Variable Area Flowmeter

V31

- Housing in stainless steel
- Borosilicate glass
- Only 4 Sealing rings
- Service kind construction
- Replace V16 / V15 / V30
- Limit switches (Options)
- Chip guard

Operating principle

The measuring element is composed of a float and a conical glass tube.

A medium flows from the bottom to the top through the measuring ring, lifting the float until the buoyancy force and the weight of the float establish equilibrium. The height of the float in the measuring ring is the measure of the flow. The flow rate is read directly from a scale inscribed on the glass.

The readings obtained apply solely to the medium for which the device has been calibrated or for a medium with the same density and viscosity.

Applications

The W42 metering device is used for flow metering, dosing, monitoring, and control of liquid and gas media in pipes. The scale on the device shows the flow rate expressed as volume or mass per unit of time.

Applications: flow metering, dosing, monitoring, and control of liquid and gas media.

- The device can be fitted with up to two limit switches for purposes of process monitoring.

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Technical Data

Measuring range	Turndown ratio		**1:10**
	Smallest measuring range	Water	3 - 30 l/h
		Air	36 - 360 Nl/h
	Largest measuring range	Water	1000 - 10000 l/h
		Air	18000 - 180000 Nl/h
	Dimensions for measrured variable	Water	l/h <= 2500l/h
			m^3/h >= 3000 l/h
		Air	l/h <= 40000 Nl/h
			m^3/h >= 50000 Nl/h
		covered to 0 ° C and 1,013 bar abs	
Accuracy class (according to VDE/VDI 3513, sheet 2		Liquids	1,6%
		Gases	2,5%
			q_G 50%
Flow direction			from bottom to top
Materials		Measuring tube	Borosilicat glass
		Connections	1.4571, PVDF, PVC
		Float	1.4571, aluminium, PVDF
		Float guiding	1.4571
		Seals	Viton, EPDM, FEP/FFKM
		Float Stop	PVDF / stainless steel
		Protection body	1.4301
		Shatter protection	Polycarbonat
Ambient conditions		Ambient temperature	-20...+80 °C (-4...+176°F)
		Ambient temperature PVC	-20...+80 °C (-3...+176°F)
		Storage temperature	-20...+60 °C (-4...+140°F)
		Climatic category	Weatherproof and/or unheated operation site, class C according to DIN IEC 654 part 1
		Shock resistance / vibration resistance	The device should be protected against extreme shock and vibration, either of which could cause damage
Medium Conditions			
	Pressure Resistance	Ranges B1 bis C7	max. 15 bar (at max. 80°C ; 176° F)
		Ranges D1 bis D8	max. 10 bar (at max. 80°C ; 212° F)
		Ranges E1 bis E5	max. 6 bar (at max. 80°C ; 176° F)
		Connections in PVDF	max. 10 bar (at max. 20°C ; 68° F)
			max. 4 bar (at max. 40°C ; 104° F)
			max. 2,5 bar (at max. 50°C ; 122° F)
		Connections in PVC	max. 10 bar (at max. 20°C ; 68° F)
			max. 4 bar (at max. 40°C ; 104° F)
			max. 2,5 bar (at max. 50°C ; 122° F)
	Media Temperature	Float material st.st. / Aluminium	-10° - +150°C (+14° - +176° F)
		Float material PVDF	-10° - +100°C (+14° - +176° F)
		PVC Glue connection	-10° - +50°C (+14° - +122° F)
	Status		liquid or gaseous
	Density	Liquids	<=2,0 kg/l
		Gases	- / -
Inlet and outlet straight		Inlet and outlet straight are not required as long as the flow profile is laminar. On strongly non laminar flow profiles e.g. regulating and shuttoff devices inlet straight of 250 mm, see also directive VDI/VDE 3513	
Pressure Loss		see measuring ranges	

Limit contacts	**Model**	**Switching type**	**Power**
	K17A	reed contact N/O	AC 250 V/ 0,5 A / 10 VA
	K17B	reed contact N/C	DC 250 V/0,5 A / 5W
	K33	reed contact SPDT	250 V AC/DC/1,5A/150VA/100W
	K33i	inductive contact N/C	5-25 V DC

Measuring ranges

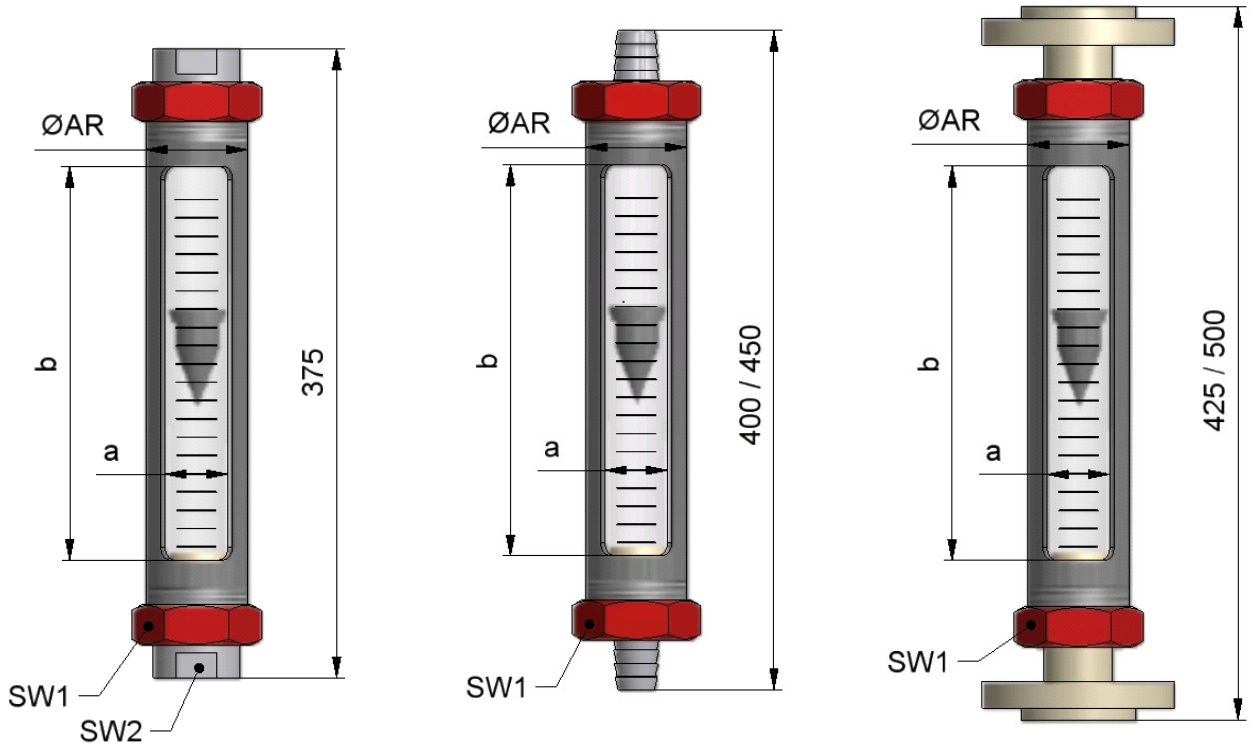
Liquids

V31 model	Connection Sizes Standard	Ranges acc. Range code	Pressure loss mbar(psi)	Float 1.4571 c/w and w/o guiding	Float 1.4571+ magnet	Float 1.4571 - viscosity stable	Float PVDF weighted w. magnet
				Standard ranges for liquids - l/h - (p=1kg/l(62,43 lb/cu.ft), viskosity 1 mPas(1cp)) (turndown ratio 1:10)			
S 04	G	B1	10 (0,145)	3 - 30	-	-	1,1 - 11
	1/4"	B2		4 - 40	-	-	1,5 - 15
	3/8"	B3		5 - 50	-	-	2 - 20
	1/2"	B4		6,5 - 65	-	-	2,5 - 25
		B5		8 - 80	-	-	3,2 - 32
		B6		10 - 100	-	-	4 - 40
S 05	G	C1	20 (0,290)	12,5 - 125	12 - 120	10 - 100	6,5 - 65
	1/4"	C2		16 - 160	15 - 150	12,5 - 125	9 - 90
	3/8"	C3		20 - 200	18 - 180	16 - 160	11 - 110
	1/2"	C4		25 - 250	24 - 240	20 - 200	14 - 140
		C5	40 (0,580)	31,5 - 315	30 - 300	24 - 240	17,5 - 175
		C6		40 - 400	36 - 360	30 - 300	22 - 220
		C7		50 - 500	48 - 480	36 - 360	25 - 250
S 06	G	D1	19 (0,280)	40 - 400	40 - 400	-	32 - 320
	1/2"	D2		65 - 650	60 - 600	40 - 400	50 - 500
	3/4"	D3		80 - 800	75 - 750	50 - 500	60 - 600
	1"	D4		100 - 1000	95 - 950	60 - 600	75 - 750
		D5		120 - 1200	120 - 1200	75 - 750	100 - 1000
		D6	24 (0,350)	160 - 1600	150 - 1500	100 - 1000	125 - 1250
		D7		200 - 2000	180 - 1800	120 - 1200	160 - 1600
		D8	33 (0,480)	250 - 2500	240 - 2400	140 - 1400	200 - 2000
		D9		300 - 3000	280 - 2800	180 - 1800	240 - 2400
S 07	G	E1	25 (0,360)	400 - 4000	380 - 3800	250 - 2500	320 - 3200
	1"	E2		500 - 5000	480 - 4800	300 - 3000	380 - 3800
	1 1/4"	E3		650 - 6500	640 - 6400	400 - 4000	500 - 5000
	1 1/2"	E4		800 - 8000	750 - 7500	450 - 4500	640 - 6400
	2"	E5		1000 - 10000	950 - 9500	550 - 5500	750 - 7500

Gases

V31 model	Connection Sizes Standard	Ranges acc. Range code	Pressure loss mbar(psi)	Float Aluminum c/w and w/o guiding	Float Aluminum + magnet	Float PVDF	Float PVDF weighted w. magnet
				Standard ranges for air - Nl/h - (Pabs =1,013 bar(14,69psi) at T= 20°C(68° F), p=1,293kg/m³, V=0,0181 mPas) (Turndown ratio 1:10)			
S 04	G	B1	4 (0,058)	5 - 500	-	36 - 360	-
	1/4"	B2		65 - 650	-	50 - 500	-
	3/8"	B3		80 - 800	-	65 - 650	-
	1/2"	B4		110 - 1100	-	80 - 800	-
		B5		140 - 1400	-	100 - 1000	-
		B6		160 - 1600	-	125 - 1250	-
S 05	G	C1		200 - 2000	250 - 2500	150 - 1500	200 - 2000
	1/4"	C2		300 - 3000	320 - 3200	200 - 2000	300 - 3000
	3/8"	C3		360 - 3600	400 - 4000	250 - 2500	360 - 3600
	1/2"	C4		400 - 4000	500 - 5000	300 - 3000	450 - 4500
		C5	40 (0,580)	500 - 5000	640 - 6400	360 - 3600	600 - 6000
		C6		640 - 6400	800 - 8000	500 - 5000	700 - 7000
		C7		800 - 8000	1000 - 10000	550 - 5500	950 - 9500
S 06	G	D1	19 (0,280)	750 - 7500	850 - 8500	520 - 5200	750 - 7500
	1/2"	D2		1000 - 10000	1200 - 12000	800 - 8000	1000 - 10000
	3/4"	D3		1300 - 13000	1500 - 15000	900 - 9000	1300 - 13000
	1"	D4		1600 - 16000	2000 - 20000	1200 - 12000	1600 - 16000
		D5		2000 - 20000	2400 - 24000	1500 - 15000	2000 - 20000
		D6	24 (0,350)	2800 - 28000	3200 - 32000	2000 - 20000	2800 - 28000
		D7		3600 - 36000	4000 - 40000	2500 - 25000	3600 - 36000
		D8	33 (0,480)	4000 - 40000	5000 - 50000	3000 - 30000	4000 - 40000
		D9		5000 - 50000	6000 - 60000	3600 - 36000	5000 - 50000
S 07	G	E1	25 (0,360)	6400 - 64000	7500 - 75000	5000 - 50000	6400 - 64000
	1"	E2		8000 - 80000	10000 - 100000	6500 - 65000	8000 - 80000
	1 1/4"	E3		10000 - 100000	12500 - 125000	8000 - 80000	10000 - 100000
	1 1/2"	E4		14000 - 140000	15000 - 150000	10000 - 100000	14000 - 140000
	2"	E5		16000 - 160000	18000 - 180000	12500 - 125000	16000 - 160000

Construction details



V 31	Body					Connection				
Model	**Ø AR**	**a**	**b**	**SW1**	**SW2**	**Female thread**	**Hose connector**	**Bonded connection**	**Flange**	
S04 / **S05**	Ø 33.7	19	235	39	24	G / NPT ¼", ?", **½"**	**Ø 13**, Ø 19	DN 15 d = 20 mm	DN 10/**15**/20/25 PN 40	ASME ¼", ?", **½"** 150 lb
S06	Ø 60.3	38	235	67	46	G / NPT ¾", **1"**, 1¼"	Ø 19, **Ø 25**, Ø 38	DN 32 d = 40 mm	DN **25**/40 PN 40	ASME **1"**,1 ½" 150 lb
S07	Ø 88.9	58	235	100	65	G / NPT 1¼", 1½", **2"**	Ø 38, **Ø 50**	DN 50 d = 63 mm	DN 40/**50** PN 40 DN 65 PN 16	ASME 1½", **2"**, 2½" 150 lb
Standard connections are underlined										

Weights	Treaded conn.		Flanged conn	
S 04	G 1/2	0,7 Kg	DN 15	2,0 Kg
S 05	G 1/3	0,7 Kg	DN 15	2,0 Kg
S 06	G 1	2,0 Kg	DN 25	3,9 Kg
S 07	G 2	4,0 Kg	DN 50	8,9 Kg

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VARIABLE AREA FLOWMETER

Glass Tube

(S04 / 30 - 100 l/h Water)

max. 15 bar
Temp. min. -10 °C, max. 80 °C
Accuracy: 2,5% Gas / 1,6% Liquid q_G=50%

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Description

Block Nr. 1,2,3,4,5,6

V31 -

Base price

	Thread	Length	connection - wetted parts
40001F	G ¼"(F)	375 mm	PVDF
40001S	G ¼"(F)	375 mm	Stainless steel
40101F	G ⅜"(F)	375 mm	PVDF
40101S	G ⅜"(F)	375 mm	Stainless steel
40201F	G ½"(F)	375 mm	PVDF
40201S	G ½"(F)	375 mm	Stainless steel
60101F	NPT ¼"(F)	375 mm	PVDF
60101S	NPT ¼"(F)	375 mm	Stainless steel
60201F	NPT ⅜"(F)	375 mm	PVDF
60201S	NPT ⅜"(F)	375 mm	Stainless steel
60301F	NPT ½"(F)	375 mm	PVDF
60301S	NPT ½"(F)	375 mm	Stainless steel

	Flange	Length	connection - wetted parts
301B3S	DN10 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
301B5S	DN10 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
305B3F	DN15 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
305B3S	DN15 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
305B5F	DN15 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
305B5S	DN15 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
3A5B3F	DN20 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
3A5B3S	DN20 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
3A5B5F	DN20 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
3A5B5S	DN20 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
309B3F	DN25 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
309B3S	DN25 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
309B5F	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
309B5S	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
201R3F	½" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
201R3S	½" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
201R5F	½" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
201R5S	½" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
202R3F	¾" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
202R3S	¾" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
202R5F	¾" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
202R5S	¾" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
203R3F	1" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
203R3S	1" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
203R5F	1" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
203R5S	1" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel

	Hose clip	Length	connection - wetted parts
62102S	½"- inner diameter Ø13	400 mm	Stainless steel
62102F	½"- inner diameter Ø13	400 mm	PVDF
62152S	⅜"- inner diameter Ø19	400 mm	Stainless steel
62152F	⅜"- inner diameter Ø19	400 mm	PVDF

	Type of float, Material	guide rod 1.4571
01	Stainless steel 1.4571	without
06	PVDF - weighted	without
08	Aluminium 3.1645	without
99	Special Customer Demand	

	Measuring range - stainless steel float (not guided)	
B1W	H2O: 3 - 30 l/h	1000kg/m³, 1mPas
B2W	H2O: 4 - 40 l/h	1000kg/m³, 1mPas
B3W	H2O: 5 - 50 l/h	1000kg/m³, 1mPas
B4W	H2O: 6,5 - 65 l/h	1000kg/m³, 1mPas
B5W	H2O: 8 - 80 l/h	1000kg/m³, 1mPas
B6W	H2O: 10 - 100 l/h	1000kg/m³, 1mPas

	Measuring range - PVDF float (weighted)	
B1W	H2O:1,1 - 11 l/h	1000kg/m³, 1mPas
B2W	H2O: 1,5 - 15 l/h	1000kg/m³, 1mPas
B3W	H2O: 2 - 20 l/h	1000kg/m³, 1mPas
B4W	H2O: 2,5 - 25 l/h	1000kg/m³, 1mPas
B5W	H2O: 3,2 - 32 l/h	1000kg/m³, 1mPas
B6W	H2O: 4 - 40 l/h	1000kg/m³, 1mPas

	Measuring range - Aluminium float (not guided)	
B1L	Air: 50 - 500 Nl/h	1013 mbar, 20°C
B2L	Air: 65 - 650 Nl/h	1013 mbar, 20°C
B3L	Air: 80 - 800 Nl/h	1013 mbar, 20°C
B4L	Air: 110 - 1100 Nl/h	1013 mbar, 20°C
B5L	Air: 140 - 1400 Nl/h	1013 mbar, 20°C
B6L	Air: 160 - 1600 Nl/h	1013 mbar, 20°C

	Measuring range - PVDF float (weighted)	
B1L	Air: 36 - 360 Nl/h	1013 mbar, 20°C
B2L	Air: 50 - 500 Nl/h	1013 mbar, 20°C
B3L	Air: 65 - 650 Nl/h	1013 mbar, 20°C
B4L	Air: 80 - 800 Nl/h	1013 mbar, 20°C
B5L	Air: 100 - 1000 Nl/h	1013 mbar, 20°C
B6L	Air: 125 - 1250 Nl/h	1013 mbar, 20°C

	Gasket	
B	EPDM	
F	Viton®	FKM
V	FEP/Perfluor	FFKM

	Float - stop
F	PVDF
S	Stainless steel
X	Special Customer Demand

	Union nut
A	Aluminium lacquered
S	Stainless steel

	Shatter protection max. 80°C	
0	without	
1	with	required for ATEX approval

	electrical output
0	without
1	1 x K 17 A Contact closes below limit
2	1 x K 17 B Contact closes above limit
3	1 x K 33 two way contact
4	1 x K 33i Inductive contact closes on descending float
5	2 x K 33i Inductive contact closes on descending float
6	Special Customer Demand

	Scale
1	%-Scale (H2O)
2	Measuring range-scale (H2O)
3	%-Scale (Medium)
4	Measuring range-scale (Medium)
5	graven scale
6	Special Customer Demand

	Approvals	
0	without	
1	Works certificate 2.1 EN10204	1)
2	Inspection certificate 3.1 with materialanalysis (DIN EN 10204:2004) on stainless steel parts	1)

	Calibration certificate	
0	without	
1	Standard	confirmed accuracy class (4.2.1)
2	5-Points	5 point protocol
3	Special scaling	Accuracy 1%
9	Special Customer Demand	

	Cleaning according works standard (free of oil and grease)
0	without
1	Cleaning of stainless steel parts with marking free of oil and grease

	Pressure / leakage test
0	without
1	pressure test according EN 10204 with certificate 3.1
2	leakage test according EN 10204 with certificate 3.1

	Approvals	
0	without	
1	ATEX 2 GD IIC TX (BVS 10 ATEX H/B 119)	requires shatter protection

	Marking
0	without
1	stainless steel plate 40x20mm

	Accessories
0	without
1	with (separate specification)

VARIABLE AREA FLOWMETER

Glass Tube

(S05 / 125-500 l/h Wasser)

max. 15 bar
Temp. min. -10 °C, max. 80 °C
Accuracy: 2,5% Gas / 1,6% Liquid q_G=50%

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Description

Block Nr. 1,2,3,4,5,6

V31 -

Base price

	Thread	Length	connection - wetted parts
40001F	G ¼"(F)	375 mm	PVDF
40001S	G ¼"(F)	375 mm	Stainless steel
40101F	G ⅜"(F)	375 mm	PVDF
40101S	G ⅜"(F)	375 mm	Stainless steel
40201F	G ½"(F)	375 mm	PVDF
40201S	G ½"(F)	375 mm	Stainless steel
60101F	NPT ¼"(F)	375 mm	PVDF
60101S	NPT ¼"(F)	375 mm	Stainless steel
60201F	NPT ⅜"(F)	375 mm	PVDF
60201S	NPT ¾"(F)	375 mm	Stainless steel
60301F	NPT ½"(F)	375 mm	PVDF
60301S	NPT ½"(F)	375 mm	Stainless steel

	Flange	Length	connection - wetted parts
301B3S	DN10 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
301B5S	DN10 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
305B3F	DN15 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
305B3S	DN15 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
305B5F	DN15 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
305B5S	DN15 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
3A5B3F	DN20 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
3A5B3S	DN20 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
3A5B5F	DN20 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
3A5B5S	DN20 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
309B3F	DN25 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
309B3S	DN25 PN10/16/25/40 Form B1 EN1092-1	425 mm	Stainless steel
309B5F	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
309B5S	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless steel
201R3F	½" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
201R3S	½" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
201R5F	½" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
201R5S	½" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
202R3F	¾" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
202R3S	¾" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
202R5F	¾" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
202R5S	¾" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
203R3F	1" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
203R3S	1" 150lbs RF ASME B16.5-2003	425 mm	Stainless steel
203R5F	1" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel
203R5S	1" 150lbs RF ASME B16.5-2003	500 mm	Stainless steel

	Hose clip	Length	connection - wetted parts
62102S	½"- inner diameter Ø13	400 mm	Stainless steel
62102F	½"- inner diameter Ø13	400 mm	PVDF
62152S	⅝"- inner diameter Ø19	400 mm	Stainless steel
62152F	⅝"- inner diameter Ø19	400 mm	PVDF

	Type of float, Material	guide rod 1.4571
01	Stainless steel 1.4571	without
02	Stainless steel 1.4571 - guided	with
03	Stainless steel 1.4571 - with magnet	without
04	Stainless steel 1.4571 - independent of viscosity ≥ 3 mPa·s (cp)	with
05	PVDF	without
06	PVDF - weighted	without
07	PVDF - with magnet	without
08	Aluminium 3.1645	without
09	Aluminium 3.1645 - guided	with
10	Aluminium 3.1645 - with magnet	without
99	Special Customer Demand	

	Measuring range - stainless steel float (guide and not guided)	
C1W	H2O: 12,5 - 125 l/h	1000kg/m³, 1mPas
C2W	H2O: 16 - 160 l/h	1000kg/m³, 1mPas
C3W	H2O: 20 - 200 l/h	1000kg/m³, 1mPas
C4W	H2O: 25 - 250 l/h	1000kg/m³, 1mPas
C5W	H2O: 31,5 - 315 l/h	1000kg/m³, 1mPas
C6W	H2O: 40 - 400 l/h	1000kg/m³, 1mPas
C7W	H2O: 50 - 500 l/h	1000kg/m³, 1mPas

	Measuring range - stainless steel float with magnet	
C1W	H2O: 12 - 120 l/h	1000kg/m³, 1mPas
C2W	H2O: 15 - 150 l/h	1000kg/m³, 1mPas
C3W	H2O: 18 - 180 l/h	1000kg/m³, 1mPas
C4W	H2O: 24 - 240 l/h	1000kg/m³, 1mPas
C5W	H2O: 30 - 300 l/h	1000kg/m³, 1mPas
C6W	H2O: 36 - 360 l/h	1000kg/m³, 1mPas
C7W	H2O: 48 - 480 l/h	1000kg/m³, 1mPas

	Measuring range - stainless steel float independent of viscosity ≥ 3 mPa·s (cp)	
C1W	H2O: 10 - 100 l/h	1000kg/m³, 1mPas
C2W	H2O: 12,5 - 125 l/h	1000kg/m³, 1mPas
C3W	H2O: 16 - 160 l/h	1000kg/m³, 1mPas
C4W	H2O: 20 - 200 l/h	1000kg/m³, 1mPas
C5W	H2O: 24 - 240 l/h	1000kg/m³, 1mPas
C6W	H2O: 30 - 300 l/h	1000kg/m³, 1mPas
C7W	H2O: 36 - 360 l/h	1000kg/m³, 1mPas

	Measuring range - PVDF float	
C1L	Air: 150-1500 Nl/h	1013 mbar, 20°C
C2L	Air: 200-2000 Nl/h	1013 mbar, 20°C
C3L	Air: 250-2500 Nl/h	1013 mbar, 20°C
C4L	Air: 300-3000 Nl/h	1013 mbar, 20°C
C5L	Air: 360-3600 Nl/h	1013 mbar, 20°C

C6L	Air: 500-5000 Nl/h		1013 mbar, 20°C
C7L	Air: 550-5500 Nl/h		1013 mbar, 20°C

	Measuring range - PVDF float (weighted or with magnet)		
C1W	H2O: 6,5-65 l/h		1000kg/m³, 1mPas
C2W	H2O: 9-90 l/h		1000kg/m³, 1mPas
C3W	H2O: 11-110 l/h		1000kg/m³, 1mPas
C4W	H2O: 14-140 l/h		1000kg/m³, 1mPas
C5W	H2O: 17,5-175 l/h		1000kg/m³, 1mPas
C6W	H2O: 22-220 l/h		1000kg/m³, 1mPas
C7W	H2O: 25-250 l/h		1000kg/m³, 1mPas

	Measuring range - PVDF float (with magnet)		
C1L	Air: 200-2000 Nl/h		1013 mbar, 20°C
C2L	Air: 300-3000 Nl/h		1013 mbar, 20°C
C3L	Air: 360-3600 Nl/h		1013 mbar, 20°C
C4L	Air: 450-4500 Nl/h		1013 mbar, 20°C
C5L	Air: 600-6000 Nl/h		1013 mbar, 20°C
C6L	Air: 700-7000 Nl/h		1013 mbar, 20°C
C7L	Air: 950-9500 Nl/h		1013 mbar, 20°C

	Measuring range - Aluminium float (guided and not guided)		
C1L	Air: 200 - 2000 Nl/h		1013 mbar, 20°C
C2L	Air: 300 - 3000 Nl/h		1013 mbar, 20°C
C3L	Air: 360 - 3600 Nl/h		1013 mbar, 20°C
C4L	Air: 400 - 4000 Nl/h		1013 mbar, 20°C
C5L	Air: 500 - 5000 Nl/h		1013 mbar, 20°C
C6L	Air: 640 - 6400 Nl/h		1013 mbar, 20°C
C7L	Air: 800 - 8000 Nl/h		1013 mbar, 20°C

	Measuring range - Aluminium float (with magnet)		
C1L	Air: 250 - 2500 Nl/h		1013 mbar, 20°C
C2L	Air: 320 - 3200 Nl/h		1013 mbar, 20°C
C3L	Air: 400 - 4000 Nl/h		1013 mbar, 20°C
C4L	Air: 500 - 5000 Nl/h		1013 mbar, 20°C
C5L	Air: 640 - 6400 Nl/h		1013 mbar, 20°C
C6L	Air: 800 - 8000 Nl/h		1013 mbar, 20°C
C7L	Air: 1000 - 10000 Nl/h		1013 mbar, 20°C

	Gasket		
B	EPDM		
F	Viton®	FKM	
V	FEP/Perfluor	FFKM	

	Float - stop
F	PVDF
S	Stainless steel
X	Special Customer Demand

	Union nut
A	Aluminium lacquered
S	Stainless steel

	Shatter protection max. 80°C	
0	without	
1	with	required for ATEX approval

	electrical output
0	without
1	1 x K 17 A Contact closes below limit
2	1 x K 17 B Contact closes above limit
3	1 x K 33 two way contact
4	1 x K 33i Inductive contact closes on descending float
5	2 x K 33i Inductive contact closes on descending float
6	Special Customer Demand

	Scale
1	%-Scale (H2O)
2	Measuring range-scale (H2O)
3	%-Scale (Medium)
4	Measuring range-scale (Medium)
5	graven scale
6	Special Customer Demand

	Approvals	
0	without	
1	Works certificate 2.1 EN10204	1)
2	Inspection certificate 3.1 with materialanalysis (DIN EN 10204:2004) on stainless steel parts	1)

	Calibration certificate	
0	without	
1	Standard	confirmed accuracy class (4.2.1)
2	5-Points	5 point protocol
3	Special scaling	Accuracy 1%
9	Special Customer Demand	

	Cleaning according works standard (free of oil and grease)
0	without
1	Cleaning of stainless steel parts with marking free of oil and grease

	Pressure / leakage test
0	without
1	pressure test according EN 10204 with certificate 3.1
2	leakage test according EN 10204 with certificate 3.1

	Approvals	
0	without	
1	ATEX 2 GD IIC TX (BVS 10 ATEX H/B 119)	requires shatter protection

	Marking
0	without
1	stainless steel plate 40x20mm

	Accessories
0	without
1	with (separate specification)

VARIABLE AREA FLOWMETER

Glass Tube

(S06 / 400-3000 l/h Wasser)

max. 10 bar
Temp. min. -10 °C, max. 80 °C
Accuracy: 2,5% Gas / 1,6% Liquid q_G=50%

Heinrichs
KOBOLD Group

Description

Block Nr. 1,2,3,4,5,6

V31 -

Base price

	Thread	Length	connection - wetted parts
40301F	G ¾"(F) Verschraubung	375 mm	PVDF
40301S	G ¾"(F) Verschraubung	375 mm	Edelstahl
40401F	G 1"(F) Verschraubung	375 mm	PVDF
40401S	G 1"(F) Verschraubung	375 mm	Edelstahl
60401F	NPT ¾"(F) Verschraubung	375 mm	PVDF
60401S	NPT ¾"(F) Verschraubung	375 mm	Edelstahl
60501F	NPT 1"(F) Verschraubung	375 mm	PVDF
60501S	NPT 1"(F) Verschraubung	375 mm	Edelstahl

	Flange	Length	connection - wetted parts
309B3F	DN25 PN10/16/25/40 Form B1 EN1092-1	425 mm	PVDF
309B3S	DN25 PN10/16/25/40 Form B1 EN1092-1	425 mm	Edelstahl
309B5F	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	PVDF
309B5S	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	Edelstahl
317B3F	DN40 PN10/16/25/40 Form B1 EN1092-1	425 mm	PVDF
317B3S	DN40 PN10/16/25/40 Form B1 EN1092-1	425 mm	Edelstahl
317B5F	DN40 PN10/16/25/40 Form B1 EN1092-1	500 mm	PVDF
317B5S	DN40 PN10/16/25/40 Form B1 EN1092-1	500 mm	Edelstahl
203R3F	1" 150lbs RF ASME B16.5-2003	425 mm	PVDF
203R3S	1" 150lbs RF ASME B16.5-2003	425 mm	Edelstahl
203R5F	1" 150lbs RF ASME B16.5-2003	500 mm	PVDF
203R5S	1" 150lbs RF ASME B16.5-2003	500 mm	Edelstahl
205R3F	1½" 150lbs RF ASME B16.5-2003	425 mm	PVDF
205R3S	1½" 150lbs RF ASME B16.5-2003	425 mm	Edelstahl
205R5F	1½" 150lbs RF ASME B16.5-2003	500 mm	PVDF
205R5S	1½" 150lbs RF ASME B16.5-2003	500 mm	Edelstahl

	Hose clip	Length	connection - wetted parts
62202S	¾"- inner diameter Ø19	400 mm	Edelstahl
62202F	¾"- inner diameter Ø19	400 mm	PVDF
62302S	1"- inner diameter Ø25	400 mm	Edelstahl
62302F	1"- inner diameter Ø25	400 mm	PVDF
62404S	1½"- inner diameter Ø38	450 mm	Edelstahl
62404F	1½"- inner diameter Ø38	450 mm	PVDF
-			

	Type of float, Material	guide rod 1.4571
01	Stainless steel 1.4571	without
02	Stainless steel 1.4571 - guided	with
03	Stainless steel 1.4571 - with magnet	without
04	Stainless steel 1.4571 - independent of viscosity ≥ 3 mPa·s (cp)	with
05	PVDF	without
06	PVDF - weighted	without
07	PVDF - with magnet	without
08	Aluminium 3.1645	without
09	Aluminium 3.1645 - guided	with
10	Aluminium 3.1645 - with magnet	without
99	Special Customer Demand	
-		

	Measuring range - stainless steel float (guide and not guided)	
D1W	H2O: 40-400 l/h	1000kg/m³, 1mPas
D2W	H2O: 65 - 650 l/h	1000kg/m³, 1mPas
D3W	H2O: 80 - 800 l/h	1000kg/m³, 1mPas
D4W	H2O: 100 - 1000 l/h	1000kg/m³, 1mPas
D5W	H2O: 120 - 1200 l/h	1000kg/m³, 1mPas
D6W	H2O: 160 - 1600 l/h	1000kg/m³, 1mPas
D7W	H2O: 200 - 2000 l/h	1000kg/m³, 1mPas
D8W	H2O: 250 - 2500 l/h	1000kg/m³, 1mPas
D9W	H2O: 300 - 3000 l/h	1000kg/m³, 1mPas

	Measuring range - stainless steel float with magnet	
D1W	H2O: 40-400 l/h	1000kg/m³, 1mPas
D2W	H2O: 60 - 600 l/h	1000kg/m³, 1mPas
D3W	H2O: 75 - 750 l/h	1000kg/m³, 1mPas
D4W	H2O: 95 - 950 l/h	1000kg/m³, 1mPas
D5W	H2O: 120 - 1200 l/h	1000kg/m³, 1mPas
D6W	H2O: 150 - 1500 l/h	1000kg/m³, 1mPas
D7W	H2O: 180 - 1800 l/h	1000kg/m³, 1mPas
D8W	H2O: 240 - 2400 l/h	1000kg/m³, 1mPas
D9W	H2O: 280 - 2800 l/h	1000kg/m³, 1mPas

	Measuring range - stainless steel float independent of viscosity ≥ 3 mPa·s (cp)	
D2W	H2O: 40 - 400 l/h	1000kg/m³, 1mPas
D3W	H2O: 50 - 500 l/h	1000kg/m³, 1mPas
D4W	H2O: 60 - 600 l/h	1000kg/m³, 1mPas
D5W	H2O: 75 - 750 l/h	1000kg/m³, 1mPas
D6W	H2O: 100 - 1000 l/h	1000kg/m³, 1mPas
D7W	H2O: 120 - 1200 l/h	1000kg/m³, 1mPas
D8W	H2O: 140 - 1400 l/h	1000kg/m³, 1mPas
D9W	H2O: 180 - 1800 l/h	1000kg/m³, 1mPas

	Measuring range - PVDF float	
D1L	Air: 520 - 5200 Nl/h	1013 mbar, 20°C
D2L	Air: 800 - 8000 Nl/h	1013 mbar, 20°C
D3L	Air: 900 - 9000 Nl/h	1013 mbar, 20°C
D4L	Air: 1200 - 12000 Nl/h	1013 mbar, 20°C
D5L	Air: 1500 - 15000 Nl/h	1013 mbar, 20°C
D6L	Air: 2000 - 20000 Nl/h	1013 mbar, 20°C
D7L	Air: 2500 - 25000 Nl/h	1013 mbar, 20°C
D8L	Air: 3000 - 30000 Nl/h	1013 mbar, 20°C
D9L	Air: 3600 - 36000 Nl/h	1013 mbar, 20°C

	Measuring range - PVDF float (weighted or with magnet)	
D1W	H2O: 32-320 l/h	1000kg/m³, 1mPas
D2W	H2O: 50 - 500 l/h	1000kg/m³, 1mPas
D3W	H2O: 60 - 600 l/h	1000kg/m³, 1mPas
D4W	H2O: 75 - 750 l/h	1000kg/m³, 1mPas
D5W	H2O: 100 - 1000 l/h	1000kg/m³, 1mPas
D6W	H2O: 125 - 1250 l/h	1000kg/m³, 1mPas
D7W	H2O: 160 - 1600 l/h	1000kg/m³, 1mPas
D8W	H2O: 200 - 2000 l/h	1000kg/m³, 1mPas

D9W	H2O: 240 - 2400 l/h	1000kg/m³, 1mPas

	Measuring range - PVDF float (with magnet)	
D1L	Air: 750 - 7500 Nl/h	1013 mbar, 20°C
D2L	Air: 1000 - 10000 Nl/h	1013 mbar, 20°C
D3L	Air: 1300 - 13000 Nl/h	1013 mbar, 20°C
D4L	Air: 1600 - 16000 Nl/h	1013 mbar, 20°C
D5L	Air: 2000 - 20000 Nl/h	1013 mbar, 20°C
D6L	Air: 2800 - 28000 Nl/h	1013 mbar, 20°C
D7L	Air: 3600 - 36000 Nl/h	1013 mbar, 20°C
D8L	Air: 4000 - 40000 Nl/h	1013 mbar, 20°C
D9L	Air: 5000 - 50000 Nl/h	1013 mbar, 20°C

	Measuring range - Aluminium float (guided and not guided)	
D1L	Air: 750 - 7500 Nl/h	1013 mbar, 20°C
D2L	Air: 1000 - 10000 Nl/h	1013 mbar, 20°C
D3L	Air: 1300 - 13000 Nl/h	1013 mbar, 20°C
D4L	Air: 1600 - 16000 Nl/h	1013 mbar, 20°C
D5L	Air: 2000 - 20000 Nl/h	1013 mbar, 20°C
D6L	Air: 2800 - 28000 Nl/h	1013 mbar, 20°C
D7L	Air: 3600 - 36000 Nl/h	1013 mbar, 20°C
D8L	Air: 4000 - 40000 Nl/h	1013 mbar, 20°C
D9L	Air: 5000 - 50000 Nl/h	1013 mbar, 20°C

	Measuring range - Aluminium float (with magnet)	
D1L	Air: 850 - 8500 Nl/h	1013 mbar, 20°C
D2L	Air: 1200 - 12000 Nl/h	1013 mbar, 20°C
D3L	Air: 1500 - 15000 Nl/h	1013 mbar, 20°C
D4L	Air: 2000 - 20000 Nl/h	1013 mbar, 20°C
D5L	Air: 2400 - 24000 Nl/h	1013 mbar, 20°C
D6L	Air: 3200 - 32000 Nl/h	1013 mbar, 20°C
D7L	Air: 4000 - 40000 Nl/h	1013 mbar, 20°C
D8L	Air: 5000 - 50000 Nl/h	1013 mbar, 20°C
D9L	Air: 6000 - 60000 Nl/h	1013 mbar, 20°C
-		

	Gasket	
B	EPDM	
F	Viton®	FKM
V	FEP/Perfluor	FFKM

	Float - stop
F	PVDF
S	Stainless steel
X	Special Customer Demand

	Union nut
A	Aluminium lacquered
S	Stainless steel

	Shatter protection max. 80°C	
0	without	
1	with	required for ATEX approval

	electrical output
0	without
1	1 x K 17 A Contact closes below limit
2	1 x K 17 B Contact closes above limit
3	1 x K 33 two way contact
4	1 x K 33i Inductive contact closes on descending float
5	2 x K 33i Inductive contact closes on descending float
6	Special Customer Demand

	Scale
1	%-Scale (H2O)
2	Measuring range-scale (H2O)
3	%-Scale (Medium)
4	Measuring range-scale (Medium)
5	graven scale
6	Special Customer Demand
-	

	Approvals	
0	without	
1	Works certificate 2.1 EN10204	1)
2	Inspection certificate 3.1 with materialanalysis (DIN EN 10204:2004) on stainless steel parts	1)

	Calibration certificate	
0	without	
1	Standard	confirmed accuracy class (4.2.1)
2	5-Points	5 point protocol
3	Special scaling	Accuracy 1%
9	Special Customer Demand	

	Cleaning according works standard (free of oil and grease)
0	without
1	Cleaning of stainless steel parts with marking free of oil and grease

	Pressure / leakage test
0	without
1	pressure test according EN 10204 with certificate 3.1
2	leakage test according EN 10204 with certificate 3.1

	Approvals	
0	without	
1	ATEX 2 GD IIC TX (BVS 10 ATEX H/B 119)	requires shatter protection

	Marking
0	without
1	stainless steel plate 40x20mm

	Accessories
0	without
1	with (separate specification)
-	

VARIABLE AREA FLOWMETER

Glass Tube

(S07 / 4000-10000 l/h-Wasser)

max. 6 bar
Temp. min. -10 °C, max. 80 °C
Accuracy: 2,5% Gas / 1,6% Liquid q_G=50%

Heinrichs
KOBOLD Group

Description

Block Nr. 1,2,3,4,5,6

V31 -

Base price

	Thread	Length	connection - wetted parts
40501F	G 1¼"(F) Verschraubung	375 mm	PVDF
40501S	G 1¼"(F) Verschraubung	375 mm	Edelstahl
40601F	G 1½"(F) Verschraubung	375 mm	PVDF
40601S	G 1½"(F) Verschraubung	375 mm	Edelstahl
40701F	G 2"(F) Verschraubung	375 mm	PVDF
40701S	G 2"(F) Verschraubung	375 mm	Edelstahl
60601F	NPT 1¼"(F) Verschraubung	375 mm	PVDF
60601S	NPT 1¼"(F) Verschraubung	375 mm	Edelstahl
60701F	NPT 1½"(F) Verschraubung	375 mm	PVDF
60701S	NPT 1½"(F) Verschraubung	375 mm	Edelstahl
60801F	NPT 2"(F) Verschraubung	375 mm	PVDF
60801S	NPT 2"(F) Verschraubung	375 mm	Edelstahl

	Flange	Length	connection - wetted parts
317B3F	DN40 PN10/16/25/40 Form B1 EN1092-1	425 mm	PVDF
317B3S	DN40 PN10/16/25/40 Form B1 EN1092-1	425 mm	Edelstahl
317B5F	DN40 PN10/16/25/40 Form B1 EN1092-1	500 mm	PVDF
317B5S	DN40 PN10/16/25/40 Form B1 EN1092-1	500 mm	Edelstahl
320B3F	DN50 PN10/16 Form B1 EN1092-1	425 mm	PVDF
320B3S	DN50 PN10/16 Form B1 EN1092-1	425 mm	Edelstahl
320B5F	DN50 PN10/16 Form B1 EN1092-1	500 mm	PVDF
320B5S	DN50 PN10/16 Form B1 EN1092-1	500 mm	Edelstahl
325B3F	DN65 PN10/16 Form B1 EN1092-1	425 mm	PVDF
325B3S	DN65 PN10/16 Form B1 EN1092-1	425 mm	Edelstahl
325B5F	DN65 PN10/16 Form B1 EN1092-1	500 mm	PVDF
325B5S	DN65 PN10/16 Form B1 EN1092-1	500 mm	Edelstahl
225R3F	1½" 150lbs RF ASME B16.5-2003	425 mm	PVDF
225R3S	1½" 150lbs RF ASME B16.5-2003	425 mm	Edelstahl
225R5F	1½" 150lbs RF ASME B16.5-2003	500 mm	PVDF
225R5S	1½" 150lbs RF ASME B16.5-2003	500 mm	Edelstahl
226R3F	2" 150lbs RF ASME B16.5-2003	425 mm	PVDF
226R3S	2" 150lbs RF ASME B16.5-2003	425 mm	Edelstahl
226R5F	2" 150lbs RF ASME B16.5-2003	500 mm	PVDF
226R5S	2" 150lbs RF ASME B16.5-2003	500 mm	Edelstahl
227R3F	2½" 150lbs RF ASME B16.5-2003	425 mm	PVDF
227R3S	2½" 150lbs RF ASME B16.5-2003	425 mm	Edelstahl
227R5F	2½" 150lbs RF ASME B16.5-2003	500 mm	PVDF
227R5S	2½" 150lbs RF ASME B16.5-2003	500 mm	Edelstahl

	Hose clip	Length	connection - wetted parts
62604S	Schlauchtülle 2"- lichte Weite Ø50	450 mm	Edelstahl
62604F	Schlauchtülle 2"- lichte Weite Ø50	450 mm	PVDF
42501V	Klebeanschluss DN50 - d = 63 mm	375 mm	PVC
-			

	Type of float, Material	guide rod 1.4571
02	Stainless steel 1.4571 - guided	with
03	Stainless steel 1.4571 - with magnet	without
04	Stainless steel 1.4571 - independent of viscosity ≥ 3 mPa·s (cp)	with
05	PVDF	without
06	PVDF - weighted	without
07	PVDF - with magnet	without
08	Aluminium 3.1645	without
09	Aluminium 3.1645 - guided	with
10	Aluminium 3.1645 - with magnet	without
99	Special Customer Demand	
-		

	Measuring range - stainless steel float (guided)	
E1W	H2O: 400 - 4000 l/h	1000kg/m³, 1mPas
E2W	H2O: 500 - 5000 l/h	1000kg/m³, 1mPas
E3W	H2O: 650 - 6500 l/h	1000kg/m³, 1mPas
E4W	H2O: 800 - 8000 l/h	1000kg/m³, 1mPas
E5W	H2O: 1000 - 10.000 l/h	1000kg/m³, 1mPas

	Measuring range - stainless steel float with magnet	
E1W	H2O: 380 - 3800 l/h	1000kg/m³, 1mPas
E2W	H2O: 480 - 4800 l/h	1000kg/m³, 1mPas
E3W	H2O: 640 - 6400 l/h	1000kg/m³, 1mPas
E4W	H2O: 750 - 7500 l/h	1000kg/m³, 1mPas
E5W	H2O: 950 - 9500 l/h	1000kg/m³, 1mPas

	Measuring range - stainless steel float independent of viscosity ≥ 3 mPa·s (cp)	
E1W	H2O: 250 - 2500 l/h	1000kg/m³, 1mPas
E2W	H2O: 300 - 3000 l/h	1000kg/m³, 1mPas
E3W	H2O: 400 - 4000 l/h	1000kg/m³, 1mPas
E4W	H2O: 450 - 4500 l/h	1000kg/m³, 1mPas
E5W	H2O: 550 - 5500 l/h	1000kg/m³, 1mPas

	Measuring range - PVDF float	
E1L	Air: 5000 - 50000 Nl/h	1013 mbar, 20°C
E2L	Air: 6500 - 65000 Nl/h	1013 mbar, 20°C
E3L	Air: 8000 - 80000 Nl/h	1013 mbar, 20°C
E4L	Air: 10000 - 100000 Nl/h	1013 mbar, 20°C
E5L	Air: 12500 - 125000 Nl/h	1013 mbar, 20°C

	Measuring range - PVDF float (weighted or with magnet)		
E1W	H2O: 320 - 3200 l/h		1000kg/m³, 1mPas
E2W	H2O: 380 - 3800 l/h		1000kg/m³, 1mPas
E3W	H2O: 500 - 5000 l/h		1000kg/m³, 1mPas
E4W	H2O: 640 - 6400 l/h		1000kg/m³, 1mPas
E5W	H2O: 750 - 7500 l/h		1000kg/m³, 1mPas

	Measuring range - PVDF float (with magnet)	
E1L	Air: 6400 - 64000 Nl/h	1013 mbar, 20°C
E2L	Air: 8000 - 80000 Nl/h	1013 mbar, 20°C
E3L	Air: 0000 - 100000 Nl/h	1013 mbar, 20°C
E4L	Air: 14000 - 140000 Nl/h	1013 mbar, 20°C
E5L	Air: 16000 - 160000 Nl/h	1013 mbar, 20°C

	Measuring range - Aluminium float (guided and not guided)	
E1L	Air: 6400 - 64000 Nl/h	1013 mbar, 20°C
E2L	Air: 8000 - 80000 Nl/h	1013 mbar, 20°C
E3L	Air: 10000 - 100000 Nl/h	1013 mbar, 20°C
E4L	Air: 14000 - 140000 Nl/h	1013 mbar, 20°C
E5L	Air: 16000 - 160000 Nl/h	1013 mbar, 20°C

	Measuring range - Aluminium float (with magnet)	
E1L	Air: 7500 - 75000 Nl/h	1013 mbar, 20°C
E2L	Air: 10000 - 100000 Nl/h	1013 mbar, 20°C
E3L	Air: 12500 - 125000 Nl/h	1013 mbar, 20°C
E4L	Air: 15000 - 150000 Nl/h	1013 mbar, 20°C
E5L	Air: 18000 - 180000 Nl/h	1013 mbar, 20°C
-		

	Gasket	
B	EPDM	
F	Viton®	FKM
V	FEP/Perfluor	FFKM

	Float - stop
F	PVDF
S	Stainless steel
X	Special Customer Demand

	Union nut
A	Aluminium lacquered
S	Stainless steel

	Shatter protection max. 80°C	
0	without	
1	with	required for ATEX approval

	electrical output
0	without
1	1 x K 17 A Contact closes below limit
2	1 x K 17 B Contact closes above limit
3	1 x K 33 two way contact
4	1 x K 33i Inductive contact closes on descending float
5	2 x K 33i Inductive contact closes on descending float
6	Special Customer Demand

	Scale
1	%-Scale (H2O)
2	Measuring range-scale (H2O)
3	%-Scale (Medium)
4	Measuring range-scale (Medium)
5	graven scale
6	Special Customer Demand
-	

	Approvals	
0	without	
1	Works certificate 2.1 EN10204	1)
2	Inspection certificate 3.1 with materialanalysis (DIN EN 10204:2004) on stainless steel parts	1)

	Calibration certificate	
0	without	
1	Standard	confirmed accuracy class (4.2.1)
2	5-Points	5 point protocol
3	Special scaling	Accuracy 1%
9	Special Customer Demand	

	Cleaning according works standard (free of oil and grease)
0	without
1	Cleaning of stainless steel parts with marking free of oil and grease

	Pressure / leakage test
0	without
1	pressure test according EN 10204 with certificate 3.1
2	leakage test according EN 10204 with certificate 3.1

	Approvals	
0	without	
1	ATEX 2 GD IIC TX (BVS 10 ATEX H/B 119)	requires shatter protection

	Marking
0	without
1	stainless steel plate 40x20mm

	Accessories
0	without
1	with (separate specification)
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