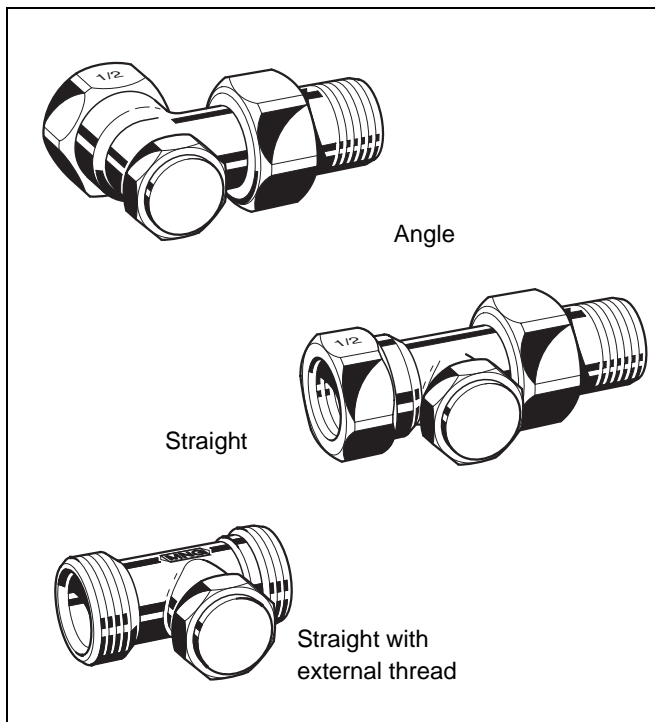


## V2420 Verafix-E

### PRE-SETTABLE LOCKSHIELD VALVE

#### PRODUCT DATA



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

#### Application

The Verafix-E is a pre-settable 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 shutoff and regulation of individual radiators. Together with a draining adapter (see 'Accessories') radiators can be drained or filled with the system in operation. The pre-setting isn't affected by this.

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

#### Features

- **Pre-setting, shutoff and draining/filling with one valve**
- **Pre-settable by stroke limitation**
- **Optional flow direction. Performance values apply for both directions**
- **Piston externally O-ring sealed**
- **Body dimensions to DIN3842**
- **Robust corrosion-resistant red bronze housing**
- **Connection to all types of pipe DN10...DN20**
- **Easy identification: cover cap with octagon and circular collar on top; also see illustration identification**

#### Specifications

<b>Medium</b>	Water, water-glycol mixture Quality to VDI2035	
<b>Operating temperature</b>	2...130°C (36...266°F)	
<b>Operating pressure</b>	PN 10	
<b>k<sub>vs</sub>(cv)-values</b>	Angle	1.70 (1.99)
	Straight DN 10	1.40 (1.64)
	Straight DN 15	1.45 (1.70)
	Straight DN 20	1.50 (1.76)

## Function

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

**Regulation:** The flow can be regulated by pre-setting the Verafix-E to a certain value derived from the flow diagram. By pre-setting, the opening between valve insert and valve seat is reduced. In this way the flow is throttled. The Verafix-E is supplied set fully open.

**Shutoff:** The return of the radiator can be shutoff by closing the valve insert.

**Draining:** Draining or filling of the radiator is carried out with the draining adapter (see 'Accessories'). Draining of individual radiators using the Verafix-E has no influence on the water loop or other radiators in the loop.

Detailed illustrations of above functions chapter Shutoff/ Draining and Pre-setting.

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
- Please contact us if you should have any special requirements or needs

## Dimensions and Ordering Information

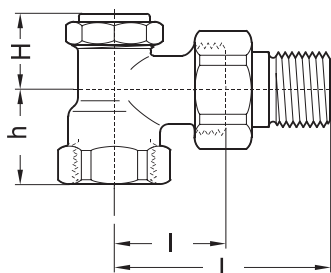


Fig. 1. Angle

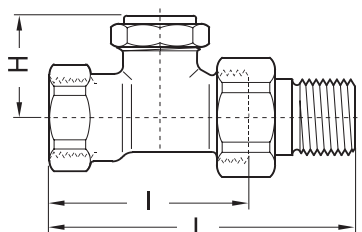


Fig. 2. Straight

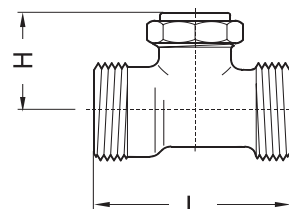


Fig. 3. Straight with external threads

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

Type	DN	Pipe connection	k <sub>vs</sub> (cv)-value	Dimensions in mm				OS-No.
				L	I	H	h	
Angle (Fig. 1)	10	Rp 3/8"	1.70 (1.99)	52	26	23	22	V2420E0010
	15	Rp 1/2"	1.70 (1.99)	58	29	23	26	V2420E0015
	20	Rp 3/4"	1.70 (1.99)	66	34	27	29	V2420E0020
Straight (Fig. 2)	10	Rp 3/8"	1.40 (1.64)	75	49	30	—	V2420D0010
	15	Rp 1/2"	1.45 (1.70)	80	51	30	—	V2420D0015
	20	Rp 3/4"	1.50 (1.76)	91	59	30	—	V2420D0020
Straight with external threads (Fig. 3)	15	G3/4"	1.45 (1.70)	51	—	30	—	V2426D0015

NOTE: All dimensions in mm unless stated otherwise.

## Installation Examples

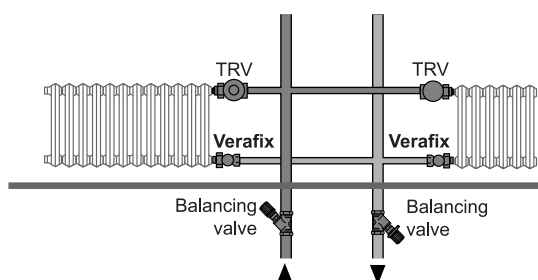


Fig. 4. Installation example heating system

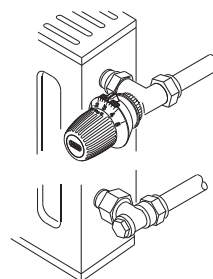
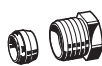


Fig. 5. Installation example radiator

## Accessories



### Connections for V2420

#### Compression ring and nut



	3/8" x 10 mm	VA620A1010
	3/8" x 12 mm	VA620A1012
	1/2" x 10 mm	VA620A1510
	1/2" x 12 mm	VA620A1512
	1/2" x 14 mm	VA620A1514
	1/2" x 15 mm	VA620A1515
	1/2" x 16 mm	VA620A1516
	3/4" x 18 mm	VA620A2018
	3/4" x 22 mm	VA620A2022

NOTE: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness

#### Compression ring and nut with support insert (2 pcs each)



	3/8" x 12 mm	VA621A1012
	1/2" x 12 mm	VA621A1512
	1/2" x 15 mm	VA621A1515
	1/2" x 16 mm	VA621A1516
	3/4" x 18 mm	VA621A2018

#### Compression ring and nut with support insert for composite pipe (2 pcs each)



	1/2" x 14 mm	VA622B1514
	1/2" x 16 mm	VA622B1516
		

### Connections for 2406



#### 2 Connections for copper and soft steel pipe

	3/4" x 10 mm	VA7200A010
	3/4" x 12 mm	VA7200A012
	3/4" x 14 mm	VA7200A014
	3/4" x 15 mm	VA7200A015
	3/4" x 16 mm	VA7200A016
	3/4" x 18 mm	VA7200A018

#### 2 External connections for plastic pipe


	3/4" x 12 x 2 mm	VA7210A012
	3/4" x 14 x 2 mm	VA7210A014
	3/4" x 16 x 2 mm	VA7210A016
	3/4" x 17 x 2 mm	VA7210A017
	3/4" x 18 x 2 mm	VA7210A018

#### 2 External connections for composite pipe, alpex-therm

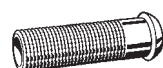
	3/4" x 14 x 2 mm	VA7220A014
	3/4" x 16 x 2 mm	VA7220A016
	3/4" x 18 x 2 mm	VA7220A018

NOTE: Processing after technical documentation of the several companies


#### 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

#### Extended radiator tailpiece, nickel-plated, to be shortened as required


	3/8" x 70 mm (for DN10) thread approx. 50 mm	VA5204A010
	1/2" x 76 mm (for DN15) thread approx. 65 mm	VA5204A015
	3/4" x 70 mm (for DN20) thread approx. 60 mm	VA5204A020

#### Soldering tailpiece


	3/8" x 12 mm (for DN10)	VA5230A010
	1/2" x 15 mm (for DN15)	VA5230A015
	3/4" x 22 mm (for DN20)	VA5230A020

### Valve Accessories

#### Draining adapter


	for all sizes	VA3300A001
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#### Verafix key

	for all sizes	VA8300A001
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### Service Parts


#### Cover cap Verafix-E

	for all sizes	VS3301C001
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#### Sealing ring for cover cap

	for all sizes	VS3302A001
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#### Exchange valve insert

	Verafix type	VS1300VF02
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#### 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

#### Sealing ring for pressure cap

	for valves DN10 (3/8")	VA5090A010
	for valves DN15 (1/2")	VA5090A015
	for valves DN20 (3/4")	VA5090A020

Identification

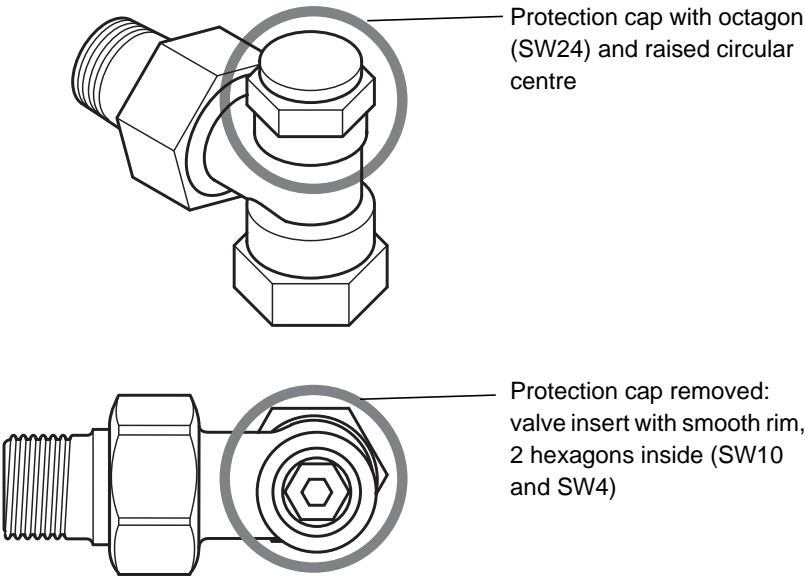
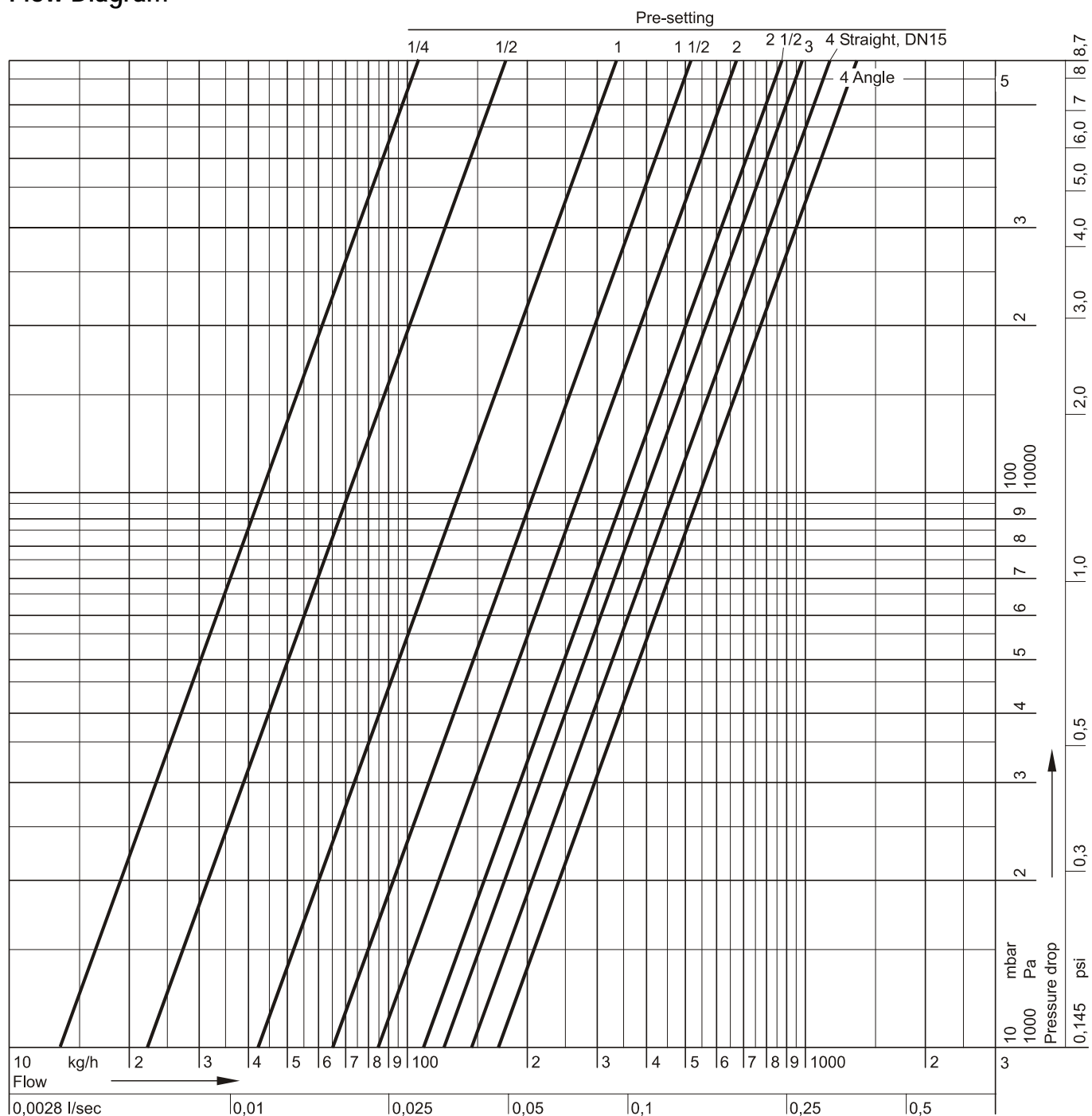


Fig. 6. Identification of Verafix-E

## Flow Diagram



Turns of pre-setting screw	1/4	1/2	1	1 1/2	2	2 1/2	3	4 = open = $k_{vs}$			
								Angle (Fig. 1)	Straight (Fig. 2)		
									DN 10	DN 15	DN 20
<b><math>k_v</math>-value</b>	0.13	0.22	0.43	0.65	0.85	1.10	1.25	1.70	1.40	1.45	1.50
<b><math>c_v</math>-value</b>	0.15	0.26	0.50	0.76	0.99	1.29	1.46	1.99	1.64	1.70	1.76

NOTE: See chapter presetting for pre-setting instructions.

**Automation and Control Solutions**

Honeywell GmbH

Hardhofweg

74821 Mosbach, Germany

Phone: +49 (6261) 810

Fax: +49 (6261) 81393

[www.honeywell.com](http://www.honeywell.com)

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