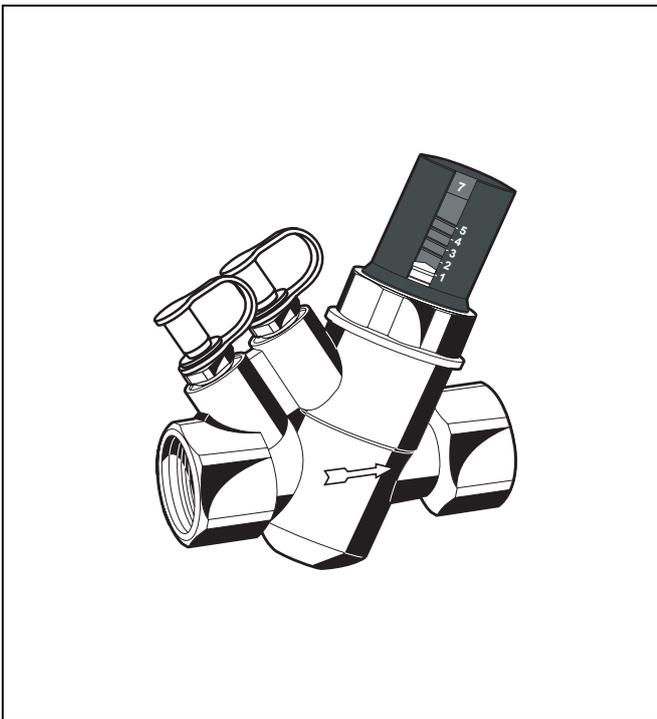


V5003F Kombi-VX

PRE-SETTABLE FLOW CONTROL VALVE

PRODUCT DATA



Design

- Valve housing PN25, DN15...50 with internal threads (ISO228)
- Pre-settable valve insert
- SafeCon™ pressure test valves with dust caps

Materials

- Valve housing made of brass CuZn40Pb2
- Valve insert made of brass, stainless steel and plastic with rubber diaphragm and EPDM o-rings

Application

The V5003F Kombi-VX is an automatic balancing valve. It is designed for balancing of heating and cooling systems by providing a constant flow rate even under changing pressure conditions. The flow rate can be externally adjusted via pre-settings.

Features

- Compact design of both valve housing and valve insert
- Various versions for different flow ranges and differential pressure ranges available
- Valve inserts with clear digital display of pre-setting value
- Valve insert in cartridge design
 - easily removable for flushing
 - easily exchangeable
- Simplified measuring with Honeywell SafeCon™ pressure test connections
- Pressure measuring ports on same side as presetting
- Robust against dirt, residue, deposit and critical medium
- Maintenance free design

Specifications

Medium	Water or water-glycol mixture, quality to VDI 2035 (up to 50% Glycol)
Medium temperature	-20...120°C (-4...248°F)
Operating pressure	PN25
Differential pressure	see Ordering Information
Factory pre-setting	4.2

Function

The flow control cartridges of the V5003F Kombi-VX contains two interacting components. One that has an adjustable orifice and one that regulates the pressure differential across the adjustable orifice. The result is a constant flow rate through the valve, independent of changing pressure conditions.

It is recommended to remove the valve insert and install a blind cap for system flushing.

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. Valve inserts must be removed before flushing and all valve openings sealed by blind caps (see 'Accessories' above)
- 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

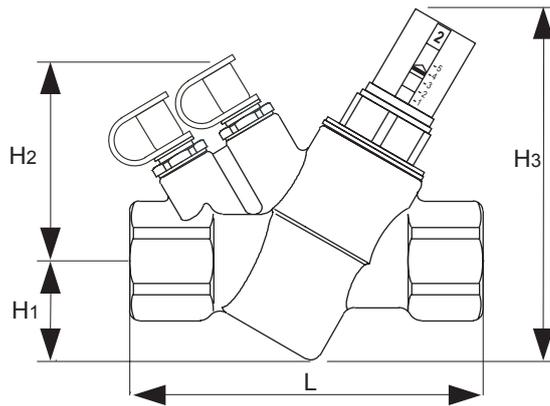


Fig. 1. V5003FY....

Table 1. Dimensions

DN	Thread	H ₁	H ₂	H ₃	L	Weight (kg)
15	1/2"	31	68	110	83	0.55
20	3/4"	31	68	110	95	0.62
25	1"	31	65	110	102	0.65
25 LI*	1"	46	82	146	128	1.87
32	1 1/4"	46	82	146	128	1.69
40	1 1/2"	54	90	171	169	3.86
50	2"	54	90	171	169	3.48

*LI = large insert

NOTE: All dimensions in mm unless stated otherwise.

Ordering Information

Table 2. Ordering Information

DN	Differential pressure [mbar]		Flow range [l/h]		OS-No.
	min.	max.	min.	max.	
15	170	2100	100	412	V5003FY10150412
15	170	2100	157	609	V5003FY10150609
15	170	2000	276	825	V5003FY10150825
15	350	4000	138	615	V5003FY20150615
15	350	4000	238	896	V5003FY20150896
15	300	4000	406	1270	V5003FY20151270
20	170	2100	100	412	V5003FY10200412
20	170	2100	157	609	V5003FY10200609
20	170	2000	276	825	V5003FY10200825
20	350	4000	138	615	V5003FY20200615
20	350	4000	238	896	V5003FY20200896
20	300	4000	406	1270	V5003FY20201270
25	170	2100	100	412	V5003FY10250412
25	170	2100	157	609	V5003FY10250609
25	170	2000	276	825	V5003FY10250825
25	350	4000	138	615	V5003FY20250615
25	350	4000	238	896	V5003FY20250896
25	300	4000	406	1270	V5003FY20251270
25 (LI)	170	4000	535	5830	V5003FY10265020
32	170	4000	535	5830	V5003FY10325020
40	200	4000	3180	16100	V5003FY10401610
50	200	4000	3180	16100	V5003FY10501610

Accessories

Pre-setting key



For all sizes

VA5003ZA001

Brass blind cap



For valve size DN15...25

VA5003ZA003

For valve size DN25 (LI)...32

VA5003ZA004

For valve size DN40...50

VA5003ZA005

Measuring adapter (2pcs.)



for measuring computer
VM241

VA3600C001

Spare parts

Valve insert



DN15...25

V5003FZ10150412

DN15...25

V5003FZ10150609

DN15...25

V5003FZ10150825

DN15...25

V5003FZ20150615

DN15...25

V5003FZ20150896

DN15...25

V5003FZ20151270

DN25 (LI)...32

V5003FZ10325020

DN40...50

V5003FZ10501610

For details see table 3 and 4

Extension piece for pressure test cocks, length 45 mm, for insulated valves



for all dimensions

VA2601A008

BasicMes-2 Handheld flow measuring computer



for all dimensions

VM242A

Application Examples

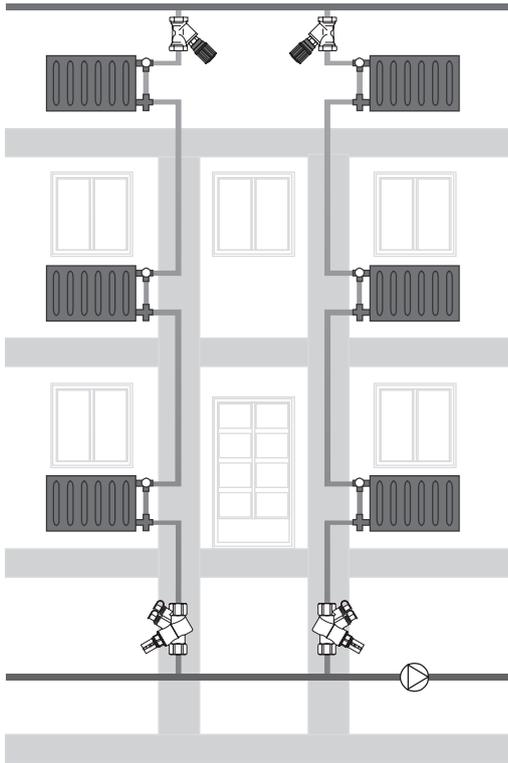


Fig. 2. 1-pipe heating system vertical

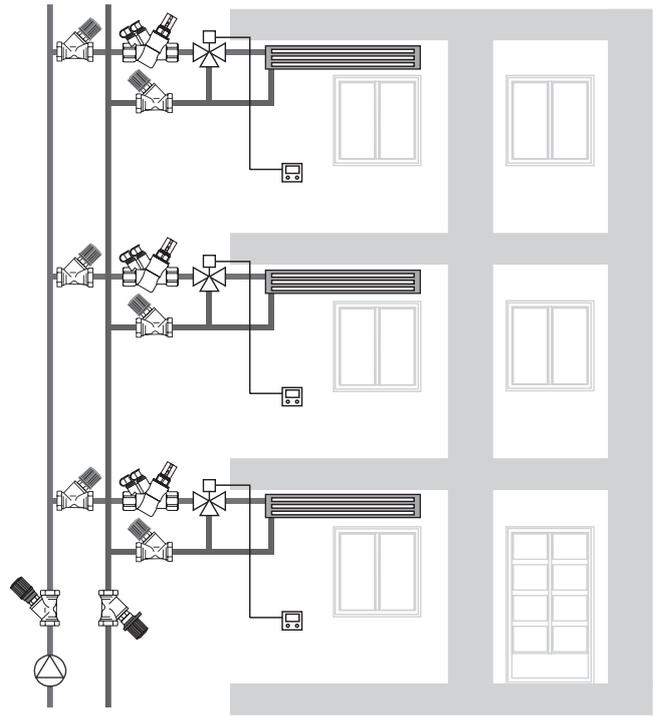


Fig. 3. Fan-Coil unit with bypass

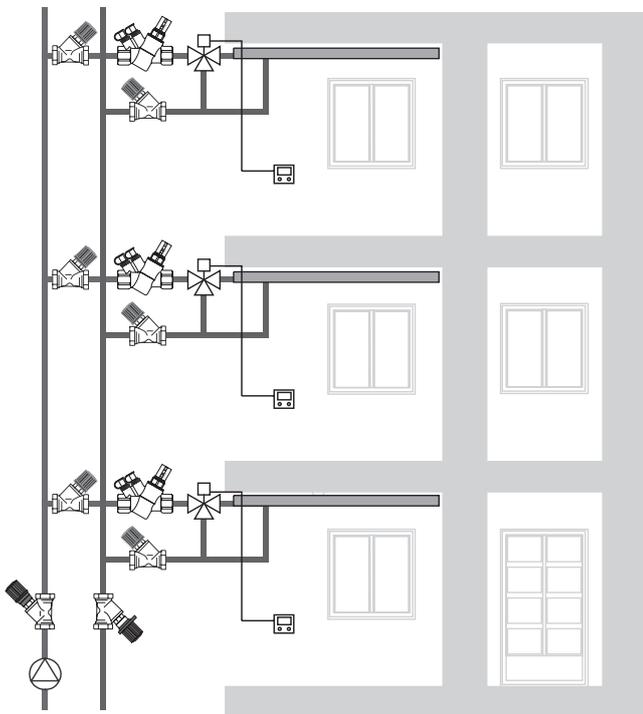


Fig. 4. Chilled Ceiling with bypass

Flow rate limitation settings

Table 3. Maximum flow rate limitation settings for valve sizes DN15..25

V5003FY10.. (DN15...25)				V5003FY20.. (DN15...25)			
with valve insert	V5003FZ1015 0412	V5003FZ1015 0609	V5003FZ1015 0825	with valve insert	V5003FZ2015 0615	V5003FZ2015 0896	V5003FZ2015 1270
Colour	black-white pawl	green-white pawl	red-white pawl	Colour	black-grey pawl	green-grey pawl	red-grey pawl
Δp [mbar]	170...2100	170...2100	170...2000	Δp (mbar)	350...4000	350...4000	300...4000
Pre-setting	[l/hr]	[l/hr]	[l/hr]	Pre-setting	[l/hr]	[l/hr]	[l/hr]
1.0	100	157	276	1.0	138	238	406
1.5	140	210	360	1.5	200	320	510
2.0	180	270	440	2.0	260	400	620
2.5	220	330	520	2.5	320	490	730
3.0	260	380	600	3.0	380	570	840
3.5	300	440	670	3.5	440	650	940
4.0	330	500	730	4.0	500	730	1050
4.5	370	550	780	4.5	560	810	1160
5.0	412	609	825	5.0	615	896	1270

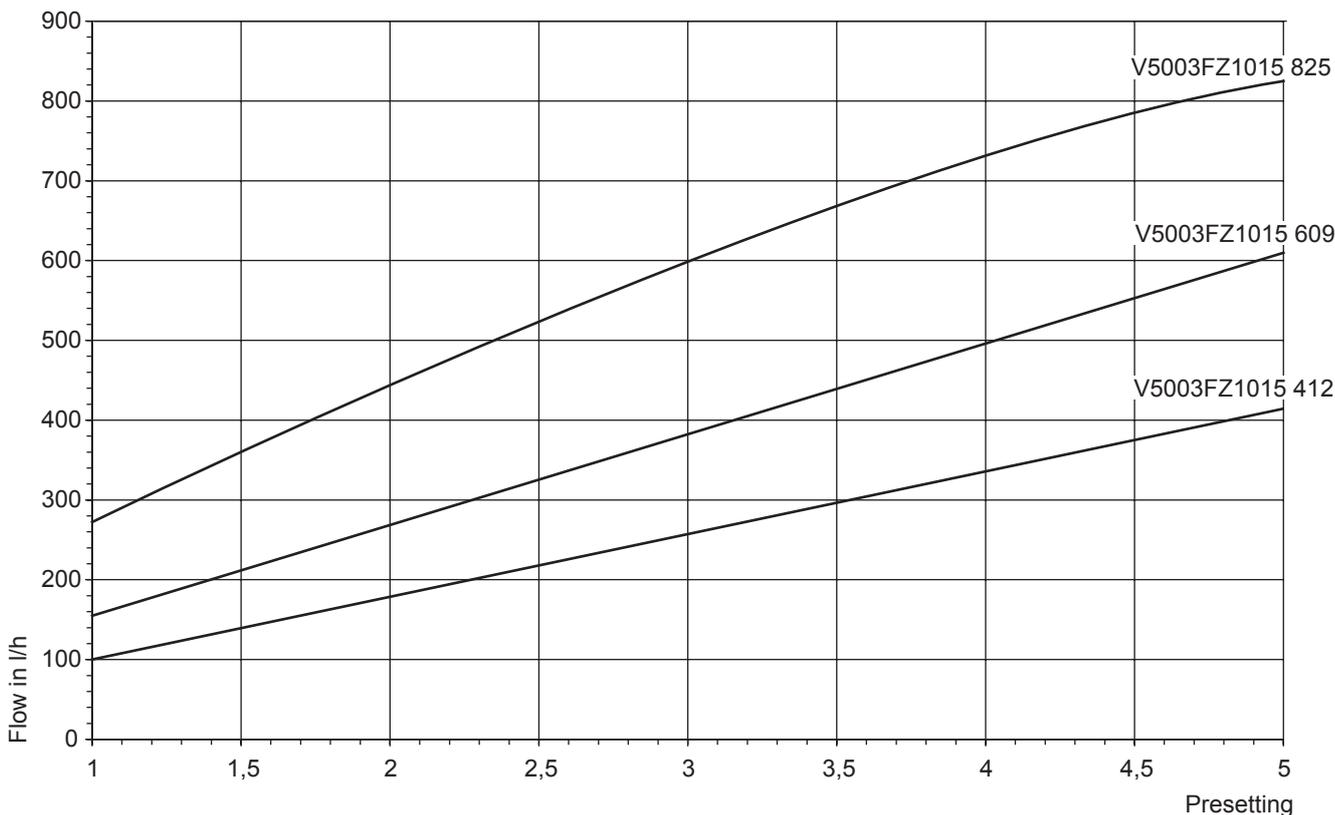
Accuracy: Greatest of either $\pm 5\%$ of controlled flow rate or $\pm 2\%$ of maximum flow rate.

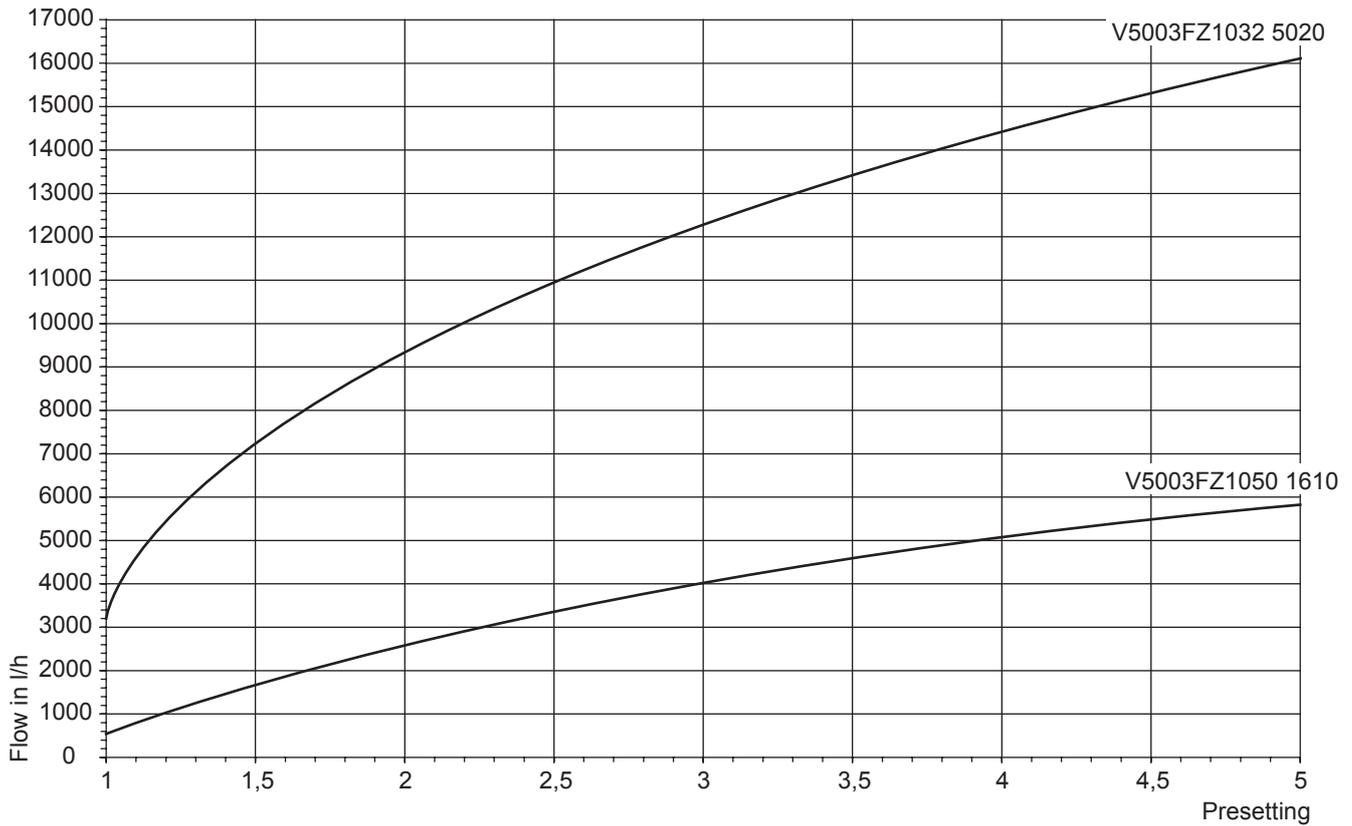
Table 4. Maximum flow rate limitation settings for valve sizes DN25 LI...50

V5003FY10.. (DN25 LI...32)		V5003FY10.. (DN40...50)	
with valve insert	V5003FZ10325020	with valve insert	V5003FZ10501610
Colour	green/black-white pawl	Colour	black/champagne-grey pawl
Δp [mbar]	170...4000	Δp [mbar]	200...4000
Pre-setting	[l/hr]	Pre-setting	[l/hr]
1.0	535	1.0	3180
1.5	1730	1.5	7070
2.0	2690	2.0	9570
2.5	3470	2.5	11200
3.0	4100	3.0	12400
3.5	4620	3.5	13400
4.0	5050	4.0	14400
4.5	5440	4.5	15300
5.0	5830	5.0	16100

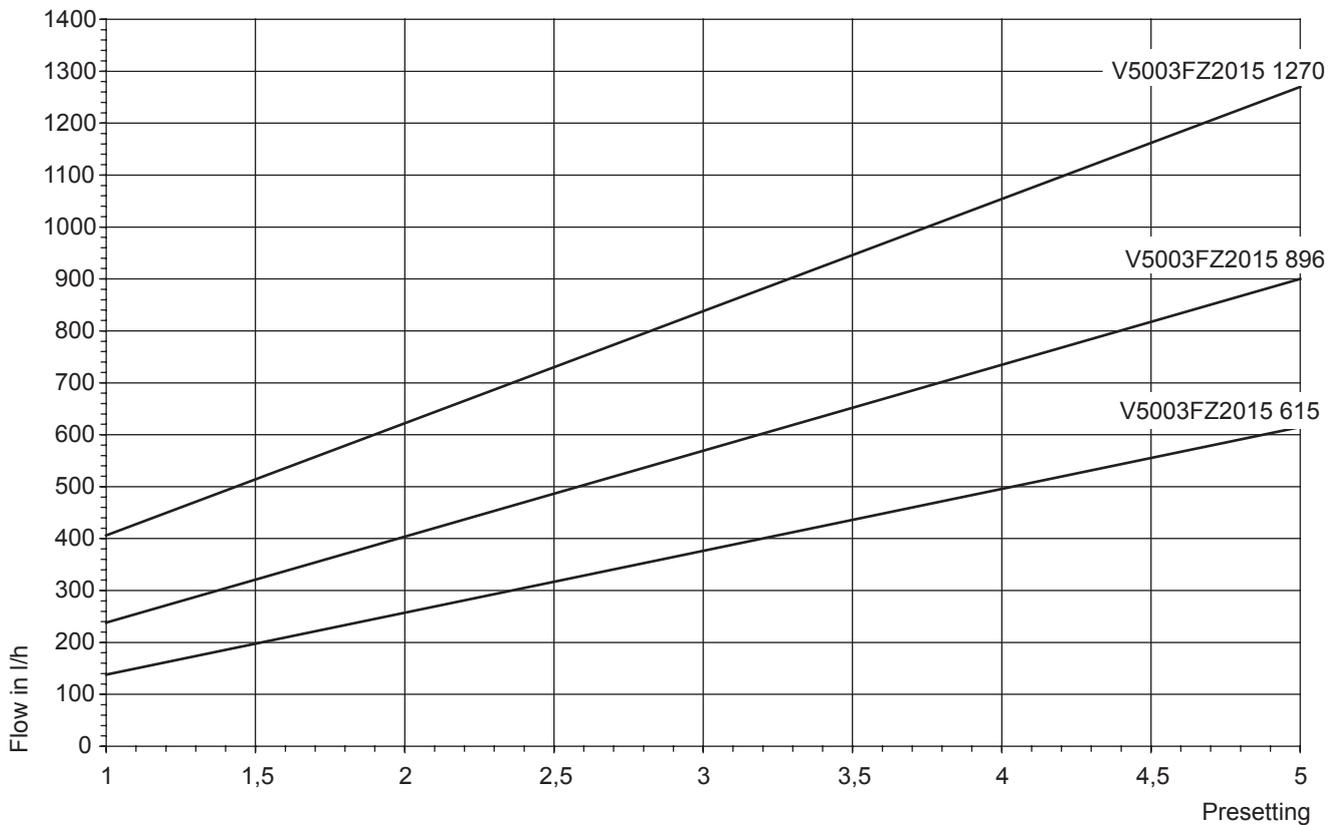
Accuracy: Greatest of either $\pm 5\%$ of controlled flow rate or $\pm 2\%$ of maximum flow rate.

Presetting Diagram Kombi VX V5003FY10





Presetting Diagram Kombi VX V5003FY20



Environmental and Combustion Controls

Honeywell GmbH
 Hardhofweg
 74821 Mosbach, Germany
 Phone: +49 (6261) 810
 Fax: +49 (6261) 81393
 www.honeywell.com

EN0H-2322GE25 R0711
 July 2011
 © 2011 Honeywell International Inc.
 Subject to change without notice
 Manufactured for and on behalf of the Environmental and Combustion
 Controls Division of Honeywell Technologies Sàrl, Z.A. La Pièce 16,
 1180 Rolle, Switzerland or its Authorized Representative.

