V2400

Verafix

Presettable lockshield valve with retainable presetting

APPLICATION

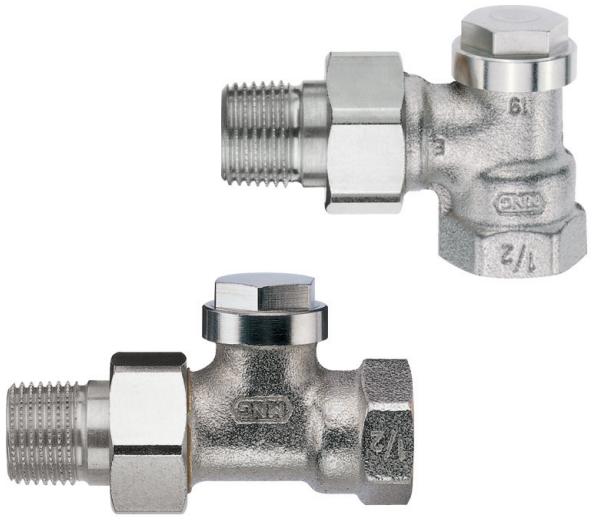
The Verafix is a presettable radiator lockshield valve for the return connection of radiators or heat exchangers. It is used:

- in typical two-pipe heating systems
- in special applications in one-pipe heating systems

for shut-off and regulation of individual radiators. Together with a draining adapter (see 'Accessories') radiators can be drained or filled with the system in operation. The presetting isn't affected by this.

Installation in supply also possible, draining/filling function isn´t supported.

The lockshield valve is suitable for hot water and low pressure steam heating systems and cold water cooling systems.



FEATURES

- Retainable presetting, independent of draining or shut-off process
- Presetting, shut-off and draining/filling with one valve
- Presettable by stroke limitation
- Optional flow direction. Performance values apply for both directions
- Piston externally O-ring sealed
- Body dimensions to DIN3842
- Connection to all types of pipe DN10 - DN20
- Easy identification: protection cap with hexagon on top and collar to valve; also see illustration identification

SPECIFICATIONS

Medium:	Water, water-glycol mixture Low pressure steam Quality to VDI2035	
Operating temperature:	Water (36 - 266°F) Steam (230°F)	2 - 130°C max. 110°C
Max. operating pressure:	Water (145 psi) Steam (7.3 psi)	10.0 bar 0.5 bar
k_{VS} (c_{VS})-value:	Straight DN10,DN15 Angle DN10, DN15 Straight, Angle DN20	1.25 (1.46) 1.70 (1.98) 1.80 (2.09)

DESIGN

The lockshield valve consists of:

- Valve housing PN10, DN10, 15 or 20 with
  - internal thread connection to DIN2999 (ISO7) or external thread connection to DIN/ISO228 on inlet
  - external thread connection to DIN/ISO228 with union-nut and radiator tailpiece (not V2406) on outlet
  - Body dimensions to DIN3842
- Valve insert
- Protection cap

MATERIALS

- Valve housing made of nickel-plated brass
- Valve insert made of brass with EPDM seals
- Tailpiece, protection cap and union-nut made of nickel-plated brass

FUNCTION

The Verafix connects the return of a radiator or heat exchanger to the heating loop and has the functions regulation, shut-off and draining/filling.

Regulation:

The flow can be regulated by presetting the Verafix to a certain value derived from the flow diagrams. By presetting, the opening between valve insert and valve seat is reduced. In this way the flow is throttled.

Draining:

Draining or filling of the radiator is carried out with the draining adapter (see 'Accessories'). Draining of individual radiators using the Verafix has no influence on the heating loop or other radiators in the loop.
Presetting isn't affected by shut-off or draining.

PLEASE NOTE:

- To avoid stone deposit and corrosion the composition of the medium should conform with VDI-Guideline 2035
- Additives have to be suitable for EPDM sealings
- System has to be flushed thoroughly before initial operation with all valves fully open
- Any complaints or costs resulting from non-compliance with above rules will not be accepted by Honeywell Home
- Please contact us if you should have any special requirements or needs

DIMENSIONS AND ORDERING INFORMATION

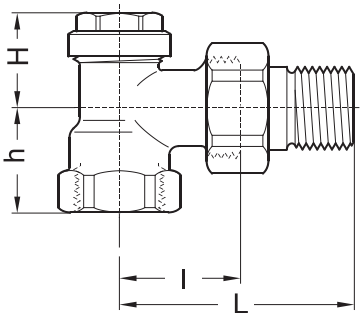


Fig. 1. Angle

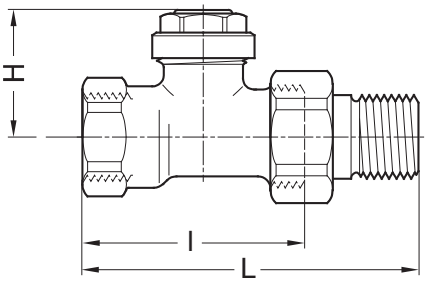


Fig. 2. Straight

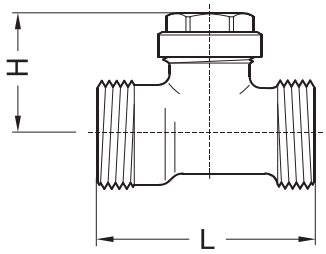


Fig. 3. Straight with external threads

Tab. 1 Dimensions and OS-Nos (OS=Ordering System)

Type	DN	Pipe connection	$k_{vs}(c_{vs})$-value	L	l	H	h	OS-No.
Angle	10	Rp 3/8"	1.70 (1.99)	52	26	25	22	V2400E0010
	15	Rp 1/2"	1.70 (1.99)	58	29	25	26	V2400E0015
	20	Rp 3/4"	1.80 (2.09)	66	34	29	29	V2400E0020
Straight	10	Rp 3/8"	1.25 (1.46)	75	49	32	-	V2400D0010
	15	Rp 1/2"	1.25 (1.46)	80	51	32	-	V2400D0015
	20	Rp 3/4"	1.80 (2.09)	91	59	32	-	V2400D0020
Straight with external threads	15	G 3/4" AG	1.25 (1.46)	51	-	32	-	V2406D0015

Note: All dimensions in mm unless stated otherwise.

INSTALLATION EXAMPLE

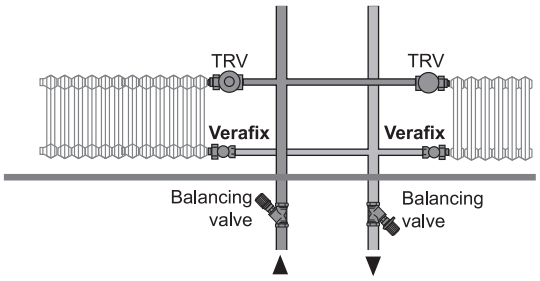


Fig. 4. Installation example heating system

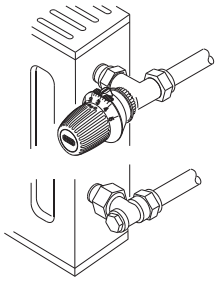
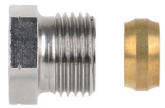
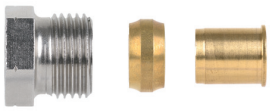
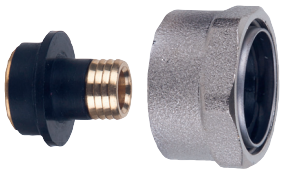


Fig. 5. Installation example radiator

ACCESSORIES

	Description		Dimension	Part No.
	**FIG3/8CS**	**Compression fitting for COPPER and STEEL pipe** Consisting of compression nut and compression ring. For valves with internal thread. Note: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120 °C, max. operating pressure 10 bar.		
		$^3/_8$", DN10	10 mm	FIG3/8CS10
		$^3/_8$", DN10	12 mm	FIG3/8CS12
		$^1/_2$", DN15	10 mm	FIG1/2CS10
		$^1/_2$", DN15	12 mm	FIG1/2CS12
		$^1/_2$", DN15	14 mm	FIG1/2CS14
		$^1/_2$", DN15	15 mm	FIG1/2CS15
		$^1/_2$", DN15	15 mm	FIG1/2CS15-10
		$^1/_2$", DN15	16 mm	FIG1/2CS16
		$^3/_4$", DN18	18 mm	FIG3/4CS18
		$^3/_4$", DN22	22 mm	FIG3/4CS22
	**FIG3/8CSS**	**Compression fitting for COPPER and STEEL pipe** Consisting of compression nut and compression ring and support insert. For valves with internal thread. Note: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120 °C, max. operating pressure 10 bar.		
		$^3/_8$", DN10	12 mm	FIG3/8CSS12
		$^1/_2$", DN15	12 mm	FIG1/2CSS12
		$^1/_2$", DN15	14 mm	FIG1/2CSS14
		$^1/_2$", DN15	15 mm	FIG1/2CSS15
		$^1/_2$", DN15	16 mm	FIG1/2CSS16
		$^1/_2$", DN15	18 mm	FIG1/2CSS18
		$^3/_4$", DN20	18 mm	FIG3/4CSS18
	**FIG1/2M**	**Compression fitting for MULTILAYER pipe. Consisting of compression nut, compression ring and support insert. For valves with internal thread.** Note: Max. operating temperature 90°C, max. operating pressure 10 bar		
		$^1/_2$", DN15	16 mm	FIG1/2M16X2
	**FEG3/4CS**	**Compression fitting for COPPER and STEEL pipe.** Consisting of one-piece (preassembled) nut. Soft sealing connection. For valves with external thread G$^3/_4$". Note: Reinforcing insert for copper or soft steel pipe with 1.0 mm wall thickness not required. Max. operating temperature 90°C, max. operating pressure 10 bar.		
		G$^3/_4$", 1 pcs.	10 mm	FEG3/4CS10
		G$^3/_4$", 1 pcs.	12 mm	FEG3/4CS12
		G$^3/_4$", 1 pcs.	14 mm	FEG3/4CS14
		G$^3/_4$", 10 pcs.	14 mm	FEG3/4CS14-10
		G$^3/_4$", 1 pcs.	15 mm	FEG3/4CS15
		G$^3/_4$", 10 pcs.	15 mm	FEG3/4CS15-10
		G$^3/_4$", 1 pcs.	16 mm	FEG3/4CS16
		G$^3/_4$", 1 pcs.	18 mm	FEG3/4CS18
	**FEG3/4P**	**Compression fitting for PEX pipe.** Consisting of one-piece (preassembled) nut and reinforcing insert. Soft sealing connection. For valves with external thread G$^3/_4$". Note: Max. operating temperature 90°C, max. operating pressure 10 bar.		
		G$^3/_4$", 1 pcs.	12 x 1.1 mm	FEG3/4P12X1.1
		G$^3/_4$", 1 pcs.	16 x 1.5 mm	FEG3/4P16X1.5

	**FEG3/4PM**	**Compression fitting for PEX and MULTILAYER pipe.** Consisting of one-piece nut with preassembled antitorsion elastic compression ring and one-piece reinforcing insert. For valves with external thread G3/4". Note: Max. operating temperature 90°C, max. operating pressure 10 bar.		
		G3/4", 1 pcs.	14 x 2 mm	FEG3/4PM14X2
		G3/4", 1 pcs.	16 x 2 mm	FEG3/4PM16X2
		G3/4", 10 pcs.	16 x 2 mm	FEG3/4PM16X2-10
		G3/4", 1 pcs.	16 x 2.2 mm	FEG3/4PM16X2.2
		G3/4", 1 pcs.	17 x 2 mm	FEG3/4PM17X2
		G3/4", 10 pcs.	17 x 2 mm	FEG3/4PM17X2-10
		G3/4", 1 pcs.	18 x 2 mm	FEG3/4PM18X2
		G3/4", 10 pcs.	18 x 2 mm	FEG3/4PM18X2-10
		G3/4", 1 pcs.	20 x 2 mm	FEG3/4PM20X2
	**VA5201Axxx**	**Radiator tailpiece with thread up to collar**		
		for valves DN10 (3/8")		VA5201A010
		for valves DN15 (1/2")		VA5201A015
		for valves DN20 (3/4")		VA5201A020
	**VA5204Bxxx**	**Extended radiator tailpiece, nickel-plated, to be shortened as required**		
		3/8" x 70 mm (for DN10) thread approx. 50 mm		VA5204B010
		1/2" x 76 mm (for DN15) thread approx. 65 mm		VA5204B015
		3/4" x 70 mm (for DN20) thread approx. 60 mm		VA5204B020
	**VA3300**	**Draining adapter**		
		for all sizes		VA3300A001
	**VA8300**	**Verafix-key**		
		for all sizes		VA8300A001

SERVICE PARTS

	**VS3301A**	**Cover cap**		
		for all sizes		VS3301A001
	**VS3302A**	**Sealing ring for cover cap**		
		for all sizes		VS3302A001
	**VA2202Axxx**	**Pressure cap – for shutting off valves on radiator outlet**		
		for valves DN10 (3/8")		VA2202A010
		for valves DN15 (1/2")		VA2202A015
		for valves DN20 (3/4")		VA2202A020
	**VS1300**	**Exchange valve insert**		
		Verafix type		VS1300VF02
	**VA5090**	**Sealing ring for pressure cap**		
		for valves DN10 (3/8")		VA5090A010
		for valves DN15 (1/2")		VA5090A015
		for valves DN20 (3/4")		VA5090A020

IDENTIFICATION

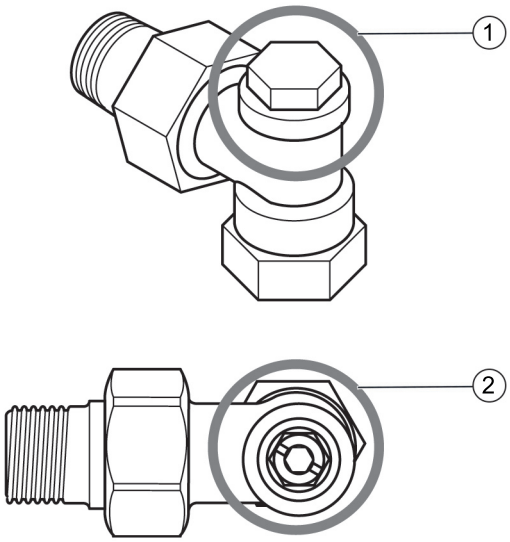
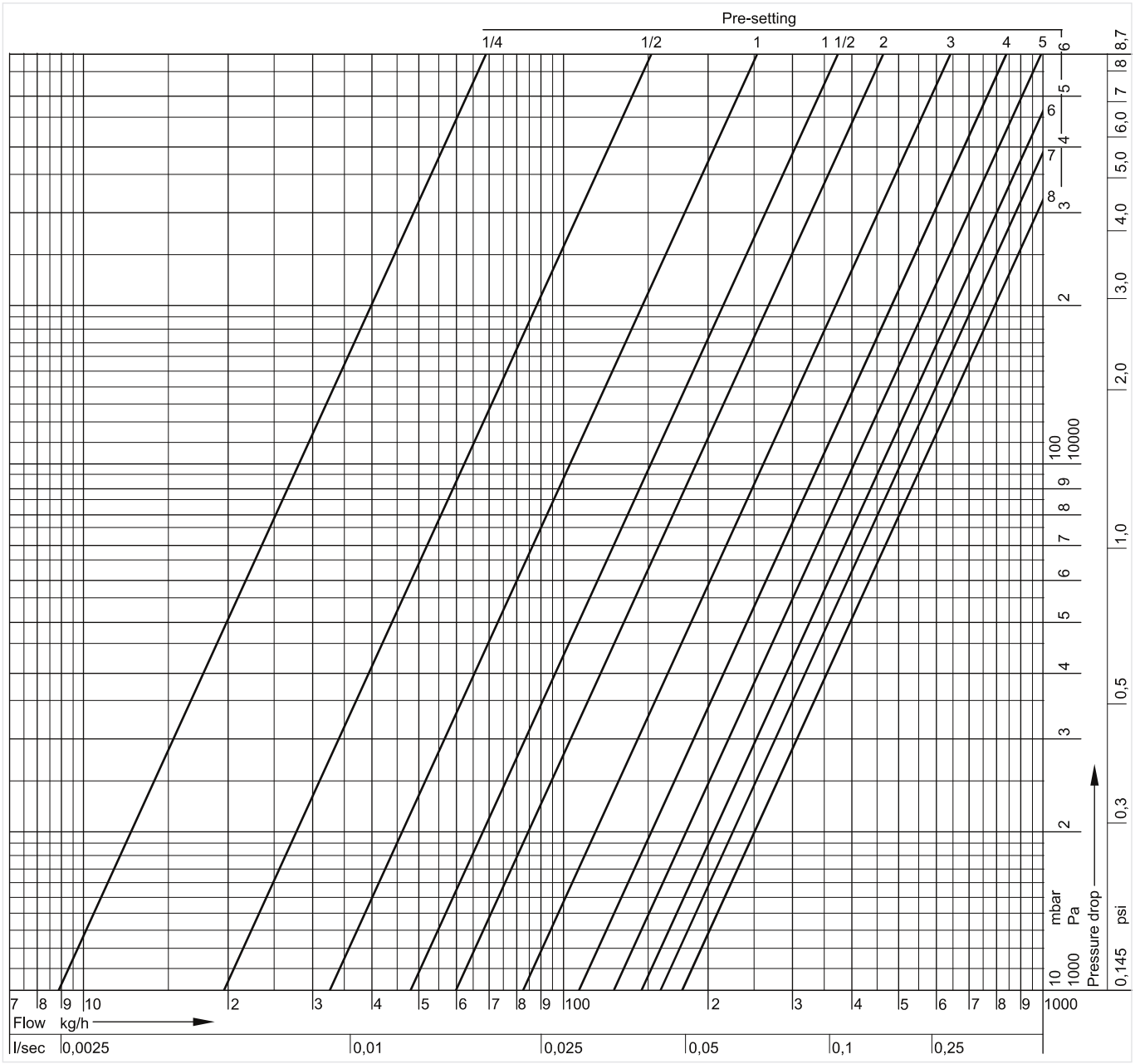


Fig. 6. Identification of Verafix

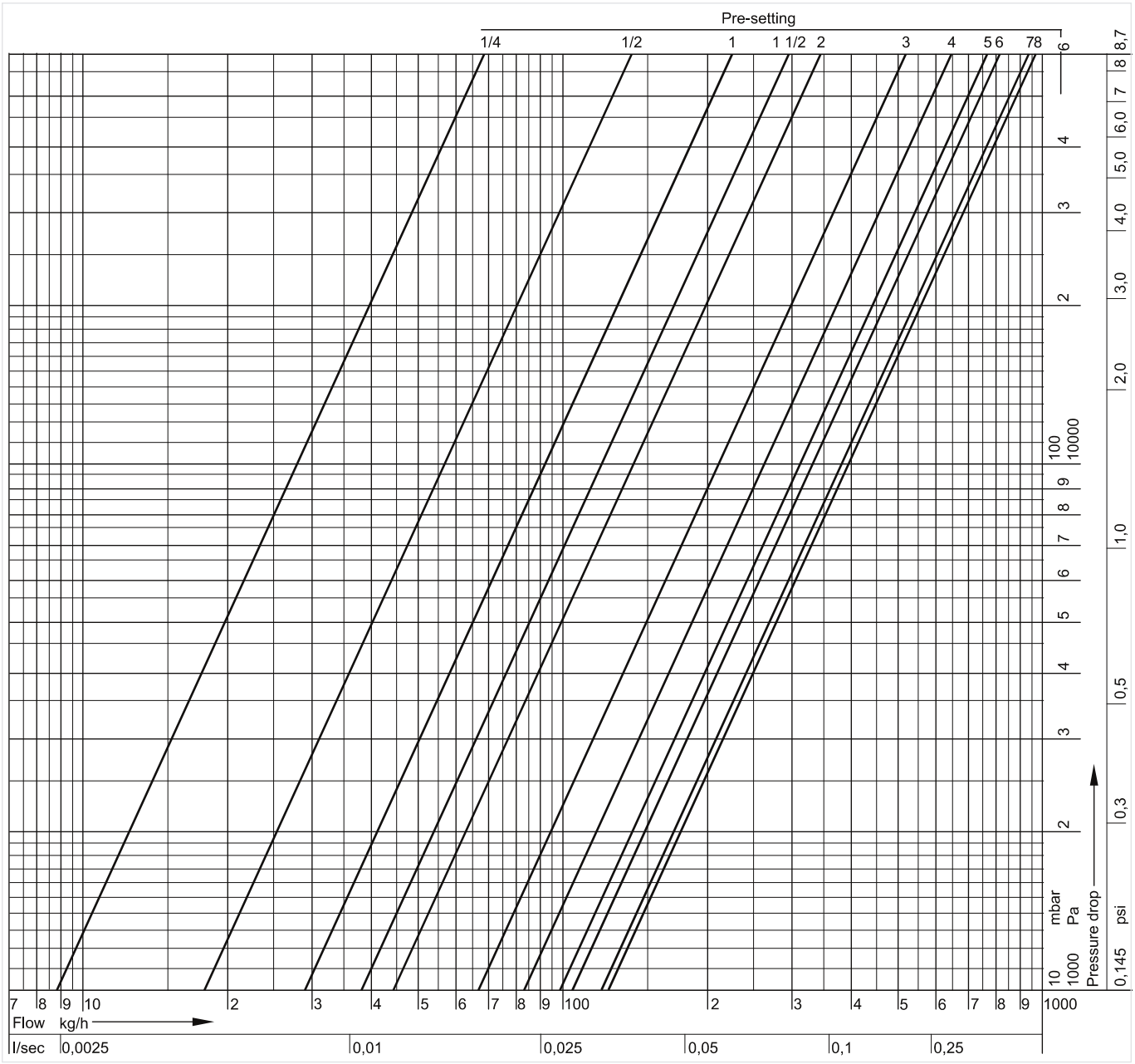
1) Protection cap fitted: protection cap with hexagon (SW19) on top and collar on valve side
2) Protection cap removed: valve insert with smooth rim, inside hexagon (SW10) and screwdriver slit in the centre

FLOW DIAGRAM FOR VERAFIX ANGLE, STRAIGHT, DN20 (V2400E0020, V2400D0020)



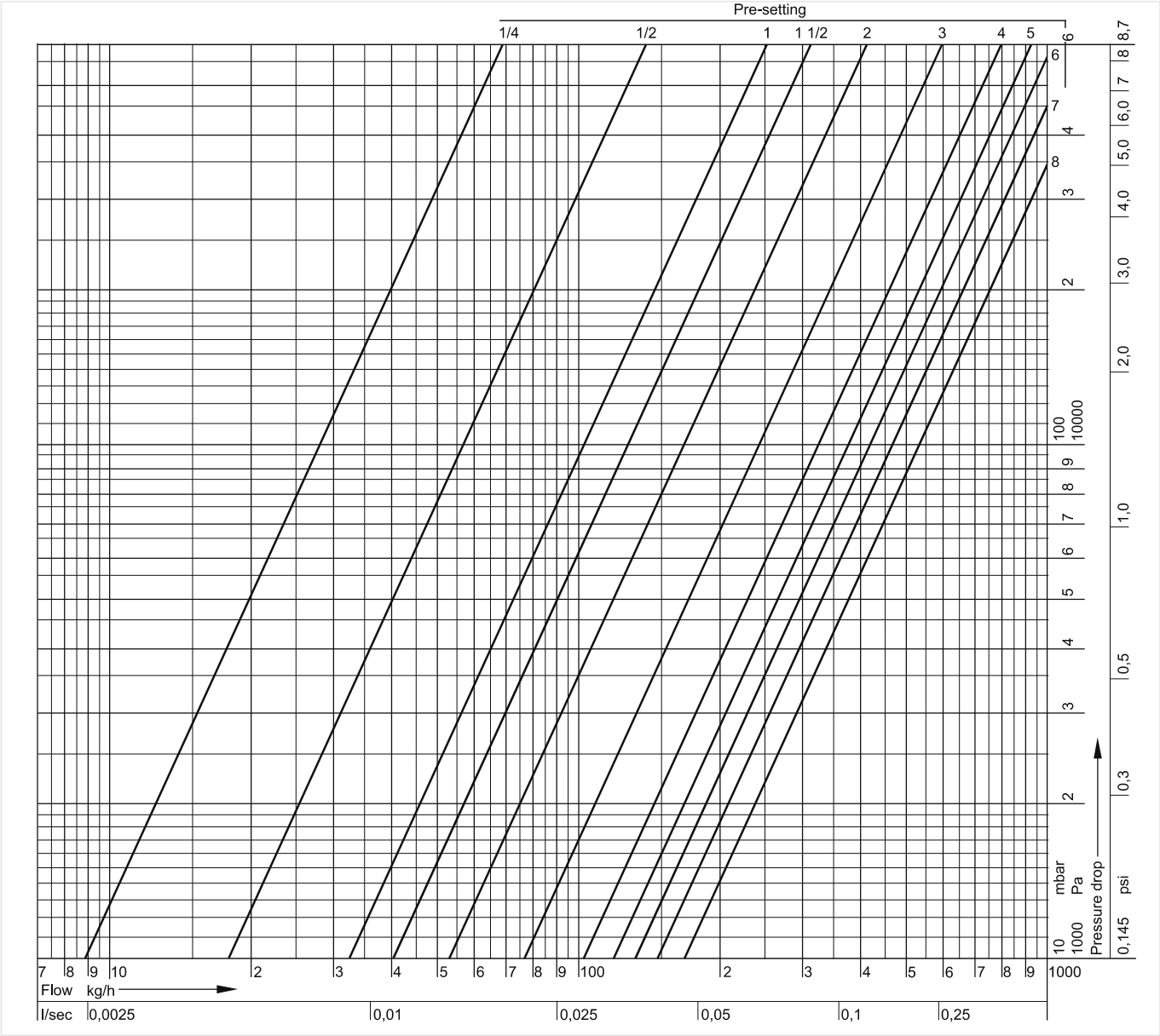
Turns of presetting screw	1/4	1/2	1	1 1/2	2	3	4	5	6	7	8 = open = k_{vs}
k_v-value	0.09	0.20	0.34	0.48	0.59	0.84	1.08	1.27	1.46	1.61	1.80
cv-value	0.10	0.23	0.40	0.56	0.69	0.98	1.26	1.48	1.70	1.87	2.09

FLOW DIAGRAM FOR VERAFIX STRAIGHT, DN10 (V2400D0010), DN15 (V2400D0015)



Turns of presetting screw	1/4	1/2	1	1 1/2	2	3	4	5	6	7	8 = open = k_{vs}
k_v-value	0.09	0.18	0.29	0.38	0.45	0.68	0.84	0.98	1.05	1.21	1.25
cv-value	0.10	0.21	0.34	0.44	0.52	0.79	0.97	1.14	1.22	1.41	1.46

FLOW DIAGRAM FOR VERAFIX ANGLE, DN10 (V2400E0010), DN15 (V2400E0015)



Turns of presetting screw	1/4	1/2	1	1 1/2	2	3	4	5	6	7	8 = open = k_{vs}
k_v-value	0.09	0.18	0.33	0.43	0.54	0.78	1.03	1.19	1.33	1.49	1.70
cv-value	0.10	0.21	0.38	0.51	0.63	0.91	1.20	1.38	1.55	1.73	1.98

For more information

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