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.

Application

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

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)

Operating pressure

Max. 1600 kPa (16 bar)

Summary of Types

Valves

DN Inch.	DN mm	Type reference	k_{vs}-value m^3/h	Rangeability k_{vs}/k_{vr}	max. Δp_{v100} kPa[1])	$\Delta p_{max.}$ kPa[1])	**Fittings** Type reference
¾″	20	**VXG48.20-6.3**	6.3	>100	100	100	**ALG20**
1″	25	**VXG48.25-10**	10	>100	100	100	**ALG25**
1¼″	32	**VXG48.32-16**	16	>100	60	60	**ALG32**
1½″	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 m^3/h with valve fully open and a pressure drop of 1 bar
k_{vr} = smallest flow value in m^3/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.

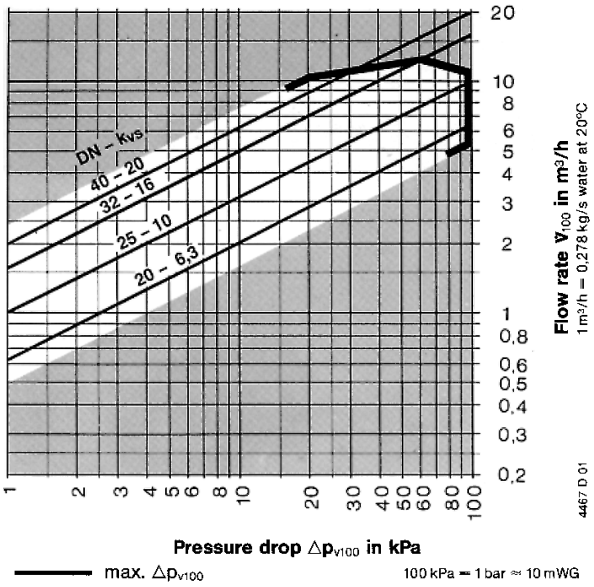
Actuators

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

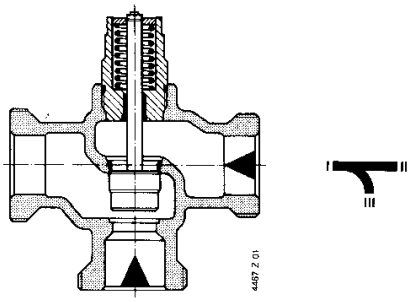
Flow characteristic	
Through-port	linear
Bypass	linear
Leakage rate	
Through-port	0...0.05% of k_{vs}-value
Bypass	0...0.05% of k_{vs}-value
Threaded connections	
Valve	ISO 228/1
Fittings	ISO 7/1
Nominal stroke	5.5 mm
Dimensions, Weight	see under «Dimensions»

Sizing

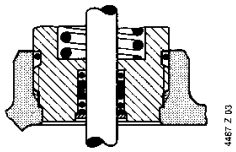


Design Features

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.



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



Accessories

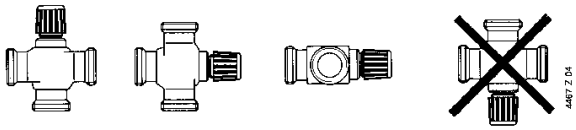
Fittings made from galvanised malleable cast iron, and flat gaskets to ISO 7/1.

Application Guide

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

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.

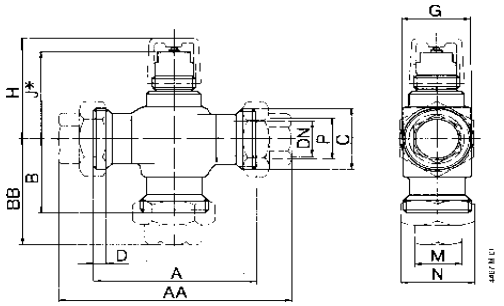
Mixing: From II and III to I
Diverting: From I to II and III

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 Inch.	DN Ø mm	A	AA	B	BB	C Ø	D	G	H ≈	J*	M	N	P Ø	Weight in kg
¾″	20	100	152	50	76	G1¼″	10	42	67.5	59.5	32	50	Rp¾″	0.8
1″	25	105	160	52.5	80	G1½″	12	70	70.5	62.5	38	54	Rp1″	1.2
1¼″	32	105	170	52.5	85	G2″	12	80	77	69	47	66	Rp1¼″	1.5
1½″	40	130	198	65	99	G2¼″	13	100	80	72	53	73	Rp1½″	2.2

Dimensions in mm