## SIEMENS



#### ACVATIX™

# Combi valves PN 16 with flanged connections

### **VPF43..**

Pressure Independent Combi Valves

- With integrated pressure differential controller
- Valve body made of gray cast iron GJL-250
- DN 50 150
- Volumetric flow 15 to 195 m<sup>3</sup>/h nominal, with presetting
- Equipped with pressure test points P/T
- Can be equipped with SAX..P.., SAV..P.. or SQV..P.. electromotoric actuators

Use

- For use in heating, ventilating and air conditioning systems, district heating, as a control valve.
- For closed circuits.

#### Type summary

				<b>H</b> <sub>100</sub>	V <sub>min</sub>	V <sub>100</sub>	$\Delta p_{min}$
	Product number	Stock number	DN	[mm]	[m <sup>3</sup> /h]	[m <sup>3</sup> /h]	[kPa]
Standard flow rate	VPF43.50F16	S55266-V100	50		2.3	15	
	VPF43.65F24	S55266-V102	65	20	4.4	25	
	VPF43.80F35	S55266-V104	80		5.3	34	
	VPF43. 100F70	S55266-V106	100		12.1	68	35
				40			
	VPF43. 125F110	S55266-V108	125		18.5	110	
	VPF43. 150F160	S55266-V110	150	43	25.6	148	
High flow rate	VPF43.50F25	S55266-V101	50		4.3	25	
	VPF43.65F35	S55266-V103	65	20	6	35	70
	VPF43.80F45	S55266-V105	80		7	43	
	VPF43. 100F90	S55266-V107	100	40	14.8	90	75
	VPF43. 125F135	S55266-V109	125	40	23	135	53
	VPF43. 150F200	S55266-V111	150	43	32	195	65

DN = nominal size

H<sub>100</sub> = nominal stroke

 $\dot{V}_{100}$  = volumetric flow through fully open valve (H<sub>100</sub>)

 $\dot{V}_{min}$  = smallest presettable volumetric flow through fully open valve (H<sub>100</sub>)

 $\Delta p_{min}$  = minimum differential pressure required across the valve's control path, so that the difference pressure regulator works reliably

#### Ordering

Example:	Product number	Stock number	Designation
	VPF43.65F24	S55266-V102	Combi valve PN 16 with flanged connections
Delivery	Combi valves, ac The valves are su	tuators and acces	sories are packed and supplied separately. unter-flanges and without flange gaskets.
Revision numbers	See page 11		

#### Equipment combinations

Valves				Actuat	ors				
				SAX	P	SQV	P	SAV	P
		DN	<b>H</b> <sub>100</sub>	$\Delta p_{max}$	∆p₅	$\Delta p_{max}$	Δps	$\Delta p_{max}$	∆p₅
			[mm]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]
Standard	VPF43.50F16	50		600	600	600	600	-	-
flow rate	VPF43.65F24	65	20	600	600	600	600	-	-
	VPF43.80F35	80		600	600	600	600	-	-
	VPF43. 100F70	100		-	-	600	600	600	600
	VPF43. 125F110	125	40	-	-	600	600	600	600
	VPF43. 150F160	150	43	-	-	600	600	600	600
					1			1	
High flow	VPF43.50F25	50		600	600	600	600	-	-
rate	VPF43.65F35	65	20	600	600	600	600	-	-
	VPF43.80F45	80		600	600	600	600	-	-
	VPF43. 100F90	100	40	-	-	600	600	600	600
	VPF43. 125F135	125	40	-	-	600	600	600	600
	VPF43. 150F200	150	43	-	-	600	600	600	600

H<sub>100</sub> = nominal stroke

 $\Delta p_{max}$  = maximum permissible differential pressure across the valve's control path, valid for the entire actuating range of the motorized valve

 maximum permissible differential pressure at which the motorized Combi valve will close securely against the pressure (close off pressure)  $\Delta p_{\text{s}}$ 

#### Actuator overview

Туре	Stock no.	Stroke	Pos. force	Operating voltage	Positioning signal	Spring return time	Spring return direction	Positioning time	LED	Manual adjuster	Extra functions
SAX31P03	S55150-A118			AC 230 V	3-position				-		1)
SAX61P03	S55150-A114	20 mm	500 N	AC/DC 24 V	DC 010 V DC 420 mA 01000 Ω	-	-	30 s	~	Push and fix	2), 3)
SAX81P03	S55150-A116				3-position	-	-	30 s	-	Push and fix	1)

SQV91P30	S55150-A130	20 mm		AC/DC 24 V	3-position		Pull to open	(		Turn and	1) 6)
SQV91P40	S55150-A131	40 mm	1100 N	AC 230 V 4)	DC 010 V DC 420 mA	30 s	or push to close <sup>5)</sup>	< 120 s <sup>37</sup>	$\checkmark$	fix	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

SAV31P00	S55150-A121			AC 230 V	3-position		-		-		1)
SAV61P00	S55150-A119	40 mm	1100 N	AC/DC 24 V	DC 010 V DC 420 mA 01000 Ω	-	-	120 s	~	Push and fix	2), 3)
SAV81P00	S55150-A120				3-position		-		-		1)

<sup>1)</sup> Optional accessories: Auxiliary switch, potentiometer

<sup>2)</sup> Position feedback, forced control, change of flow characteristic

<sup>3)</sup> Optional accessories: Auxiliary switch, sequence control, acting direction

<sup>4)</sup> Voltage adapter required, order separately 5)

Selectable

<sup>6)</sup> Position feedback

#### Technical / mechanical design



**1** Ring with dial for presetting



- 2 Aperture for the differential pressure controller is linked with outlet port B
- 3 Differential pressure controller
- 4 Plug with variable presetting opening
- 5 Control valve
- 6 Pressure test point (P/T) at outlet port B, blue ribbon, P-
- 7 Pressure test point (P/T) at inlet port A, red ribbon, P+
- A Inlet port A
- B Outlet port B

#### **Functional principle**

The Combi valves VPF43.. combine three functions:

- a control valve (5) for controlling the volumetric flow,
- an adjusting mechanism (1, 4) with a dial for a presettable maximum volumetric flow,
- a differential pressure controller (3) for balancing pressure fluctuations in the hydraulic system respectively across the control valve.

The mechanical series-connected differential pressure controller keeps the differential pressure  $(p_1 - p_2)$  constant across the control valve and thus the set volumetric flow too. The desired maximum volumetric flow can be preset with the adjusting mechanism. The controller (not shown) and the actuator regulate the volumetric flow and consequently the desired temperature in buildings, rooms or zones.



- P- = P/T port, pressure test point with blue ribbon (6)
- P+ = P/T port, pressure test point with red ribbon (7)
- p<sub>1</sub> = pressure at inlet port A of Combi valve
- p<sub>2</sub> = pressure at outlet port of control valve (5)
- p<sub>3</sub> = pressure at outlet port B of Combi valve

- A Inlet medium (inlet port A)
- B Outlet medium (outlet port B)
- 1 Ring with dial for presetting
- 3 Differential pressure controller
- 5 Control valve with mounted actuator

Medium flow	The medium entering the Combi valve (inlet port A) first passes through the control valve (5) with a linear characteristic and a stroke of 20 mm (DN 5080) respectively 40 mm (DN 100150). The actuator (not shown here) opens and accurately positions the control valve. Then, the medium flows through the variable presetting opening (4) which is connected to the ring with dial (1) for presetting the desired maximum volumetric flow. Before leaving the Combi valve (outlet port B), the medium passes through a built-in mechanical differential pressure controller (3). This differential pressure controller is the heart of the Combi valve and ensures that the selected volumetric flow is maintained across the whole working range and independent of the inlet pressure $p_1$ .
Pressure test points	The Combi valve VPF43 is equipped with two pressure test points (P+, P-) for measuring and monitoring the differential pressure across the valve during commissioning. For that purpose, the electronic manometer ALE10 can be used.
Manual control	Manual control is only possible with mounted actuator.
Advantages	<ul> <li>The advantages of Combi valves are that:</li> <li>once the flow limiter is set to design flow, the hydraulic circuit self balances, even when changes to the system are made, such as additions.</li> <li>for any heat demand the Combi valve with mounted actuator can be set to the desired volumetric flow and will be relatively constant regardless of pressure fluctuations in the system.</li> </ul>

Constant flow regardless of pressure changes in the system reduces hydraulic interdependence and leads to a more stable control.

#### Accessories

Product no.	Stock no.		Beschreibung
ALE10	ALE10		<ul> <li>Electronic manometer excluding measuring lines and measuring tips.</li> <li>Measuring range 0 700 kPa. A differential pressure of more then 1000 kPa will destroy the pressure sensor.</li> <li>For measuring the differential pressure between P+ and P- of the Combi valves (refer to diagram under "Functional principle" on page 4).</li> <li>Functions of the manometer: <ul> <li>Start/stop</li> <li>Automatic zero position</li> <li>Backlit display</li> <li>Display: Out → outside the measuring range</li> <li>Holding function</li> </ul> </li> </ul>
ALE11	ALE11	9	Measuring lines and straight measuring tips for use with Siemens Combi valves. Equipped with G 1/3" connection with 2 x 40 mm needles.
ALP46	S55264-V115		Blanking plugs for P/T ports Connection to valve body: G ¼" to ISO 228, inclusive O-ring
ALP47	S55264-V116		Drain ball valve inclusive O-ring Port: External threads G ½" to ISO 228 Connection to valve body: G ¼" to ISO 228, inclusive O-ring
ALP48	S55264-V117		Combined P/T port and drain ball valve with blue ribbon Port: External threads G <sup>1</sup> / <sub>8</sub> " to ISO 228 Connection to valve body: G <sup>1</sup> / <sub>4</sub> " to ISO 228, inclusive O-ring
ALP49	S55264-V118	11	Long P/T ports (set of 2 pieces) Set contains 1 piece each with a red and blue ribbon. Port: External threads G <sup>1</sup> / <sub>8</sub> <sup>"</sup> to ISO 228 Connection to valve body: G <sup>1</sup> / <sub>4</sub> <sup>"</sup> to ISO 228, inclusive O-ring

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Engin	eerin	g exa	ampl	e	Ba: 1. 2. 3. 4. 5. Exa 1. 2. 3.	sis of Deter Deter Calcu $\dot{V} = \frac{Q}{1}$ Selec Deter Heat Heat Volur $\dot{V} = \frac{1}{2}$	f desi mine mine $[kW] \cdot 1$ $163 \cdot \Delta$ ct suit mine dema beratu 50 kM 1.163	ign heat temp volum 1000 T[K] able dial and ure sp flow $V \cdot 100$ $3 \cdot 6 K$	dem peraturnetric $\left[\frac{1}{h}\right]$ Combined Settin	and Q ure sp flow bi valv g usir Q Δ <sup>-</sup> 1'654	Q [kW pread ve VP ng vol = $150$ T = $6$ l/h =	] ΔT [ŀ PF43 lumei 0 kW K	<]	ow/dia	al pre:	settin	g tab	les, s	ee be	elow.	
					4. 5.	Hint: Select Ideall of the Select Deter VPF <sup>2</sup> VPF <sup>2</sup>	You o t Cor ly, Co eir ma ction: mine 13.65	can a mbi va ombi va ximu VP VP dial s F24 F35	Iso de alve \ /alves m flov PF43.0 PF43.0 PF43.0 Settin	eterm /PF43 s shor w, en 65F24 65F39 g usir Vol Dia Vol Dia	ine th 3 uld be abling 4 5 ng vol umeti I setti I setti I setti	e sele g ther Δp Δp lumet ric flo ng ric flo ng	umet ected n to c <sub>min</sub> = ric flc w	ric flo such delive 35 kF 70 kF pw/dia 2' 3. 2.	that t r spar Pa al pres 1.6 m .6 1.6 m .7	ng th they o re ca settin <sup>3</sup> /h <sup>3</sup> /h	e val opera pacity g tab	ve sliα te at γ, if re les:	de rul abou equire	le. t 80% :d.	
Volum prese	netric tting	flow	/dial		Tat	oles te Nomi	o dete nal flo	ermin w	e the	dial s	setting	g for a	a des	ired v	olum	etric	flow.				
Stand	ard fl	ow r	ate																		
VPF43.	50F16	_		0.0			4 -	5.0		0.0		0.0	<u> </u>	0.0	40 -	44.0	40	40.0	16	m³/h no	ominal
[m <sup>°</sup> /h]	Min	0.2	0.4	2.3	3	3.8	4.5	5.3	6	6.8 1 0	7.5	8.3	9 24	9.8	10.5	11.3	12	12.8	13.5	14.3	15
Diai	iviin.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.0	۷.۷	3	3.2	3.4	3.0	ა.ზ	4
VPF43.	65F24																		24	m³/h no	ominal
[m <sup>3</sup> /h]				4.4	5.6	6.6	7.7	8.6	9.6	10.5	11.5	12.5	13.5	14.7	15.8	17.1	18.5	19.9	21.5	23.2	25
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
VPF43.	80F35																		35	m³/h no	ominal

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[m <sup>3</sup> /h]				5.3	6.9	8.3	9.6	10.9	12.2	13.5	14.8	16.2	17.6	19.1	20.7	22.4	24.3	26.4	28.7	31.2	34
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
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VPF43.	100F7(	D																	70 i	m³/h n	ominal
[m <sup>3</sup> /h]				12.1	15	18	21	23	25	28	30	32	35	38	40	43	47	51	56	62	68
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4

VPF43.	125F1 <sup>-</sup>	10																	110 ı	n³/h n	ominal
[m <sup>3</sup> /h]				18.5	23	28	33	37	42	46	51	55	60	65	69	74	80	85	92	99	110
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3,8	4

VPF43.150F160 160 m <sup>o</sup> /h nominal																					
[m <sup>3</sup> /h]				25.6	31	38	44	51	57	63	72	76	82	89	96	104	111	120	128	137	148
Dial	Min,	0,2	0,4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4

High f	low r	ate																			
VPF43.	50F25																		25 ו	m³/h n	ominal
[m <sup>3</sup> /h]				4.3	5.2	6.2	7.2	8.1	9	10	11	12.1	13.2	14.3	15.4	16.5	18.2	19.9	21.6	23.3	25
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
VPF43.65F35 35 m <sup>3</sup> /h nominal																					
[m <sup>3</sup> /h]				6.0	7.6	9.1	10.5	11.9	13.3	14.7	16.0	17.5	19.0	20.6	22.3	24.1	26.0	28.0	30.2	32.5	35
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
VPF43.80F45 45 m <sup>3</sup> /h nominal																					
[m <sup>3</sup> /h]				7	9	11	12.8	14.5	16.2	18	19.6	21.4	23.2	25.1	27.1	29.3	31.6	34.1	36.8	39.8	43
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
VPF43.	100F9	0																	<b>90</b> I	m³/h n	ominal
[m <sup>3</sup> /h]				14.8	19	22	26	29	32	35	38	42	44	48	52	56	61	66	73	81	90
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
VPF43.	125F1	35																	135	m³/h n	ominal
[m³/h]				23	29	36	42	48	53	59	64	70	76	81	87	93	100	107	114	122	135
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
VPF43.	150F2	00																	200 ו	m³/h n	ominal
[m <sup>3</sup> /h]				32	40	48	57	64	72	80	88	96	104	112	121	131	141	152	165	178	195
Dial	Min.	0.2	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4

#### **Engineering notes**

Valve	Symbols / Direction of flow	Flow in control mode	Valve stem			
	VPF43		retracts	extends		
Combi valve	4315203	variable	closes	opens		

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The direction of flow indicated (arrow on the valve body) is mandatory! The valves should preferably be mounted in the return pipe where temperatures are lower and where the sealing gland is less affected by strain.

Symbol	Symbol used in catalogs and application descriptions	Symbol used in diagrams							
	4315205 4315205	There are no standard symbols for Combi valves in diagrams.							
Recommendation	A strainer or dirt trap should be fitted upstream of the valve to enhance reliability and service life. Remove dirt, welding beads etc. from valves and pipes. Do not insulate the actuator bracket, as air circulation must be ensured!								
Mounting notes									
	Combi valve and actuator can be easily assembled on s nor adjustments, besides the presetting, are required. P actuator, the required volumetric flow must be set. The Mounting Instructions (74 319 0711 0).	ite. Neither special tools rior to mounting the valve is supplied with							

Mounting positions



#### Installation notes

#### Presetting

- It is recommended to mount the actuator before the presetting is made.
- 1. Mount actuator and fix valve neck coupling
- 2. Mount valve stem coupling and tighten slightly
- 3. Make presetting according to table under "Volumetric flow/dial presetting" on page 6. Do NOT adjust presetting to a dial reading lower than "0.6".
- 4. Tighten stem coupling

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position.

#### Valve characteristic

#### Working pressure and medium temperature Fluids



#### Working pressure and medium temperature staged as per ISO 7005

Current local legislation must be observed.

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#### **Commissioning notes**

	▲ ▲	The valves must be commissioned with the actuator correctly fitted. Strong pressure impacts can damage closed Combi valves. The Combi valves have to be open when flushing or pressure testing the system. Strong pressure impacts can damage closed Combi valves. Differential pressure $\Delta p_{max}$ across the valve's control path is not allowed to exceed 600 kPa.
Manual control		Only possible with mounted actuator.
Maintenance no	tes	
		The VPF43 Combi valves are maintenance-free.
		<ul> <li>When performing service work on the valve or actuator:</li> <li>Switch off the pump and disconnect power supply.</li> <li>Close the shut-off valves in the piping network.</li> <li>Fully reduce pressure in the piping network and allow the pipes to cool down completely.</li> <li>Remove the electrical connections only if necessary.</li> </ul>
Sealing gland		The stem sealing gland cannot be exchanged. In case of leakage the whole valve must be replaced.
Disposal		Due to the different types of material used, the valve must be disassembled prior to disposal. Special handling of certain valve components may be required by law or may be sensible from an ecological point of view. Local and currently valid legislation must be observed.
Warranty		
		Application-related technical data are guaranteed only when the valves are used in

connection with the Siemens actuators listed under "Equipment combinations" on page 3.

Siemens warranty is void, if used with non-Siemens actuators.

#### **Technical data**

Permissible operating pressure         1600 kPa (16 bar) as per ISO 7628 / EN 1333           Volumetric flow deviation         < ±10% within differential pressure range           Valve characteristic         Linear as per VDI/VDE 2173           Leakage rate         Class IV (001% of volumetric flow ý) to EN 1439           Operating direction         Normally open (push to close)           Permissible media         Low temperature hot water, chilled water, water with antifreeze           Recommendation: Water treatment to VDI 2035         Nater result           Medium temperature         1120 °C           Rangeability         1:100           Nominal stroke         DN 50, 65, 80           DN 150         40 mm           DN 150         43 mm           Standards         Pressure Equipment Directive           PLU Conformity (CE)         CE174315x <sup>11</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50         Category I, with CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking         The product design and assessments (ROHS compliance, materials composition, packaging, environmental compatibility           Materials         Valve body         DN 50-80, 125         Gray cast iron G.S-400           Sta	Functional data	PN class		PN 16 as pe	er EN 1333					
Volumetric flow deviation         < ±10% within differential pressure range		Permissible opera	ating pressure	1600 kPa (1 EN 1333	1600 kPa (16 bar) as per ISO 7628 / EN 1333					
Valve characteristic         Linear as per VDI/VDE 2173           Leakage rate         Class IV (001% of volumetric flow $\dot{v}_{co}$ .) to EN 1439           Operating direction         Normally open (push to close)           Permissible media         Low temperature hot water, chilled water, water with antifreaze           Recommendation: Water treatment to VDI 2035         Valve box as a second VDI 2035           Medium temperature         1120 °C           Rangeability         1:100           Nominal stroke         DN 50, 65, 80 DN 100, 225         20 mm DN 1100           Standards         Pressure Equipment Directive EU Conformity (CE)         PED           EU Conformity (CE)         CE174315xx <sup>(1)</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50           Stedgory 1, with CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category 1, with CE-marking environmental compatibility           The product environmental declaration CE1E43156x <sup>(2)</sup> Environmental compatibility         The product environmental declaration CE1E43156x <sup>(2)</sup> Materials         Valve body         DN 50, 80, 125           Gray cast iron GJL-250         materials composition, packaging, environmental           Dimensions / weight         Dimensions R		Volumetric flow de	eviation	< ±10% with	< ±10% within differential pressure range					
Leakage rate         Class IV (00.01% of volumetric flow V <sub>nm</sub> ) to EN 1439           Operating direction         Normally open (push to close)           Permissible media         Low temperature hot water, medium temperature hot water, dihled water, water with antifreeze Recommendation: Water treatment to VDI 2035           Medium temperature         1120 °C           Rangeability         1.100           Nominal stroke         DN 50, 65, 80         20 mm DN 100, 125           Medium temperature         1120 °C           Rangeability         1.100           Nominal stroke         DN 50, 65, 80         20 mm DN 100, 125           Medium temperature         1120 °C           Rangeability         1.100           Nominal stroke         DN 50, 65, 80         20 mm DN 100, 125           Fluid group 2         DN 50         43 mm           Fressure Equipment Directive         PED         EU Conformity (CE)           Environmental compatibility         The product environmental declaration CE1E4315en) contains data on environmental benefit, disposal).           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250 DN 100, 150           Nodular cast ron GJL-250 DN 100, 150         Nodular cast ron GJL-250         Environmental benefit, disposal).           Materials         Valve body		Valve characterist	tic	Linear as pe	Linear as per VDI/VDE 2173					
Operating direction         Normally open (push to close)           Permissible media         Low temperature hot water, medium temperature hot water, chilled water, water with antifreeze Recommendation: Water treatment to VDI 2035           Medium temperature         1120 °C           Rangeability         1:100           Nominal stroke         DN 50, 65, 80         20 mm           DN 150         43 mm           Standards         Pressure Equipment Directive EU Conformity (CE)         PED           EU Conformity (CE)         CE1T4315xc <sup>1/2</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50         Without CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking         Environmental compatibility         The product environmental declaration CE1E4315en) contains data on environmental           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250 DN 100, 150         Nodular cast iron GJL-250           Standerds         Erwinomental compatibility         The arss (DZR)         The argumental secomposition, packaging, environmental           Dimensions / weight         Dimensions (P/T-ports)         G ½ inch (connection)         2           Trim         Brass (DZR)         Tensport         Storage EN 60721-32		Leakage rate		Class IV (0.	0.01% of volum	etric flow $\dot{V}_{100}$ )				
Operating direction         Normally open (push to close)           Permissible media         Low temperature hot water, medium temperature hot water, chilled water, water with antifreeze Recommendation: Water treatment to VDI 2035           Medium temperature         1120 °C           Rangeability         1100           Nominal stroke         DN 50, 65, 80         20 mm           DN 100, 125         40 mm           DN 100, 125         40 mm           DN 100, 125         40 mm           Standards         Pressure Equipment Directive EU Conformity (CE)         PED           Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50         Voltout CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking         The product environmental declaration environmental wornatisk data on environmental compatibility           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250 DN 100, 150           Nodular cast iron GJL-250         Stainless steel         Stainless steel           Trim         Brass (DZR)         The section 2.1.4           Fluid group         DN 100, 150         Nodular cast iron GJL-250           Dimensions / weight         Dimensions (P/T-ports)         Stainless steel <tr< td=""><td></td><td></td><td></td><td>to EN 1439</td><td></td><td></td></tr<>				to EN 1439						
Permissible media         Low temperature hot water, welium temperature hot water, welium temperature hot water, weliled water, weter with antifreeze Recommendation: Water treatment to VDI 2035           Medium temperature         1120 °C           Rangeability         1:100           Nominal stroke         DN 50, 65, 80         20 mm DN 100, 125           DN 150         43 mm           Standards         Pressure Equipment Directive         PED           Pressure Equipment Directive         PED           EU Conformity (CE)         CE1T4315x1 <sup>31</sup> Pressure Accessries         As per article 1, section 2.1.4           Fluid group 2         DN 50           Environmental compatibility         Category 1, with CE-marking           Environmental compatibility         The product revironmental declaration CE1E4315en) contains data on environmental declaration CE1E4315en) contains data on environmental scompatible product design and assessments (ROHS compliance, materials composition, packaging, environmental           Materials         Valve body         DN 50. Notolar Cast iron GJL-250           DN 100, 150         Nodular cast iron GJL-250           DN eso 1.150         Nodular cast iron GJL-250           Stainless steel         Seals           Stainless steel         Seals           Stainless steel         Seals           Environmental c		Operating direction	on	Normally op	en (push to close	:)				
Medium temperature         1120 °C           Rangeability         1:100           Nominal stroke         DN 50, 65, 80         20 mm           DN 100, 125         40 mm           DN 150         43 mm           Standards         Pressure Equipment Directive         PED           EU Conformity (CE)         CE174315xx <sup>13</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50           BN 65 - DN 150         Category I, with CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking           Environmental compatibility         The product environmental declaration           Contains data on environmental product environmental declaration         Centratises on compliance, materials composition, packaging, environmental           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250           Materials         Valve body         DN 50-80, 125         Gray cast iron GJS-400           Stem, spring         Stainless steel         Trim         Brass (DZR)           Regulator         Stainless steel         Seals         EPDM           Dimensions / weight         Dimensions (P/T-ports)         G ¼ inch (connection)         2 mm x 40 mm (measuring		Permissible media	a	Low temperature temperature with antifree Recomment VDI 2035	ature hot water, r hot water, chilled ze dation: Water trea	nedium 1 water, water atment to				
Rangeability         1:100           Nominal stroke         DN 50, 65, 80         20 mm DN 100, 125         40 mm           Standards         Pressure Equipment Directive         PED           EU Conformity (CE)         CE1T4315x <sup>1)</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50           EU Conformity (CE)         Category 1, with CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category 1, with CE-marking           Environmental compatibility         The product environmental declaration CE1E4315en) contains data on environmental promatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250           Stainless steel         Stainless steel         Trim         Brass (DZR)           Regulator         Stainless steel         Stainless steel         To ISO 7005-2           Pressure test points (P/T-ports)         G ¼ inch (connection)         Z mm x 40 mm (measuring tips)           Weight         Refer to "Dimensions" on page 11         Flange connections           Flue         General ambient conditions         Class 3K5         Class 2K3         Class 1K3           Weight		Medium temperat	ure	1120 °C						
Nominal stroke         DN 50, 65, 80 DN 100, 125         20 mm 40 mm DN 150           Standards         Pressure Equipment Directive EU Conformity (CE)         PED CE1T4315x <sup>1)</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50           DN 65 - DN 150         Category I, with CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking           Environmental compatibility         The product environmental declaration CE1E4315en) contains data on environmental benefit, disposal).           Materials         Valve body         DN 50-80, 125           Gray cast iron GJL-250         Nodular cast iron GJS-400           Stem, spring         Stainless steel           Trim         Brass (DZR)           Regulator         Stainless steel           Seals         EPDM           Dimensions / weight         Dimensions (P/T-ports)           General ambient conditions         Categor VI-ports)           Weight         Refer to "Dimensions" on page 11           Flange connections         To ISO 7005-2           Pressure test points (P/T-ports)         G'1/2 ho 0mm (measuring tips)           Weight         Refer to "Dimensions" on page 11           Flamperature         Class 3K5		Rangeability		1:100						
DN 100, 125         40 mm DN 150           Standards         Pressure Equipment Directive EU Conformity (CE)         PED CE1T4315xx <sup>(1)</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50         Without CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking           Environmental compatibility         The product environmental declaration CE1E4315en contains data on environmental y compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250           DN 100, 150         Nodular cast iron GJL-250         environmental benefit, disposal).           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250           DN 100, 150         Nodular cast iron GJL-250         DN 100, 150           Stainless steel         Stainless steel         Stainless steel           Seals         EPDM         Dimensions / weight         Dimensions (P/T-ports)           General ambient conditions         Valy         Refer to "Dimensions" on page 11           Flange connections         To ISO 7005-2         Fressure test points (P/T-ports)           Q '/ inch (connection)         2 mm x 40 mm (me		Nominal stroke	DN 50, 65, 8	0 20 mm						
DN 150         43 mm           Standards         Pressure Equipment Directive EU Conformity (CE)         PED CE1T4315xx <sup>1)</sup> Pressure Accessories         As per article 1, section 2.1.4           Fluid group 2         DN 50         Without CE-marking as per article 3, section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking         The product environmental declaration CE1E4315en) contains data on environmental compatibility           Environmental compatibility         The product environmental declaration centrommentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250           DN 100, 150         Nodular cast iron GJS-400         Stem, spring         Stainless steel           Trim         Brass (DZR)         Regulator         Stainless steel           Dimensions / weight         Dimensions         Refer to "Dimensions" on page 11           Flange connections         To ISO 7005-2         Pressure test points (P/T-ports)           Q ½ inch (connection)         2 mm x 40 mm (measuring tips)         Weight           General ambient conditions         Class 3K5         Class 1K3         Class 1K3           Temperature         -1555 °C         -3046 °C         -15450 °C <td></td> <td></td> <td>DN 100, 12</td> <td>5 40 mm</td> <td></td> <td></td>			DN 100, 12	5 40 mm						
Standards       Pressure Equipment Directive       PED         EU Conformity (CE)       CE174315xx <sup>1)</sup> Pressure Accessories       As per article 1, section 2.1.4         Fluid group 2       DN 50         Without CE-marking as per article 3, section 3 (sound engineering practice)         Category I, with CE-marking         Environmental compatibility         Environmental compatibility         The product environmental declaration CE1E4315en) contains data on environmental y compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).         Materials       Valve body       DN 50-80, 125       Gray cast iron GJL-250         Materials       Valve body       DN 50-80, 125       Gray cast iron GJS-400         Stem, spring       Stainless steel       Environmental sequence         Stem, spring       Stainless steel       Stainless steel         Regulator       Stainless steel       Seals         Seals       EPDM         Dimensions / weight       Dimensions (P/T-ports)       G ½ inch (connection)         Image: Connections       To ISO 7005-2         Pressure test points (P/T-ports)       G ½ inch (connection)         Image: Connections       To ISO 7005-2         Presure test points (P/T-ports)       G ½ inch (conn	Standarda		DN 1	50 43 mm						
Pressure Accessories       As per article 1, section 2.1.4         Fluid group 2       DN 50         Without CE-marking as per article 3, section 3 (sound engineering practice)         DN 65 - DN 150         Category I, with CE-marking         Environmental compatibility         The product environmental declaration CE 1E4315en) contains data on environmental product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).         Materials       Valve body       DN 50-80, 125       Gray cast iron GJL-250         DN 100, 150       Nodular cast iron GJS-400       Stem, spring       Stainless steel         Trim       Brass (DZR)       Regulator       Stainless steel         Seals       EPDM       Dimensions ' weight       Dimensions (P/T-ports)       G ½ inch (connection)         Quert to mark the material conditions       To ISO 7005-2       Pressure test points (P/T-ports)       G ½ inch (connection)         Quert to mark 40 mm (measuring tips)       Weight       Refer to "Dimensions" on page 11         General ambient conditions       Environmental conditions       Class 3K5       Class 3K3       Class 1K3         Temperature       -15+55 °C       -30+65 °C       -15+55 °C       -30+65 °C       -15+55 °C	Standards	FU Conformity (C	Ent Directive	CE1T4315xx	CE1T4315xx <sup>1)</sup>					
Fluid group 2       DN 50       Without CE-marking as per article 3, section 3 (sound engineering practice)         DN 65 - DN 150       Category I, with CE-marking         Environmental compatibility       The product environmental declaration CE 1E4315en) contains data on environmental ly compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).         Materials       Valve body       DN 50-80, 125       Gray cast iron GJL-250         Materials       Valve body       DN 50-80, 125       Gray cast iron GJS-400         Stem, spring       Stainless steel       Trim         Regulator       Stainless steel       Stainless steel         Seals       EPDM         Dimensions / weight       Dimensions       Refer to "Dimensions" on page 11         Flange connections       To ISO 7005-2       Pressure test points (P/T-ports)         General ambient conditions       Weight       Refer to "Dimensions" on page 11         General ambient conditions       Class 3K5       Class 2K3       Class 1K3         Temperature       -15+55°C       -30+65°C       -15+50°C         Humidity       595 % r.h.       < 95 % r.h.		Pressure Accesso	 pries	As per articl	e 1, section 2.1.4					
Image: Section 3 (sound engineering practice)           DN 65 - DN 150         Category I, with CE-marking           Environmental compatibility         The product environmental declaration CE1E4315en) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250           DN 100, 150         Nodular cast iron GJS-400         Stem, spring         Stainless steel           Trim         Brass (DZR)         Regulator         Stainless steel           Dimensions / weight         Dimensions         Refer to "Dimensions" on page 11           Flange connections         To ISO 7005-2           Pressure test points (P/T-ports)         G ½ inch (connection)           2 mm x 40 mm (measuring tips)         Weight           Refer to "Dimensions" on page 11           Flange connections         Categor 2, and connection)           2 mm x 40 mm (measuring tips)           Weight         Refer to "Dimensions" on page 11           Flange connections         Class 3K5         Class 2K3           Environmental conditions         Class 3K5         Class 2K3         Class 1K3           Temperature         -15+55 °C         -30+65 °C         -15+55 °C         -15+5		Fluid group 2	DN 5	0 Without CE-	marking as per a	rticle 3,				
DN 65 - DN 150         Category I, with CE-marking           Environmental compatibility         The product environmental declaration CE1E4315en) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).           Materials         Valve body         DN 50-80, 125         Gray cast iron GJL-250           Materials         Valve body         DN 50-80, 125         Gray cast iron GJS-400           Stem, spring         Stainless steel         Trim           Regulator         Stainless steel         Image: Stainless steel           Dimensions / weight         Dimensions         Refer to "Dimensions" on page 11           Flange connections         To ISO 7005-2         Image: Stainless Itel           Veight         Refer to "Dimensions" on page 11         Flange connection           Image: Stainless Itel         Image: Stainless Itel         Image: Stainless Itel           Stainless Itel         Stainless Itel         Image: Stainless Itel         Image: Stainless Itel           Stainless Itel         Stainless Itel         Image: Stainless Itel         Image: Stainless Itel           Stainless Itel         Stainless Itel         Image: Stainless Itel         Image: Stainless Itel           Stainless Itel         Stainless Itel         Image: Stainless Itel         Image: Stainl				section 3 (so	ound engineering	practice)				
Environmental compatibility       The product environmental declaration CETE4315en) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).         Materials       Valve body       DN 50-80, 125       Gray cast iron GJL-250         DN 100, 150       Nodular cast iron GJS-400         Stem, spring       Stainless steel         Trim       Brass (DZR)         Regulator       Stainless steel         Seals       EPDM         Dimensions / weight       Dimensions       Refer to "Dimensions" on page 11         Flange connections       To ISO 7005-2         Pressure test points (P/T-ports)       G ¼ inch (connection) 2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         Environmental conditions       Class 2K3       Class 1K3         Temperature       -15+55 °C       -30+65 °C       -15+55 °C			DN 65 - DN 15	0 Category I, v	with CE-marking					
MaterialsValve bodyDN 50-80, 125Gray cast iron GJL-250DN 100, 150Nodular cast iron GJS-400Stem, springStainless steelTrimBrass (DZR)RegulatorStainless steelSealsEPDMDimensions / weightDimensionsRegure connectionsTo ISO 7005-2Pressure test points (P/T-ports)G ¼ inch (connection) 2 mm x 40 mm (measuring tips)WeightRefer to "Dimensions" on page 11General ambient conditionsClass 3K5Class 2K3Class 1K3 TemperatureTemperature-15+55 °CHumidity595 % r.h.SenserialS95 % r.h.		Environmental co	mpatibility	The product CE1E4315e environment and assessr materials co environment	CE1E4315en) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental					
Materials       Valve body       DN 50-80, 125       Gray cast iron GJL-250         DN 100, 150       Nodular cast iron GJS-400         Stem, spring       Stainless steel         Trim       Brass (DZR)         Regulator       Stainless steel         Seals       EPDM         Dimensions / weight       Dimensions         Regulator       Stainless steel         Seals       EPDM         Dimensions / weight       Dimensions         Regulator       To ISO 7005-2         Pressure test points (P/T-ports)       G ¼ inch (connection)         2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Class 3K5       Class 2K3       Class 1K3         Temperature       -15+55 °C       -30+65 °C       -15+50 °C         Humidity       595 % r.h.       <95 % r.h.		_		benefit, disp	osal).					
DN 100, 150       Nodular cast iron GJS-400         Stem, spring       Stainless steel         Trim       Brass (DZR)         Regulator       Stainless steel         Seals       EPDM         Dimensions / weight       Dimensions         Flange connections       To ISO 7005-2         Pressure test points (P/T-ports)       G ¼ inch (connection)         2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Veight         Environmental conditions       Class 3K5       Class 2K3         Environmental conditions       Class 3K5       Class 2K3         Temperature       -15+55 °C       -30+65 °C       -15+50 °C         Humidity       595 % r.h.       < 95 % r.h.	Materials	Valve body	DN 50-80, 12	25 Gray cast iro	Gray cast iron GJL-250					
Stem, spring       Stainless steel         Trim       Brass (DZR)         Regulator       Stainless steel         Seals       EPDM         Dimensions / weight       Dimensions         Flange connections       To ISO 7005-2         Pressure test points (P/T-ports)       G ¼ inch (connection)         2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Veight         Refer to "Dimensions" on page 11         Environmental conditions       Class 3K5         Class 3K5       Class 2K3         Temperature       -15+55 °C         Humidity       595 % r.h.			DN 100, 15	0 Nodular cas	t iron GJS-400					
Trim       Brass (DZR)         Regulator       Stainless steel         Seals       EPDM         Dimensions / weight       Dimensions       Refer to "Dimensions" on page 11         Flange connections       To ISO 7005-2         Pressure test points (P/T-ports)       G ¼ inch (connection)         2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Veight         Refer to "Dimensions" on page 11         Environmental conditions       Class 3K5         Class 2K3       Class 1K3         Temperature       -15+55 °C       -30+65 °C         Humidity       595 % r.h.       < 95 % r.h.		Stem, spring		Stainless ste	eel					
RegulatorStainless steelSealsEPDMDimensions / weightDimensionsRefer to "Dimensions" on page 11Flange connectionsTo ISO 7005-2Pressure test points (P/T-ports)G ¼ inch (connection) 2 mm x 40 mm (measuring tips)WeightRefer to "Dimensions" on page 11General ambient conditionsWeightRefer to "Dimensions" on page 11Environmental conditionsClass 3K5Class 2K3Class 1K3 TemperatureTemperature-15+55 °C-30+65 °C-15+50 °C 595 % r.h.Humidity595 % r.h.< 95 % r.h.		Trim		Brass (DZR)	Brass (DZR)					
SealsEPDMDimensions / weightDimensionsRefer to "Dimensions" on page 11Flange connectionsTo ISO 7005-2Pressure test points (P/T-ports)G ¼ inch (connection) 2 mm x 40 mm (measuring tips)WeightRefer to "Dimensions" on page 11General ambient conditions <b>Operation</b> EN 60721-3-3 <b>Storage</b> EN 60721-3-2Environmental conditionsClass 3K5Class 2K3Class 1K3 Temperature-15+55 °C-30+65 °C-15+50 °C -15+50 °C-15+50 °C		Regulator		Stainless ste	eel					
Dimensions / weight       Dimensions       Refer to "Dimensions" on page 11         Flange connections       To ISO 7005-2         Pressure test points (P/T-ports)       G ¼ inch (connection)         2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Weight         Refer to "Dimensions" on page 11         Operation       Transport         Environmental conditions       Class 3K5         Temperature       -15+55 °C         Humidity       595 % r.h.		Seals		EPDM						
Flange connections       To ISO 7005-2         Pressure test points (P/T-ports)       G ¼ inch (connection)         2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Operation       Transport         Storage       EN 60721-3-3       EN 60721-3-2         Environmental conditions       Class 3K5       Class 2K3         Temperature       -15+55 °C       -30+65 °C         Humidity       595 % r.h.       < 95 % r.h.	Dimensions / weight	Dimensions		Refer to "Dir	nensions" on pag	je 11				
Pressure test points (P/T-ports)       G ¼ inch (connection)         2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Operation       Transport         Environmental conditions       Class 3K5       Class 2K3         Temperature       -15+55 °C       -30+65 °C       -15+50 °C         Humidity       595 % r.h.       < 95 % r.h.		Flange connection	ns	To ISO 7008	5-2					
2 mm x 40 mm (measuring tips)         Weight       Refer to "Dimensions" on page 11         General ambient conditions       Operation       Transport       Storage         Environmental conditions       Class 3K5       Class 2K3       Class 1K3         Temperature       -15+55 °C       -30+65 °C       -15+50 °C         Humidity       595 % r.h.       < 95 % r.h.		Pressure test poir	nts (P/T-ports)	G ¼ inch (co	onnection)					
Weight       Refer to "Dimensions" on page 11         General ambient conditions       Operation       Transport       Storage         EN 60721-3-3       EN 60721-3-2       EN 60721-3-1         Environmental conditions       Class 3K5       Class 2K3       Class 1K3         Temperature       -15+55 °C       -30+65 °C       -15+50 °C         Humidity       595 % r.h.       < 95 % r.h.				2 mm x 40 n	nm (measuring ti	ps)				
General ambient conditions         Operation         Transport         Storage           EN 60721-3-3         EN 60721-3-2         EN 60721-3-1           Environmental conditions         Class 3K5         Class 2K3         Class 1K3           Temperature         -15+55 °C         -30+65 °C         -15+50 °C           Humidity         595 % r.h.         < 95 % r.h.		Weight		Refer to "Dir	mensions" on pag	je 11				
Environmental conditions         Class 3K5         Class 2K3         Class 1K3           Temperature         -15+55 °C         -30+65 °C         -15+50 °C           Humidity         595 % r.h.         < 95 % r.h.	General ambient conditions			Operation EN 60721-3-2	FN 60721 3 2	Storage				
Temperature         -15+55 °C         -30+65 °C         -15+50 °C           Humidity         595 % r.h.         < 95 % r.h.		Environmental cor	nditions	Class 3K5	Class 2K3	Class 1K3				
Humidity 595 % r.h. < 95 % r.h. 595 % r.h.		Temperature		-15+55 °C	-30+65 °C	-15+50 °C				
		Humidity		595 % r.h.	< 95 % r.h.	595 % r.h.				

The documents can be downloaded from htt <u>/bt/downlo</u> ld It is recommended to use Combi valves in plants with variable speed pumps. When sizing the pump, it must be made certain that the most critical branch or consumer in the system – usually the remotest from the pump – gets enough pressure (pump head).

#### Dimensions



Product	Product DN B ØD ØD1 ØD2 L1 L2 L3 ØK H1 H2 H												4	kg
number												SAXP <sup>1)</sup> SAVP <sup>1)</sup>	SQVP	
VPF43	50	16	165	99	19 (4x)	230	115	65	125	187.5	284	630	577	14
	65	17	185	118	19 (4x)	290	145	84	145	195	291,5	637	584	19.5
	80	17	200	132	19 (8x)	310	155	90.5	160	216.5	313	659	606	25
	100	20	235	156	19 (8x)	350	162	111	180	332	449	800	720	50
	125	25	270	184	19 (8x)	400	192	133	210	357	474	820	750	77
	150	26	285	211	23 (8x)	480	230	156	240	401	521	870	790	111

Nominal size

DN

Н

 Total actuator height plus minimum distance to the wall or the ceiling for mounting, connection, operation, maintenance etc.

H1 = Dimension from the pipe center to install the actuator (upper edge)

H2 = Valve in the «OPEN» position means that the valve stem is fully extended.

1) SAX..P for DN50- 80; SAV..P for DN100- 150

#### **Revision Numbers**

Product number	Valid from rev. no.	Product number	Valid from rev. no.
VPF43.50F16	A	VPF43.50F25	A
VPF43.65F24	A	VPF43.65F35	A
VPF43.80F35	A	VPF43.80F45	A
VPF43.100F70	<b>A</b>	VPF43.100F90	A
VPF43.125F110	A	VPF43.125F135	A
VPF43.150F160	A	VPF43.150F200	A

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