



Variable Area Flowmeter

V31



Operating Principle and System Configuration

The measuring instrument composes of a float and a conical glass tube (**M**)

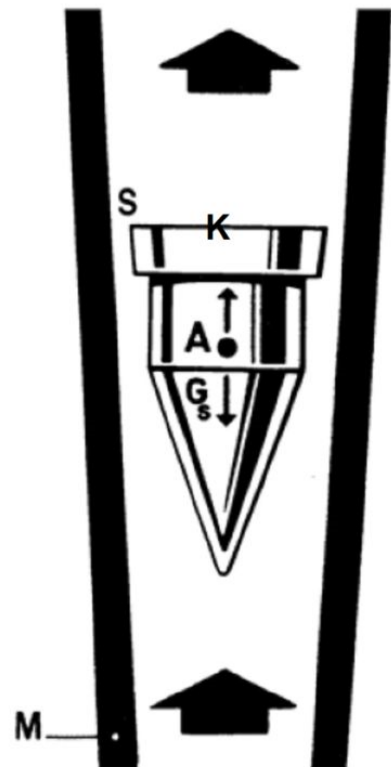
A medium flows from the bottom to the top through the measuring ring, lifting the float in the process until the buoyancy force (**A**) and the weight of the float (**G_s**) establish equilibrium. As the height of the float varies, an annular clearance (**S**) proportional to the flow appears between the float and the measuring tube. The height of the float (**K**) in the measuring tube serves as the actual rate of the flow. The flow rate is read directly from the scale.

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 as the calibration medium.

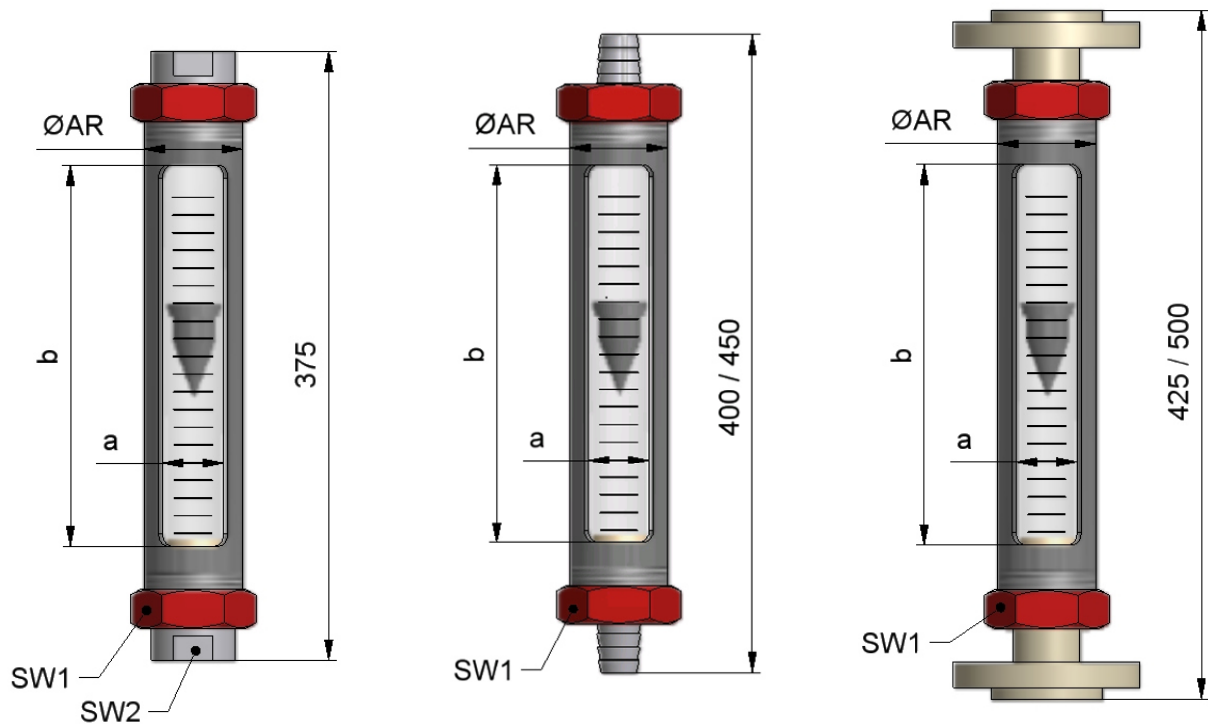
The float may also be optionally guided by a float guide rod. This option is recommended to increase the operational safety and to protect against glass breakage in particular operating environments, with the use of solenoid valve controls.

Bei certain levels of viscosity guided floats are essential. This option however cannot be combined with floats containing magnets or with PVDF coated floats.

For signalling specific flow rates, the variable area flowmeter can be outfitted with limit switches. This option is only available with floats which possess mounted magnets.



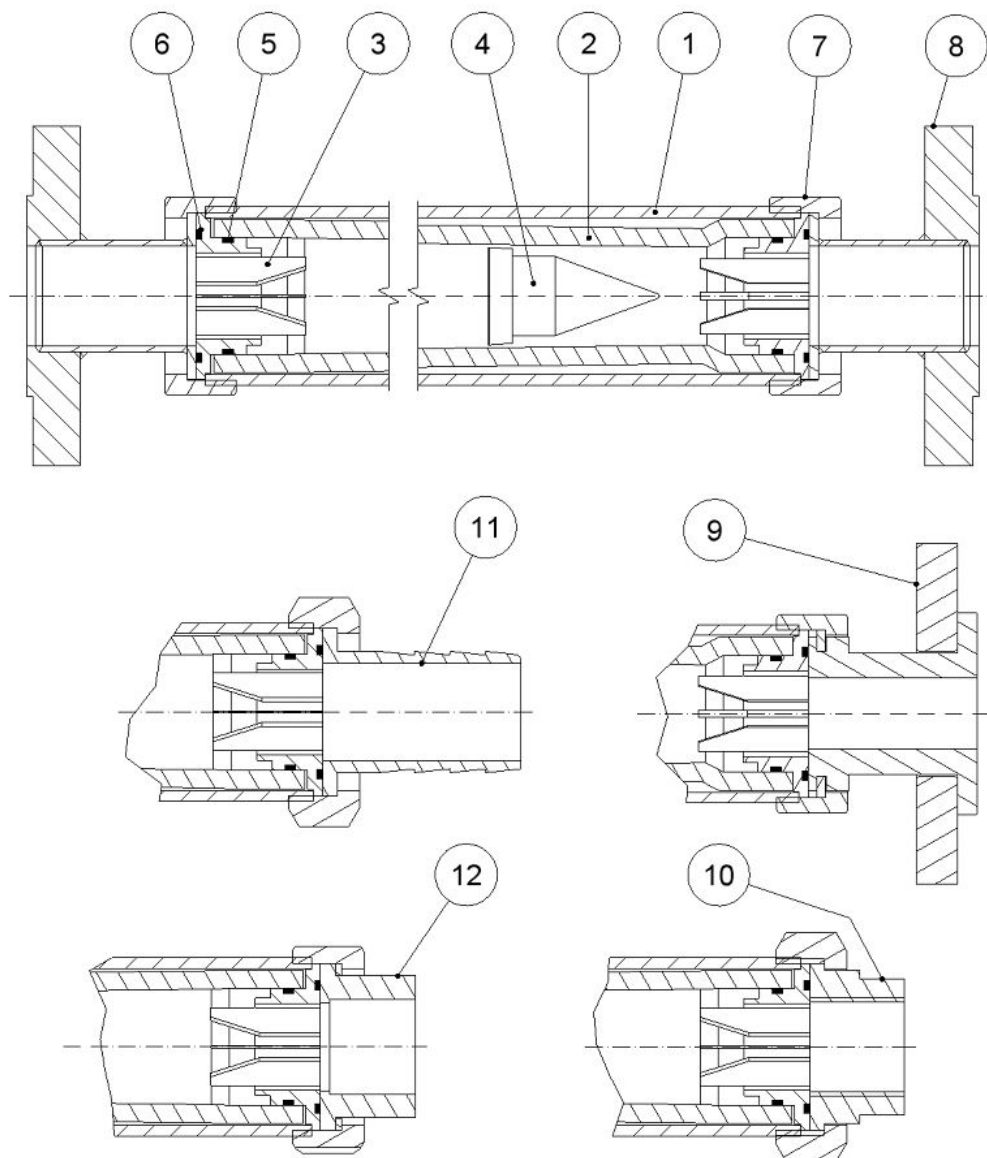
Construction / dimensions



V31 Sensor		Connection							
Model	ØAR	a	b	SW1	SW2	Thread	Hose connector	Flange	
S04	Ø33,7	19	235	39	24	G / NPT	Inner Diameter	DN EN1092-1 Form B1, PN40	ASME B16.5-2003 RF, Class 150
S05									
S06	Ø60,3	38	235	67	46	3/4", 1"	Ø19, Ø25, Ø38	25/40	1", 1½"
S07	Ø88,9	58	235	100	65	1¼", 1½", 2"	Ø50	40/50/65	1½", 2", 2½"

Weights	Connection thread	Connection Flange
S04	G 1½"	0,7 kg DN 15 2,0 kg
S05	G 1½"	0,7 kg DN 15 2,0 kg
S06	G 1"	2,0 kg DN 25 3,9 kg
S07	G 1"	4,0 kg DN 50 8,9 kg

Materials

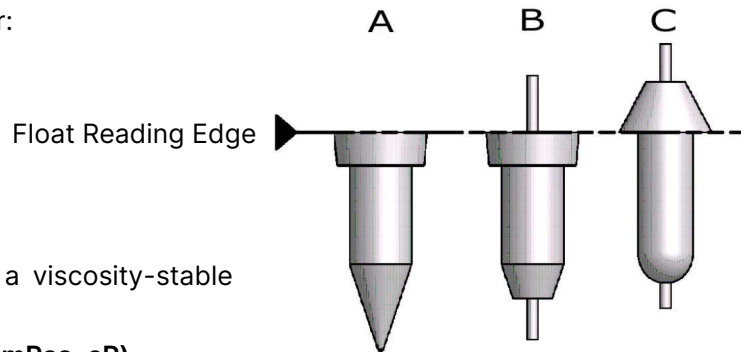


Item	Pieces	Description	Material
1	1	Enclosure	1.4301
2	1	Measuring tube	Borosilicate glass
3	2	Float Stop	PVDF
4	1	Float	1.4571, AL, PVDF
5	2	O-ring	EPDM, Viton, FEP/FFKM
6	2	O-ring	EPDM, Viton, FEP/FFKM
7	2	Union nut	AL, Stainless Steel
8	2	Flange	Stainless Steel
9	2	Flange	PVDF
10	2	Threaded Connection	PVDF, Stainless Steel
11	2	Hose Connector	PVDF, Stainless Steel
12	2	Bonded Connection	PVC

Float Types

There are three types of floats on offer:

- A. Float without guide rod
- B. Guided float
- C. Viscosity stabile floats



The following viscosity limits require a viscosity-stable float:

Model	Viscosity (mPas, cP)
S05	≥ 3
S06	≥ 5
S07	≥ 8

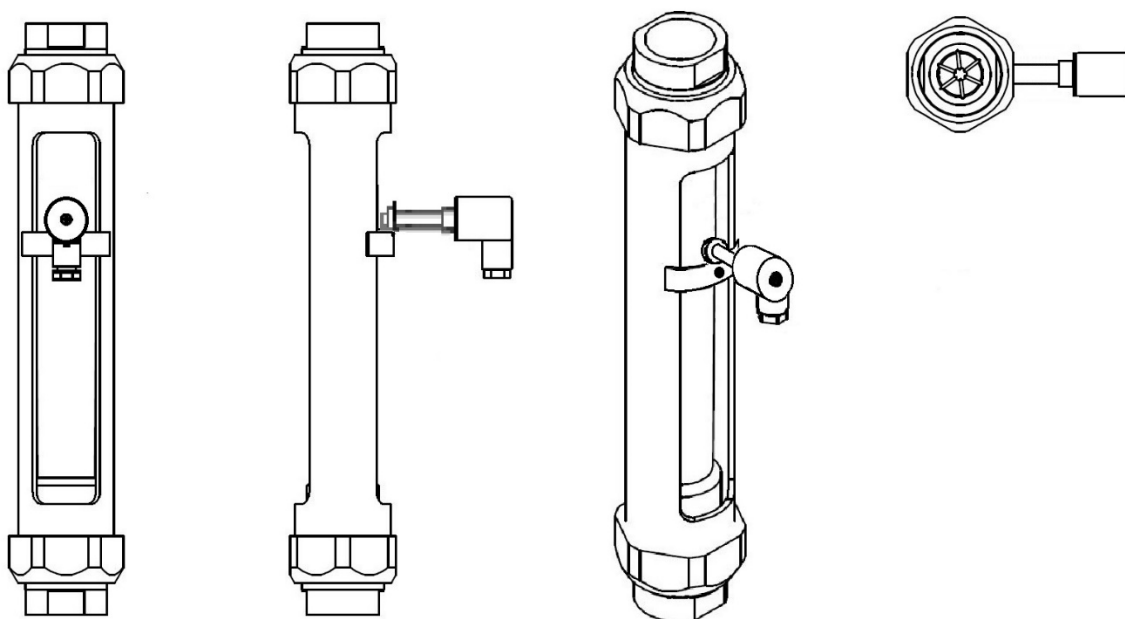
Contacts

The bi-stable magnetic contacts GSGA, GSGB and GSGW serve to indicate the position of the float, thus indicating the measured value in a non-reactive, contact-free means.

Features:

- Bi-stable behaviour
- Available as normally open, normally closed or change-over
- No power required for operation
- High vibration resistance
- Non-reactive switching
- No interaction between the contact
- Simple plug-in connector

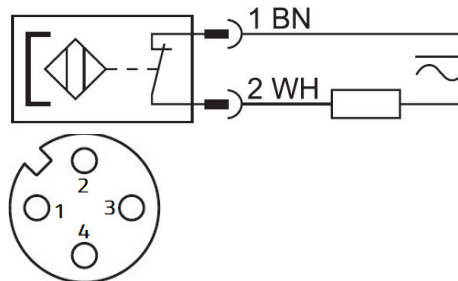
Mounting of the GSG limit switch series



GSGA – limit switches

Contact closes when the value undershoots the set limit

Switching principle	Magnetic field switch, bi-stable, NC - normally closed
Ambient temperature*	-20 °C to +90 °C
Enclosure material	PBT / PA
Sensor material	CuZn, Optalloy coated
Protection class	IP67
Max. switching rate	10 / min
Max. switching power	50 VAC / 0,5 A / 10 W 75 VDC / 0,5 A / 10 W
dielectric strength	230 VAC/ 400 VDC

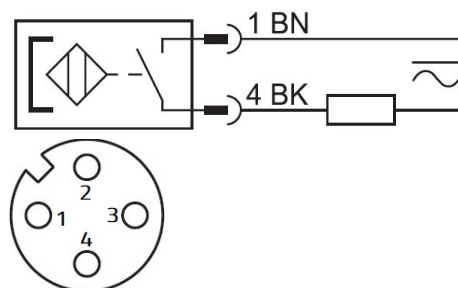


* The measuring range temperature of the flowmeter must be considered

GSGB – limit switches

Contact closes when the value exceeds the set limit.

Switching principle	Magnetic field switch, bistabil, NO - Normally open
Ambient temperature*	-20 °C to +90 °C
Enclosure material	Connector enclosure: PBT / PA
Sensor material	CuZn, Optalloy coated
Protection class	IP67
Max. switching rate	10 / min
Max. switching power	50 VAC / 0,5 A / 10 W 75 VDC / 0,5 A / 10 W
dielectric strength	230 VAC/ 400 VDC

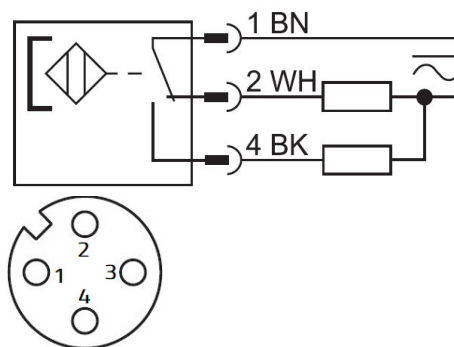


* The measuring range temperature of the flowmeter must be considered

GSGW – limit switches

The electrical contact of the magnetic field switch is switched between the two output contact when the current value falls below or exceeds the limit value

Switching principle	Magnetic field switch, bi-stable, Change-over contacts
Ambient temperature*	-20 °C to +90 °C
Enclosure material	Connector enclosure: PBT / PA
Sensor material	CuZn, Optalloy coated
Protection class	IP67
Max. switching rate	5 / min
Max. switching power	50 VAC / 0,5 A / 5 W 75 VDC / 0,5 A / 5 W
dielectric strength	110 VAC/ 200 VDC



* The measuring range temperature of the flowmeter must be considered



Caution

The maximum switching capacity and the maximum permissible peak inrush current must not be exceeded. Otherwise the contact reeds may weld together.

Such a contact welding constitutes the end-of-life of the switch.

Mechanical Data

Measuring Range	Turndown Ratio		1:10
	Smallest Measuring Range	Water	3-30 l/h
		Air*	36-360 NI/h
	Largest Measuring Range	Water	1.000-10.000 l/h
		Air*	18.000-180.000 NI/h
*) Referred to 0 °C and 1,013 bar abs.			
Accuracy Class (acc. VDE/VDI 3513, sheet 2)	Liquid	1,6 %	
	Gas	2,5 %	
	q _G 50 %		
Flow Direction	From bottom to top		
Materials	Measuring Tube	Borosilicate glass	
	Connections	1,4571, PVDF, PVC	
	Float	1.4571, Aluminium 3.1645, PVDF	
	Float Guide	1.4571	
	Gaskets	Viton, EPDM, FEP/FFKM	
	Float Stop	PVDF / Stainless Steel	
	Sensor Body	1.4301	
	Shatter Protection	Plexiglas® GS	
	Anzeige	Measuring Range, Process Information	
Ambient Conditions	Ambient Temperature	-20 ... +80 °C (-4...+176 °F)	
	Ambient Temperature PVC	-10 ... +50 °C (+14 ... +122 °F)	
	Storing Temperature	-20 ... +60 °C (-4 ... +140 °F)	
	Climate Classification	Weatherproof and/or unheated operation site, class C according to DIN IEC 654 part 1	
	Shock/Vibration Resistance	The device should be protected against extreme shock and vibration, either of which could cause damage.	
	Process Conditions	Pressure Resistance	Ranges B1 to C7
Ranges D1 to D8			max. 10 bar (at max. 80 °C / 176 °F)
Ranges E1 to E5			max. 6 bar (at max. 80 °C / 176 °F)
Connections in PVDF / 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: 14571 / Alu	-10 ... +80 °C (+14 ... +176 °F)
		Float: PVDF	-10 ... +80 °C (+14 ... +176 °F)
		Adhesive connection: PVC	-10 ... +50 °C (+14 ... +122 °F)
Media State		Liquid or gaseous	
Density		Liquid	≤ 2,0 kg/l
		Gas	- / -
Inlet and Outlet sections	Inlet and outlet sections are not required as long as the flow profile is laminar. On strongly non laminar flow profiles e.g. regulating and shutoff devices inlet straight of 250 mm, see also directive VDI/VDE 3513		
Pressure Loss	See measuring ranges		

Measuring Ranges

Water

Standard measurement ranges for liquid with density = 1 kg/l (62,43 lb/ft³) and Viscosity 1 mPas.

V31 Model	Measuring Range code	Pressure Loss.	Float 1.4571 with and without Guide rod.	Float 1.4571 with Magnet.	Float 1.4571 Viscosity stabilised	Float PVDF weighted with Magnet.
		[mbar] / [psi]	[l/h]	[l/h]	[l/h]	[l/h]
S04	B1W	10 / 0,145	3 - 30	n.v.	n.v.	1,1 - 11
	B2W		4 - 40	n.v.	n.v.	1,5 - 15
	B3W		5 - 50	n.v.	n.v.	2 - 20
	B4W		6,5 - 65	n.v.	n.v.	2,5 - 25
	B5W		8 - 80	n.v.	n.v.	3,2 - 32
	B6W		10 - 100	n.v.	n.v.	4 - 40
S05	C1W	20 / 0,290	12,5 - 125	12 - 120	10 - 100	6,5 - 65
	C2W		16 - 160	15 - 150	12,5 - 125	9 - 90
	C3W		20 - 200	18 - 180	16 - 160	11 - 110
	C4W	40 / 0,580	25 - 250	24 - 240	20 - 200	14 - 140
	C5W		31,5 - 315	30 - 300	24 - 240	17,5 - 175
	C6W		40 - 400	36 - 360	30 - 300	22 - 220
	C7W		50 - 500	48 - 480	36 - 360	25 - 250
S06	D1W	19 / 0,280	40 - 400	40 - 400	n.v.	32 - 320
	D2W		65 - 650	60 - 600	40 - 400	50 - 500
	D3W		80 - 800	75 - 750	50 - 500	60 - 600
	D4W	24 / 0,350	100 - 1000	95 - 950	60 - 600	75 - 750
	D5W		120 - 1200	120 - 1200	75 - 750	100 - 1000
	D6W		160 - 1600	150 - 1500	100 - 1000	125 - 1250
	D7W	33 / 0,480	200 - 2000	180 - 1800	120 - 1200	160 - 1600
	D8W		250 - 2500	240 - 2400	140 - 1400	200 - 2000
	D9W		300 - 3000	280 - 2800	180 - 1800	240 - 2400
S07	E1W	25 / 0,360	400 - 4000	380 - 3800	250 - 2500	320 - 3200
	E2W		500 - 5000	480 - 4800	300 - 3000	380 - 3800
	E3W		650 - 6500	640 - 6400	400 - 4000	500 - 5000
	E4W		800 - 8000	750 - 7500	450 - 4500	640 - 6400
	E5W		1000 - 10000	950 - 9500	550 - 5500	750 - 7500

Air

Standard measurement ranges for air at P_{abs} = 1,013 bar (14,69 psi), T = 20 °C (68 °F), Density = 1,293 kg/m³, Viscosity = 0,0181 mPas

V31 Model	Measuring Range code	Pressure Loss.	Float Aluminium with and without Guide rod.	Float Aluminium with Magnet.	Float PVDF	Float PVDF weighted with Magnet.
		[mbar] / [psi]	[l/h]	[l/h]	[l/h]	[l/h]
S04	B1L	4 / 0,058	5 - 500	-	36 - 360	-
	B2L		65 - 650	-	50 - 500	-
	B3L		80 - 800	-	65 - 650	-
	B4L		110 - 1100	-	80 - 800	-
	B5L		140 - 1400	-	100 - 100	-
	B6L		160 - 1600	-	125 - 1250	-
S05	C1L	6,5 / 0,094	200 - 2000	250 - 2500	150 - 1500	200 - 2000
	C2L		300 - 3000	320 - 3200	200 - 2000	300 - 3000
	C3L		360 - 3600	400 - 4000	250 - 2500	360 - 3600
	C4L	15 / 0,218	400 - 4000	500 - 5000	300 - 3000	450 - 4500
	C5L		500 - 5000	640 - 6400	360 - 3600	600 - 6000
	C6L		640 - 6400	800 - 8000	500 - 5000	700 - 7000
	C7L		800 - 8000	1000 - 10000	550 - 5500	950 - 9500
S06	D1L	7 / 0,102	750 - 7500	850 - 8500	520 - 5200	750 - 7500
	D2L		1000 - 10000	1200 - 12000	800 - 8000	1000 - 10000
	D3L		1300 - 13000	1500 - 15000	900 - 9000	1300 - 13000
	D4L	9 / 0,131	1600 - 16000	2000 - 20000	1200 - 12000	1600 - 16000
	D5L		2000 - 20000	2400 - 24000	1500 - 15000	2000 - 20000
	D6L		2800 - 28000	3200 - 32000	2000 - 20000	2800 - 28000
	D7L	12 / 0,174	3600 - 36000	4000 - 40000	2500 - 25000	3600 - 36000
	D8L		4000 - 40000	5000 - 50000	3000 - 30000	4000 - 40000
	D9L		5000 - 50000	6000 - 60000	3600 - 36000	5000 - 50000
S07	E1L	10 / 0,145	6400 - 64000	7500 - 75000	5000 - 50000	6400 - 64000
	E2L		8000 - 80000	10000 - 100000	6500 - 65000	8000 - 80000
	E3L		10000 - 100000	12500 - 125000	8000 - 80000	10000 - 100000
	E4L		14000 - 140000	15000 - 150000	10000 - 100000	14000 - 140000
	E5L		16000 - 160000	18000 - 180000	12500 - 125000	16000 - 160000

Model Code V31

Meter Size S04				
V31-				
Process Connections				
	Threaded Connection	Installation Length	Material, wetted parts	
40001F	G 1/4"(F)	375 mm	PVDF	
40001S	G 1/4"(F)	375 mm	Stainless Steel	
40101F	G 3/8"(F)	375 mm	PVDF	
40101S	G 3/8"(F)	375 mm	Stainless Steel	
40201F	G 1/2"(F)	375 mm	PVDF	
40201S	G 1/2"(F)	375 mm	Stainless Steel	
60101F	NPT 1/4"(F)	375 mm	PVDF	
60101S	NPT 1/4"(F)	375 mm	Stainless Steel	
60201F	NPT 3/8"(F)	375 mm	PVDF	
60201S	NPT 3/8"(F)	375 mm	Stainless Steel	
60301F	NPT 1/2"(F)	375 mm	PVDF	
60301S	NPT 1/2"(F)	375 mm	Stainless Steel	
	Flange	Installation Length	Material, 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	PVDF	
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	PVDF	
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	PVDF	
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	PVDF	
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	PVDF	
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	PVDF	
309B5S	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless Steel	
201R3F	1/2" 150lbs RF ASME B16.5-2003	425 mm	PVDF	
201R3S	1/2" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel	
201R5F	1/2" 150lbs RF ASME B16.5-2003	500 mm	PVDF	
201R5S	1/2" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel	
202R3F	3/4" 150lbs RF ASME B16.5-2003	425 mm	PVDF	
202R3S	3/4" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel	
202R5F	3/4" 150lbs RF ASME B16.5-2003	500 mm	PVDF	
202R5S	3/4" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel	
203R3F	1" 150lbs RF ASME B16.5-2003	425 mm	PVDF	
203R3S	1" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel	
203R5F	1" 150lbs RF ASME B16.5-2003	500 mm	PVDF	
203R5S	1" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel	
	Hose Connector	Installation Length	Material, wetted parts	
62102S	Hose connector 1/2"- inner diameter Ø13 mm	400 mm	Stainless Steel	
62102F	Hose connector 1/2"- inner diameter Ø13 mm	400 mm	PVDF	
62152S	Hose connector 3/8"- inner diameter Ø19 mm	400 mm	Stainless Steel	
62152F	Hose connector 3/8"- inner diameter Ø19 mm	400 mm	PVDF	
-				
Float				
	Material	Viscosity stabile	Magnet / weighted	Guided. Guide Rod:1.4571
01	1.4571 (316 Ti)	-	-	-
06	PVDF	-	weighted	-
08	Aluminium 3.1645	-	-	-
99	Special	-	-	-
Measuring Range				
B1...B6	See measuring range tables			
Medium				
W-	Water			
L-	Air			
...	continue with general section			

Meter Size S05			
V31-			
Process Connections			
	Threaded Connection	Installation Length	Material, 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
	Threaded Connection	Installation Length	Material, 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	PVDF
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	PVDF
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	PVDF
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	PVDF
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	PVDF
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	PVDF
309B5S	DN25 PN10/16/25/40 Form B1 EN1092-1	500 mm	Stainless Steel
201R3F	½" 150lbs RF ASME B16.5-2003	425 mm	PVDF
201R3S	½" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel
201R5F	½" 150lbs RF ASME B16.5-2003	500 mm	PVDF
201R5S	½" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel
202R3F	¾" 150lbs RF ASME B16.5-2003	425 mm	PVDF
202R3S	¾" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel
202R5F	¾" 150lbs RF ASME B16.5-2003	500 mm	PVDF
202R5S	¾" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel
203R3F	1" 150lbs RF ASME B16.5-2003	425 mm	PVDF
203R3S	1" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel
203R5F	1" 150lbs RF ASME B16.5-2003	500 mm	PVDF
203R5S	1" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel
	Hose Connector	Installation Length	Material, wetted parts
62102S	Hose connector ½"- inner diameter Ø13 mm	400 mm	Stainless Steel
62102F	Hose connector ½"- inner diameter Ø13 mm	400 mm	PVDF
62152S	Hose connector ¾"- inner diameter Ø19 mm	400 mm	Stainless Steel
62152F	Hose connector ¾"- inner diameter Ø19 mm	400 mm	PVDF
-			
Float			
	Material	Viscosity stabile	Magnet / weighted
01	1.4571 (316 Ti)	-	-
02	1.4571 (316 Ti)	-	-
03	1.4571 (316 Ti)	-	with Magnet
04	1.4571 (316 Ti)	≥ 3 mPas	-
05	PVDF	-	-
06	PVDF	-	weighted
07	PVDF with Magnet	-	with Magnet
08	Aluminium 3.1645	-	-
09	Aluminium 3.1645	-	-
10	Aluminium with Magnet	-	with Magnet
99	Special	-	-
Measuring Range			
C1...C7	See measuring range tables		
Medium			
W-	Water		
L-	Air		
...	continue with general section		

Meter Size S06				
V31-				
Process Connection				
	Threaded Connection	Installation Length	Material, wetted parts	
40301F	G ¾"(F)	375 mm	PVDF	
40301S	G ¾"(F)	375 mm	Stainless Steel	
40401F	G 1"(F)	375 mm	PVDF	
40401S	G 1"(F)	375 mm	Stainless Steel	
60401F	NPT ¾"(F)	375 mm	PVDF	
60401S	NPT ¾"(F)	375 mm	Stainless Steel	
60501F	NPT 1"(F)	375 mm	PVDF	
60501S	NPT 1"(F)	375 mm	Stainless Steel	
	Flange	Installation Length	Material, 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	Stainless Steel	
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	Stainless Steel	
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	Stainless Steel	
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	Stainless Steel	
203R3F	1" 150lbs RF ASME B16.5-2003	425 mm	PVDF	
203R3S	1" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel	
203R5F	1" 150lbs RF ASME B16.5-2003	500 mm	PVDF	
203R5S	1" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel	
205R3F	1½" 150lbs RF ASME B16.5-2003	425 mm	PVDF	
205R3S	1½" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel	
205R5F	1½" 150lbs RF ASME B16.5-2003	500 mm	PVDF	
205R5S	1½" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel	
	Hose Connection	Installation Length	Material, wetted parts	
62202S	Hose connector-¾" inner diameter Ø19 mm	400 mm	Stainless Steel	
62202F	Hose connector-¾" inner diameter Ø19 mm	400 mm	PVDF	
62302S	Hose connector 1" - inner diameter Ø25 mm	400 mm	Stainless Steel	
62302F	Hose connector 1" - inner diameter Ø25 mm	400 mm	PVDF	
62404S	Hose connector 1½" - inner diameter Ø38 mm	400 mm	Stainless Steel	
62404F	Hose connector 1½" - inner diameter Ø38 mm	400 mm	PVDF	
-				
Float				
	Material	Viscosity stabile	Magnet / weighted	Guided, Guide Rod:1.4571
02	1.4571 (316 TI)	-	-	guided
03	1.4571 (316 TI)	-	with Magnet	-
04	1.4571 (316 TI)	≥ 3 mPas	-	guided
05	PVDF	-	-	-
06	PVDF	-	weighted	-
07	PVDF with Magnet	-	with Magnet	-
08	Aluminium 3.1645	-	-	-
09	Aluminium 3.1645	-	-	guided
10	Aluminium with Magnet	-	with Magnet	-
99	Special	-	-	-
Measuring Range				
D1...D9	See measuring range tables			
Medium				
W-	Water			
L-	Air			
...	continue with general section			

Meter Size S07			
V31-			
Process Connection			
	Threaded Connection	Installation Length	Material, wetted parts
40501F	G 1¼"(F)	375 mm	PVDF
40501S	G 1¼"(F)	375 mm	Stainless Steel
40601F	G 1½"(F)	375 mm	PVDF
40601S	G 1½"(F)	375 mm	Stainless Steel
40701F	G 2"(F)	375 mm	PVDF
40701S	G 2"(F)	375 mm	Stainless Steel
60601F	NPT 1¼"(F)	375 mm	PVDF
60601S	NPT 1¼"(F)	375 mm	Stainless Steel
60701F	NPT 1½"(F)	375 mm	PVDF
60701S	NPT 1½"(F)	375 mm	Stainless Steel
60801F	NPT 2"(F)	375 mm	PVDF
60801S	NPT 2"(F)	375 mm	Stainless Steel
	Flange	Installation Length	Material, 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	Stainless Steel
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	Stainless Steel
320B3F	DN50 PN10/16 Form B1 EN1092-1	425 mm	PVDF
320B3S	DN50 PN10/16 Form B1 EN1092-1	425 mm	Stainless Steel
320B5F	DN50 PN10/16 Form B1 EN1092-1	500 mm	PVDF
320B5S	DN50 PN10/16 Form B1 EN1092-1	500 mm	Stainless Steel
325B3F	DN65 PN10/16 Form B1 EN1092-1	425 mm	PVDF
325B3S	DN65 PN10/16 Form B1 EN1092-1	425 mm	Stainless Steel
325B5F	DN65 PN10/16 Form B1 EN1092-1	500 mm	PVDF
325B5S	DN65 PN10/16 Form B1 EN1092-1	500 mm	Stainless Steel
205R3F	1½" 150lbs RF ASME B16.5-2003	425 mm	PVDF
205R3S	1½" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel
205R5F	1½" 150lbs RF ASME B16.5-2003	500 mm	PVDF
205R5S	1½" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel
206R3F	2" 150lbs RF ASME B16.5-2003	425 mm	PVDF
206R3S	2" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel
206R5F	2" 150lbs RF ASME B16.5-2003	500 mm	PVDF
206R5S	2" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel
207R3F	2½" 150lbs RF ASME B16.5-2003	425 mm	PVDF
207R3S	2½" 150lbs RF ASME B16.5-2003	425 mm	Stainless Steel
207R5F	2½" 150lbs RF ASME B16.5-2003	500 mm	PVDF
207R5S	2½" 150lbs RF ASME B16.5-2003	500 mm	Stainless Steel
	Hose Connection	Installation Length	Material, wetted parts
62604S	Hose connection 2"- inner diameter Ø50 mm	450 mm	Stainless Steel
62604F	Hose connection 2"- inner diameter Ø50 mm	450 mm	PVDF
42501V	Adhered connection DN50 - d = 63 mm	375 mm	PVC
-			
Float			
	Material	Viscosity stabile	Magnet / weighted
02	1.4571 (316 Ti)	-	-
03	1.4571 (316 Ti)	-	with Magnet
04	1.4571 (316 Ti)	≥ 3 mPas	-
05	PVDF	-	-
06	PVDF	-	weighted
07	PVDF with Magnet	-	with Magnet
08	Aluminium 3.1645	-	-
09	Aluminium 3.1645	-	-
10	Aluminium with Magnet	-	with Magnet
99	Special	-	-
-			
Measuring Range			
E1...E5	See measuring range tables		
Medium			
W-	Water		
L-	Air		
...	continue with general section		

General Section				
Gasket				
B	EPDM			
F	Viton® (FKM)			
V	FEP/Perfluor (FFKM)			
Float Stopper				
F	PVDF			
S	Stainless Steel			
X	Special Version			
Union Nut				
A	Aluminium painted			
S	Stainless Steel			
Shatter Protection				
0	without			
1	with	T _{Medium} max. 80 °C	Necessary for option ATEX	
Electrical Outputs				
0	without			
A	1x GSGA	Contact closes when the value undershoots the set limit	Only possible with magnet weighted floats	not with S04
B	1x GSGB	Contact closes when the value exceeds the set limit	Only possible with magnet weighted floats	not with S04
C	1x GSGW	Switch	Only possible with magnet weighted floats	not with S04
D	2x GSGA	Contacts closes when the value undershoots the set limit	Only possible with magnet weighted floats	not with S04
E	2x GSGB	Contacts closes when the value exceeds the set limit	Only possible with magnet weighted floats	not with S04
F	2x GSGW	Switch	Only possible with magnet weighted floats	not with S04
Scale				
1	% -Scale (H2O)			
2	MB -Scale (H2O)			
3	% -Scale (Medium)			
4	MB -Scale (Medium)			
5	Engraved scale			
1				
Certificates				
0	without			
1	Certificate of Compliance	2.1 acc. EN10204		
2	acceptance certificate	3.1 with Material analysis (DIN EN 10204:2004) for stainless steel wetted parts		
Calibration certificate				
0	without			
1	Standard	Confirmation of Accuracy Class		
2	5-Point	5 Point Measurement protocol		
3	Special scaling	Measurement accuracy 1 %		
9	Special	According to customer request		
Cleaning acc. factory standards		(oil and grease free)		
0	without			
1	Cleaning Class VA- with labelling oil and grease free			
Pressure / leakage test				
0	without			
1	Pressure test acc. EN 10204 additionally to APZ 3.1			
2	Leakage test acc. to EN 10204 additionally to APZ 3.1			
Approvals				
0	without			
1	ATEX: II 2G Ex h IIC T6 Gb ATEX: II 2D Ex h IIIC T85°C Db		Shatter protection is mandatory	
Markings				
0	without			
1	Stainless steel tag 40x20 mm			
supplementary equipment				
0	without			
1	with (separate specification required)			
-				
Version				
H	Heinrichs			
K	Kobold			

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