

ROTARY MOTORIZED VALVES

# CHANGE-OVER / DIVERTING VALVE

## SERIES VRG230

The compact rotary 3-way mid-port valve series VRG230 is available in DN 20–50, and is made of brass, PN 10.

Four types of connections are available; internal thread, external thread, compression fitting and rotating nut. Patented + Registered design.

### OPERATION

The ESBE series VRG230 is a range of low leakage rotary valves made of special brass alloys suitable for mid-port change-over / diverting operation.

For easy manual operation, the valves are equipped with non-slip knobs and end stops. The valve position scale can be turned over and rotated, allowing a wide choice of mounting positions. Together with actuator series ESBE ARA600, the VRG230 valves are also easily automated thanks to the unique valve-to-actuator interface.

ESBE VRG230 valves are available in dimensions DN 20–50 with internal or external thread, with rotating nut in DN20 or with compression fittings for pipe O.D. 22 and 28 mm.

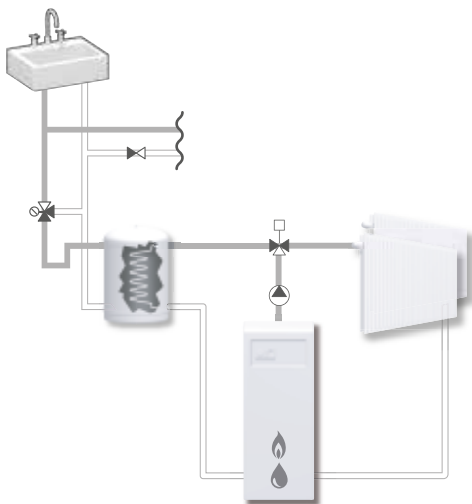
### SERVICE AND MAINTENANCE

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 installations 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.



Internal thread



External thread



Compression fitting



Rotating nut

### VALVE VRG230 DESIGNED FOR

- Heating
- Comfort cooling
- Solar heating
- Ventilation
- Zone

### SUITABLE ACTUATORS

- Series ARA600
- Series 90\*

\* 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\*: \_\_\_\_\_ < 0.5%  
 Working pressure: \_\_\_\_\_ 1 MPa (10 bar)  
 Max. differential pressure drop: \_\_\_\_ Diverting, 200 kPa (2 bar)  
 \_\_\_\_\_ Mixing, 100 kPa (1 bar)  
 Close off pressure: \_\_\_\_\_ 200 kPa (2 bar)  
 Rangeability Kv/Kv<sup>min</sup>, A-AB: \_\_\_\_\_ 100  
 Connections: \_\_\_\_\_ Internal thread, EN 10226-1  
 \_\_\_\_\_ External thread, ISO 228/1  
 \_\_\_\_\_ Compression fitting, EN 1254-2

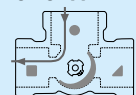
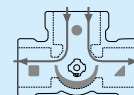
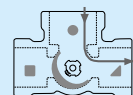
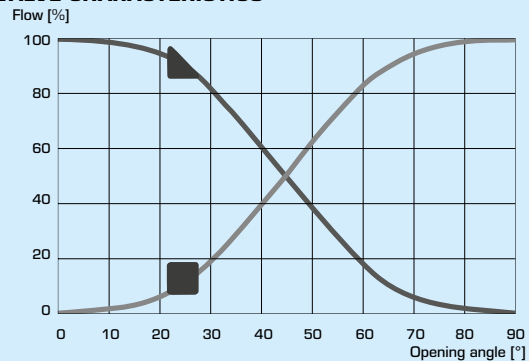
\* Differential pressure 100kPa (1 bar)

### Material

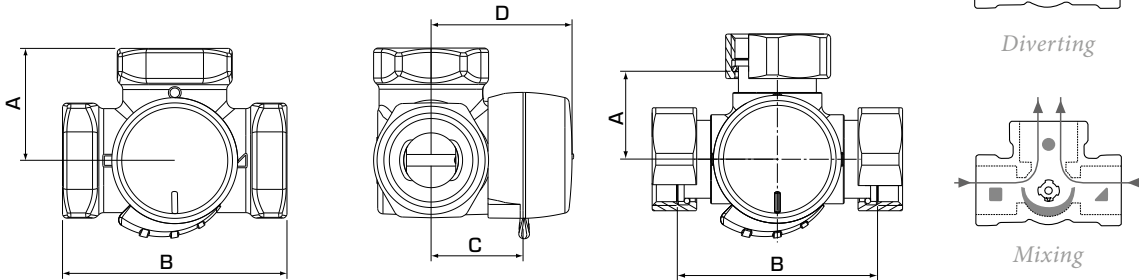
Valve body: \_\_\_\_\_ Dezincification resistant brass, DZR  
 Slide: \_\_\_\_\_ Abrasion resistant brass  
 Shaft and bushing: \_\_\_\_\_ PPS composite  
 O-rings: \_\_\_\_\_ EPDM

PED 2014/68/EU, article 4.3

### VALVE CHARACTERISTICS



# CHANGE-OVER / DIVERTING VALVE SERIES VRG230



VRG231, VRG232, VRG233

VRG238

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

## SERIES VRG231, INTERNAL THREAD

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	Weight [kg]	Note
1162 01 00	VRG231	20	6.3	Rp 3/4"	36	72	32	50	0.43	
1162 02 00	VRG231	25	10	Rp 1"	41	82	34	52	0.70	
1162 03 00	VRG231	32	16	Rp 1 1/4"	47	94	37	55	0.95	
1162 14 00	VRG231	40	30	Rp 1 1/2"	53	106	44	60	1.72	
1162 16 00	VRG231	50	40	Rp 2"	60	120	46	64	2.39	

## SERIES VRG232, EXTERNAL THREAD

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	Weight [kg]	Note
1162 06 00	VRG232	20	6.3	G 1"	36	72	32	50	0.43	
1162 07 00	VRG232	25	10	G 1 1/4"	41	82	34	52	0.70	
1162 08 00	VRG232	32	16	G 1 1/2"	47	94	37	55	0.95	
1162 15 00	VRG232	40	30	G 2"	53	106	44	60	1.73	
1162 17 00	VRG232	50	40	G 2 1/4"	60	120	46	64	2.39	

## SERIES VRG233, COMPRESSION FITTING

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	Weight [kg]	Note
1162 11 00	VRG233	20	4	CPF 22 mm	36	72	32	50	0.40	
1162 12 00			6.3							
1162 13 00	VRG233	25	10	CPF 28 mm	41	82	34	52	0.45	

## SERIES VRG238, ROTATING NUT

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	Weight [kg]	Note
1162 18 00	VRG238	20	4	3x RN 1"	36	72	32	50	0.59	
1162 19 00			6.3							

\* Kvs-value in m<sup>3</sup>/h at a pressure drop of 1 bar: Flow chart, see product catalogue. CPF = compression fitting RN = Rotating Nut