Variable area meter
F VA Trogflux

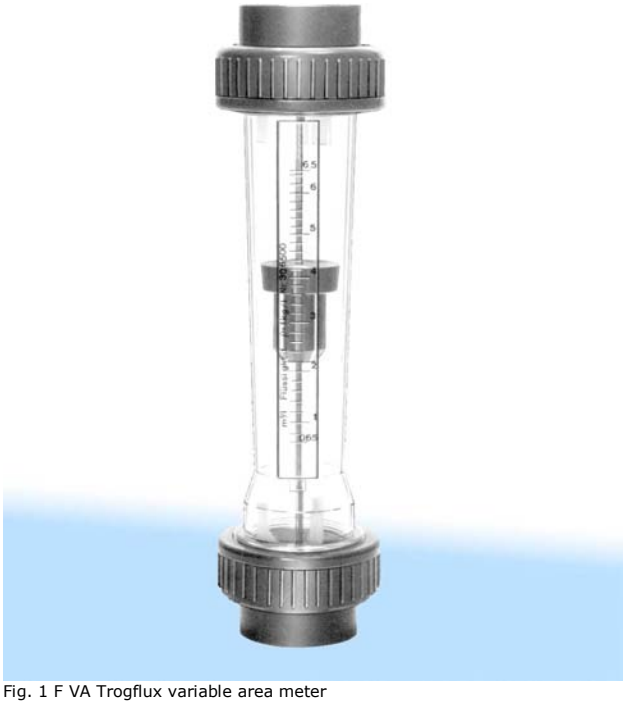


Fig. 1 F VA Trogflux variable area meter

Application

The F VA Trogflux 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.

Design and operation

The main components of the F VA Trogflux variable area meters are the plastic variable-area flow tube with float 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.

Special features

- Product scales for liquids and gases
- Simple assembly and handling
- Low-price plastic design
- 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. Free movement of the float in the flow tube should then be rechecked.

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 meter 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. When using for the first time, move the float completely past the contact to permit polarization.

Technical specifications

Application	See left
Mode of operation	See left
Measuring principle	Float
Input	
Flow	Vertically upwards
Pressure limit	Max. 10 bar (145 psi) see page 3
Rated operating conditions	
Ambient conditions	
Temperature limits	
• For Trogamid flow tube	Max. 60°C (140°F) (with water 50°C (122 °F))
• For polysulfone flow tube	Max. 90°C (194F)
• Pressure- & temperature limits	see table on page 3
Medium conditions	
• Accuracy	Class 2,5 (according to VDE/VDI 3513, sheet 2)
• Measuring range	
- For liquids	12,5 l/h to 25 m³/h / 0,055 to 110 USgpm
- For gases	200 l/h to 430 m³/h / 0,118 to 253,04 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
• Dim. for measured variable	l/h (up to flow tube D2500) m³/h (flow tube E4000 and above)
Design	
Connections	PVC-adhesive bushing, female thread, cast iron
Material	
• Flow tube	Trogamid, polysulfone
• Connection	
- Union nut	PVC, cast iron
- Insert	PVC, cast iron, steel, stainless steel
• Float	Stainl. steel mat.No. 1.4305 / 303, mat.No. 1.4571 / 316 Ti, PVC, aluminium
• Float guide rod	Stainl. steel mat.No. 1.4571 / 316 Ti (option with flow tubes C 125 to D 2.500)
• Gasket	Buna N (with Trogamid flow tube), Viton (with polysulfone flow tube), EPDM (for potable water plants)
• Limit	Polysulfone
Certificates and approvals	
Classification according to PED 97/23/EC	For gases of fluid group 2 and liquids of fluid group 1; complies with requirements of article 3, paragraph 3 (sound engineering practice SEP)

Technical specification of contacts

Designation	K18 A, K18 B
Housing/plug	PP/PA 6
Contact material	Rhodium
Degree of protection	IP65
Ambient temperature	-20 to +80 °C (-4 to 176 °F)
Max. switching frequency	5/min
Max. rating (rating data apply to resistive loads; a suppressor circuit is required for inductive loads)	AC 250 V/0,5 A/10 VA DC 250 V/0,5 A/5 W

Variable area meter
F VA Trogflux

Measuring ranges for liquids

Standard measuring range for liquid: ρ= 1 kg/l (62,43 lb/cu.ft), viscosity 1 mPa·s (1 cp)

Connection		Flow tube	Dynamics	max. measuring range for the selected floats									
PVC adhe-sive bushing [mm]	Female thread			Stainless steel mat.No.		Stainless steel with magnet, mat.No.		PVC weighted		PVC with magnet weighted		Viscosity-compen-sated stainless steel mat.No.	
				1.4305	1.4303	1.4571	316Ti					1.4571	316Ti
				l/h	(USgpm)	l/h	(USgpm)	l/h	(USgpm)	l/h	(USgpm)	l/h	(USgpm)
20	(G1/4) (G3/8),G1/2	C 125	1:10	125	(0,55)	120	(0,53)	65	(0,29)	65	(0,29)	100*	(0,44)*
		C 315	1:10	315	(1,39)	300	(1,32)	175	(0,77)	175	(0,77)	240*	(1,06)*
32	(G1/2), (G3/4), G1	D 650 [1] [2]	1:10	TS 650	TS (2,86)	TS 600	(TS 2,64)	TS 500	(TS 2,20)	TS 450	(TS 1,98)	TS 400*	(TS 1,76)*
			1:10	PS 600	PS (2,64)	PS 550	(PS 2,42)	PS 450	(PS 1,98)	PS 400	(PS 1,76)	PS 350*	(PS 1,54)*
		D 1000	1:10	1.000	(4,4)	950	(4,18)	750	(3,30)	700	(3,08)	600*	(2,64)*
		D 1600	1:10	1.600	(7,04)	1.500	(6,6)	1.250	(5,50)	1.100	(4,84)	1.000*	(4,4)*
		D 2500	1:10	2.500	(11,0)	2.400	(10,6)	2.000	(8,81)	1.750	(7,7)	1.400*	(6,16)*
63	(G1 1/4), (G1 1/2), G2	E 4000	1:10	4.000*	(17,6)*	3.800*	(16,7)*	3.200	(14,1)	3.200	(14,1)	2.500*	(11,0)*
		E 6500	1:10	6.500*	(28,6)*	6.400*	(28,2)*	5.000	(22,0)	5.000	(22,0)	4.000*	(17,6)*
		F 10000	1:10	10.000*	(44,0)*	9.500*	(41,8)*	7.500	(33,0)	7.500	(33,0)	5.500*	(24,2)*
		G 16000	1:4	16.000 [3]*	(70,4)[3]*	16.000*	(70,4)*	12.500	(55,0)	12.500	(55,0)	-	-
		H 20000	1:3	20.000 [3]*	(88,0) [3]*	19.000*	(83,6)*	-	-	-	-	-	-
		J 25000	1:3	25.000 [3]*	(110,0) [3]*	24000*	(106,0)*	-	-	-	-	-	-

(connections in brackets are non-standard)

* Guided float.
[1] With Trogamid flow tube
[2] With polysulfone flow tube
[3] Float, flow tube G, H and J: mat.No.. 1.4571/316Ti

Measuring ranges for air

Standard measuring range for air: p_{abs} = 1,013 bar (14,69 psi), at T=0°C (32°F) , ρ= 1,293 kg/m³, v= 0,0181 mPa.s

Connection		Flow tube	Dynamics	Max. measuring range for the selected floats							
PVC adhe-sive bushing [mm]	Female thread			Aluminium mat.No. 3.1645		Aluminium with magnet mat.No. 3.1645		PVC non-weighted		PVC with magnet weighted	
				l/h	(scfm)	l/h	(scfm)	l/h	(scfm)	l/h	(scfm)
20	(G1/4) (G3/8),G1/2	C 125	1:10	2.000	(1.18)	2.500	(1.47)	1.400	(0.82)	2.200	(1.29)
		C 315	1:10	5.000	(2.94)	6.400	(3.77)	3.400	(2.00)	6.000	(3.53)
32	(G1/2), (G3/4), G1	D 650 [1] [2]	1:10	TS 10.000	TS (5.89)	TS 12.000	TS (7.06)	TS 7000	TS (4.12)	TS 10.000	TS (5.89)
			1:10	PS 9000	PS (5.3)	PS 10.500	PS (6.18)	PS 6.500	PS (3.83)	PS 9.000	PS (5.30)
		D 1000	1:10	16.000	(9.42)	20.000	(11.77)	11.000	(6.47)	16.000	(9.42)
		D 1600	1:10	28.000	(16.48)	32.000	(18.83)	18.000	(10.59)	25.000	(14.71)
		D 2500	1:10	40.000	(23.54)	50.000	(29.43)	28.000	(16.48)	40.000	(23.54)
63	(G1 1/4), (G1 1/2), G2	E 4000	1:10	64.000*	(37.67)*	75.000*	(44.14)*	45.000	(26.49)*	60.000	(35.51)*
		E 6500	1:10	100.000*	(58.86)*	125.000*	(73.57)*	75.000	(44.14)*	100.000	(58.86)*
		F 10000	1:10	160.000*	(94.17)*	180.000*	(105.9)*	120.000	(70.63)*	160.000	(94.17)*
		G 16000	1:4	280.000*	(164.8)*	300.000*	(176.6)*	190.000*	(111.8)*	-	-
		H 20000	1:3	350.000*	(206.0)*	400.000*	(235.4)*	240.000*	(141.3)*	-	-
		J 25000	1:3	430.000*	(253.1)*	480.000*	(282.5)*	300.000*	(176.6)*	-	-

(connections in brackets are non-standard)

Pressure losses

Pressure loss				
	Liquid		Air	
Flow tube	Float		Aluminium float	
	Mat.No. 1.4305	Mat.No 303	Mat.No.3.1645	
	mbar	(psi)	mbar	(psi)
C 125	11	(0,16)	4	(0,058)
C 315	13	(0,189)	5	(0,073)
D 650	17	(0,247)	7	(0,102)
D 1000	17	(0,247)	7	(0,102)
D 1600	20	(0,291)	7	(0,102)
D 2500	24	(0,349)	8	(0,116)
E 4000	25	(0,364)	9	(0,131)
E 6500	27	(0,393)	10	(0,145)
F 10000	32	(0,465)	13	(0,189)
G 16000	51	(0,740)	23	(0,334)
H 20000	65	(0,943)	31	(0,451)
J 25000	91	(1,320)	43	(0,625)

Pressure losses of variable area meters

Contact assembly

The bistable contact assembly K18 consists of a contact spring set sealed in a glass tube filled with protective gas. The contact springs are polarized by a fixed magnet such that they exhibit a bistable response.

Two contacts can be selected:

- K 18 A: contact closes when the limit is fallen below
- K 18 B: contact closes when the limit is exceeded.

Dimensions

Connection		Dimensions of inserts			Weight
PVC adhe-sive bushing mm (inch)	Bushing female thread	with female thread	With PVC adhesive bushing		
d		A±4 mm (A±0,16inch)	A±4[mm] (A±0,16inch)	B±4[mm] (B±0,16inch)	approx. kg (lb)
20 (0,79)	G1/2	344 (13,54)	340 (13,39)	306 (12,05)	0,4 (0,88)
32 (1,26)	G1	353 (13,90)	352 (13,86)	306 (12,05)	0,7 (1,54)
63 (2,49)	G2	372 (14,65)	382 (15,04)	306 (12,05)	2,2 (4,85)

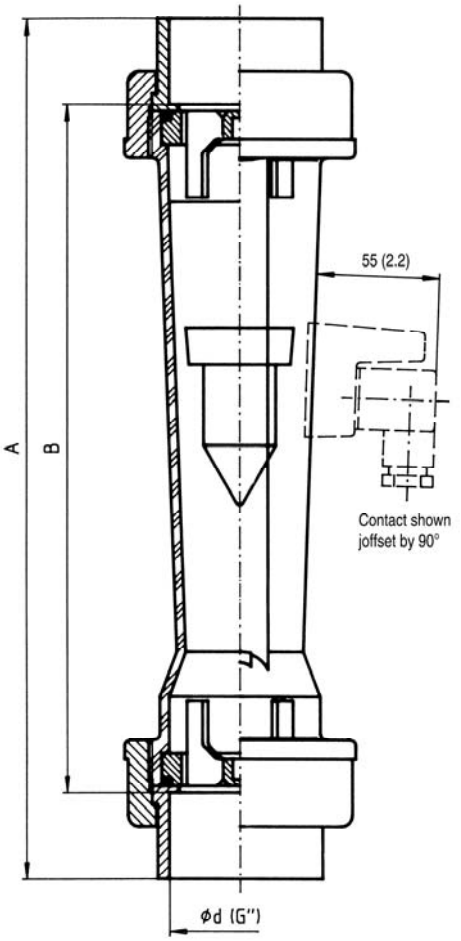


Fig. 2 F VA Trogflux, dimensions in mm (inch)

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 (cp)
C 125 to 315	≥ 3
D 650 to D 2500	≥ 5
E 4000 to F 10000	≥ 8

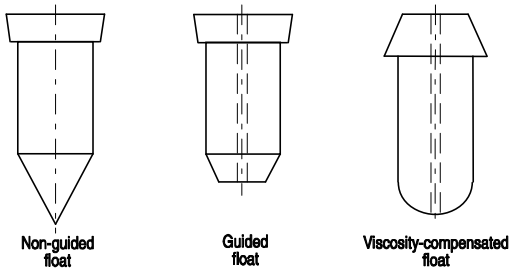


Fig. 3 Float versions

Pressure and temperature limits

Trogamid		Polysulfone
t[°C (°F)]	P_e [bar (psi)]	P_e [bar (psi)]
-10 to +60 (14 to 140)*	10,0 (145)	10,0 (145)
80 (176)	-	10,0 (145)
90 (194)	-	8,5 (123)

* Only up to 50 °C(122°F) with water

Connection parts PVC DIN 8062		
Media	t[°C(°F)]	P_e [bar (psi)]
With water and non-corrosive liquids	20 (68) 40 (104) 60 (140)	10,0 (145) 10,0 (145) 2,5 (36)
With corrosive liquids	20 (68) 40 (104) 60 (140)	10,0 (145) 4,0 (58) 1,0 (15)

P_e = effective pressure = pressure above atmospheric

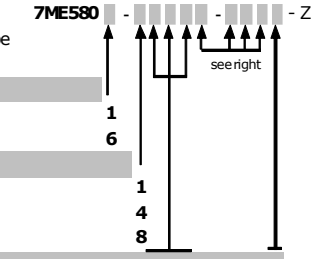
Note of application

The operator of these measuring instruments is responsible for suitability, proper use and corrosion resistance of the used materials with regard to the measuring material. It must be ensured that the materials selected for the meter parts in contact with the medium are suitable for the used process media. The meter may only be used within the pressure and voltage limits specified in the operating instructions. Provide a touch guard for surface temperatures of > 70°C. This touch guard must be designed in a way that the max. allowable ambient temperature on the unit is not exceeded. Before replacing the measuring tubes, check that the unit is free of hazardous media and pressures. The flowmeter meets the requirements of the PED 97/23/EG, article 3, paragraph 3. The most hazardous allowable media are gases of fluid group 2.

Variable area meter
F VA Trogflux

Ordering data (C125-C315)
Connection G ¼-G ½ / DN 20 / NPT ¼"- ½"

F VA Trogflux **7ME580** ▯ - ▯▯▯▯ - ▯▯▯ - Z
Variable area meter, Plastic flow tube



Flow tube material	
Trogamid	1
Polysulfone	6
Gasket material	
Buna N	1
Viton	4
EPDM	8

for liquids (ρ= 1 kg/l, v= 1 mPa.s)

measuring range Q_v l/h

Size	flow tube	Float material			
C	125	mat.No. 1.4305/303	12,5 - 125	AC 1	0
		mat.No. 1.4571/316Ti	12,5 - 125	AC 2	0
		mat.No. 1.4571/316Ti, guided	12,5 - 125	AC 2	2
		mat.No. 1.4571/316Ti, with magnet	12,0 - 120	AC 2	1
		PVC, weighted	6,5 - 65	AC 3	0
		PVC, weighted, with magnet	6,5 - 65	AC 3	1
		mat.No. 1.4571/SV/316Ti, guided	10,0 - 100	AC 4	2
C	315	mat.No. 1.4305/303	31,5 - 315	BC 1	0
		mat.No. 1.4571/316Ti	31,5 - 315	BC 2	0
		mat.No. 1.4571/316Ti, with magnet	30,0 - 300	BC 2	1
		mat.No. 1.4571/316Ti, guided	31,5 - 315	BC 2	2
		PVC, weighted	17,5 - 175	BC 3	0
		PVC, weighted, with magnet	17,5 - 175	BC 3	1
		mat.No. 1.4571/SV/316Ti, guided	24,0 - 240	BC 4	2

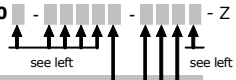
for air (pabs=1,013 bar, T=20°C, ρ= 1,293 kg/m³, v= 0,0181 mPa.s)

measuring range Q_n l/h

Size	flow tube	Float material			
C	125	Aluminium 3.1645	200 - 2000	AC 5	0
		Aluminium 3.1645, with magnet	250 - 2500	AC 5	1
		PVC, non weighted	140 - 1400	AC 6	0
		PVC, non weighted, with magnet	220 - 2200	AC 6	1
C	315	Aluminium 3.1645	500 - 5000	BC 5	0
		Aluminium 3.1645, with magnet	640 - 6400	BC 5	1
		PVC, non weighted	340 - 3400	BC 6	0
		PVC, non weighted, with magnet	600 - 6000	BC 6	1

Ordering data (C125-C315)

F VA Trogflux **7ME580** ▯ - ▯▯▯▯ - ▯▯▯ - Z
Variable area meter, Plastic flow tube



Connection	Material	Type	Size	Float		
C - C	PVC	adhesive bushing	20 (DN 15)	1	1 A	
C - C	PVC	female thread DIN ISO 228	G 1/4	1	2 B	
			G 3/8	1	2 C	
			G 1/2	1	2 D	
C - C	PVC	female thread NPT	1/4"	1	3 B	
			3/8"	1	3 C	
			1/2"	1	3 D	
C - C	cast iron	DIN ISO 228	G 1/2	2	2 D	
C - C	steel mat.No. 1.0254	female thread DIN ISO 228	G 1/4	3	2 B	
			G 3/8	3	2 C	
C - C	steel mat.No. 1.0254	female thread NPT	1/4"	3	3 B	
			3/8"	3	3 C	
			1/2"	3	3 D	
C - C	stainless steel mat.No. 1.4571	female thread DIN ISO 228	G 1/4	4	2 B	
			G 3/8	4	2 C	
			G 1/2	4	2 D	
C - C	stainless steel mat.No. 1.4571	female thread NPT	1/4"	4	3 B	
			3/8"	4	3 C	
			1/2"	4	3 D	

Contacts (only with magnetic float)	
• without contact	A
• contact K18/A (closes when limit is fallen below)	C
• contact K18/B (closes when limit is exceeded)	D
• 2 contacts K18/A	E
• 2 contacts K18/B	F
• 1 per contact K18/A and K18/B	G

Further designs

Please add "**-Z**" to Order No. and specify Order codes

B06 with calibration certificate

Y01 measured medium: specify in plain text: medium, always required, measuring range with dimension, density with dimension, viscosity with dimension operating temperature, operating pressure

Y04 Silicone-free version

Y99 Specify special version in plain text

Ordering data (D650-D2500)

Connection G ½ -G 1 / DN 32 / NPT ½"-1"

F VA Trogflux **7ME580** - - - Z
Variable area meter, Plastic flow tube

see right

Flow tube material	
Trogamid	1
Polysulfone	6
Gasket material	
Buna N	1
Viton	4
EPDM	8

for liquids (ρ= 1 kg/l, v= 1 mPa.s);
measuring range Q_v l/h

Size	flow tube	Float material			
D	650	mat.No. 1.4305/303	TS 65 - 650 PS 60 - 600	CD 1	0
		mat.No. 1.4571/316Ti	TS 65 - 650 PS 60 - 600	CD 2	0
		mat.No. 1.4571/316Ti, guided	TS 60 - 600 PS 55 - 550	CD 2	2
		mat.No. 1.4571/316Ti, with magnet	TS 60 - 600 PS 55 - 550	CD 2	1
		PVC, weighted	TS 50 - 500 PS 45 - 450	CD 3	0
		PVC, weighted, with magnet	TS 45 - 450 PS 40 - 400	CD 3	1
		mat.No. 1.4571/SV/316Ti, guided	TS 40 - 400 PS 35 - 350	CD 4	2
D	1000	mat.No. 1.4305/303	100 - 1000	DD 1	0
		mat.No. 1.4571/316Ti	100 - 1000	DD 2	0
		mat.No. 1.4571/316Ti, with magnet	95 - 950	DD 2	1
		mat.No. 1.4571/316Ti, guided	100 - 1000	DD 2	2
		PVC, weighted	75 - 750	DD 3	0
		PVC, weighted, with magnet	70 - 700	DD 3	1
		mat.No. 1.4571/SV/316Ti, guided	60 - 600	DD 4	2
D	1600	mat.No. 1.4305/303	160 - 1600	ED 1	0
		mat.No. 1.4571/316Ti	160 - 1600	ED 2	0
		mat.No. 1.4571/316Ti, with magnet	150 - 1500	ED 2	1
		mat.No. 1.4571/316Ti, guided	160 - 1600	ED 2	2
		PVC, weighted	125 - 1250	ED 3	0
		PVC, weighted, with magnet	110 - 1100	ED 3	1
		mat.No. 1.4571/SV/316Ti, guided	100 - 1000	ED 4	2
D	2500	mat.No. 1.4305/303	250 - 2500	FD 1	0
		mat.No. 1.4571/316Ti	250 - 2500	FD 2	0
		mat.No. 1.4571/316Ti, with magnet	240 - 2400	FD 2	1
		mat.No. 1.4571/316Ti, guided	250 - 2500	FD 2	2
		PVC, weighted	200 - 2000	FD 3	0
		PVC, weighted, with magnet	175 - 1750	FD 3	1
		mat.No. 1.4571/SV/316Ti, guided	140 - 1400	FD 4	2

for air (pabs=1,013 bar, T=0°C, ρ= 1,293 kg/m³, v= 0,0181 mPa.s)
measuring range Q_n m³/h

Size	flow tube	Float material			
D	650	Aluminium 3.1645	TS 1,0 - 10,0 PS 0,9 - 9,0	CD 5	0
		Aluminium 3.1645, with magnet	TS 1,2 - 12,0 PS 1,05 - 10,5	CD 5	1
		PVC, non weighted	TS 0,7 - 7,0 PS 0,65 - 6,5	CD 6	0
		PVC, non weighted, with magnet	TS 1,0 - 10,0 PS 0,9 - 9,0	CD 6	1
D	1000	Aluminium 3.1645	1,6 - 16,0	DD 5	0
		Aluminium 3.1645, with magnet	2,0 - 20,0	DD 5	1
		PVC, non weighted	1,1 - 11,0	DD 6	0
		PVC, non weighted	1,6 - 16,0	DD 6	1
D	1600	Aluminium 3.1645	2,8 - 28,0	ED 5	0
		Aluminium 3.1645, with magnet	3,2 - 32,0	ED 5	1
		PVC, non weighted	1,8 - 18,0	ED 6	0
		PVC, non weighted	2,5 - 25,0	ED 6	1
D	2500	Aluminium 3.1645	4,0 - 40,0	FD 5	0
		Aluminium 3.1645, with magnet	5,0 - 50,0	FD 5	1
		PVC, non weighted	2,8 - 28,0	FD 6	0
		PVC, non weighted, with magnet	4,0 - 40,0	FD 6	1

Ordering data (D650-D2500)

F VA Trogflux **7ME580** - - - Z
Variable area meter, Plastic flow tube

see left see left

Connection Float	Material	Type	Size		
D - D	PVC	adhesive bushing	32 (DN 25)	1	1 A
D - D	PVC	female thread DIN ISO 228	G 1/2	1	2 D
			G 3/4	1	2 E
			G 1	1	2 F
D - D	PVC	female thread NPT	1/2"	1	3 D
			3/4"	1	3 E
			1"	1	3 F
D - D	cast iron	DIN ISO 228	G 1	2	2 F
D - D	steel mat.No. 1.0254	female thread	G 1/2	3	2 D
			G 3/4	3	2 E
D - D	steel mat.No. 1.0254	female thread NPT	1/2"	3	3 D
			3/4"	3	3 E
			1"	3	3 F
D - D	stainless steel mat.No. 1.4571	female thread DIN ISO 228	G 1/2	4	2 D
			G 3/4	4	2 E
			G 1	4	2 F
D - D	stainless steel mat.No. 1.4571	female thread NPT	1/2"	4	3 D
			3/4"	4	3 E
			1"	4	3 F

Contacts (only with magnetic float)	
• without contact	A
• contact K18/A (closes when limit is fallen below)	C
• contact K18/B (closes when limit is exceeded)	D
• 2 contacts K18/A	E
• 2 contacts K18/B	F
• 1 per contact K18/A and K18/B	G

Further designs

Please add "**-Z**" to Order No. and specify Order codes

B06 with calibration certificate
Y01 measured medium: specify in plain text: medium, always required, measuring range with dimension, density with dimension, viscosity with dimension operating temperature, operating pressure
Y04 Silicone-free version
Y99 Specify special version in plain text

Variable area meter
F VA Trogflux

Ordering data (E4000-J25000)
Connection G 1-G 2 / DN 63 / NPT 1"- 2"

F VA Trogflux **7ME580** - ☐☐☐☐☐ - ☐☐☐☐ - Z
Variable area meter, Plastic flow tube

see right

Flow tube material	
Trogamid	1
Polysulfone	6
Gasket material	
Buna N	1
Viton	4
EPDM	8

for liquids (ρ= 1 kg/l, v= 1 mPa.s)

measuring range Q_v m³/h

Size	flow tube	Float material			
E	4000	mat.No. 1.4305/303, guided	0,4 - 4,0	G E 1	0
		mat.No. 1.4571/316Ti, guided	0,4 - 4,0	G E 2	0
		mat.No. 1.4571/316Ti, guided+magnet	0,38 - 3,8	G E 2	1
		PVC, weighted	0,32 - 3,2	G E 3	0
		PVC, weighted, with magnet	0,32 - 3,2	G E 3	1
		mat.No. 1.4571/SV/316Ti, guided	0,25 - 2,5	G E 4	0
E	6500	mat.No. 1.4305/303, guided	0,65 - 6,5	H E 1	0
		mat.No. 1.4571/316Ti, guided	0,65 - 6,5	H E 2	0
		mat.No. 1.4571/316Ti, guided+magnet	0,64 - 6,4	H E 2	1
		PVC, weighted	0,5 - 5,0	H E 3	0
		PVC, weighted, with magnet	0,5 - 5,0	H E 3	1
		mat.No. 1.4571/SV/316Ti, guided	0,4 - 4,0	H E 4	0
F	10000	mat.No. 1.4305/303, guided	1,0 - 10,0	J E 1	0
		mat.No. 1.4571/316Ti, guided	1,0 - 10,0	J E 2	0
		mat.No. 1.4571/316Ti, guided+magnet	0,95 - 9,5	J E 2	1
		PVC, weighted	0,75 - 7,5	J E 3	0
		PVC, weighted, with magnet	0,75 - 7,5	J E 3	1
		mat.No. 1.4571/SV/316Ti, guided	0,55 - 5,5	J E 4	0
G	16000	mat.No. 1.4571/316Ti, guided	4,0 - 16,0	K E 2	0
		mat.No. 1.4571/316Ti, guided+magnet	4,0 - 16,0	K E 2	1
		PVC, weighted	3,1 - 12,5	K E 3	0
		PVC, weigthed, with magnet	3,1 - 12,5	K E 3	1
H	20000	mat.No. 1.4571/316Ti, guided	6,6 - 20,0	L E 2	0
		mat.No. 1.4571/316Ti, guided+magnet	6,3 - 19,0	L E 2	1
J	25000	mat.No. 1.4571/316Ti, guided	8,3 - 25,0	M E 2	0
		mat.No. 1.4571/316Ti, guided+magnet	8,0 - 24,0	M E 2	1

for air (pabs=1.013 bar, T=0°C, ρ= 1,293 kg/m³, v= 0,0181 mPa.s)

measuring range Q_n m³/h

Size	flow tube	Float material			
E	4000	Aluminium 3.1645, guided	6,4 - 64,0	G E 5	0
		Aluminium 3.1645, guided+magnet	7,5 - 75,0	G E 5	1
		PVC, non weighted	4,5 - 45,0	G E 6	0
		PVC, non weighted, with magnet	6,0 - 60,0	G E 6	1
E	6500	Aluminium 3.1645, guided	10,0 - 100,0	H E 5	0
		Aluminium 3.1645, guided+magnet	12,5 - 125,0	H E 5	1
		PVC, non weighted	7,5 - 75,0	H E 6	0
		PVC, non weighted, with magnet	10,0 - 100,0	H E 6	1
F	10000	Aluminium 3.1645, guided	16,0 - 160,0	J E 5	0
		Aluminium 3.1645, guided+magnet	18,0 - 180,0	J E 5	1
		PVC, non weighted	12,0 - 120,0	J E 6	0
		PVC, non weighted, with magnet	16,0 - 160,0	J E 6	1
G	16000	Aluminium 3.1645, guided	70,0 - 280,0	K E 5	0
		Aluminium 3.1645, guided+magnet	75,0 - 300,0	K E 5	1
		PVC, non weighted, guided	47,5 - 190,0	K E 6	0
H	20000	Aluminium 3.1645, guided	117,0 - 350,0	L E 5	0
		Aluminium 3.1645, guided+magnet	134,0 - 400,0	L E 5	1
		PVC, not weigthed, guided	80,0 - 240,0	L E 6	0
J	25000	Aluminium 3.1645, guided	143,0 - 430,0	M E 5	0
		Aluminium 3.1645, guided+magnet	160,0 - 480,0	M E 5	1
		PVC, non weighted, guided	100,0 - 300,0	M E 6	0

Ordering data (E4000-J25000)

F VA Trogflux **7ME580** - ☐☐☐☐ - ☐☐☐☐ - Z
Variable area meter, Plastic flow tube

see left see left

Connection Float	Material	Type	Size		
E - J	PVC	adhesive bushing	63 (DN 50)	1	1 A
E - J	PVC	female thread DIN ISO 228	G 1	1	2 F
			G 1 1/4	1	2 G
			G 1 1/2	1	2 H
			G 2	1	2 J
E - J	PVC	female thread NPT	1"	1	3 F
			1 1/4"	1	3 G
			1 1/2"	1	3 H
			2"	1	3 J
E - J	cast iron	DIN ISO 228	G 2	2	2 J
E - J	steel mat.No. 1.0254	female thread DIN ISO 228	G 1	3	2 F
			G 1 1/4	3	2 G
			G 1 1/2	3	2 H
E - J	steel mat.No. 1.0254	female thread NPT	1"	3	3 F
			1 1/4"	3	3 G
			1 1/2"	3	3 H
			2"	3	3 J
E - J	stainless steel mat.No. 1.4571	female thread DIN ISO 228	G 1	4	2 F
			G 1 1/4	4	2 G
			G 1 1/2	4	2 H
			G 2	4	2 J
E - J	stainless steel mat.No. 1.4571	female thread NPT	1"	4	3 F
			1 1/4"	4	3 G
			1 1/2"	4	3 H
			2"	4	3 J

Contacts (only with magnetic float)	
• without contact	A
• contact K18/A (closes when limit is fallen below)	C
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Y04 Silicone-free version

Y99 Specify special version in plain text