

Centra Rotary Valves DRG

3-way Mixing Valve

APPLICATION

The DRG rotary valves provide water temperature control in heating and air conditioning applications.

These valves are designed for accurate mixing control of supply water temperature in heating and air conditioning systems.

Its sturdy construction ensures a long and reliable operating life when used in combination with VMM and VRM actuators.

SPECIAL FEATURES

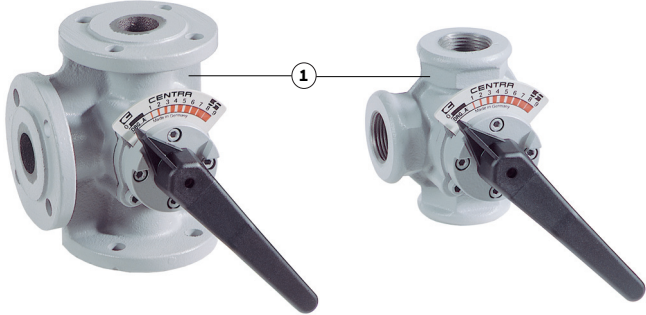
- Cast iron body with flanged end connections (type GFLA)
- Cast iron body with internal threaded end connections (type GMLA)
- Chrome-plated plug for long life
- Optimized characteristic for supply water temperature control
- Protected against corrosion and blocking
- Reliable mounting for electrical actuators
- Clear position indicator
- Wide range of flow rates with suitable actuators



TECHNICAL DATA

Nominal static pressure:	6 bar, 600 kPa
Max. pressure drop:	depending on type (see chapter "Ordering Information")
Leakage rate:	1% of kvs
Ports:	Internal threads / flange in accordance with DIN EN 1092-2 depending on type (see chapter "Ordering Information")
Angle of rotation:	90 °C
Internal threads:	8 windings long
Packing:	Double o-ring sealing
Medium:	Heating water according to VDI 2035 (oxygen concentration less than 0.2g/m ³ , pH 8...9.5), glycol-water mixtures (max. 50 % glycol)
Water temperatures in the valve:	2 to 130 °C, non-condensing
Weight:	depend on type (see chapter "Dimensions")
Flow characteristic:	equal percentage

CONSTRUCTION

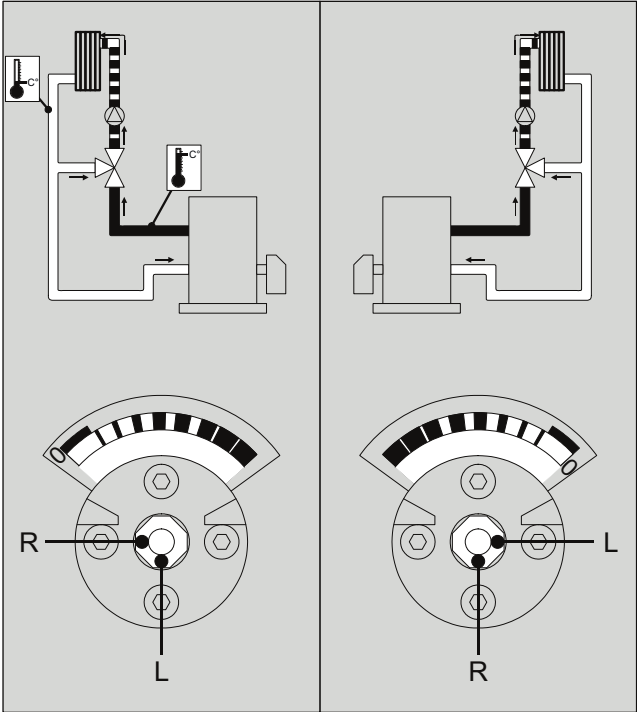
Overview	Components	Materials
	1 Housing	Cast iron
	Not depicted components:	
	Inner parts	Chrome-plated cast iron

METHOD OF OPERATION

The valve controls a mixing water temperature with a rotating plug. The plug adjusts with two control curves the water flow of two inputs. The required flow water temperature is reached by adding a proportion of return water to the boiler hot water. For optimum control performance, the DRG has special control characteristics.

INSTALLATION GUIDELINES

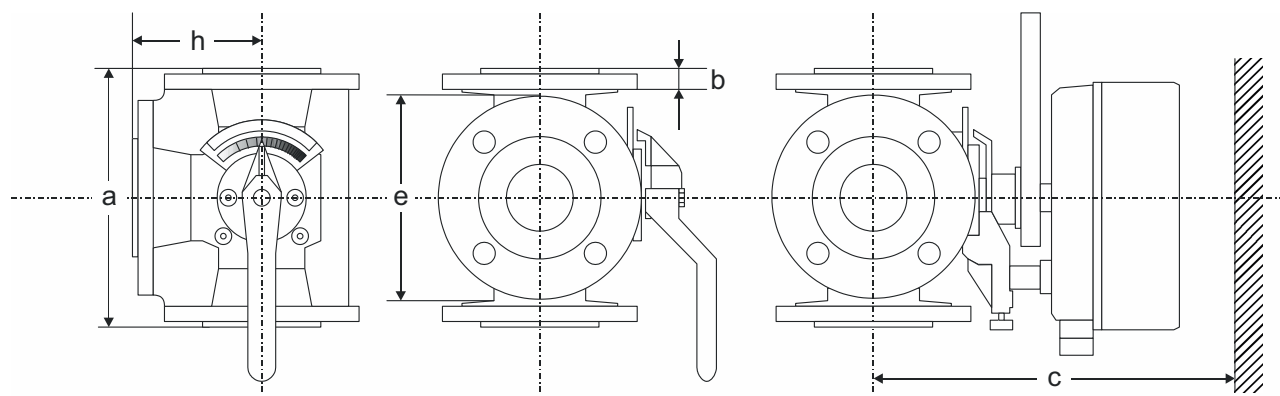
Installation Example



DIMENSIONS

DRxxGFLA

Overview

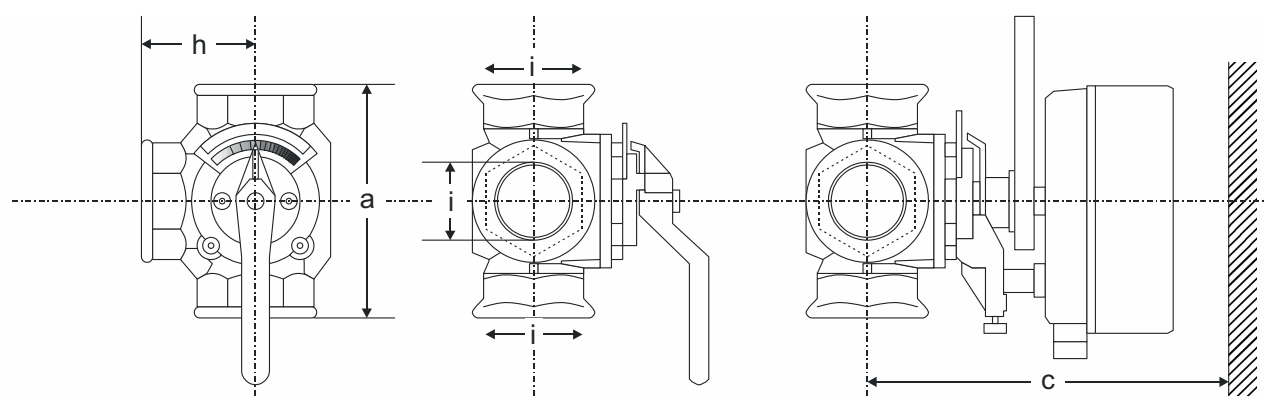


DN	a	b	c	e	h	Net weight	Type
20	140	15	230	90	70	3.5 kg	DR20GFLA
25	150	15	230	100	75	4.0 kg	DR25GFLA
32	160	17	240	120	80	6.6 kg	DR32GFLA
40	170	16	240	130	85	7.1 kg	DR40GFLA
50	190	16	250	140	95	9.8 kg	DR50GFLA
65	210	16	270	160	105	12.3 kg	DR65GFLA
80	250	18	270	190	125	21.4 kg	DR80GFLA
100	270	18	290	210	135	26.5 kg	DR100GFLA
125	310	20	320	240	155	42.0 kg	DR125GFLA
150	330	20	325	264	165	49.0 kg	DR150GFLA
200	390	22	365	320	195	78.0 kg	DR200GFLA1
200	390	22	365	320	195	78.0 kg	DR200GFLA

Note: All dimensions in mm unless stated otherwise.

DRxxGMLA

Overview



DN	a	c	Wrench size	h	i	Net weight	Type
15	110	230	41	55	R 1/2 in.	2.2 kg	DR15-2GMLA
15	110	230	41	55	R 1/2 in.	2.2 kg	DR15GMLA
20	110	230	46	55	R 3/4 in.	2.3 kg	DR20GMLA
25	115	230	50	58	R 1 in.	2.4 kg	DR25GMLA
32	140	240	60	70	R 1 1/4 in.	4.1 kg	DR32GMLA
40	150	240	65	75	R 1 1/2 in.	4.3 kg	DR40GMLA

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

Options

DN	kvs [m ³ /h]	Δp max [kPa]	Nominal torque [Nm]	Ordering Number	
				Internal thread	Flange
15	2.0	100	20	DR15-2GMLA	-
15	4.0	100	20	DR15GMLA	-
20	6.3	100	20	DR20GMLA	DR20GFLA
25	10	100	20	DR25GMLA	DR25GFLA
32	16	100	20	DR32GFLA	DR32GFLA
40	25	100	20	DR40GMLA	DR40GFLA
50	40	100	20	-	DR50GFLA
65	63	100	20	-	DR65GFLA
80	100	100	30	-	DR80GFLA
100	160	100	40	-	DR100GFLA
125	250	70	40	-	DR125GFLA
150	630	50	40	-	DR150GFLA
200	1000	50	40	-	DR200GFLA1
200	1600	50	40	-	DR200GFLA

Accessories

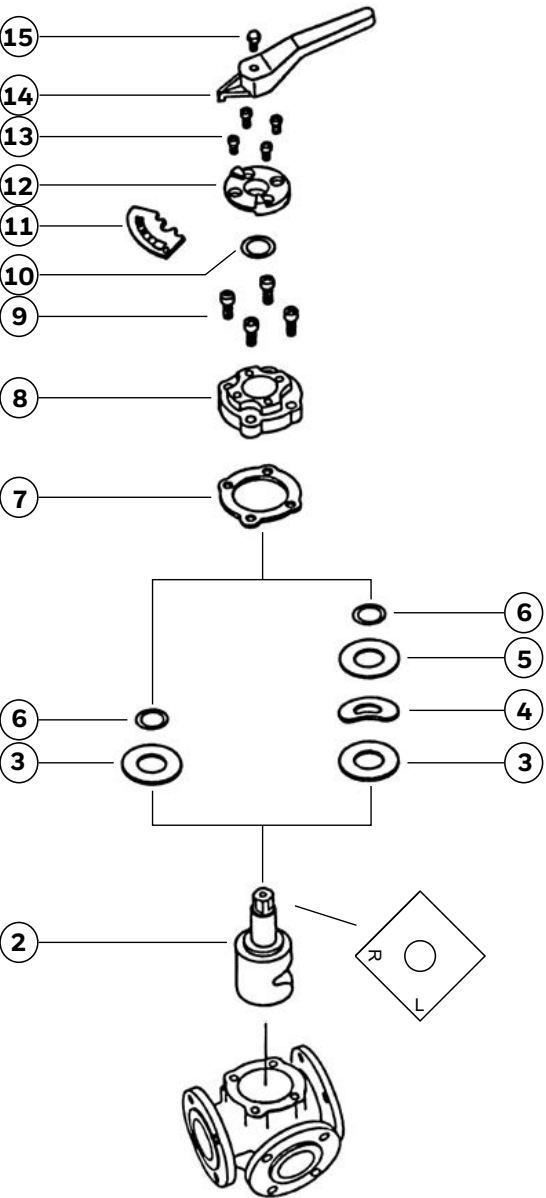
Overview associated actuators

Operation	Valve stroke	Control signal		
		230 V AC, Floating	24 V AC, Floating	24 V AC, 0/2...10V
Modulating	6.5 mm	VMM20 VMM30 VMM40	VMM20-24 VMM30-24 VMM40-24	VRM20

	Description	Dimension	Part No.
	VMM	Actuator: 3-point / floating	
		90°, 10 Nm, rotating	
		24 VAC	VMM20-24
		24 VAC	VMM30-24
		24 VAC	VMM40-24
		230 VAC	VMM20
		230 VAC	VMM30
		230 VAC	VMM40
	VRM	Actuator: modulating 0/2 - 10 V	
		90°, 10 Nm, rotating	VRM20

Spare Parts

Rotary valve DRG, from 1988 onwards

Overview	Description	Dimension	Part No.
	3, 4, 5, Seal kit		
	6, 7, 10, complete		
		DN15 - DN40	019001030
		DN50 - DN65	019001040
		DN80 - DN100	019001050
		DN125 - DN200	019001060
	12, 13 O-ring cover		
	with screws		030000114
	10 O-ring		
			071099535
	3, 4, 5, Valve cover		
	6, 7, 8, with o-ring and screws		
	9, 10, 11, 12, 13		
		DN15 - DN25	030000105
		DN32 - DN40	030000106
		DN80 - DN100	030000108
		DN125 - DN200	030000392
	2 Rotary plug		
		DN15 (k _{vs} 4.0)	030000404
		DN15 (k _{vs} 4.0)	030000099
		DN20	030000099
		DN25	030000121
		DN32 - DN40	030000100
		DN50	030000101
		DN65	030000102
		DN80	030000103
		DN100	030000104
		DN125	030000387
		DN150	030000389
		DN200	030000496
	14, 15 Rotary lever		
		DN15 - DN65	030000115
		DN80 - DN200	030000098
	11 Scale		
		DN15 - DN65	030000117
		DN80 - DN125	030000123