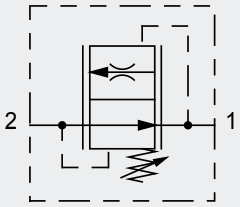
Flow control valve VCD

Max. operating pressure 315 bar
Max. flow rate up to 150 l/min



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Characteristics

- Screw-in flow control valve
- Also available as a supply or discharge flow control valve in an NG 6 intermediate plate
- Various sizes available
- Compact design
- Maintenance-free

Technical data

Hydraulic characteristics

Max operating pressure:	315 bar
Max. flow rate:	See type code
Flow direction	From 1 to 2: flow control direction From 2 to 1: no function
Operating fluids:	Mineral oils according to DIN 51524, others on request
Viscosity range:	7.4 - 420 cSt
Filtration:	Oil purity according to ISO 4406 (1999) 18/16/13, filter with ß 5(c) > 200

Mechanical characteristics

Design:	Screw-in valve
Size:	G1/2", G1/4", G3/4", G3/8"
Fluid temperature:	-30 °C to +100 °C
Ambient temperature:	-30 °C to +100 °C
Storage temperature:	-30 °C to +80 °C (non-condensing)
Installation position:	Any
Weight:	See the table in the dimensions section
Materials:	Steel

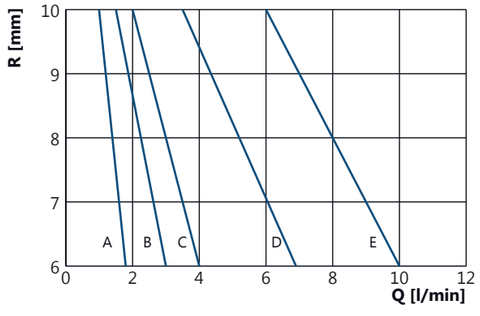
Characteristic curves

Flow rate setting ranges

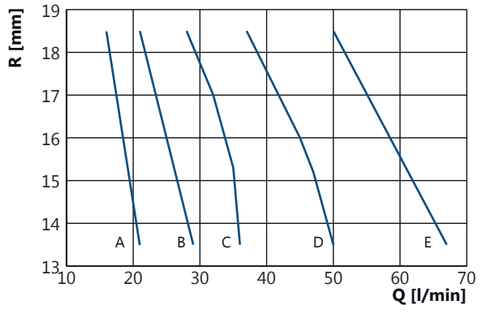
Size G	A [l/min]	B [l/min]	C [l/min]	D [l/min]	E [l/min]
G 1/4"	1-1.6	1.6-2.5	2.5-4	4-6.3	6.3-10
G 3/8"	2.5-4	4-6.3	6.3-10	10-16	16-25
G 1/2"	16-21	21-28	28-37	37-50	50-67
G 3/4"	37-50	50-67	67-90	90-120	120-150

NOTE The setting diagrams show the ratio of spring length to flow rate for the selected presetting A to E at a pressure Δp of 50 bar.

Setting diagram for spring length (R/Q) G 1/4"

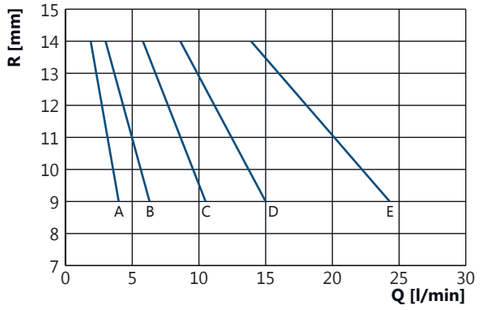


Setting diagram for spring length (R/Q) G 1/2"

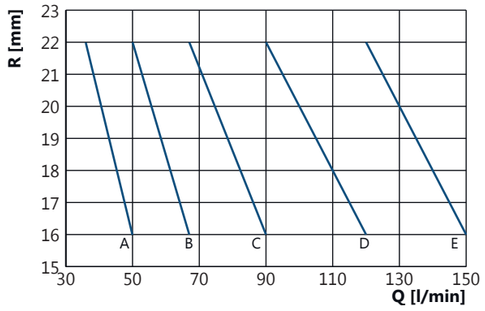


Characteristic curves

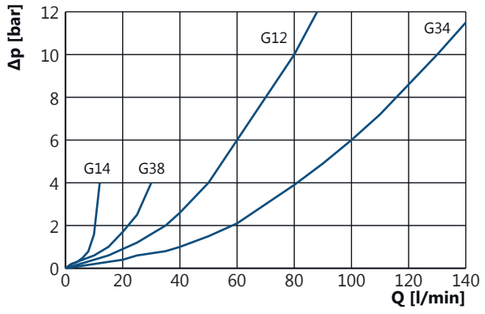
Setting diagram for spring length (R/Q) G3/8"



Setting diagram for spring length (R/Q) G3/4"



Pressure loss characteristic curve (Δp/Q) VCD

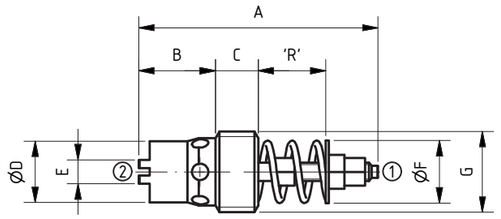


Measurement conditions

Oil: HLP 32, temperature: 40 °C (~32 cSt).
Higher viscosities change the characteristic curves.

Dimensions

Flow control valve VCD



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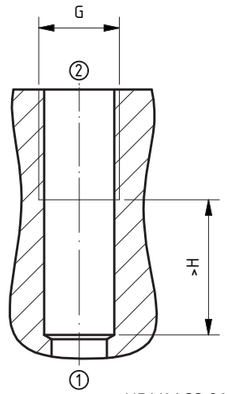
Cavity VCD



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Size G	A [mm]	B [mm]	C [mm]	D Ø [mm]	E [mm]	F Ø [mm]	H [mm]	Weight [kg]	Size 1	Size 2	Assembly [Nm]	Max. flow rate [l/min]
G 1/4"	39	12.5	7	10	4	10.3	22	0.012	5.5	4.5	6	10
G 3/8"	43	13.5	7	11.5	4	14	23	0.022	7	6	8	11.5
G 1/2"	49	16	8	15	6	18.2	27	0.036	7	6	12	15
G 3/4"	60	21	10	20	6	23	31	0.072	7	6	15	20

NOTE A detailed drawing of the cavity is provided in section 11, *"General information"* at *www.weber-hydraulik.com.*

Type code

VCD	-	☐	-	☐	-	☐
Flow control valve		Size		Flow rate setting range [l/min]		Presetting [l/min] (optional)
		14	G 1/4"	**A**	1-1.6	fixed flow rate presetting, selectable according to setting range
				B	1.6-2.5	
				C	2.5-4	
				D	4-6.3	
				E	6.3-10	
		38	G 3/8" *	**A**	2.5-4	
				B	4-6.3	
				C	6.3-10	
				D	10-16	
				E	16-25	
		12	G 1/2"	**A**	16-21	
				B	21-28	
				C	28-37	
				D	37-50	
				E	50-67	
		34	G 3/4"	**A**	37-50	
				B	50-67	
				C	67-90	
				D	90-120	
				E	120-150	

NOTE* Valve VCD-38 is also available as a **supply or discharge flow control valve in an NG 6 intermediate plate. Dimension sheets are available upon request.

Standard program

Type code

VCD - [ ] - [ ] - [ ]

Flow control valve

Size		Flow rate setting range [l/min]	
14	G 1/4"	**A**	1-1.6
		B	1.6-2.5
		C	2.5-4
		D	4-6.3
		E	6.3-10
38	G 3/8" *	**A**	2.5-4
		B	4-6.3
		C	6.3-10
		D	10-16
		E	16-25
12	G 1/2"	**A**	16-21
		B	21-28
		C	28-37
		D	37-50
		E	50-67
34	G 3/4"	**A**	37-50
		B	50-67
		C	67-90
		D	90-120
		E	120-150

Presetting [l/min] (optional)	
fixed flow rate presetting, selectable according to setting range	

NOTE* Valve VCD-38 is also available as a **supply or discharge flow control valve in an NG 6 intermediate plate. Dimension sheets are available upon request.

Accessories and further information

Accessories/spare parts

Article:	Material number:
In-line body G 1/4"	138.0008
In-line body G 3/8"	138.0009
In-line body G 1/2"	138.0010
In-line body G 3/4"	138.0011
In-line body with sealing lip G 1/4"	138.0013

Operating manual

Information regarding assembly, commissioning and maintenance is available in section 11, *"General information"* in the *"General Operating Manual"* category or on request.

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Subject to changes