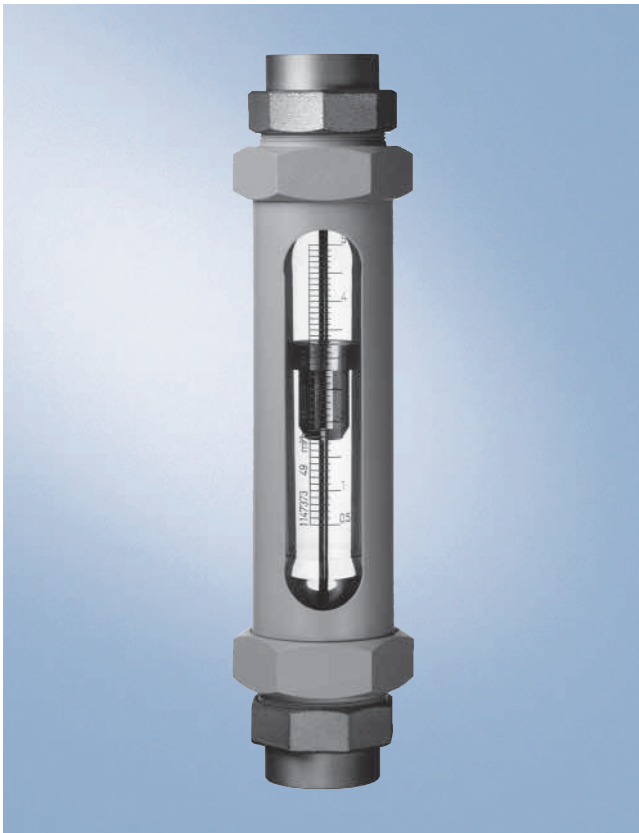


SITRANS F flowmeters

SITRANS F VA

Tubex variable area meter

Overview



SITRANS F VA Tubex variable area meter

Application

The SITRANS F VA Tubex variable area meters are used to measure the volume of transparent liquids and gases passing through closed piping. The variable area meters can also be used for flow monitoring if they are equipped with one or more switching contacts. Standard scales are available for liquids with a density of 1 kg/l (62.43 lb/cu.ft). The scales must be recalculated for all other media depending on the physical characteristics.

The flow tube is also optionally available with a percentage or 2-mm (0.078 inch) scale.

The product is manufactured by MECON GmbH and distributed by Siemens.

Design and operation

The main components of the SITRANS F VA Tubex variable area meters are the glass variable-area flow tube with float, the fitting and the connection parts. The flow is displayed directly on the scale present on the flow tube (e.g. in l/h) and is read at the position of the float's widest diameter.

Benefits

- Product scales for liquids and gases
- Rugged versions with various materials
- Can be used for high pressures and temperature
- Short delivery times for standard versions.

Connection and mode of operation

For certain variable area meter sizes, the float is packed in a plastic net for transport purposes. Prior to fitting, this must be removed out of the variable area meter from the top.

The locking rod must be pulled upwards out of the variable area meter.

In versions with a float guide rod, the float is usually held in place at the top by a rubber buffer. Push this buffer down to the bottom limit by pressing on the float.

The variable area meter must be fitted vertically and without tension. Control elements or reductions/extensions in the pipe diameter upstream or downstream of the variable area meter have no influence on the accuracy when measuring liquids. However, when measuring gases, the variable area meter should be installed upstream of valves to prevent pulsations resulting from compression. Since variable area meters respond extremely sensitively to changes in flow, control elements should always be adjusted slowly.

The calibration has been carried out for defined media conditions. Deviations in the density, pressure or temperature of gases, or in the density or viscosity of liquids, result in measurement errors. It is essential to observe the calibration conditions. When ordering, it is therefore essential to provide data on the medium, density and viscosity at the operating temperature and pressure. With gases, it is additionally necessary to specify the exact reference point for the pressure (pressure above atmospheric, or absolute pressure).

Retrofitting of switching contacts is only possible if variable area meters with magnets are used and if the fitting is made of stainless steel (see Table on page 4/230). When using for the first time, move the float completely past the contact to permit polarization.

Float guide rod

(see tables on page 4/228 and 4/229)

The float guide rod prevents the float from making contact with the glass flow tube.

The option is recommended to increase the operational safety and to protect against glass breakages in the case of operating conditions such as solenoid valve control. The option is not possible in conjunction with floats with magnets and weighted PVC/PVDF floats.

Liquids

Standard: flow tube E 4000 to H 25000

Option: flow tube C 125 and upwards

Gases

Standard: flow tube D 2500 to H 25000

Option: flow tube C 125 and upwards

SITRANS F flowmeters

SITRANS F VA

Tubex variable area meter

4

Technical specifications

Application	See page 4/226
Mode of operation	See page 4/226
Measuring principle	Float
Input	
Flow	Vertically upwards
Pressure limit with threaded connection	
• ≤ G ³ / ₄	Max. 10 bar (145 psi)
• G1	Max. 8 bar (116 psi)
• G1 ¹ / ₄ to G3	Max. 5 bar (73 psi)

Rated operating conditions

Temperature limits

• With float made of mat. No. 1.4305 / 303 , 1.4571 / 316Ti or aluminium	-10 to +150 °C (14 to 302 °F)
• With float made of PVDF	-10 to +100 °C (14 to 212 °F)
• With float made of PVC	-10 to +50 °C (14 to 122 °F)
• With fitting made of PVC	-10 to +50 °C (14 to 122 °F)

Etched scale is necessary with medium temperature > 90 °C (194 °F)

Medium conditions

• Accuracy	Class 1.6 (according to VDE/VDI 3513, sheet 2)
• Measuring range	Dependent on flow tube, see Tables on pages 4/228 and 4/229
- For liquids	0.1 l/h to 25 m ³ /h (0.00044 to 110 USgpm)
- For gases	1.6 l/h to 400 m ³ /h (0.0009 to 235 scfm)

A special scale must be provided for liquids with a density other than 1 kg/l (62.43 lb/cu.ft) and all gases

• Dimensions for measured variable	l/h (up to flow tube D2500) m ³ /h (flow tube D3000 and above)
------------------------------------	--

Design

Connections	Screwed gland G ¹ / ₄ to G3
Material	
• Flow tube	Borosilicate glass (length 300 mm (11.8 inch))
• Connection	Cast iron, stainless steel, mat. No. 1.4571, steel/PVC / 316Ti, steel PVC
• Float	Stainless steel, mat. No. 1.4305/303, mat. No. 1.4571, PVC and PVDF, aluminium/316Ti
• Float guide rod	Stainless steel, mat. No. 1.4571 / 316Ti
• Gasket	Buna N up to 90 °C (194 °F), Viton up to 150 °C (302 °F), EPDM (for potable water plants) up to 150 °C (302 °F)
• Limit	Springs made of stainless steel for non-guided floats, otherwise rubber buffers for guided floats
Weight	
• With threaded connection G ¹ / ₂	2.5 kg (5.51 lb)
• With threaded connection G1	5.5 kg (12.12 lb)
• With threaded connection G2	9 kg (19.8 lb)
• With threaded connection G3	24 kg (52.9 lb)

Classification according to PED 97/23/EC

	Order No. 7ME5810-	Permissible media	Category
G ¹ / ₄ to G3	xxxax-xxxx; a ≠ 2	Gases of fluid group 2 and liquids of fluid group 1	Article 3.3
≤ DN 25 (G ¹ / ₄ to G1)	xxxax-xxxx; a = 2	Gases of fluid group 1 and liquids of fluid group 1	Article 3.3
> DN 25 (G1 ¹ / ₄ to G3)	xxxax-xxxx; a = 2	Gases of fluid group 1 and liquids of fluid group 1	I

Technical specifications of contacts

Switching principle	Magnetic contact unit, bistable	
Designation		
• Flow tube size C 125 to H 25000	K 17 A, K17 B	
• Flow tube size D 650 to H 25000	K 23	
Housing/plug	PP/PA 6	
Contact material	Rhodium	
Degree of protection	IP 65	
Ambient temperature	-20 to +80 °C (-4 to +176 °F)	
Max. switching frequency	5/min	
Max. rating		
• K 17	AC 250 V/0.5 A/10 VA DC 250 V/0.5 A/5 W	
• K 23	AC 250 V/1 A/150 VA DC 250 V/1 A/100 W Rating data apply to resistive loads; a suppressor circuit is required for inductive loads	

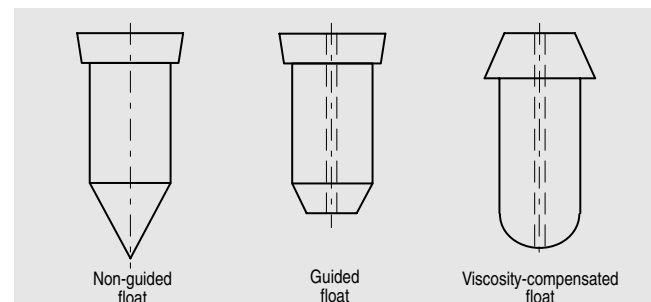
Selection of float

There are three versions of floats:

- Non-guided float
- Guided float
- Viscosity-compensated float.

Use of the viscosity-compensated float is necessary above the following viscosities:

Flow tube	mPa·s
C 125 to C 500	≥ 3
D 650 to D 3000	≥ 5
E 4000 to F 10000	≥ 8
G 12500 to H 25000	≥ 10



Float versions

SITRANS F flowmeters

SITRANS F VA

Tubex variable area meter

Measuring ranges for liquids

Connection	Flow tube	Pressure loss	Max. measuring range for the selected floats											
			Up to flow tube B100, mat. No.		Viscosity-compensated, mat. No.		With magnet, mat. No.		PVC weighted					
			1.4305, 1.4571	303, 316Ti	1.4571	316Ti	1.4571	316Ti	l/h	(USgpm)				
Female thread G, NPT	PVC adhesive bushing	mbar	(psi)	l/h	(USgpm)	l/h	(USgpm)	l/h	(USgpm)					
(G¼), (G¾), G½)	20 (0.79)	A 1	10	(0.145)	1	(0.0044)	-	-	-	-	-	-		
		A 3			3	(0.013)	-	-	-	-	-	-		
		A 5			5	(0.022)	-	-	-	-	-	-		
		A 10			10	(0.044)	-	-	-	-	-	-		
		A 25			25	(0.110)	-	-	-	-	-	-		
		B 30			30	(0.132)	-	-	-	-	11	(0.048)		
		B 40			40	(0.176)	-	-	-	-	15	(0.066)		
		B 50			50	(0.22)	-	-	-	-	20	(0.088)		
		B 65			65	(0.29)	-	-	-	-	25	(0.110)		
		B 80			80	(0.35)	-	-	-	-	32	(0.140)		
		B 100			100	(0.44)	-	-	-	-	40	(0.176)		
		C 125			20	(0.290)	125	(0.55)	100 *	(0.44)*	120	(0.53)	65	(0.29)
		C 160					160	(0.70)	125 *	(0.55)*	150	(0.66)	90	(0.40)
		C 200					200	(0.88)	160 *	(0.70)*	180	(0.79)	110	(0.48)
		C 250					250	(1.10)	200 *	(0.88)*	240	(1.06)	140	(0.62)
		C 315					40	(0.58)	315	(1.39)	240 *	(1.06)*	300	(1.32)
		C 400			400	(1.76)			300 *	(1.32)*	360	(1.59)	220	(0.97)
C 500	500	(2.20)	360 *	(1.59)*	480	(2.11)			250	(1.10)				
(G½), (G¾), G1)	32 (1.26)	D 650	19	(0.28)	650	(2.86)			400 *	(1.76)*	600	(2.64)	500	(2.20)
D 800					800	(3.52)	500 *	(2.20)*	750	(3.30)	600	(2.64)		
D 1000					1000	(4.4)	600 *	(2.64)*	950	(4.18)	750	(3.30)		
D 1250					1250	(5.5)	750 *	(3.30)*	1200	(5.3)	1000	(4.40)		
D 1600					24	(0.35)	1600	(7.0)	1000 *	(4.40)*	1500	(6.6)	1250	(5.50)
D 2000							2000	(8.8)	1200 *	(5.30)*	1800	(7.9)	1600	(7.0)
D 2500							33	(0.48)	2500	(11.0)	1400 *	(6.20)*	2400	(10.6)
D 3000	3000	(13.2)	1800 *	(7.9)*	2800	(12.3)			2400	(10.6)				
(G1¼), (G1½), G2)	63 (2.48)	E 4000	25	(0.36)	4000 *	(17.6)*	2500 *	(11.0)*	3800 *	(16.7)*	3200	(14.0)		
E 5000					5000 *	(22.0)*	3000 *	(13.2)*	4800 *	(21.1)*	3800	(16.7)		
E 6500					6500 *	(28.6)*	4000 *	(17.6)*	6400 *	(28.2)*	5000	(22.0)		
F 8000					8000 *	(35.2)*	4500 *	(19.8)*	7500 *	(33.0)*	6400	(28.0)		
F 10000					10000 *	(44.0)*	5500 *	(24.2)*	9500 *	(41.8)*	7500	(33.0)		
(G2), (G2½), G3)	-	G 12500	34	(0.49)	12500 *	(55.0)*	7000 *	(30.8)*	12000 *	(52.8)*	-	-		
G 16000					16000 *	(70.4)*	9000 *	(39.6)*	16000 *	(70.4)*	-	-		
H 20000		38	(0.55)	20000 *	(88.0)*	11000 *	(48.4)*	18000 *	(79.2)*	-	-			
H 25000				25000 *	(110.0)*	14000 *	(61.6)*	24000 *	(105.6)*	-	-			

Standard measuring range for liquid ($\rho = 1 \text{ kg/l}$ (62.43 lb/cu.ft), viscosity 1 mPa·s (1 cp)) (dynamic range 1:10)

Remarks

* Guided float.

Non-standard sizes for the thread are listed in brackets.

Standard versions are bold printed.

SITRANS F flowmeters

SITRANS F VA

Tubex variable area meter

Measuring ranges for air

Connection	Flow tube	Pressure loss		Max. measuring range for the selected floats									
				Aluminium, mat. No. 3.1645		Aluminium, mat. No. 3.1645 with magnet		PVC		PVDF		PVC with magnet	
				l/h	(scfm)	l/h	(scfm)	l/h	(scfm)	l/h	(scfm)	l/h	(scfm)
Female thread G, NPT (G ³ / ₈), G ¹ / ₂	PVC adhesive bushing mm (inch)	mbar (psi)	4 (0.058)	Aluminium, mat. No. 3.1645		Aluminium, mat. No. 3.1645 with magnet		PVC		PVDF		PVC with magnet	
				l/h	(scfm)	l/h	(scfm)	l/h	(scfm)	l/h	(scfm)	l/h	(scfm)
				A 1	16 (0.009)	-	-	10 (0.006)	10 (0.006)	-	-		
				A 3	50 (0.029)	-	-	25 (0.015)	25 (0.015)	-	-		
				A 5	80 (0.047)	-	-	50 (0.029)	50 (0.029)	-	-		
				A 10	160 (0.094)	-	-	80 (0.047)	80 (0.047)	-	-		
				A 25	400 (0.235)	-	-	250 (0.147)	250 (0.147)	-	-		
				B 30	500 (0.294)	-	-	320 (0.188)	360 (0.212)	-	-		
				B 40	650 (0.383)	-	-	450 (0.265)	500 (0.294)	-	-		
				B 50	800 (0.471)	-	-	550 (0.324)	650 (0.383)	-	-		
				B 65	1100 (0.647)	-	-	750 (0.441)	800 (0.471)	-	-		
				B 80	1400 (0.824)	-	-	900 (0.530)	1000 (0.589)	-	-		
				B 100	1600 (0.942)	-	-	1100 (0.647)	1250 (0.736)	-	-		
				C 125	2000 (1.18)	2500 (1.47)	1400 (0.824)	1500 (0.883)	2200 (1.29)				
				C 160	3000 (1.77)	3200 (1.88)	1800 (1.06)	2000 (1.18)	3000 (1.77)				
				C 200	3600 (2.12)	4000 (2.35)	2200 (1.29)	2500 (1.47)	3600 (2.12)				
				C 250	4000 (2.35)	5000 (2.94)	2800 (1.65)	3000 (1.77)	4500 (2.65)				
C 315	5000 (2.94)	6400 (3.77)	3400 (2.00)	3600 (2.12)	6000 (3.53)								
C 400	6400 (3.77)	8000 (4.71)	4000 (2.35)	5000 (2.94)	7000 (4.12)								
C 500	8000* (4.71)*	-	-	5000* (2.94)*	5500* (3.24)*	-	-						
(G ¹ / ₂), (G ³ / ₄), G1	32 (1.26)	7 (0.102)	D 650	10000 (5.89)	12000 (7.06)	7000 (4.12)	8000 (4.71)	10000 (5.89)					
			D 800	13000 (7.65)	15000 (8.83)	9000 (5.30)	9000 (5.30)	12000 (7.06)					
			D 1000	16000 (9.42)	20000 (11.77)	11000 (6.47)	12000 (7.06)	16000 (9.42)					
			D 1250	20000 (11.77)	24000 (14.13)	14000 (8.24)	15000 (8.83)	20000 (11.77)					
			D 1600	28000 (16.48)	32000 (18.83)	18000 (10.59)	20000 (11.77)	25000 (14.71)					
			D 2000	36000 (21.19)	40000 (23.54)	22000 (12.95)	25000 (14.71)	32000 (18.83)					
			D 2500	40000* (23.54)*	-	-	28000* (16.48)*	30000* (17.66)*	-	-			
			D 3000	50000* (29.43)*	-	-	32000* (18.83)*	36000* (21.19)*	-	-			
(G1 ¹ / ₄), (G1 ¹ / ₂), G2	63 (2.48)	10 (0.145)	E 4000	64000* (37.67)*	75000* (44.14)*	45000 (26.49)	50000 (29.43)	60000 (35.31)					
			E 5000	80000* (47.09)*	100000* (58.86)*	55000 (32.37)	65000 (38.26)	80000 (47.09)					
			E 6500	100000* (58.86)*	125000* (73.57)*	75000 (44.14)	80000 (47.09)	100000 (58.86)					
			F 8000	140000* (82.40)*	150000* (88.29)*	90000 (52.97)	100000 (58.86)	125000 (73.57)					
			F 10000	160000* (94.17)*	180000* (105.9)*	120000 (70.63)	125000 (73.57)	160000 (94.17)					
(G2), (G2 ¹ / ₂), G3	-	13 (0.189)	G 12500	200000* (117.7)*	220000* (129.5)*	130000* (76.52)*	150000* (88.29)*	175000* (103.0)*					
			G 16000	280000* (164.8)*	300000* (176.6)*	180000* (105.9)*	200000* (117.7)*	240000* (141.3)*					
			H 20000	320000* (188.3)*	360000* (211.9)*	220000* (129.5)*	250000* (147.1)*	300000* (176.6)*					
			H 25000	400000* (235.4)*	450000* (264.9)*	280000* (164.8)*	300000* (176.6)*	360000* (211.9)*					

Standard measuring range for air (p_{abs} = 1.013 bar (14.69 psi) at T = 20 °C (68 °F)) (dynamic range 1:10)

Remarks

* Guided float.

Non-standard sizes for the thread are listed in brackets.

Standard versions are bold printed.

SITRANS F flowmeters

SITRANS F VA

Tubex variable area meter

Versions

Eight standard versions are defined in the price list using different combinations of fittings, connection materials and floats (the type number corresponds to the 4th digit of the second block of the order number).

Version	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8
Can be used for	liquids					gases		
Fitting	Steel	Mat. No. 1.4571/316Ti	Steel	PVC	Mat. No. 1.4571/316Ti/s teel	Steel	Steel	Mat. No. 1.4571/316Ti/s teel
Connection	Steel (cast iron)	Mat. No. 1.4571/316Ti	Mat. No. 1.4571/316Ti	PVC	Steel	Steel (cast iron)	Mat. No. 1.4571/316Ti	Steel (cast iron)
Float	Mat. No. 1.4571/316Ti/1 .4305/303	Mat. No. 1.4571/316Ti	Mat. No. 1.4571/316Ti	PVC weighted	Mat. No. 1.4571/316Ti	Aluminium (PVC and PVDF as special version)		Aluminium (PVC as special version)
Magnet	-	-	-	-	X	-	-	X
Flow tube, size	A and B	X	X	X	X	X	X	-
	C to F	X	X	X	X	X	X	X
	G and H	X	-	X	-	X	X	X

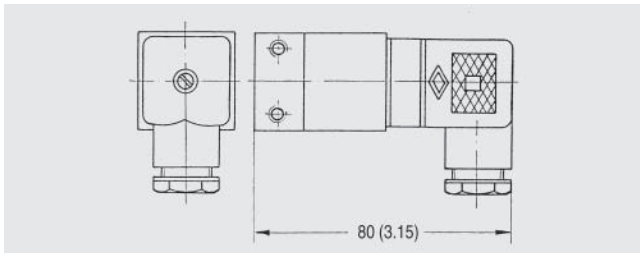
Standard variable area meter versions

Contact assembly

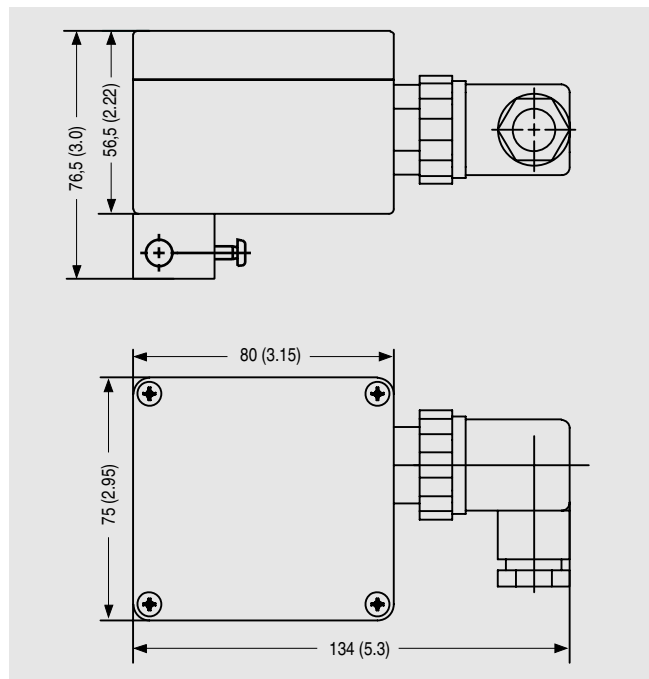
The bistable contact assembly consists of a contact spring set sealed in a glass tube filled with protective gas.

Three contacts can be selected:

- K 17 A: contact closes when the limit is fallen below
- K 17 B: contact closes when the limit is exceeded
- K 23: changeover contact.



Contact K17, dimensions in mm (inches)

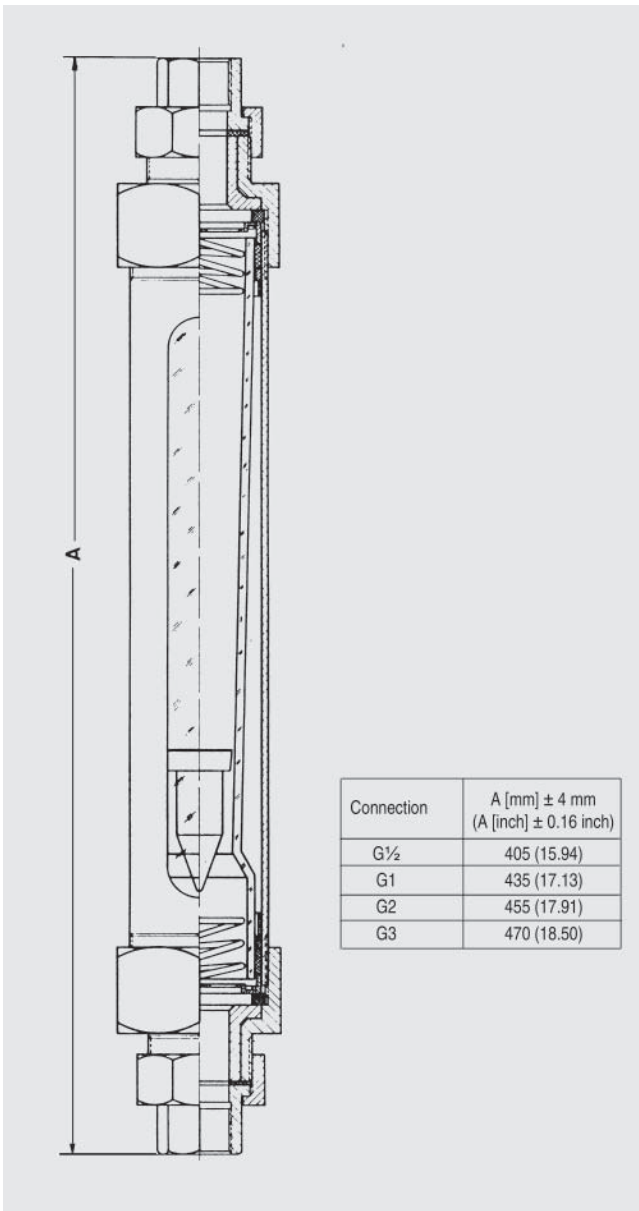


Changeover contact K 23, dimensions in mm (inches)

SITRANS F flowmeters

SITRANS F VA

Tubex variable area meter



SITRANS F VA Tubex, dimensions in mm (inch)

Connection	A [mm] ± 4 mm (A [inch] ± 0.16 inch)
G½	405 (15.94)
G1	435 (17.13)
G2	455 (17.91)
G3	470 (18.50)

Selection and Ordering data

Order No.	Order code
SITRANS F VA variable area meter	
Type Tubex	
Glass flow tube	
C 400	6 C
C 500	7 C
D 650	1 D
D 800	2 D
D 1000	3 D
D 1250	4 D
D 1600	5 D
D 2000	6 D
D 2500	7 D
D 3000	8 D
E 4000	1 E
E 5000	2 E
E 6500	3 E
F 8000	1 F
F 10000	2 F
G 12500	1 G
G 16000	2 G
H 20000	1 H
H 25000	2 H

Standard versions
according to Table page 4/230

Flow tube

- Size A, B ¹⁾
- Size C
- Size D
- Size E, F
- Size G, H ²⁾ ⁴⁾

Version

- Type 1
Fitting: steel
Connection: steel (cast iron)
Float: 1.4571/316Ti, 1.4305/303
- Type 2
Fitting, connection, float: 1.4571/316Ti
- Type 3
Fitting: steel
Connection, float: 1.4571/316Ti
- Type 4
Fitting, connection: PVC
Float: PVC, weighted
- Type 5
Fitting: 1.4571/steel, 316Ti
Connection: steel (cast iron)
Float: 1.4571/316Ti with magnet
- Type 6
Fitting: steel
Connection: steel (cast iron)
Float: aluminium, PVC ³⁾ or PVDF ³⁾
- Type 7
Fitting: steel
Connection: 1.4571/316Ti
Float: aluminium, PVC ³⁾ or PVDF ³⁾
- Type 8
Fitting: 1.4571/steel, 316Ti
Connection: steel (cast iron)
Float: aluminium or PVC ³⁾ with magnet

Special version
Specify Order code and plain text:
Flow tube: ...; Version: ...

Gasket material

- Buna N (standard)
- Viton
- EPDM

A
C
D
E
G

1

2

3

4

5

6

7

8

Z 9

1

4

8

Selection and Ordering data

Order No.	Order code
SITRANS F VA variable area meter	
Type Tubex	
Glass flow tube	
Flow tube size	
A 1	1 A
A 3	2 A
A 5	3 A
A 10	4 A
A 25	5 A
B 30	1 B
B 40	2 B
B 50	3 B
B 65	4 B
B 80	5 B
B 100	6 B
C 125	1 C
C 160	2 C
C 200	3 C
C 250	4 C
C 315	5 C

SITRANS F flowmeters

SITRANS F VA

Tubux variable area meter

Selection and Ordering data	Order No.	Order code
SITRANS F VA variable area meter	7	ME 5 8 1 0 -
Type Tubux		
Glass flow tube		
Contacts (only with magnetic float)		
• Without contact	0	
• Contact K17/A (closes when limit is fallen below)	1	
• Contact K17/B (opens when limit is fallen below)	2	
• 2 contacts K17/A	3	
• 2 contacts K17/B	4	
• Changeover contact K 23	5	
• 1 per contact K17/A and K17/B	6	
Connection size (see Tables on pages 4/228 and 4/229)		
• PVC adhesive bushing (for plastic pipe only)	A	
• Female thread G1/4	B	
• Female thread G3/8	C	
• Female thread G1/2	D	
• Female thread G3/4	E	
• Female thread G1	F	
• Female thread G1 1/4	G	
• Female thread G1 1/2	H	
• Female thread G2	J	
• Female thread G2 1/2	K	
• Female thread G3	L	
Connection type		
• Female thread DIN ISO 228 ⁵⁾	A	
• Adhesive bushing (only for type 4 ⁴⁾)	B	
• Female thread (NPT) ⁵⁾	C	
Float version		
• Standard	0	
• Guided	2	
• Float viscosity-compensated for liquids (SV)	3	
• PVC for gases	4	
• PVC with magnet for gases	5	
• PVDF for gases	6	
• PVC guided	7	
• PVDF guided	8	
• Special versions	9	
Specify Order code and plain text: Float: ...		R 1 Y

1) Not available for the types 5 and 8.

2) Not available for the type 4.

3) Available as special version.

4) Not available for the type 2.

5) With type 4: material PVC

Further designs	Order code
Please add "-Z" to Order No. and specify Order code(s).	
Measured medium Always required, specify in plain text: Medium, measuring range with dimension, density with dimension, viscosity with dimension, operating temperature, operating pressure	Y01
With etched scale (>90 °C (194 °F))	Y02
Silicone-free version	Y04
Medium: water Viscosity: 1 mPa·s (1 cp) Density: 1 kg/l (62.43 lb/cu.ft)	Y05
Special version: specify in plain text	Y99

Selection and Ordering data	Order No.
SITRANS F VA variable area meter, Glass flow tube as spare part for Tubux	7 ME 5 8 9 0 -
Flow tube	
Without flow tube	0 A
A 1	1 A
A 3	2 A
A 5	3 A
A 10	4 A
A 25	5 A
A 35	6 A
B 30	1 B
B 40	2 B
B 50	3 B
B 65	4 B
B 80	5 B
B 100	6 B
C 125	1 C
C 160	2 C
C 200	3 C
C 250	4 C
C 315	5 C
C 400	6 C
C 500	7 C
D 650	1 D
D 800	2 D
D 1000	3 D
D 1250	4 D
D 1600	5 D
D 2000	6 D
D 2500	7 D
D 3000	8 D
E 4000	1 E
E 5000	2 E
E 6500	3 E
F 8000	1 F
F 10000	2 F
G 12500	1 G
G 16000	2 G
H 20000	1 H
H 25000	2 H
Float material	
Without float	A 0 8
Flow tube: size/material	
A / mat. No. 1.4571/316Ti	A 1
A / aluminium	A 3
A / PVDF, not weighted	A 7
A / PVC, not weighted	A 8
B / mat. No. 1.4571/316Ti	B 1
B / aluminium	B 3
B / PVC, weighted	B 7
B / PVC, not weighted	B 8
C / mat. No. 1.4305/303	C 1
C / mat. No. 1.4571/316Ti	C 2
C / aluminium	C 3
C / PVC, weighted	C 7
C / PVC, not weighted	C 8
D / mat. No. 1.4305/303	D 1
D / mat. No. 1.4571/316Ti	D 2
D / aluminium	D 3
D / PVC, weighted	D 7
D / PVC, not weighted	D 8

SITRANS F flowmeters

SITRANS F VA

Tubux variable area meter

Selection and Ordering data	Order No.
SITRANS F VA variable area meter, Glass flow tube as spare part for Tubux	7 ME 5 8 9 0 - - - - - - 0
E, F / mat. No. 1.4305/303	E 1
E, F / mat. No. 1.4571/316Ti	E 2
E, F / aluminium	E 3
E, F / PVC, weighted	E 7
E, F / PVC, not weighted	E 8
G, H / mat. No. 1.4571/316Ti	F 2
G, H / aluminium	F 3
G, H / PVC, weighted	F 4
G, H / PVC, not weighted	F 5
Float design	
• Standard	0
• With magnet	1
• Guided	2
• With magnet and guided (only for flow tube sizes E, F, G, H)	3
• Version without float	8
Gasket material (only together with declaration of flow tube)	
Without gaskets	0 A
<u>For Tubux</u> <u>Flow tube: size / material</u>	
A, B / buna N	1 A
C / buna N	2 A
D / buna N	3 A
E, F / buna N	5 A
G, H / buna N	7 A
<u>For Unox</u> <u>Flow tube: size / material</u>	
A, B, C / buna N	1 B
D up to D1000 / buna N	3 B
D for D1250 and above / buna N	4 B
E / buna N	5 B
F / buna N	6 B
G / buna N	7 B
H / buna N	8 B
<u>For Tubux</u> <u>Flow tube: size / material</u>	
A, B / Viton	1 C
C / Viton	2 C
D / Viton	3 C
E, F / Viton	5 C
G, H / Viton	7 C
<u>For Unox</u> <u>Flow tube: size / material</u>	
A, B, C / Viton	1 D
D up to D1000 / Viton	3 D
D for D1250 and above / Viton	4 D
E / Viton	5 D
F / Viton	6 D
G / Viton	7 D
H / Viton	8 D
Accessories	
Without accessories	A
<u>2 stainless steel limit springs for:</u>	
Flow tube size A, B	B
Flow tube size C	C
Flow tube size D	D
<u>Float guide rod and buna N limits for Tubux</u>	
Flow tube size C, D	E
Flow tube size E, F	F
Flow tube size G, H	G

Selection and Ordering data	Order No.
SITRANS F VA variable area meter, Glass flow tube as spare part for Tubux	7 ME 5 8 9 0 - - - - - - 0
<u>2 stainless steel limits with float guide rod and buna N limits for Unox</u>	
Flow tube size C	H
Flow tube size D	J
Flow tube size E	K
Flow tube size F	L
Flow tube size G	M
Flow tube size H	N

Further designs	Order code
Please add "-Z" to Order No. and specify Order code(s).	
Calibration certificate	B06
Measured medium Always required, specify in plain text: Medium, measuring range with dimension, density with dimension, viscosity with dimension, operating temperature, operating pressure	Y01
With etched scale (>90 °C (194 °F))	Y02
Silicone-free version	Y04
Medium: water Viscosity: 1 mPa·s (1 cp) Density: 1 kg/l (62.43 lb/cu.ft)	Y05
Special version: specify quotation number/date in plain text	Y99