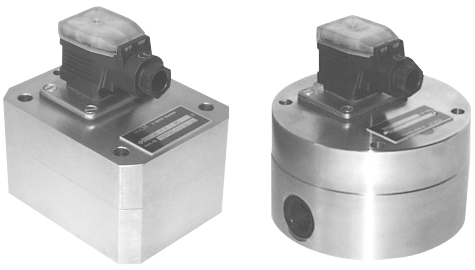
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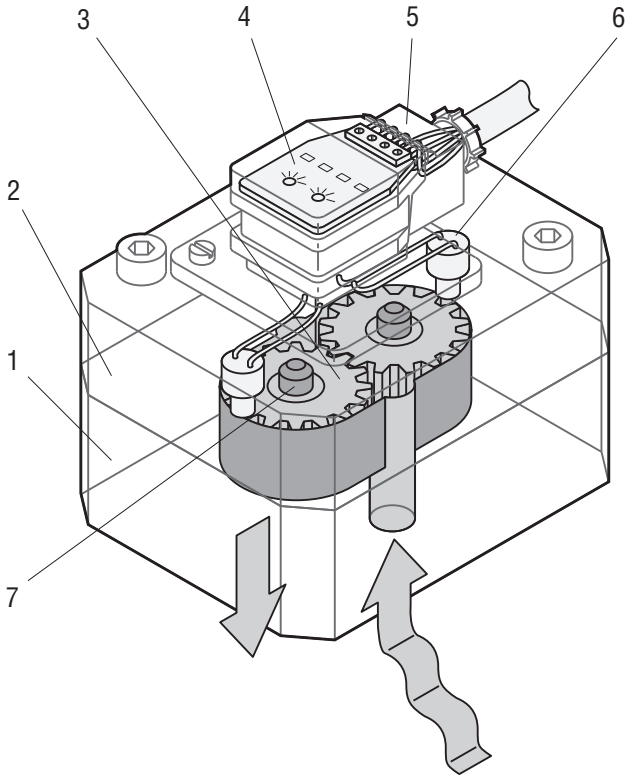
Gear Type Flow Meter

VC

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Construction and Function



Construction

1 Housing
2 Cover
3 Gear
4 Preamplifier
5 Connector
6 Sensor
7 Bearing assembly

Function

- The measuring gears are driven by the liquid flow on the principle of a gear motor.
- The gears run without contact in the measuring chamber. The bearing elements are low-friction ball or plain bearings.
- The movement of the gears is sampled without contact by means of two sensors located in the cover. Between sensor compartment and measuring chamber is located a pressure-resistant, non-magnetic separator plate.
- When the measuring mechanism rotates by one tooth pitch, the sensor emits a signal which corresponds to the geometrical tooth volume V_{gz}.
- The signal is converted into a square-wave signal by the preamplifier.
- The two-channel sampling permits better resolution as well as recognition of the flow direction.

Product Characteristics

- Optimized for individual applications because the series have been rendered media-specific by means of differing clearances, bearing variants and materials.
- Wide measuring ranges with sizes graduated to meet specific requirements.
- Measurement independent of viscosity within the specified ranges.
- Low pressure drop
- High-response measurement
- High working pressure
- Low noise emission
- High-precision measurement with outstanding reproducibility
- Temperature-independent output signals over a wide temperature range
- High degree of accuracy, even with low flow rates at the bottom end of the measuring range
- High working reliability of the electronics
- Easy to use terminal of the preamplifier
- Working indication of the electronic
- Sensor system and preamplifier in EMC-compatible design
- Explosion-proof version available for all volume counters

Typical Applications

Application	Medium	Version	Series
Flow rate measurement (hydraulic test stand)	oil, brake fluid, skydrol, diesel lubricating low viscosity	Spheroidal cast iron ball bearings minimal clearances	1
Oil metering (metering plant)	gear oil lubricating medium viscosity	Spheroidal cast iron ball bearings increased clearances	2
Consumption measurement (Printing press)	offset ink lubricating high viscosity	Spheroidal cast iron bronze plain bearings large clearances	3
Ratio control (2 component plant)	polyol + isocyanate, adhesives, resin, silicon low lubricity medium viscosity	Spheroidal cast iron carbide plain bearings increased clearances	4
Batching control (lacquering plant)	clear lacquer, cavity waxes low lubricity medium viscosity	stainless steel carbide plain bearings increased clearances	5
Flow rate measurement (lacquering plant)	solvent lubricating low viscosity	stainless steel ball bearings minimal clearances	6

For fluids with a low viscosity and poor lubricity a hybrid ball bearing (with ceramic balls) is a available for sizes VC 0.025, VC 0.04, VC 0.2 and VC 1.

Flow meters with hydrid ball bearing are available in Spheroidal cast iron (**series 7**) and stainless steel (**series 8**).

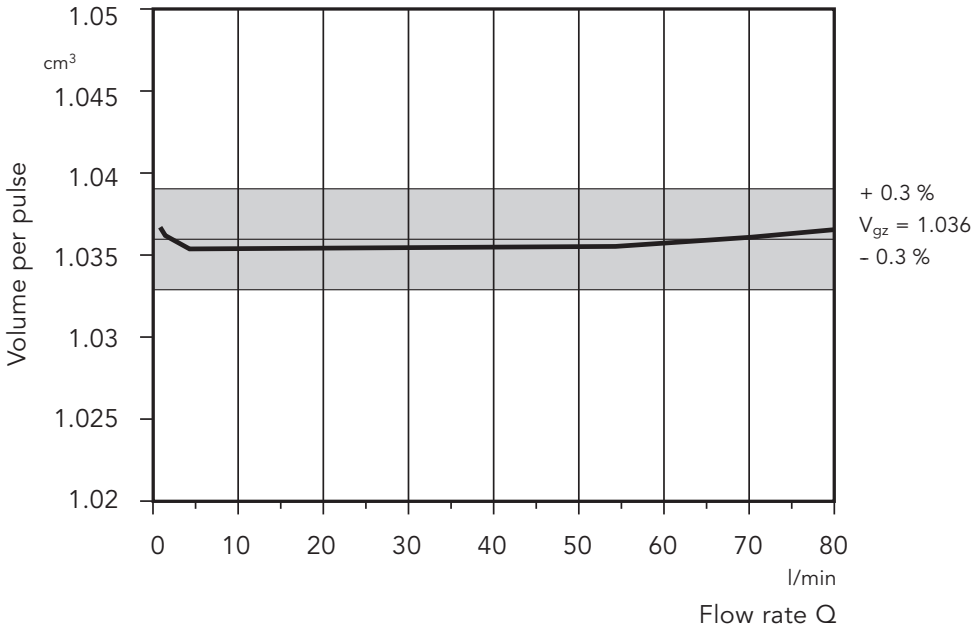
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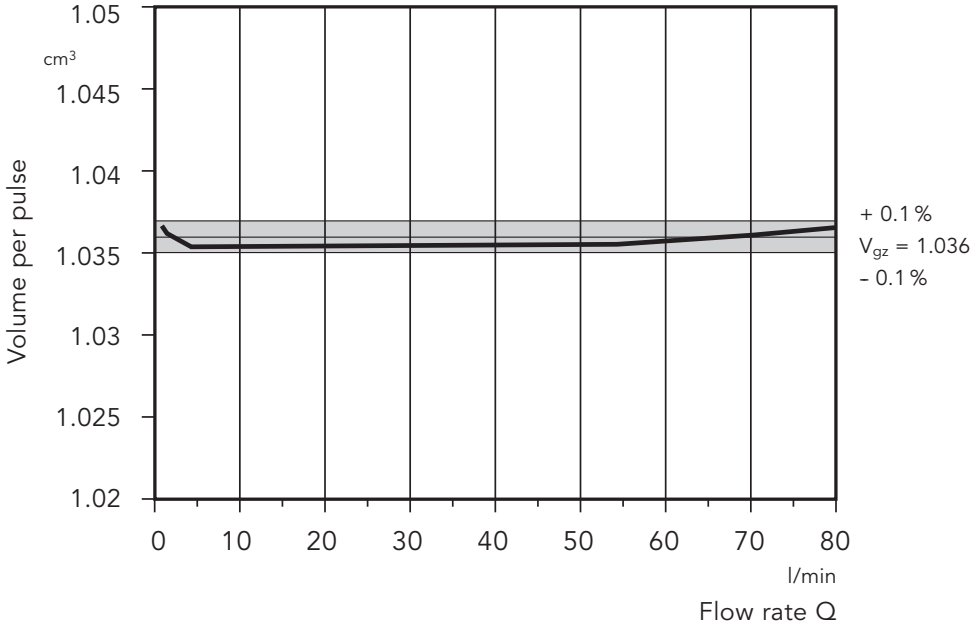
Accuracy Characteristics

- The accuracy figures quoted by KRACHT refer to the geometric tooth volume V_{gz}, that is to say the percentage deviation applies to the current value in each case.
- The linearity error over the entire measuring range is < ± 0.1 %
- Reproducibility of a measured value is < 0.1 %
- Accuracy checking forms part of quality inspection in every case.
- On request the result of the test will be documented in the form of an accuracy characteristic curve; an example relating to a series 1 VC 1 is given below.
- The accuracy values quoted by Kracht are confirmed by the DKD (German Calibration Service).

Accuracy



Linearity



General Characteristics

Design	gear motor
Connection type	plate mounting/pipe connection
Mounting position	optional
Flow direction	optional
Viscosity	1...1.000.000 mm^2/s, (according to series)
Max. pressure drop	Δp_{max} = 16 bar

Working Characteristics

Nominal size	geom. toothvolume	max. working pressure		Peak pressure		Sound pressure level	Resolution
		Standard-version	High pressure version (/79)	Standard-version	High pressure version (/79)		
	V_{gz}	p_{max}	p_{max}	$\hat{p}$	$\hat{p}$	L_A	Imp/l
	cm^3	bar	bar	bar	bar	dB (A)	
0.025	0.025	400	–	480	–	< 60	40 000.00
0.04	0.04	400	–	480	–	< 60	25 000.00
0.1	0.1	400	–	480	–	< 60	10 000.00
0.2	0.245	400	–	480	–	< 60	4 081.63
0.4	0.4	400	–	480	–	< 70	2 500.00
1	1.036	400	–	480	–	< 70	965.25
3	3.000	315	400	350	480	< 70	333.33
5	5.222	315	400	350	480	< 72	191.50
12	12.000	400	–	480	–	< 80	83.33
16	16.000	400	–	480	–	< 80	62.50

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Permitted Temperature Ranges (in °C)

	Series	Sealing materials				
		FKM	EPDM	FEP	FFKM	FVMQ
Ambient temperature		–15 ... 80	-30 ... 80	-30 ... 80	-15 ... 80	-60 ... 80
Medium temperature for standard version	1, 2, 6, 7, 8	–15 ... 120	-30 ... 120	-30 ... 120	-15 ... 120	–
	3, 4, 5	-15 ... 80	-30 ... 80	-30 ... 80	-15 ... 80	–
Medium temperature for high temperature version	1, 2, 6, 7, 8	-15 ... 150	-30 ... 150	-30 ... 150	-15 ... 150	–
	3, 4, 5	on request	on request	on request	on request	–
for high temperature PLUS version	1, 2, 6, 7, 8	-15 ... 150	–	-30 ... 220*	-15 ... 220*	–
Medium temperature for Ex-version	1, 2, 6, 7, 8	-15 ... 80	-30 ... 80	-30 ... 80	-15 ... 80	–
	3, 4, 5	-15 ... 80	-30 ... 80	-30 ... 80	-15 ... 80	–
for Ex-version temperature PLUS	1, 2, 6, 7, 8	–	–	–	-30 ... 200	–
Medium temperature for low temperature version	6, 8	–	–	–	–	-60 ... 200

* for size VC 0.025 max. 200°C

Series Selection / Summary of Variants

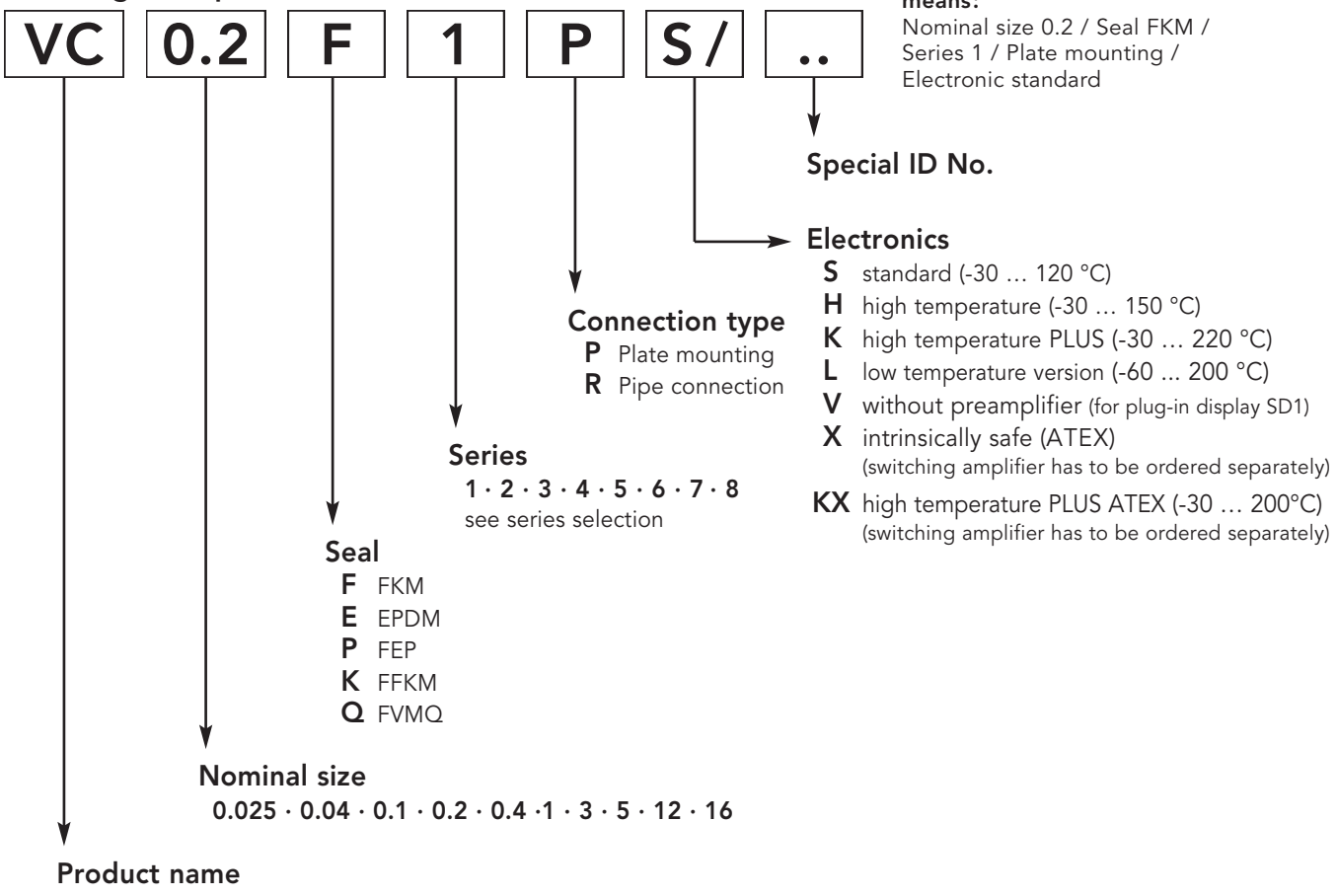
Series	1	2	3	4	5	6	7	8
Material housing	Spheroidal cast iron EN-GJS-400-15 (/79 EN-GJS-600-3)	Spheroidal cast iron EN-GJS-400-15	Spheroidal cast iron EN-GJS-400-15	Spheroidal cast iron EN-GJS-400-15	stainless steel 1.4404	stainless steel 1.4404	Spheroidal cast iron EN-GJS-400-15	stainless steel 1.4404
Material gears	steel 1.7139	steel 1.7139	steel 1.7139	steel 1.7139	stainless steel 1.4462	stainless steel 1.4462	steel 1.7139	stainless steel 1.4462
Bearing	ball bearings	ball bearings	bronze-plain bearings	carbide plain bearings	carbide plain bearings	stainless steel ball bearings	hybrid plain bearings	hybrid ball bearigs
Connection	P	P	P	P	P/R	P/R	P	P/R
Max. perm. foreign particle size in the medium (µm)	20	30	50	30	30	20	20	20
Accuracy (from measuring value)	± 0.3 % at 20 mm²/s	± 0.5 % at 50 mm²/s	± 1 % at 100 mm²/s	± 0.5 % at 100 mm²/s	± 0.5 % at 100 mm²/s	± 0.3 % at 20 mm²/s	± 1 % at 20 mm²/s	± 1 % at 20 mm²/s

Nominal size	Starting point at [l/min]	Measuring range [l/min]							
0.025	0.001	0.008 – 2	–	–	–	0.02 – 2*	0.008 – 2	0.008 – 2	0.008 – 2
0.04	0.004	0.02 – 4	–	–	–	–	0.02 – 4	0.02 – 4	0.02 – 4
0.1	0.008	0.04 – 8	–	–	0.04 – 8	–	0.04 – 8	0.04 – 8	0.04 – 8
0.2	0.01	0.16 – 16	0.16 – 16	–	0.16 – 16	0.16 – 16	0.16 – 16	0.16 – 16	0.16 – 16
0.4	0.01	0.2 – 40	–	–	0.2 – 30		–	–	–
1	0.02	0.4 – 80	0.4 – 80	0.6 – 40	0.3 – 60	0.3 – 60	0.4 – 80	0.4 – 80	0.4 – 80
3	0.03	0.6 – 160	0.6 – 160	–	0.6 – 100	0.6 – 100	0.6 – 160	–	–
5	0.04	1 – 250	1 – 250	1.2 – 80	1 – 160	1 – 160	1 – 250	–	–
12	0.1	2 – 600	–	–	–	–	–	–	–
16	0.2	3 – 700	–	–	–	–	–	–	–

* Measuring accuracy ± 3 %; Linearity ± 1.5 %

Type Key

Ordering example

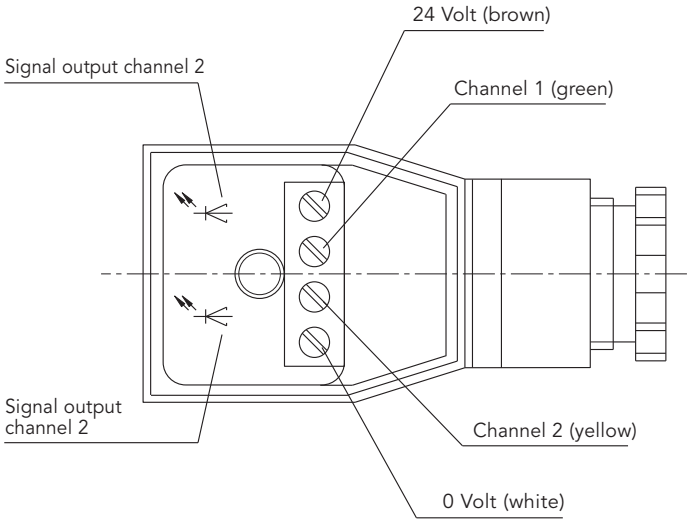


Special Versions

Special ID	Series	Description
55	1 – 8	version with aluminium connection box, preamplifier VV12 and Cannon plug
71	1 – 8	version with Hirschmann connector and round connector M12x1
74	1 – 8	version with Hirschmann connector and preamplifier VV12 for 12 Volt power supply (10.5 – 16 Volt)
79	1	VC 3 and VC 5 in high pressure version (400 bar)
155	1	VC 3 and VC 5 in high pressure version (400 bar) Skydrol resistant, and aluminium connection box with Cannon plug.
156	1	Skydrol resistant, and aluminium connection box with Cannon plug.

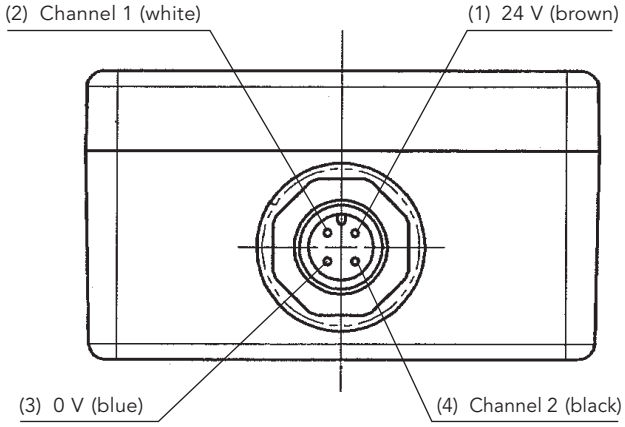
Electrical Connection

Standard version / High temperature version



High temperature PLUS version

Electrical connection (Round connector M 12 x 1/4-pin)



Electrical Characteristics

Number of measuring channels	2
Working voltage	U_{op} = 12 ... 30 VDC polarized
Pulse amplitude	$U_A \geq 0.8\ U_B$
Pulse shape with symm. output signal	square wave pulse duty factor / channel 1 : 1 ± 15 %
Signal output	PNP (NPN on request)
Pulse offset between two channels	90° ± 30°
Power requirement	$P_{b\,max}$ = 0.9 W
Output power/channel	$P_{a\,max}$ = 0.3 W short-circuit-proof
Degree of protection	IP 65 DIN 40050

Signal Characteristics

Channel I

A rising edge

B one pulse (corr. to flow rate of geom. tooth volume V_{gz})

C falling edge

D ON phase

E OFF phase

F pulse duty factor 1 : 1 ± 15 %

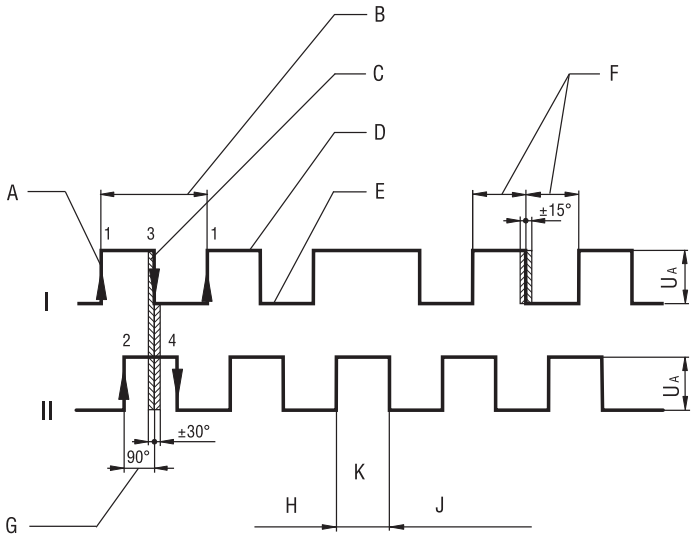
Channel II

G channel offset

H flow direction 1

K reversal of flow direction

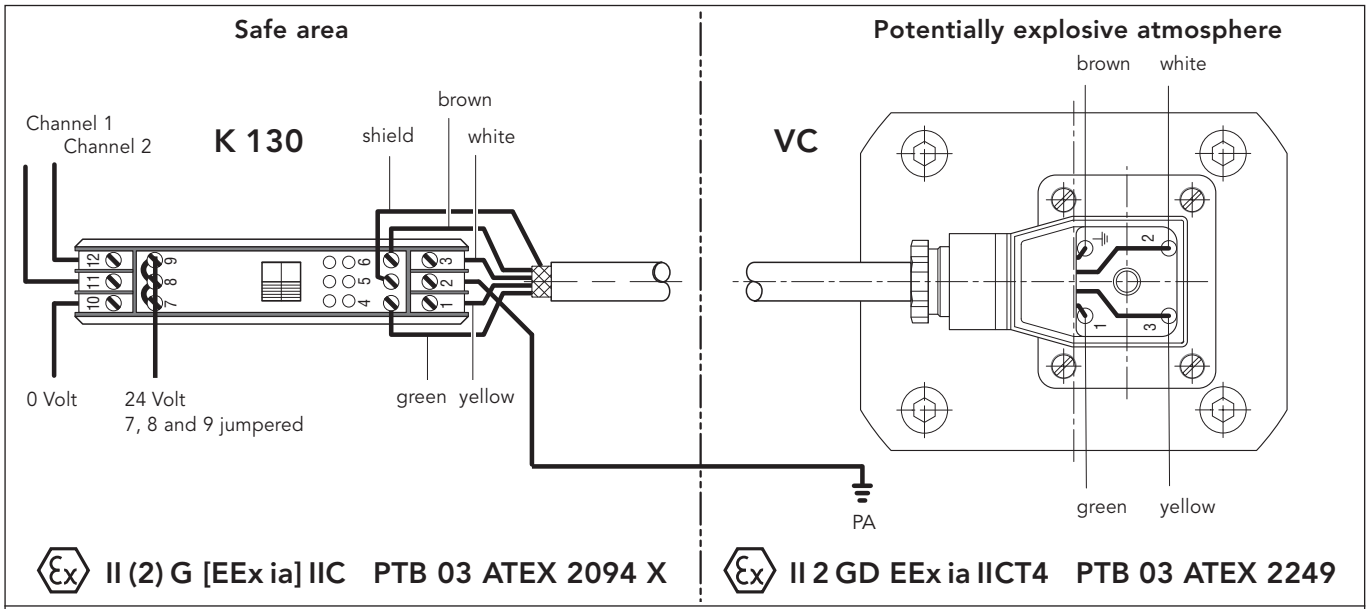
J flow direction 2



Explosion-Proof Design (ATEX)

Function

- All volume counters are available in explosion-proof design according to ATEX.
- The explosion-proof design consists of the volume counter (intrinsically safe electrical apparatus) and the switching amplifier K 130 (associated electrical apparatus). The type of protection „intrinsic safety“ applies to this construction.
- The volume counter is installed in the potentially explosive atmosphere.
- The mounting of the amplifier K 130 is carried out in the safe area.
- Volume counter and switching amplifier are electrically connected to each other. The switching amplifier evaluates the sensor signals and converts them to square-wave signals.
- Without switching amplifier, the volume counter must not be operated in the potentially explosive atmosphere.
- Cable lengths of up to 400 m are possible between volume counter and switching amplifier.
- LED's for monitoring line breaks / short circuits, channel switching state and power supply are located on the switching amplifier.



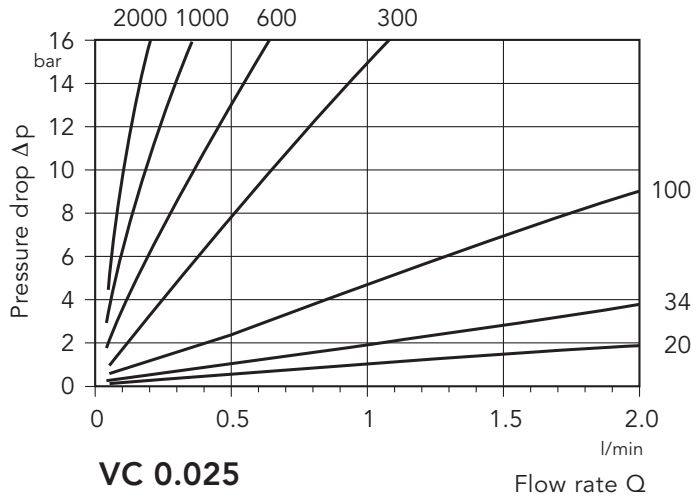
Note: This graph is an example only. National laws for potentially explosive areas must be considered.

Technical Data of Switching Amplifier K-130/3-E-10

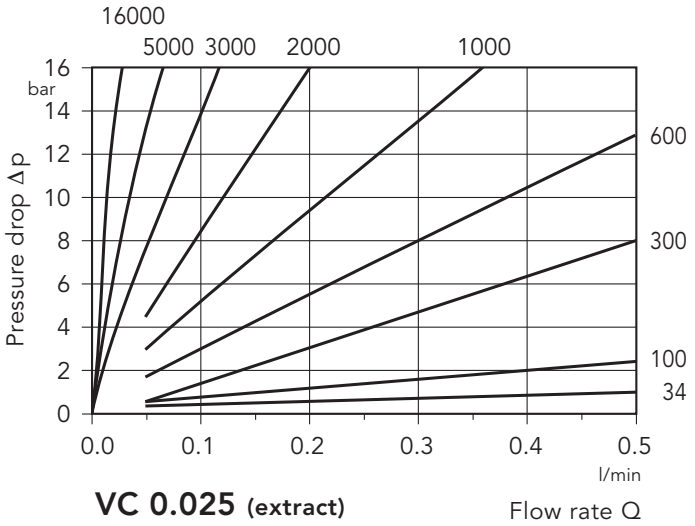
Power supply	
Supply voltage cl. 7 (L+), cl. 10 (L–)	DC 24 Volt ± 20 %
Ripple content white Wss	< 10 %
Outputs (non-intrinsically safe)	
Characteristics cl. 9, 12, 8, 11	
Electronics outputs	electrically isolated via optoelectronic coupler
Short-circuit current	approx. 25 mA
Signal level 1-signal	0.8 x supply voltage with RL > 2 k ohm
Signal level 0-signal	inhibited output, residual current < 10 uA
Ambience conditions	
Minimum limiting temperature	248 K (– 25 °C)
Maximum limiting temperature	333 K (+ 60 °C)
Mechanics	
Dimensions	107.5 x 92 x 22 mm
Connection possibility	can be snapped on a 35 mm mounting channel DIN 46277
Weight	approx. 150 g

Pressure Drop

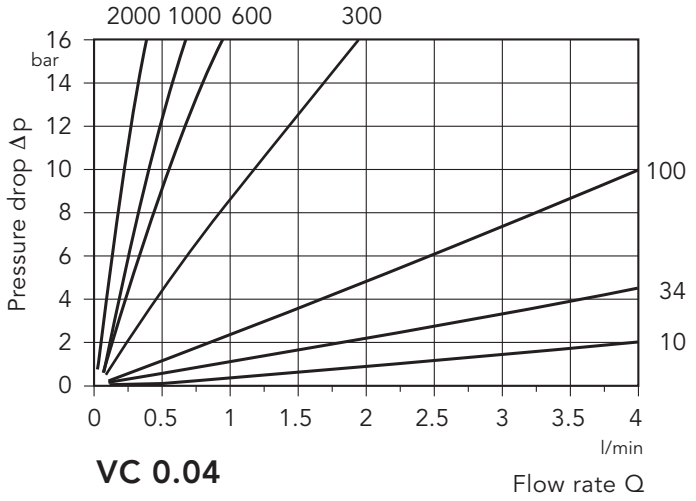
Series 1, 2, 6, 7 and 8 Parameter: Viscosity (mm^2/s)



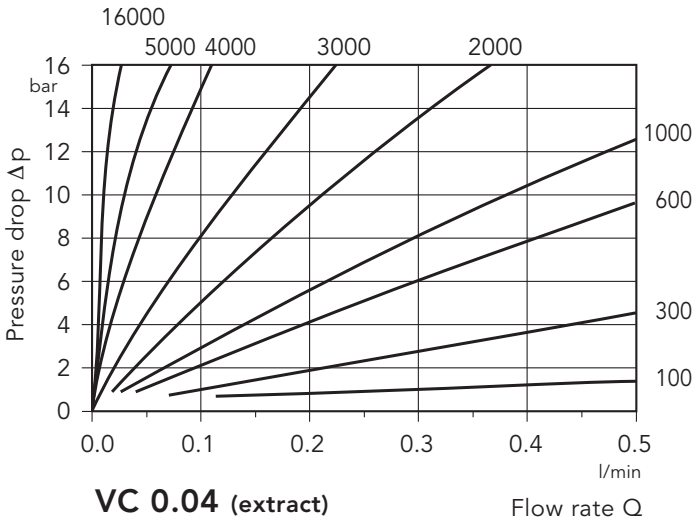
VC 0.025



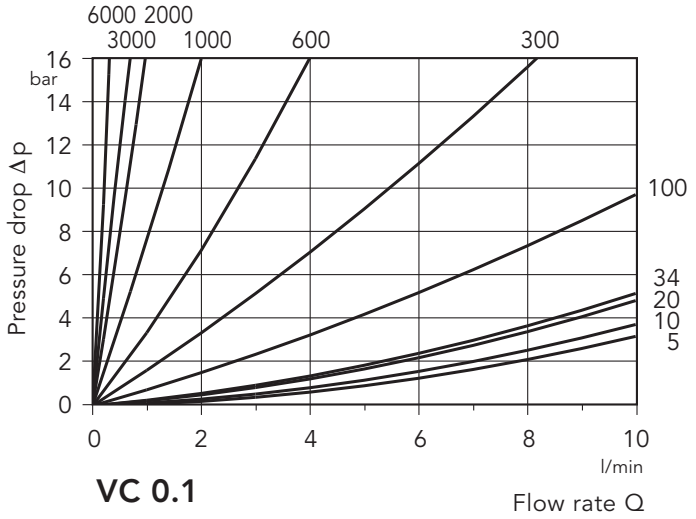
VC 0.025 (extract)



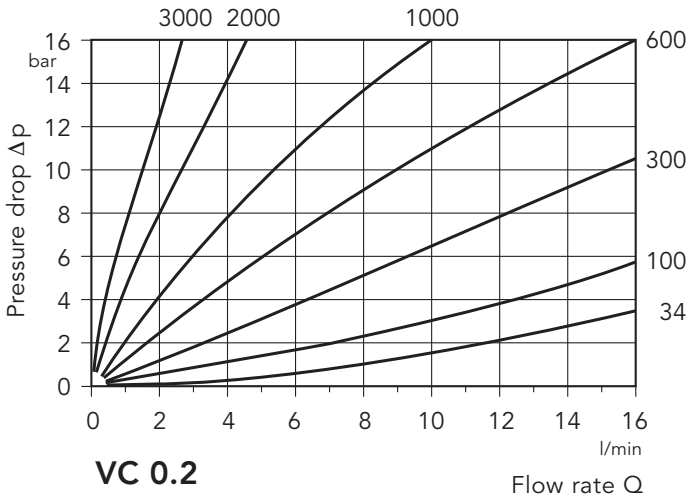
VC 0.04



VC 0.04 (extract)



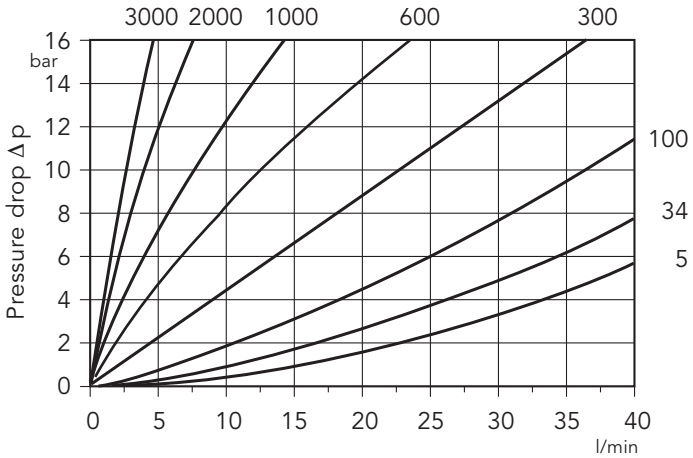
VC 0.1



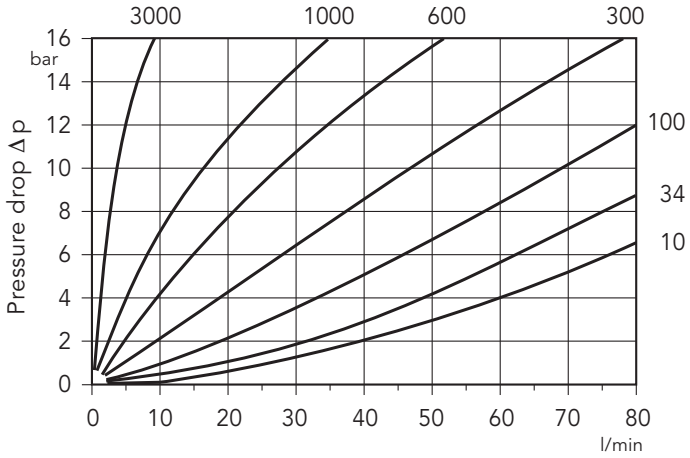
VC 0.2

Pressure Drop

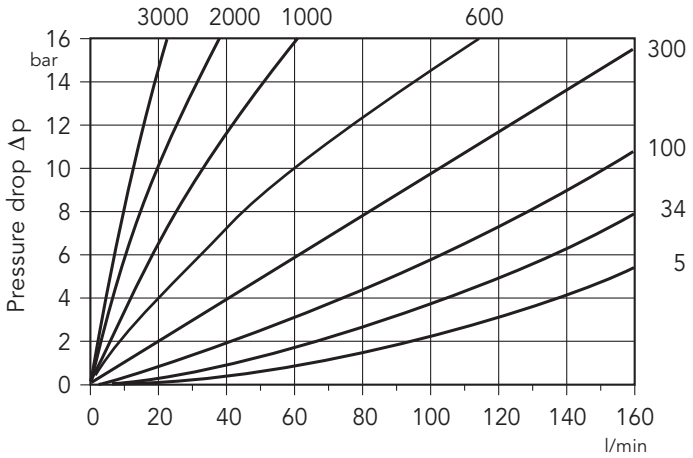
Series 1, 2, 6, 7 and 8 Parameter: Viscosity (mm^2/s)



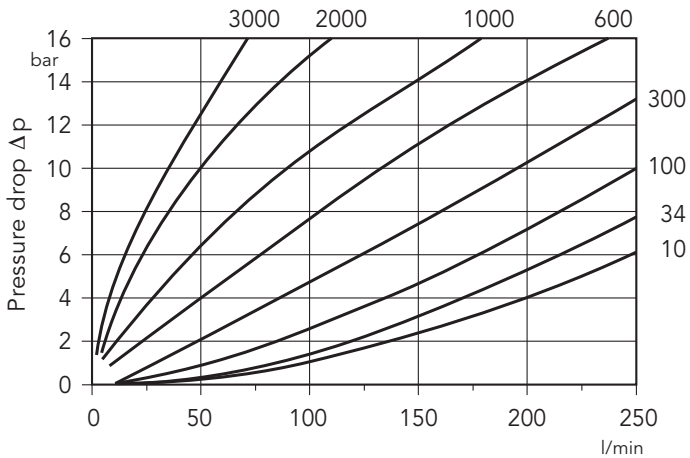
VC 0.4



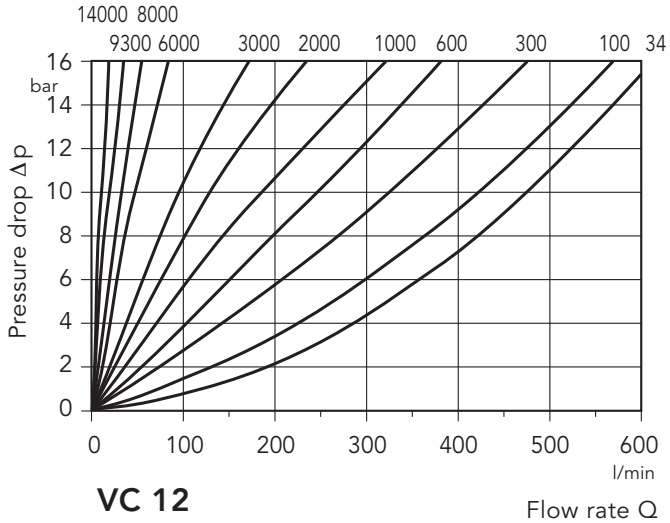
VC 1



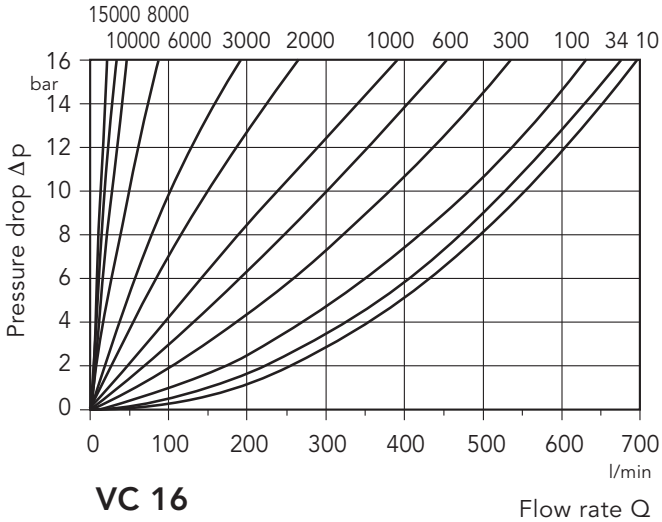
VC 3



VC 5



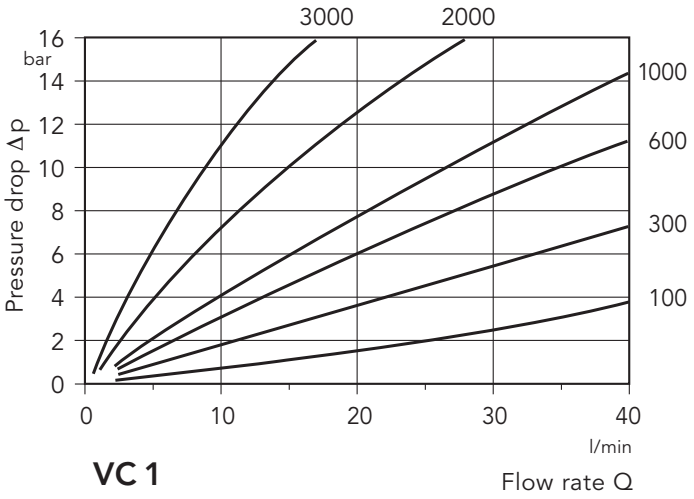
VC 12



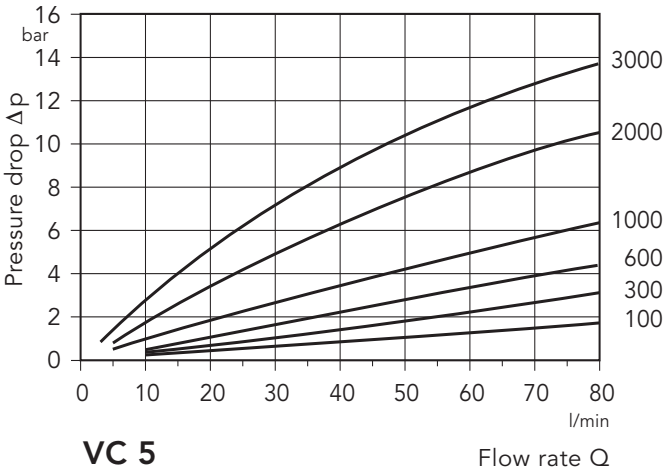
VC 16

Pressure Drop

Serie 3 Parameter: Viscosity (mm^2/s)



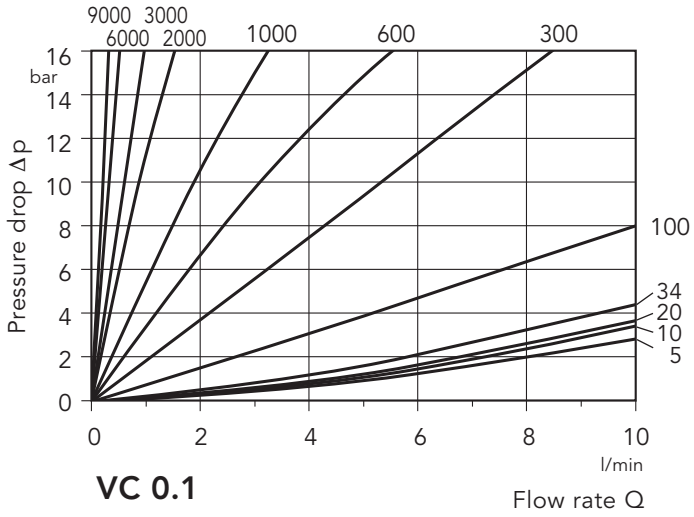
VC 1



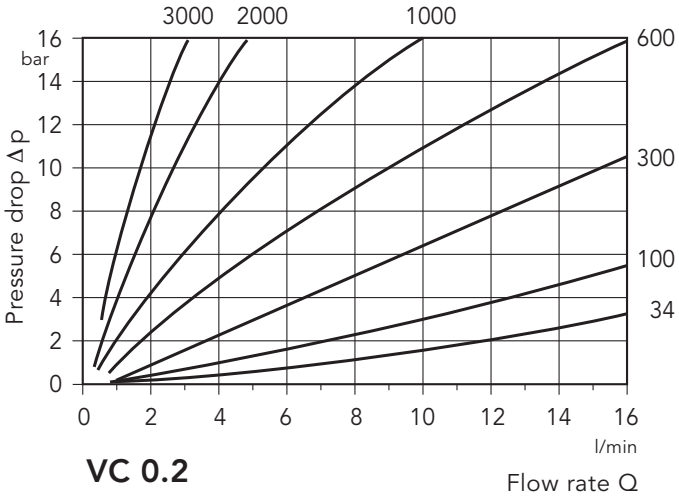
VC 5

Pressure Drop

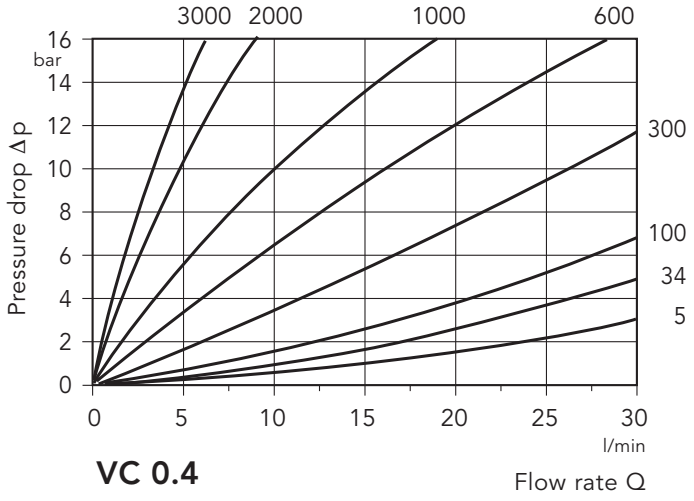
Series 4/5 Parameter: Viscosity (mm^2/s)



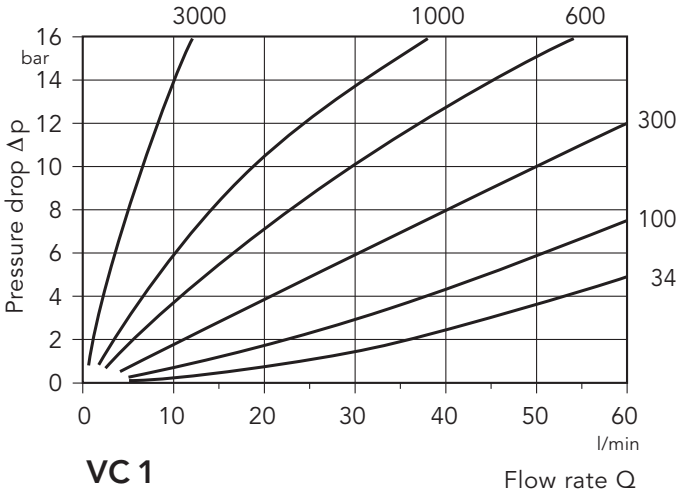
VC 0.1



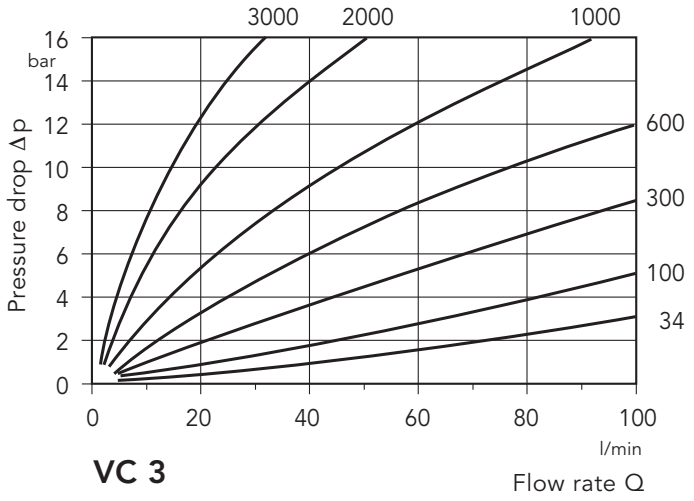
VC 0.2



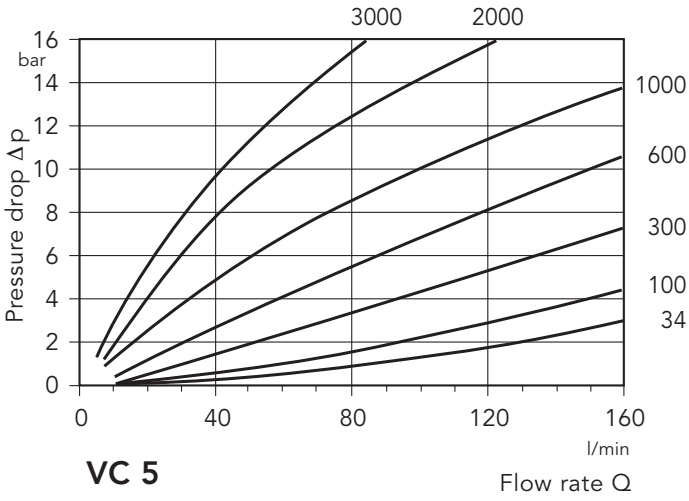
VC 0.4



VC 1



VC 3

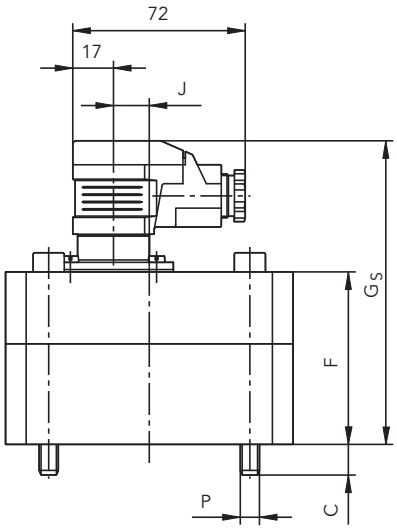


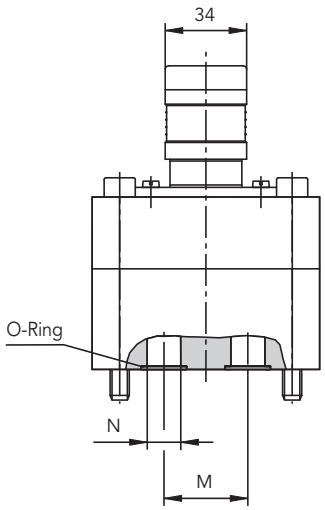
VC 5

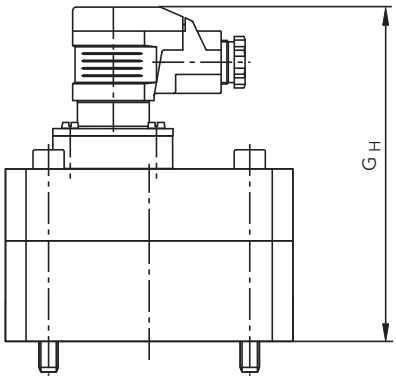
Dimensions

Series 1, 2, 3, 4, 7 – Connection type P

Nominal size	Available series	Weight	Tightening torque	Dimensions										
		kg	Nm	mm										
		m	M_A	A	C	D	F	Gs	GH	J	K	L	M	N	P
VC 0.025	1, 7	1.8	14	85	10	60	50	101	114	–	70	40	20	6.5	M 6
VC 0.04	1, 7	2	14	85	9	60	56	107	120	–	70	40	20	6.5	M 6
VC 0.1	1	2.5	14	85	13	60	55	106	121	–	70	40	20	9	M 6
VC 0.2	1, 2, 4, 7	2	14	85	13	60	57	108	121	–	70	40	20	9	M 6
VC 0.4	1, 4	3.7	35	100	17	90	63	114	127	–	80	38	34	16	M 8
VC 1	1, 2, 3, 4, 7	5.2	35	120	13	95	72	123	136	15.5	84	72	35	16	M 8
VC 3	1, 2, 4	9	120	170	18	120	89	140	153	46.5	46	95	50	25	M 12
VC 5	1, 2, 3, 4	13	120	170	22	120	105	156	169	46.5	46	95	50	25	M 12

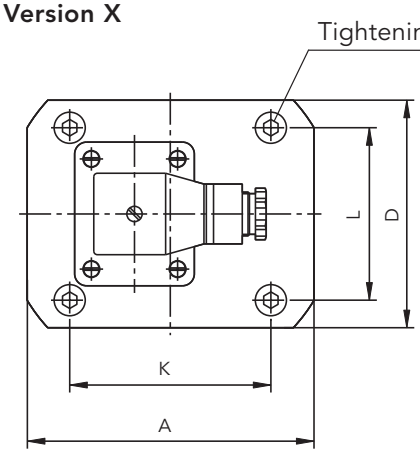


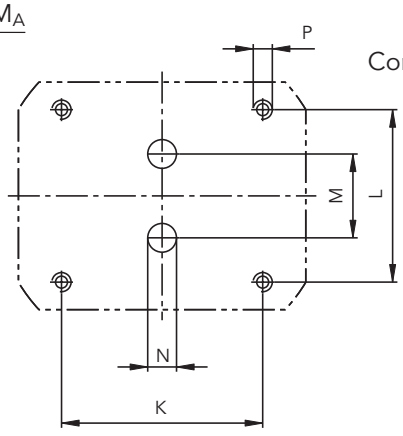




Version S and Version X

Version H





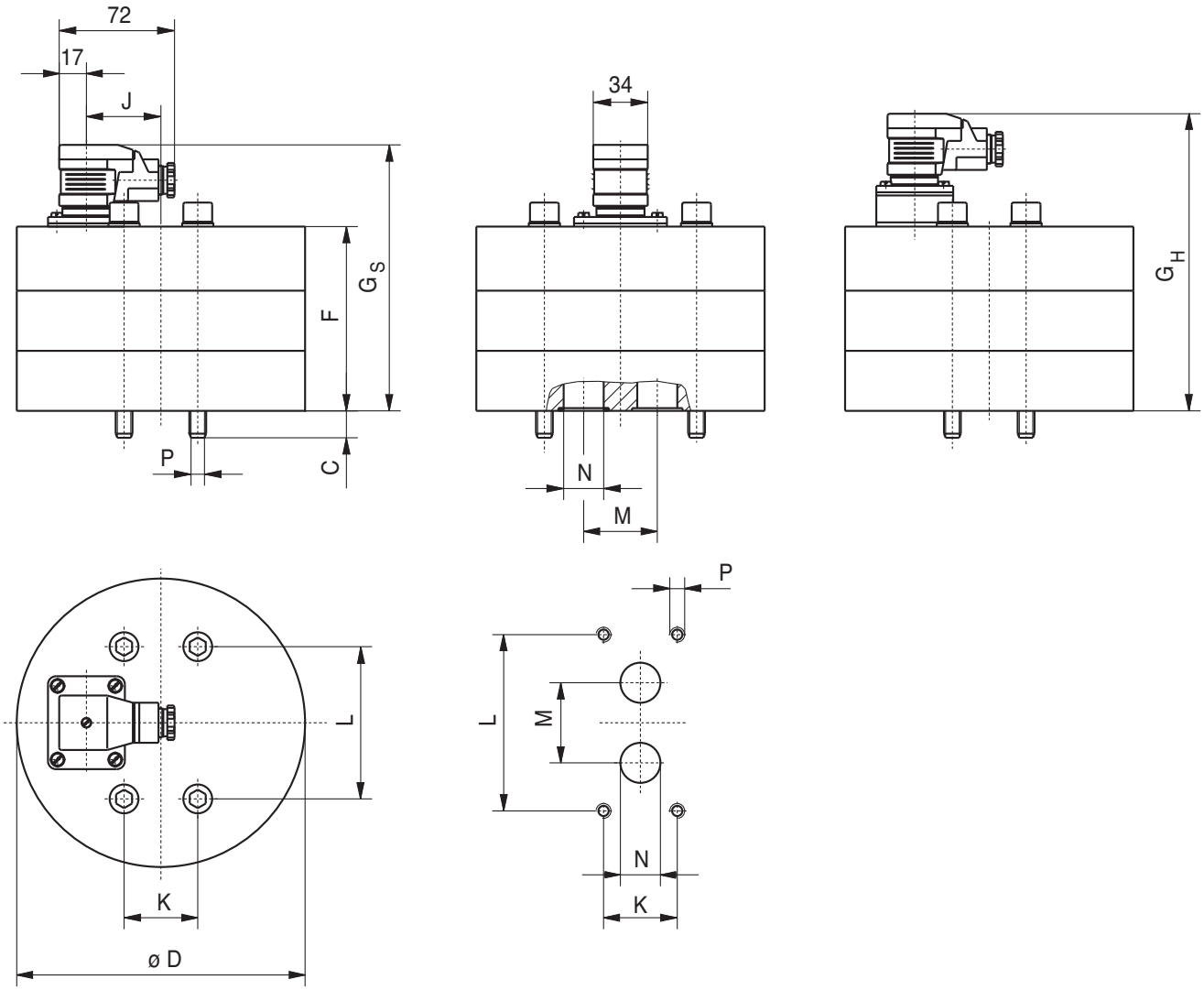
Dimensions

Series 1 – High pressure version (/79)

Nominal size	Weight	Tightening torque	Dimensions										
	kg	Nm	mm										
	m	M_A	C	D	F	Gs	GH	J	K	L	M	N	P
VC 3	16.3	145	24.5	180	99	150	163	46.5	46	95	50	25	M 12
VC 5	18.9	145	22	180	115	166	179	46.5	46	95	50	25	M 12

Series 1 – Standard version

Nominal size	Weight	Tightening torque	Dimensions										
	kg	Nm	mm										
	m	M_A	C	D	F	Gs	GH	J	K	L	M	N	P
VC 12	53.5	400	44	249	168	219	232	77	120	140	70	38	M 20
VC 16	57.4	400	44	249	184	235	248	77	120	140	70	38	M 20



KRACHT GmbH · Gewerbestr. 20 · 58791 Werdohl, Germany · *fon* +49 (0) 23 92 / 935-0 · *fax* +49 (0) 23 92 / 935 209 · *mail* info@kracht.eu · *web* www.kracht.eu

Dimensions

Connection plate (Spheroidal cast iron) for VC 3/79 and VC 5/79 (high pressure) with side SAE flange connection

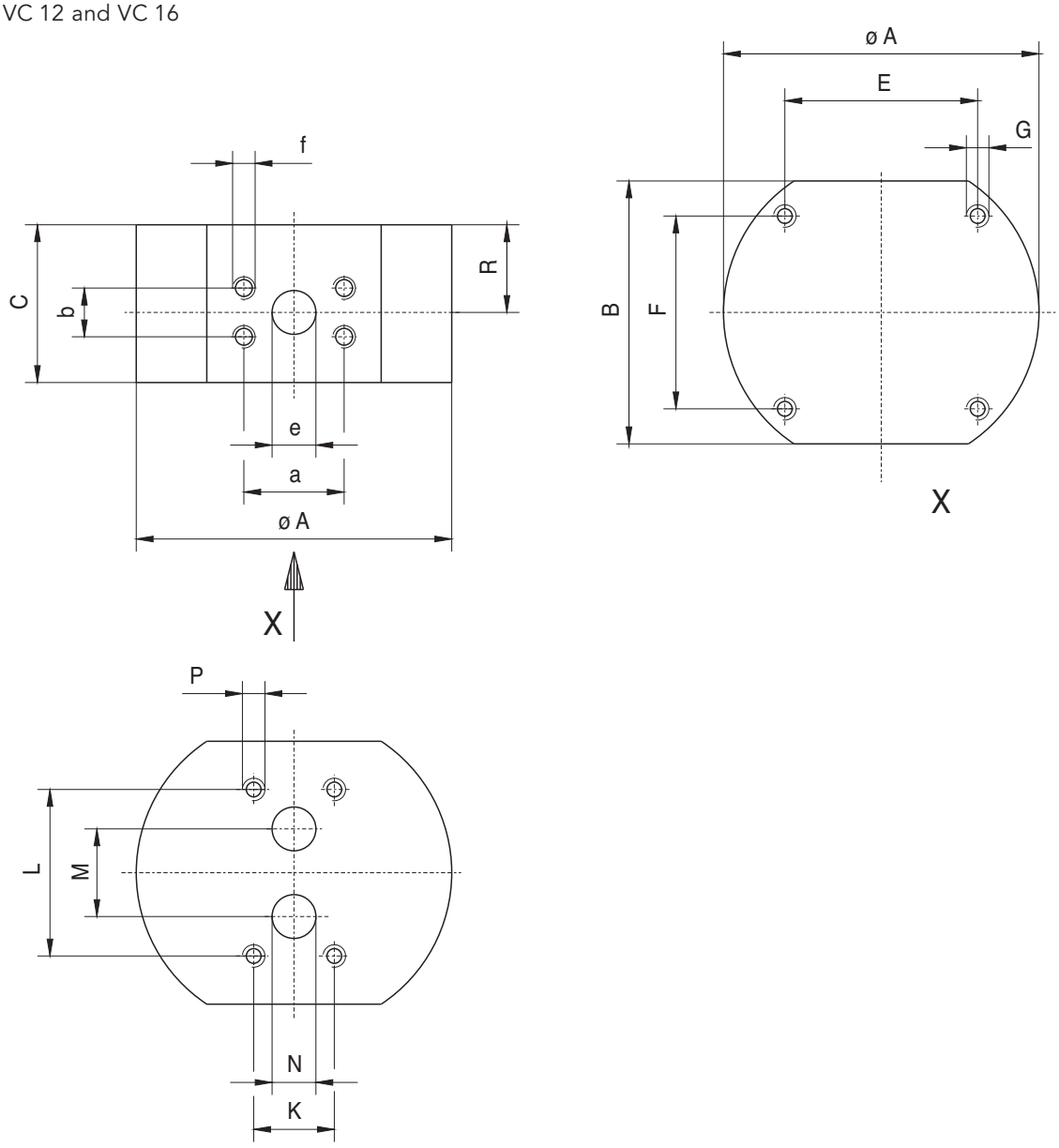
Ordering code	Weight kg	Dimensions mm															
	m	A	B	C	E	F	G	K	L	M	N	P	R	a	b	e	f
MVC 5 V1 E09*	14.2	180	150	90	110	110	M 8/15 t	46	95	50	25	M 12/24 t	50	57.2	27.8	25	M 12/24 t

* fits for VC 3 and VC 5

Connection plate for VC 12 and VC 16 with side SAE flange connection

Ordering code	Weight kg	Dimensions mm															
	m	A	B	C	E	F	G	K	L	M	N	P	R	a	b	e	f
MVC 12 V1 G09**	41.2	249	200	140	120	140	M 10/20 t	120	140	70	38	M 20/45 t	70	79.4	36.5	38	M 16/25 t

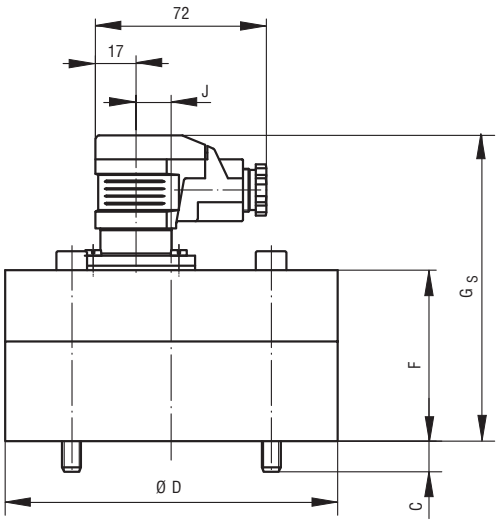
** fits for VC 12 and VC 16

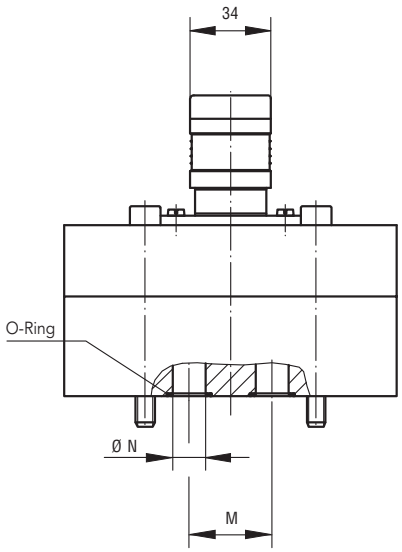


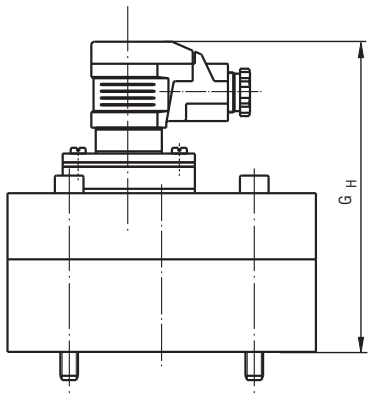
Dimensions

Series 5, 6 and 8 (stainless steel) – Connection type P

Nominal size	Available series	Weight	Tightening torque	Dimensions										
		kg	Nm	mm										
		m	M_A	C	D	F	Gs	GH	J	K	L	M	N	P
VC 0.025	5, 6, 8	3	14	15	94	55	106	119	–	70	40	20	6.5	M 6
VC 0.04	6, 8	3	14	9	94	56	107	120	–	70	40	20	6.7	M 6
VC 0.1	6, 8	3	14	10	94	65	116	129	–	70	40	20	6.7	M 6
VC 0.2	5, 6, 8	3.1	14	13	94	57	108	121	–	70	40	20	9	M 6
VC 0.4	5	4.8	35	17	118	63	114	127	–	80	38	34	16	M 8
VC 1	5, 6, 8	7	35	13	124	72	123	136	15.5	84	72	35	16	M 8
VC 3	5, 6	15.9	120	21	170	89	140	153	46.5	46	95	50	25	M 12
VC 5	5, 6	18.7	120	25	170	105	156	169	46.5	46	95	50	25	M 12

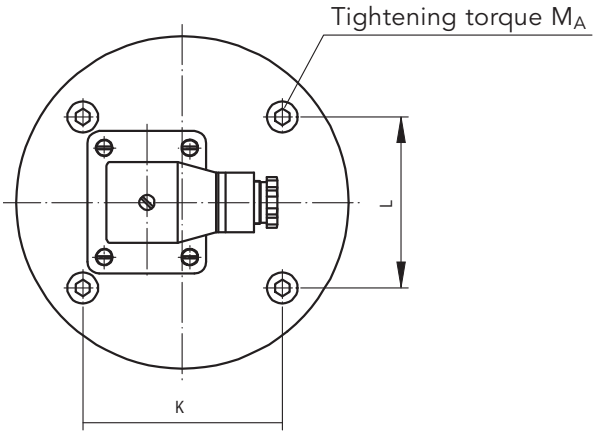


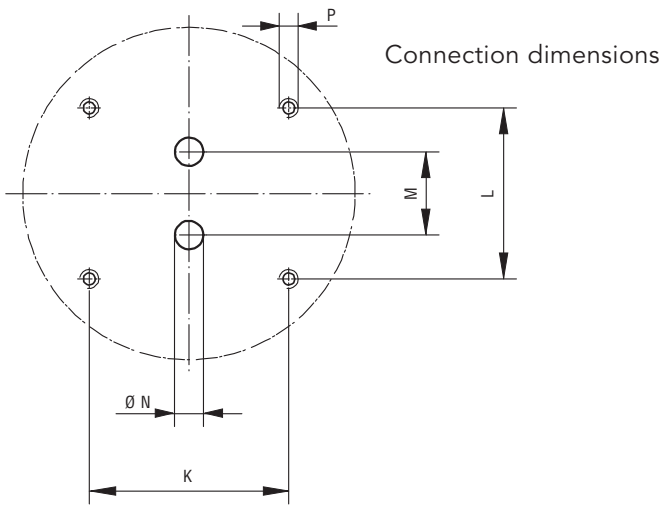




Version H

Version S and Version X

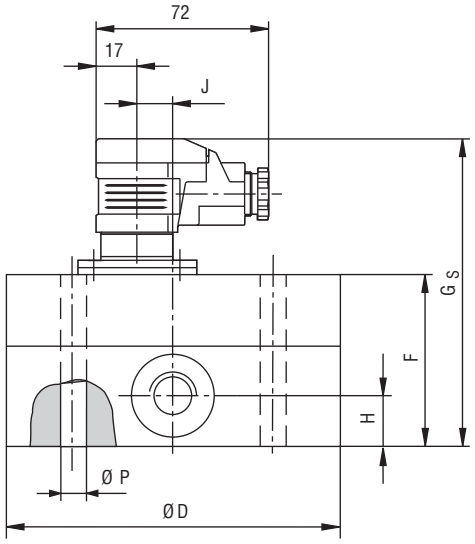


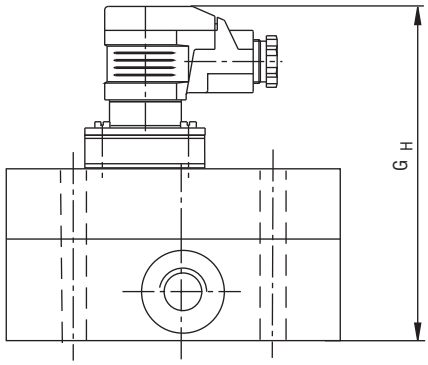


Dimensions

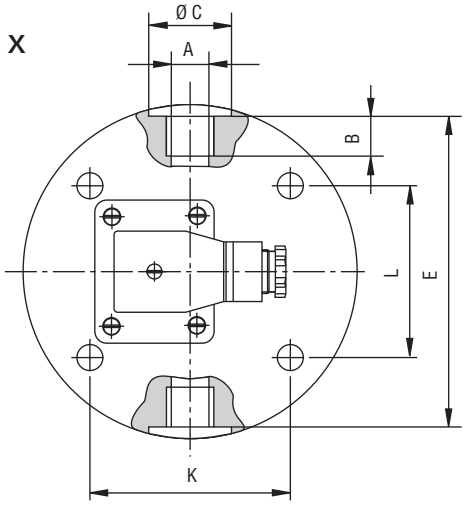
Series 5, 6 and 8 (stainless steel) – Connection type R

Nominal size	Available series	Weight kg	Dimensions mm												
		m	A	B	C	D	E	F	Gs	GH	H	J	K	L	P
VC 0.025	5, 6, 8	3	G ⅛	9	17	94	90	55	106	119	15	–	70	40	6.7
VC 0.04	6, 8	3	G ¼	13	21	94	90	56	107	120	15	–	70	40	6.7
VC 0.1	6, 8	3	G ⅜	13	25	94	90	65	116	129	20	–	70	40	6.7
VC 0.2	5, 6, 8	3.1	G ⅜	13	25	94	90	57	108	121	16	–	70	40	6.7
VC 0.4	5	4.8	G ½	15	29	118	112	63	114	127	17.5	–	80	38	M 8
VC 1	5, 6, 8	7	G ½	15	29	124	120	72	123	136	22	15.5	84	72	9
VC 3	5, 6	15.9	G 1	19	42	170	162	89	140	153	30	46.5	46	95	13
VC 5	5, 6	18.7	G 1	19	42	170	162	105	156	169	30	46.5	46	95	13





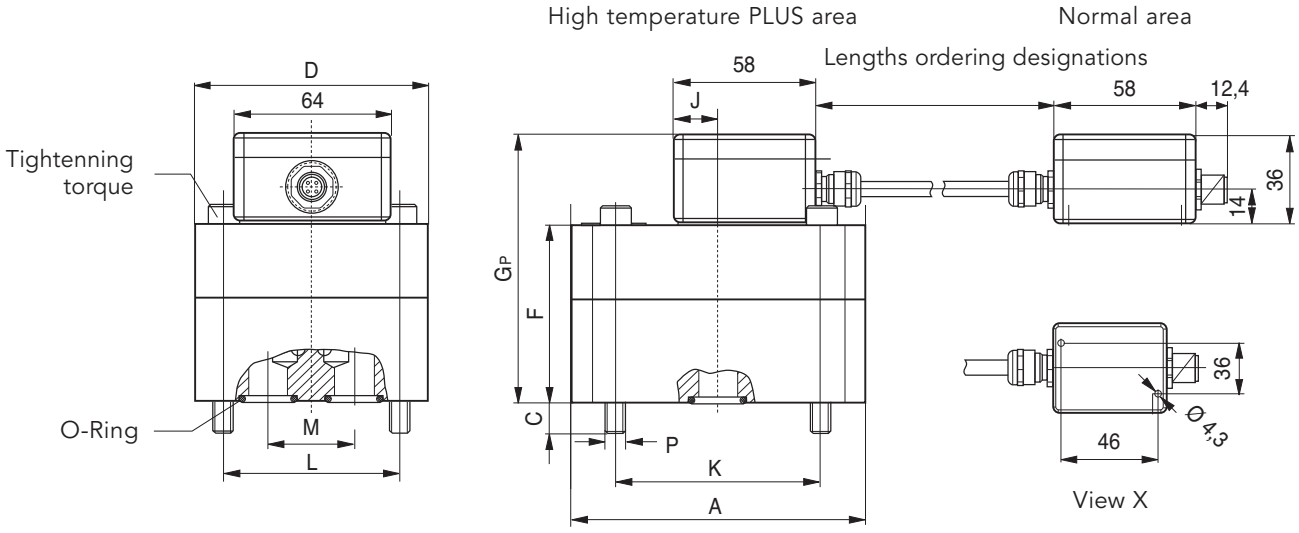
Version S
and Version X

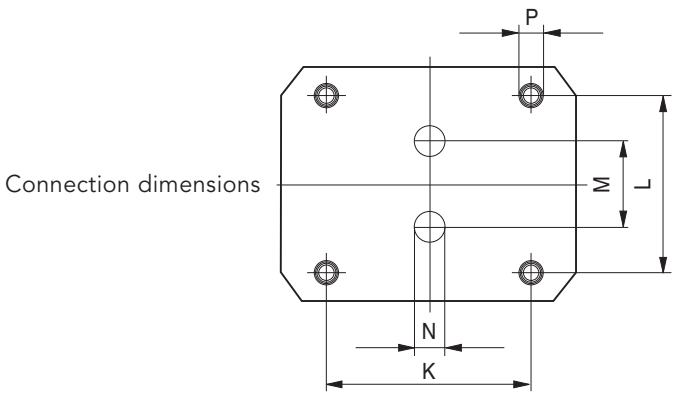


Version H

Dimensions VC High Temperature PLUS

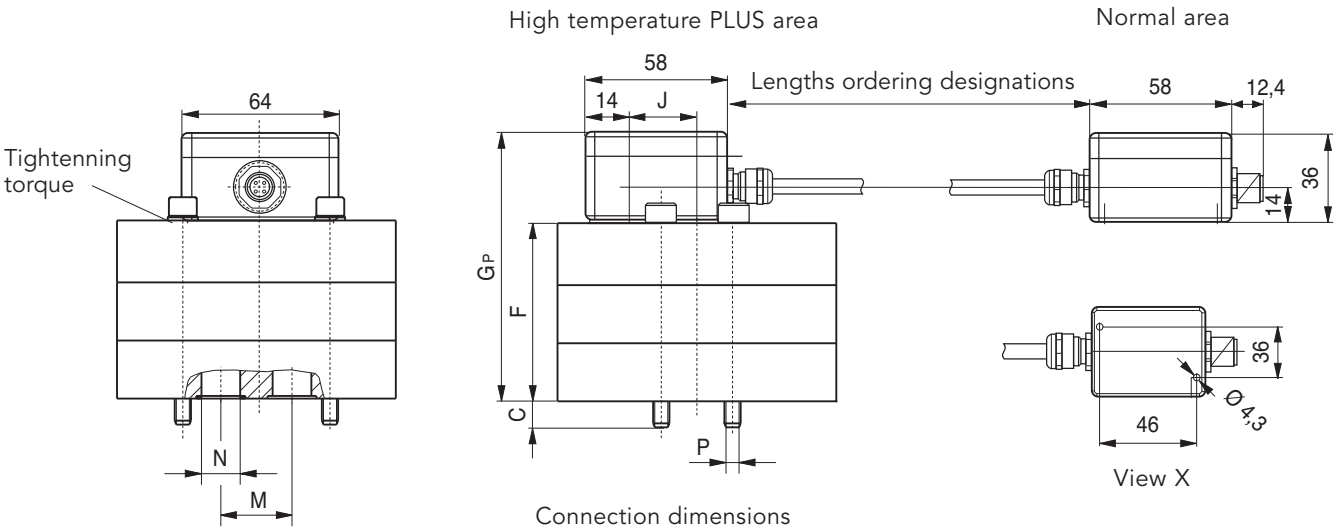
Nominal size	Weight	Tightening torque	Dimensions										
	kg	Nm	mm										
	m	M_A	A	C	D	F	G_P	J	K	L	M	N	P
VC 0.025	1.8	14	85	10	60	50	87	–	70	40	20	6.5	M 6
VC 0.04	2	14	85	9	60	56	93	–	70	40	20	6.5	M 6
VC 0.1	2.3	14	85	10	60	65	102	–	70	40	20	6.7	M 6
VC 0.2	2	14	85	13	60	57	94	–	70	40	20	9	M 6
VC 0.4	3.7	35	100	17	90	63	100	–	80	38	34	16	M 8
VC 1	5.2	35	120	13	95	72	109	18.5	84	72	35	16	M 8
VC 3	9	120	170	18	120	89	126	11	46	95	50	25	M 12
VC 5	13	120	170	22	120	105	142	11	46	95	50	25	M 12

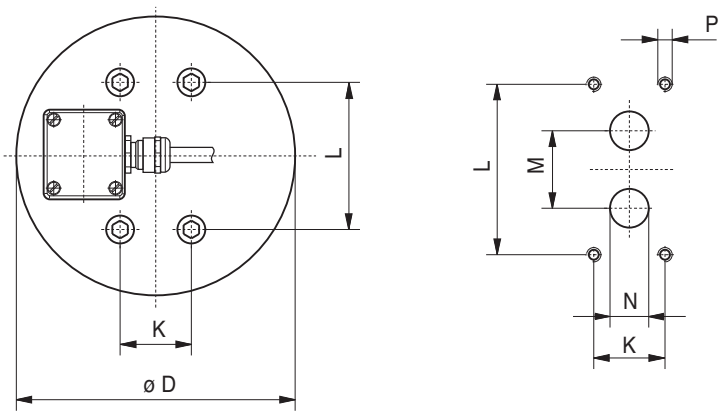




Dimensions VC High Temperature PLUS

Nominal size	Weight	Tightening torque	Dimensions									
	kg	Nm	mm									
	m	M_A	C	D	F	G_P	J	K	L	M	N	P
VC 3 / 79	16.3	120	24.5	180	99	136	–	46	95	50	25	M12
VC 5 / 79	18.9	120	22	180	115	152	11	46	95	50	25	M12
VC 12	53.5	400	44	249	168	205	11	120	140	70	38	M20
VC 16	57.4	400	44	249	184	235	11	120	140	70	38	M20

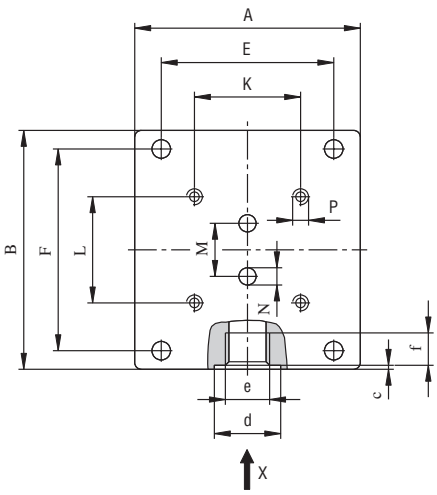


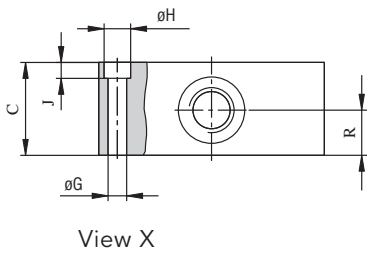


Connection plates (cast iron) with side threaded connection

Ordering code	Weight kg	Dimensions mm																	
	m	A	B	C	E	F	G	H	J	K	L	M	N	P	R	c	d	e	f
MVC 0.2 R 3 B 05*	1.8	85	90	35	65	76	7	11	7	70	40	20	6.5	M 6/14 t	17	0.7	25	G 3/8	13
MVC 0.2 R 3 C 05*	1.7	85	90	35	65	76	7	11	7	70	40	20	6.5	M 6/14 t	17.5	0.7	29	G ½	15
MVC 0.4 R 1 C 09	2.7	100	110	37	86	96	7	11	7	80	38	34	16	M 8/18 t	18.5	0.7	29	G ½	15
MVC 0.4 R 1 D 09	2.9	100	110	42	86	96	7	11	7	80	38	34	16	M 8/18 t	21	1	36	G ¾	17
MVC 1 R 2 C 05	2.9	100	120	37	80	106	7	11	7	84	72	35	12	M 8/18 t	17.5	0.7	29	G ½	15
MVC 1 R 3 D 05	4	120	120	42	80	106	7	11	7	84	72	35	13	M 8/18 t	21	1	36	G ¾	17
MVC 1 R 2 E 05	4.9	100	120	65	80	106	7	11	8	84	72	35	13	M 8/18 t	32.5	1	42	G 1	19
MVC 5 R 2 E 05**	14	160	165	80	140	145	9	15	9	46	95	50	25	M 12/24 t	28	1	42	G 1	19
MVC 5 R 2 G 09**	17.8	170	165	100	140	145	9	15	9	46	95	50	25	M 12/24 t	42	1	58	G 1 ½	23

* fits for VC 0.025, VC 0.04, VC 0.1 and VC 0.2
** fits for VC 3 and VC 5



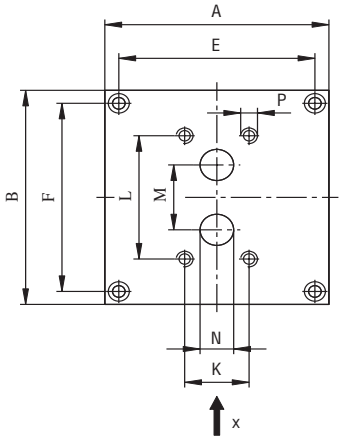


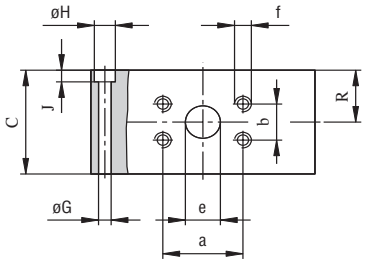
View X

Connection plates (cast iron) with side SAE flange connection

Ordering code	Weight kg	Dimensions mm																	
	m	A	B	C	E	F	G	H	J	K	L	M	N	P	R	a	b	e	f
MVC 5 V 2 E 05**	14	160	165	80	140	145	9	15	9	46	95	50	25	M 12/24 t	40	57.2	27.8	25	M 12/24 t
MVC 5 V 1 F 09	15.1	160	165	90	140	145	9	15	9	46	95	50	25	M 12/24 t	50	66.7	31.8	31.5	M 14/25 t

** fits for VC 3 and VC 5



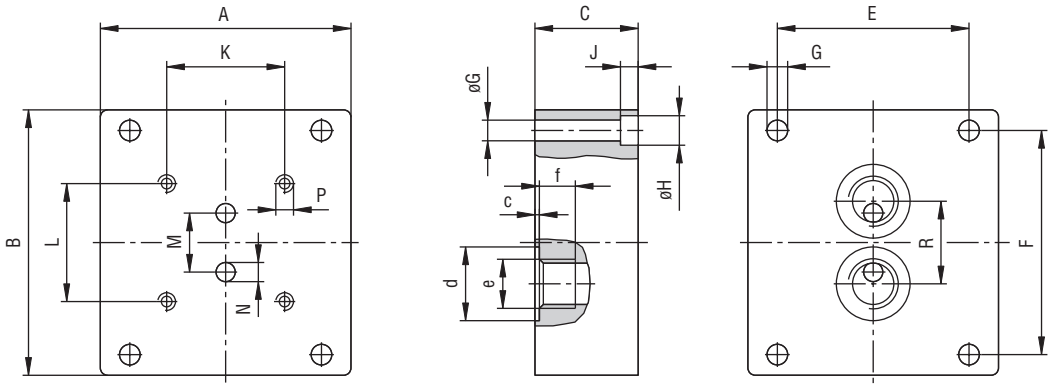


View X

Connection plates (cast iron) with rear threaded connection

Ordering code	Weight kg	Dimensions mm																	
	m	A	B	C	E	F	G	H	J	K	L	M	N	P	R	c	d	e	f
MVC 0.2 R 3 B 04*	1.6	85	90	35	65	76	7	11	7	70	40	20	6.5	M 6 / 14 t	28	0.7	25	G 3/8	13
MVC 0.4 R 1 C 08	2.5	100	110	37	86	96	7	11	7	80	38	34	16	M 8 / 18 t	46	0.7	29	G 1/2	15
MVC 0.4 R 1 D 08	2.9	100	110	42	86	96	7	11	7	80	38	34	16	M 8 / 18 t	52	1	36	G 3/4	17
MVC 1 R 2 C 04	2.7	100	120	37	80	106	7	11	7	84	72	35	12	M 8 / 18 t	50	0.7	29	G 1/2	15
MVC 5 R 2 E 04**	9.6	160	165	55	140	145	9	15	9	46	95	50	25	M 12 / 24 t	55	1	42	G 1	19

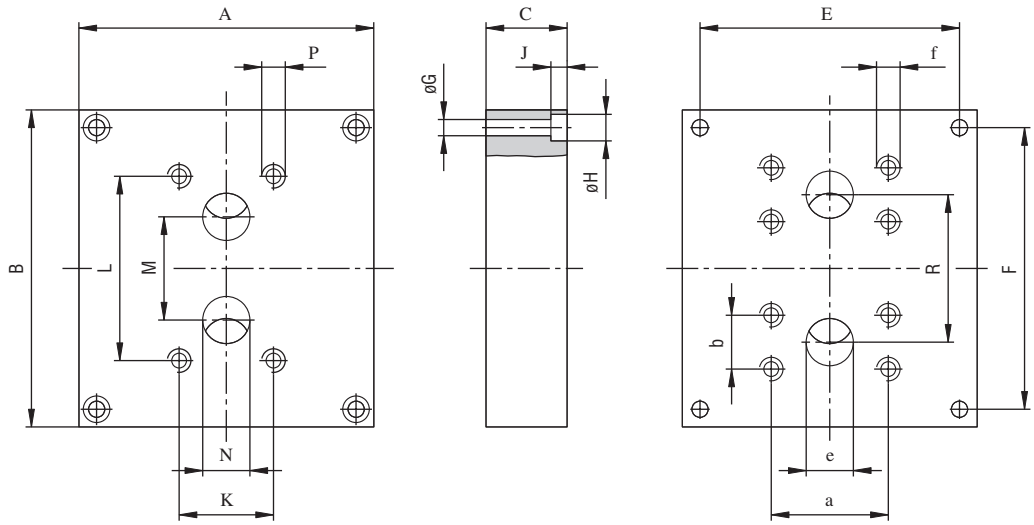
* fits for VC 0.025, VC 0.04, VC 0.1 and VC 0.2
** fits for VC 3 and VC 5



Connection plates (cast iron) with rear SAE flange connection

Ordering code	Weight kg	Dimensions mm																	
	m	A	B	C	E	F	G	H	J	K	L	M	N	P	R	a	b	e	f
MVC 5 V 2 E 04**	9.5	160	165	55	140	145	9	15	9	46	95	50	25	M 12 / 24 t	80	57.2	27.8	25	M 12 / 24 t

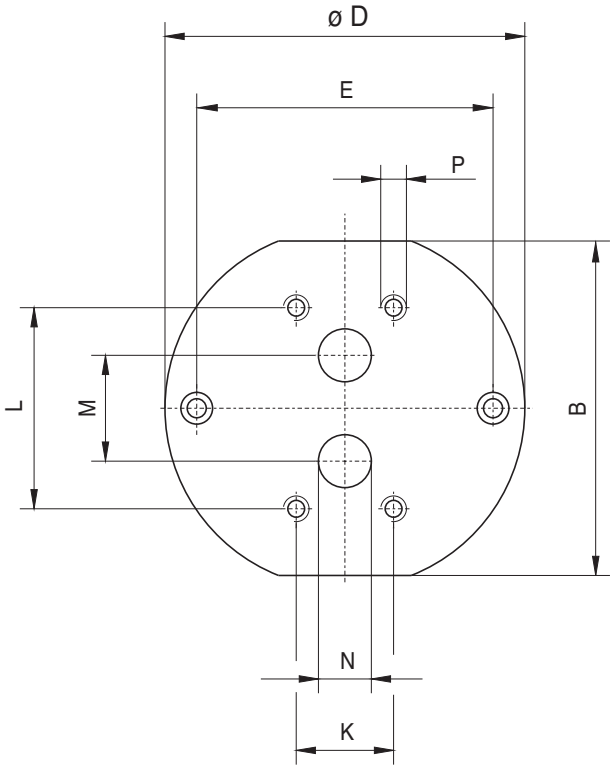
** fits for VC 3 and VC 5

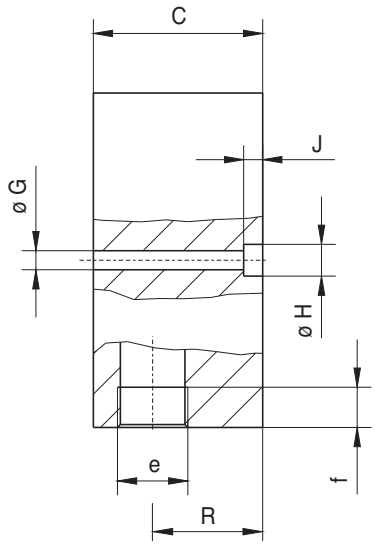


Connection plates (Stainless steel) with side threaded connection

Ordering code	Gewicht kg	Dimensions mm														
	m	B	D	C	E	G	H	J	K	L	M	N	P	R	e	f
MVC 0.2 R4 B11*	1.7	85	94	35	75	7	11	7	70	40	20	6.5	M 6 / 14 t	18	G 3/8	13
MVC 1 R3 C11	3.2	116	124	37	100	9	15	9	84	72	35	12	M 8 / 18 t	19.5	G 1/2	15
MVC 1 R2 D11	3.5	116	124	42	100	9	15	9	84	72	35	12	M 8 / 18 t	21	G 3/4	17
MVC 5 R2 E11**	13.9	158	170	80	140	9	15	9	46	95	50	25	M 12 / 24 t	52	G 1	19
MVC 5 R2 G11**	17.9	158	170	105	140	9	15	9	46	95	50	25	M 12 / 24 t	63	G 1 1/2	23

* fits for VC 0.025, VC 0.04, VC 0.1 and VC 0.2
** fits for VC 3 and VC 5





Note

Note

Note

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Product Portfolio

Transfer Pumps

Transfer pumps for lubricating oil supply equipment, low pressure filling and feed systems, dosing and mixing systems.

Mobile Hydraulics

Single and multistage high pressure gear pumps, hydraulic motors and valves for construction machinery, vehicle-mounted machines.

Flow Measurement

Gear and turbine flow meters and electronics for volume and flow metering technology in hydraulics, processing and laquering technology.

Industrial Hydraulics / Test Bench Construction

Cetop directional control and proportional valves, hydraulic cylinders, pressure, quantity and stop valves for pipe and slab construction, hydraulic accessories for industrial hydraulics (mobile and stationary use).

Technology Test benches / Fluid Test benches.





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KRACHT GmbH · Gewerbestraße 20 · 58791 Werdohl, Germany · *fon* +49 (0) 23 92 / 935-0 · *fax* +49 (0) 23 92 / 935 209
mail info@kracht.eu · *web* www.kracht.eu