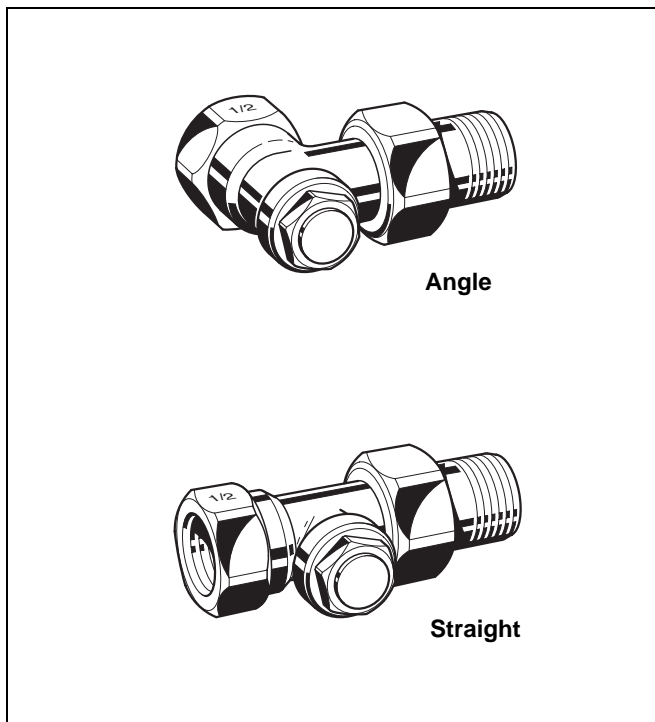


V2410 Verafix-MES-II

LOCKSHIELD VALVE WITH MEASURING FACILITY

PRODUCT DATA



Application

The Verafix-MES-II is a radiator lockshield valve with measuring support for the supply or return of radiators or heat exchangers. It is used for measuring, shutoff and draining/filling of individual radiators in two-pipe heating systems. In combination with a pre-settable TRV body the Honeywell measuring method can be applied: measuring and pre-setting at the same time.

The Verafix-MES-II is suitable for hot water heating systems and cold water cooling systems.

Features

- **Measuring and pre-setting at the same time**
- **Measuring, shutoff and draining/filling with one valve**
- **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 hexagon and raised circular centre; also see illustrations identification**

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

Specifications

Medium	Water, water-glycol mixture Quality to VDI2035	
Operating temperature	2...130°C (36...266°F)	
Operating pressure	PN 10	
k_{vs}(cv)-values	Angle	1.0 (1.17)
	Straight DN10	0.8 (0.94)
	Straight DN15	0.9 (1.05)
	Straight DN20	1.0 (1.17)

Function

The Verafix-MES-II connects the return of a radiator or heat exchanger to the water loop and has the functions measuring, shutoff and draining/filling.

Measuring:

To measure the flow the VA3301A measuring adapter is connected to the Verafix-MES-II and a measuring device, for example BasicMES is connected to the measuring adapter. Pre-setting of the required flow rate is done using the Honeywell measuring method: the water quantity is measured and is then adjusted as required on the pre-settable V, FV or SC type TRV. Closing or opening of the TRV is immediately indicated on the measuring device as a lower or higher flow rate.

The Verafix-MES-II has two fixed kv-values: measuring range II (standard) and measuring range I for low flow rates. The valve is supplied set to measuring range II.

For correct measurements the right measuring range or kv-value has to be fed into the measuring device.

Also see chapter 'Flow Diagram'.

NOTE: Measuring and pre-setting at the same time can only be done when a pre-settable TRV body is installed, e.g. Honeywell VS, FS, FV or SC type.

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-MES-II has no influence on the heating loop or other radiators in the loop.

Detailed illustrations of above functions see chapter Shutoff/ Draining and Change to Measuring Range I

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

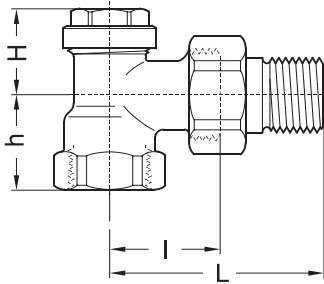


Fig. 1. Angle

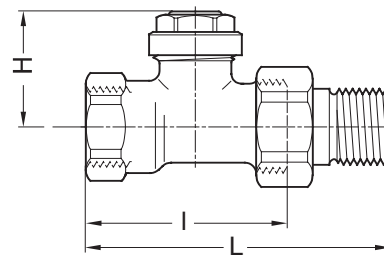


Fig. 2. Straight

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

Type	DN	Pipe connection	k _{vs} (cv)-value	Dimensions in mm				OS-No.
				L	I	H	h	
Angle (Fig. 1)	10	Rp 3/8"	0.2/1.0(0.23/1.17)	52	26	25	22	V2410E0010
	15	Rp 1/2"	0.2/1.0(0.23/1.17)	58	29	25	26	V2410E0015
	20	Rp 3/4"	0.2/1.0(0.23/1.17)	66	34	29	29	V2410E0020
Straight (Fig. 2)	10	Rp 3/8"	0.2/0.8 (0.23/0.94)	75	49	32	—	V2410D0010
	15	Rp 1/2"	0.2/0.9 (0.23/1.05)	80	51	32	—	V2410D0015
	20	Rp 3/4"	0.2/1.0(0.23/1.17)	91	59	32	—	V2410D0020

NOTE: All dimensions in mm unless stated otherwise.

Installation Examples

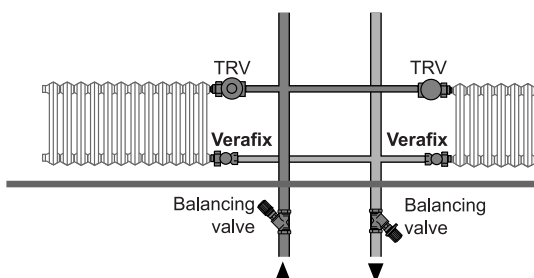


Fig. 3. Installation example heating system

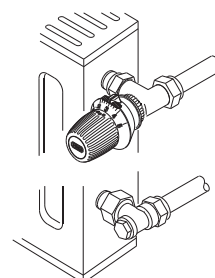
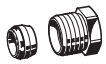


Fig. 4. Installation example radiator

Accessories

Connections for V2410

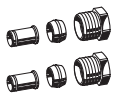
Compression ring and nut



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

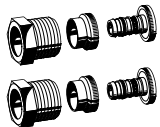
NOTE: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness

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)



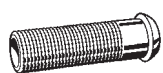
1/2" x 14 mm	VA622B1514
1/2" x 16 mm	VA622B1516

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



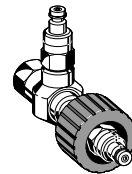
for all sizes VA3300A001

Verafix key



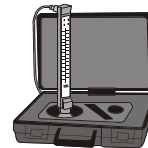
for all sizes VA8300A001

Measuring adapter



for all sizes VA3301A001

VM200 Flow Meter



for Verafix-MES and Kombi-3-Plus VM200A1001

VM241 BasicMes handheld measuring computer



computer is supplied with case and accessories VM241A1002

Service Parts

Cover cap



for all sizes VS3301B001

Sealing ring for cover cap



for all sizes VS3302A001

Exchange valve insert



VS1300VM01

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

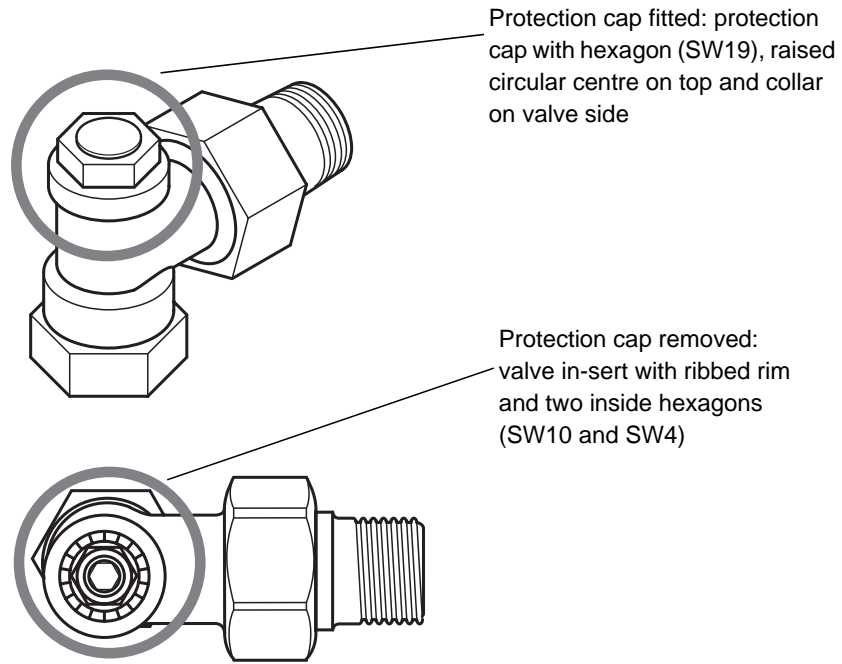
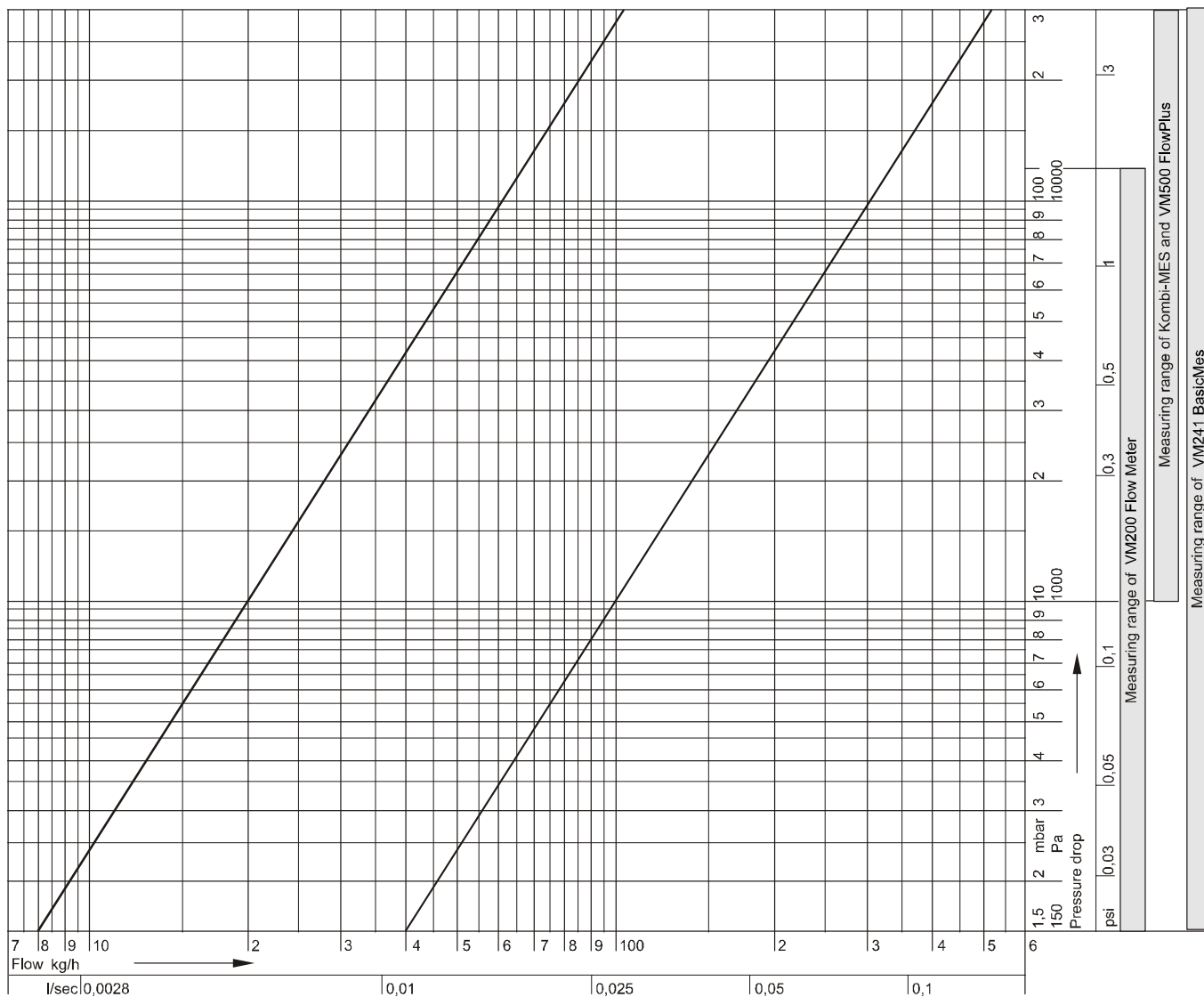
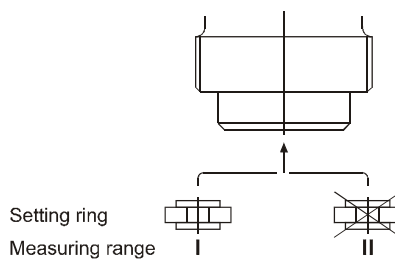


Fig. 5. Identification of Verafix-MES-II

Flow Diagram



Flow values (cv-values in brackets)

Nominal size diameter	DN 10		DN 15		DN 20	
Measuring range	I	II	I	II	I	II
Angle (Fig. 1)	0.2 (0.23)	1.0 (1.17)	0.2 (0.23)	1.0 (1.17)	0.2 (0.23)	1.0 (1.17)
Straight (Fig. 2)	0.2 (0.23)	0.8 (0.94)	0.2 (0.23)	0.9 (1.05)	0.2 (0.23)	1.0 (1.17)

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