DN20, Low range, Modbus/RTU, Air, No Second Gas, SI units

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