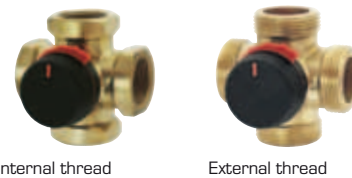


MIXING VALVE SERIES VRG140

The compact rotary 4-way mixing valve series VRG140 is available in DN 15–50, and is made of brass, PN10. Two types of connections are available; internal thread and external thread. Registered design.



Internal thread

External thread

OPERATION

The ESBE series VRG140 is a range of compact low leakage mixing valves made of special brass alloys allowing use in heating and cooling installations.

For easy manual operation the valves are equipped with non-slip knobs and end stops for an operation angle of 90°. The valve position scale can be turned over and rotated, allowing many different mounting positions. Together with actuator series ESBE ARA600, the VRG140 valves are also easily automated and have good regulating accuracy thanks to the unique valve-to-actuator interface. For more advanced control functions, the ESBE controllers allow even more applications.

ESBE VRG140 valves are available in dimensions DN 15 – 50 with internal thread and external thread.

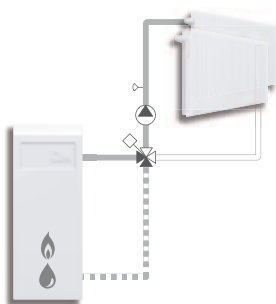
SERVICE AND MAINTENANCE

The slender and compact design of the valve allows for easy tool access when assembling and disassembling the valve.

Repair kits are available for key components.

INSTALLATION EXAMPLES

All the examples of installation can be mirrored. The valve position scale can be turned over and rotated to fit a number of installation layouts and should at the installation be fitted in the correct position as shown in the instruction for installation. The symbol markings of the valve ports (■●▲) minimize the risk of incorrect installation.



Mixing

VALVE VRG140 DESIGNED FOR

- Heating
- Ventilation
- Comfort cooling
- Zone
- Potable water
- District hot water
- Floor heating
- District heating
- Solar heating
- District cooling

SUITABLE ACTUATORS AND CONTROLLERS

- Series ARA600
- Series 90C
- Series 90*
- Series CRC110
- Series CRB100
- Series CRA110

* Adaptor kit necessary, see product page

TECHNICAL DATA

Pressure class: _____ PN 10
 Media temperature: _____ max. (continuously) +110°C
 _____ max. (temporarily) +130°C
 _____ min. -10°C
 Torque (at nominal pressure) DN15-32: _____ < 3 Nm
 DN40-50: _____ < 5 Nm
 Leakrate in % of flow*: _____ < 1.0%
 Working pressure: _____ 1 MPa (10 bar)
 Max. differential pressure drop: _____ 100 kPa (1 bar)
 Close off pressure: _____ 100 kPa (1 bar)
 Rangeability Kv/Kv^{min}, A-AB: _____ 100
 Connections: _____ Internal thread, EN 10226-1
 _____ External thread, ISO 228/1

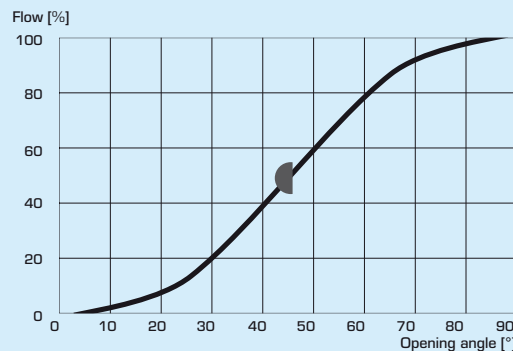
* Differential pressure 100kPa (1 bar)

Material

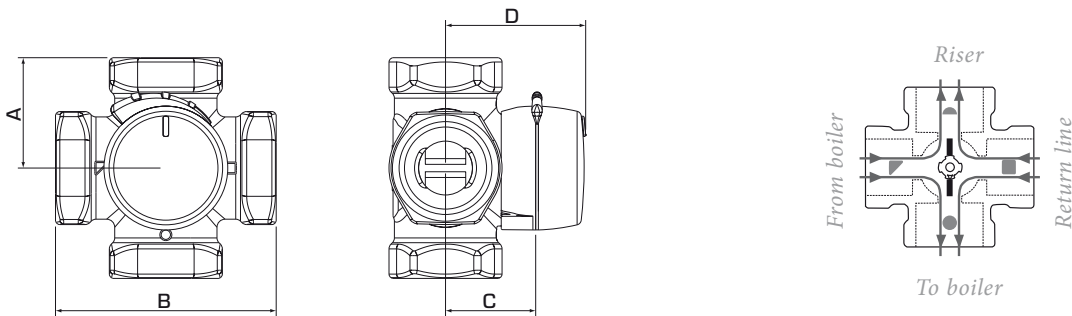
Valve body: _____ Dezincification resistant brass DZR
 Slide: _____ Abrasion resistant brass
 Shaft and bushing: _____ PPS composite
 O-rings: _____ EPDM

PED 97/23/EC, article 3.3

VALVE CHARACTERISTICS



MIXING VALVE SERIES VRG140



The flat-sided spindle top points towards the sleeve position.

SERIES VRG141, INTERNAL THREAD

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	Weight [kg]	Note
1164 01 00	VRG141	15	2.5	Rp 1/2"	36	72	32	50	0.40	
1164 02 00	VRG141	20	4	Rp 3/4"	36	72	32	50	0.52	
1164 03 00			6.3							
1164 04 00	VRG141	25	10	Rp 1"	41	82	34	52	0.80	
1164 05 00	VRG141	32	16	Rp 1 1/4"	47	94	37	55	1.08	
1164 15 00	VRG141	40	25	Rp 1 1/2"	53	106	44	60	1.89	
1164 17 00	VRG141	50	40	Rp 2"	60	120	46	64	2.55	

SERIES VRG142, EXTERNAL THREAD

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	Weight [kg]	Note
1164 08 00	VRG142	15	2.5	G 3/4"	36	72	32	50	0.40	
1164 09 00	VRG142	20	4	G 1"	36	72	32	50	0.52	
1164 10 00			6.3							
1164 11 00	VRG142	25	10	G 1 1/4"	41	82	34	52	0.80	
1164 12 00	VRG142	32	16	G 1 1/2"	47	94	37	55	1.08	
1164 16 00	VRG142	40	25	G 2"	53	106	44	60	1.90	
1164 18 00	VRG142	50	40	G 2 1/4"	60	120	46	64	2.55	

* Kvs-value in m³/h at a pressure drop of 1 bar. Flow chart, see product catalogue.