

Three-Port Seat Valves PN16

VXG48...



Threaded valves made from cast iron, DN20...40, with tight shutoff on both sides.
 – Nominal stroke 5.5 mm
 – With threaded valve neck for fitting actuator (by means of threaded coupling ring)
 – With manual setting knob (supplied as standard)
 Fittings for connection to pipes are supplied on request.
 For use with electric actuators.

Permissible fluids

- Heating water from 5...120°C
- Water with the following additives:
 - Oxygen absorbing compounds
 - Glycol, up to a maximum of 50% (as anti-freeze)

Application

Suitable for use as control or changeover valves with tight shutoff in small to medium-sized heating systems, ventilating and air conditioning plants.

Operating pressure

Max. 1600 kPa (16 bar)

Summary of Types

Valves

DN		Type reference	k_{vs} -value	Range-ability	max. Δp_{v100}	$\Delta p_{max.}$	Fittings
Inch.	mm		m ³ /h	k_{vs}/k_{vr}	kPa ¹⁾	kPa ¹⁾	Type reference
3/4"	20	VXG48.20-6.3	6.3	>100	100	100	ALG20
1"	25	VXG48.25-10	10	>100	100	100	ALG25
1 1/4"	32	VXG48.32-16	16	>100	60	60	ALG32
1 1/2"	40	VXG48.40-20	20	>100	30	30	ALG40

Explanation

- ¹⁾ 100 kPa = 1 bar ≈ 10 mWG
- max. Δp_{v100} = max. permissible pressure difference across fully open valve
- Δp_{v100} = pressure difference across fully open valve in installation with full load
- $\Delta p_{max.}$ = max. permissible pressure difference across closed valve
- k_{vs} = nominal flow value of valve in m³/h with valve fully open and a pressure drop of 1 bar
- k_{vr} = smallest flow value in m³/h for a pressure drop of 1 bar at which the flow characteristic tolerance are still valid

Ordering

When ordering, please give designation and type reference of valve and, if required, of fittings, e.g.: **Three-port valve type VXG48.25-10 and quantity of ALG25 fittings.**
 Fittings are to be ordered separately. They are also supplied separately.

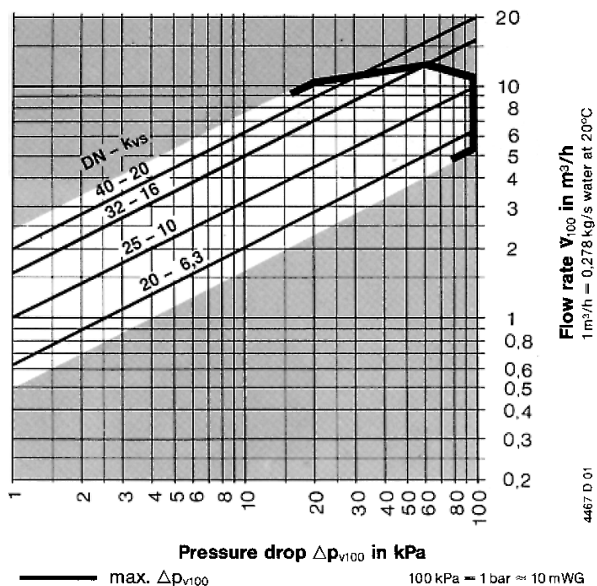
Actuators

The VXG48... seat valves are suitable for use with actuators with
 – 5.5 mm nominal stroke
 – threaded coupling ring for assembly
 Refer to Data Sheets **4500...4599**.

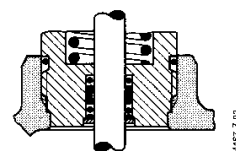
Technical Data

Flow characteristic	linear
Through-port	linear
Bypass	
Leakage rate	
Through-port	0...0.05% of k_{vs} -value
Bypass	0...0.05% of k_{vs} -value
Threaded connections	
Valve	ISO 228/1
Fittings	ISO 7/1
Nominal stroke	5.5 mm
Dimensions	see under "Dimensions"
Weight	

Sizing



Spindle sealing gland with double O-ring and dirt protection strip.



Accessories

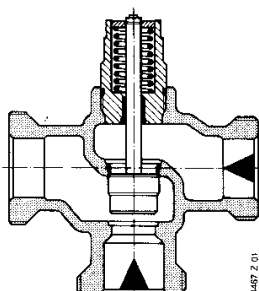
Fittings made from galvanised malleable cast iron, and flat gaskets to ISO 7/1.

Application Guide

Mounting: Preferably as a mixing valve from II and III to I (also refer to «Mounting and Installation Guide»).

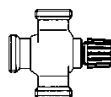
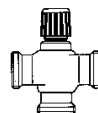
Design Features

Three-port seat valve with tight shutoff on both sides. Valve body made from GG25 cast iron. Spindle made from stainless steel, valve plug from brass. Threaded valve neck for fitting actuator by means of threaded coupling ring. Supplied complete with manual setting knob. Valve (through-port) is opened by the actuator and closed by the inbuilt return spring. Neither special tools nor adjustments are required to assemble valve and actuator.



Mounting and Installation Guide

Mounting positions:



Permitted

Not permitted

When mounting the valve, care must be taken that the arrow on the valve body corresponds with the flow direction.



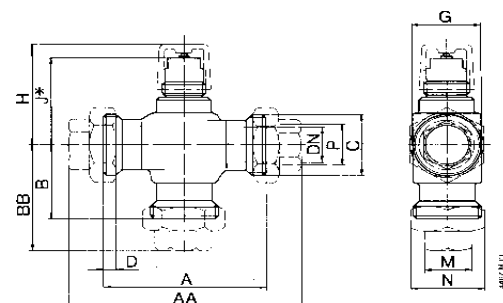
Mixing: From II and III to I
 Diverting: From I to II and III

Mounting instructions are supplied with every valve.

Commissioning Guide

Spindle moves in: Through-port opens, bypass closes.
 Spindle moves out: Through-port closes, bypass opens.

Dimensions



* Connection dimension for actuator

DN Ø		A	AA	B	BB	C Ø	D	G	H ≈	J*	M	N	P Ø	Weight in kg
Inch.	mm													
¾"	20	100	152	50	76	G 1¼"	10	42	67.5	59.5	32	50	Rp ¾"	0.8
1"	25	105	160	52.5	80	G 1½"	12	70	70.5	62.5	38	54	Rp 1"	1.2
1¼"	32	105	170	52.5	85	G 2"	12	80	77	69	47	66	Rp 1¼"	1.5
1½"	40	130	198	65	99	G 2¼"	13	100	80	72	53	73	Rp 1½"	2.2

Dimensions in mm

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