2-way open-close ball valves
DN 15...150

Shut-off function and 2-point control
in cold and hot water circuits

Applications
For shutting off cold and hot water circuits in heating and ventilation systems on the water side or for 2-point control of these circuits

R2.. AC Technical data (for DN15... 50)

Flow medium	Cold and hot water, water with max. 50% volume of glycol
Temperature of medium	-5°C...100°C
Rated pressure ΔPs	2500 kPa
Leakage rate	0~0.01% of kvs (ANSI Class IV) (No leakage when ex-factory)
Pipe connector	Internal thread to ISO7/1
Differential pressure Δpmax	1000 kPa (200 kPa for low-noise operation)
Closing pressure Δps	1400 kPa
Angle of rotation	90°
Installation position	Upright to horizontal (in relation to the stem)
Maintenace	Maintenace-free
Materials	
Body	Forged, nickel-plated brass body
Ball	Stainless steel
Seat	RPTFE
Stem	Stainless steel
O-ring	EPDM

R6..AC Technical data (for DN65...150)

Flow medium	Cold and hot water, water with max. 50% volume of glycol
Temperature of medium	-5°C...100°C
Rated pressure ΔPs	1600 kPa
Leakage rate	0~0.01% of kvs (ANSI Class IV) (No leakage when ex-factory)
Pipe connector	Flanged ISO7005-2 PN16
Differential pressure Δpmax	1000 kPa (200 kPa for low-noise operation)
Closing pressure Δps	700 kPa (DN65~DN125) 400 kPa (DN150)
Angle of rotation	90°
Installation position	Upright to horizontal (in relation to the stem)
Maintenace	Maintenace-free
Materials	
Body	GG25, Polyester coated
Ball	Stainless steel
Seat	RPTFE
Stem	Stainless steel
O-ring	EPDM

Product features

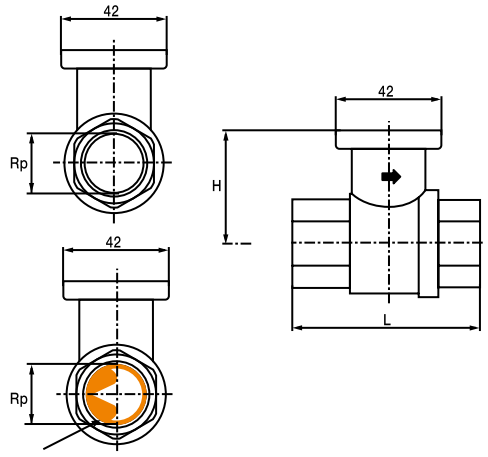
Mode of operation The open-close ball valve is operated by a rotary actuator. The rotary actuator is controlled by an open-close signal.

Manual operation Please refer to page 13...35.

Dimensions

R2.. AC 2-way ball valves

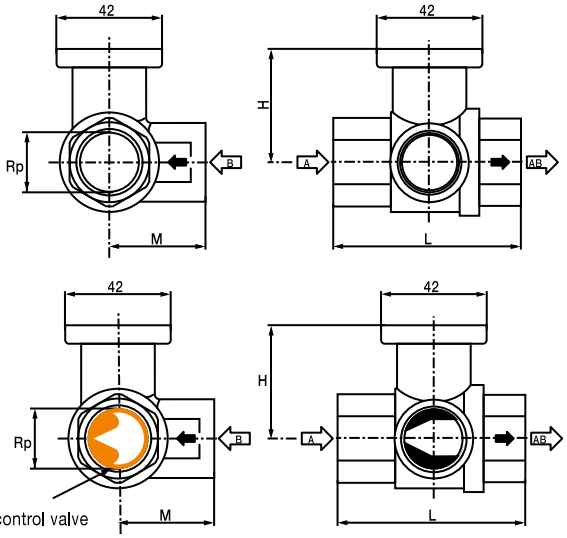
	DN		Thread	Dimensions [mm]		Weight [Kg]
	mm	Imp.	Rp	L	H	
R209AC/R210AC/R211AC R212AC/R213AC/R215AC	15	1/2"	1/2"	70	43.5	0.38
R217AC/R218AC/R220AC	20	3/4"	3/4"	77	46	0.48
R222AC/R223AC/R225AC	25	1"	1"	85	47.6	0.63
R229AC/R231AC/R232AC	32	1 1/4"	1 1/4"	94	51	0.84
R238AC/R239AC/R240AC	40	1 1/2"	1 1/2"	104	53.5	1.1
R248AC/R249AC/R250AC	50	2"	2"	116.5	58.1	1.6



Disc for characterized control valve

R3.. 3-way ball valves

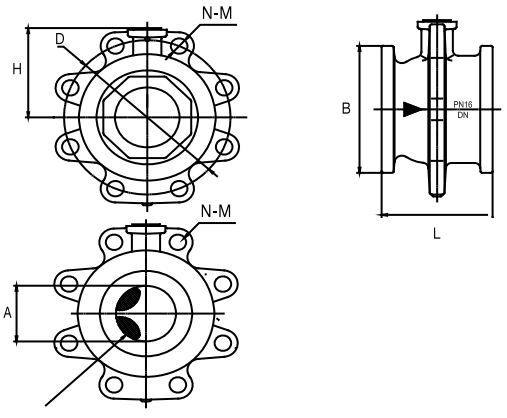
Valve type	DN		Dimensions [mm]			Thread	Weight [kg]
	mm	Imp.	L	H	M	Rp	
R309...R315	15	1/2"	67	45	34	1/2"	0.45
R317...R320	20	3/4"	76	47.5	38.5	3/4"	0.6
R322...R325	25	1"	87	47.5	43.5	1"	0.9
R329, R330	32	1 1/4"	102	47.5	51	1 1/4"	1.2
R331, R332	32	1 1/4"	113	52	56.5	1 1/4"	1.5
R338, R340	40	1 1/2"	113	52	56.5	1 1/2"	1.5
R348, R350	50	2"	127	58	63.5	2"	2.4



Disc for characterized control valve

R6..AC 2-way ball valves

Valve type	DN		Dimensions [mm]							Weight [kg]
	mm	Imp.	A	B	D	L	H	N	M	
R664AC/R665AC	65	2.5"	ø44	ø101	ø145	93	86	4	ø18	4.3
R679AC/R680AC	80	3"	ø55	ø125	ø160	108	94.5	8	ø18	6.5
R6099AC/R6100AC	100	4"	ø64	ø148	ø180	120	104	8	ø18	10.5
R6124AC/R6125AC	125	5"	ø77	ø174	ø210	142	118	8	ø18	13.0
R6149AC/R6150AC	150	6"	ø96	ø204	ø240	170	136.5	8	ø22	19.5



Disc for characterized control valve

2-way low torque characterized control valves
DN 15...50

Equal-percentage characteristics for
modulating control of cold and hot water

Applications

- Water-side control of air handling unit in air conditioning systems
- Water-side control in heating systems

Technical data

Flow medium	Cold and hot water, water with max. 50% volume of glycol
Temperature of medium	-5°C...100°C
Rated pressure ΔPs	2500 kPa
Flow characteristic	equal percentage
Rangeability	DN15* Sv>50 DN15...50** Sv>100
Leakage rate	0~0.01% kvs(ANSI Class IV) (No leakage when ex-factory)
Pipe connector	Internal thread to ISO7/1
Differential pressure Δpmax Closing pressure Δps	350 kPa (200 kPa for low-noise operation) 1400 kPa
Angle of rotation	90°C
Installation position	Upright to horizontal (inrelation to the stem)
Maintenace	Maintenace-free
Materials	
Body	Forged, nickel-plated brass body
Ball	Stainless steel
Seat	RPTFE
Stem	Stainless steel
O-ring	EPDM
Characterizing disk	PPA

*= Kvs up to 2.5 ;
**= DN15 Kvs ⩾4

Product features

Mode of operation The characterized control valve is operated by a rotary actuator. The actuator is controlled by a standard modulating or 3-point control system and drives the ball of the valve - the throttling device - to the opening position dictated by the control signal.

Equal-percentage characteristic Equal-percentage characteristic of the flow rate ensured by the integral characterizing disc

Manual operation Please refer to page 13...35.

2-way characterized control valves
DN 65...150

Equal-percentage characteristics for modulating control of cold and hot water

Applications

- Water-side control of air handling unit in air conditioning systems
- Water-side control in heating systems

Technical data

Flow medium	Cold and hot water, water with max. 50% volume of glycol
Temperature of medium	-5°C...100°C
Rated pressure ΔPs	1600 kPa
Flow characteristic	equal percentage
Rangeability	DN65...80 Sv>100 DN100...150 Sv>150
Leakage rate	0~0.01% of Kvs (ANSI Class IV) (No leakage when ex-factory)
Pipe connector	Flanged ISO7005-2 PN16
Differential pressure Δpmax Closing pressure Δps	350 kPa (200 kPa for low-noise operation) DN65...125 700 kPa DN150 400 kPa
Angle of rotation	90°C
Installation position	Upright to horizontal (in relation to the stem)
Maintenace	Maintenace-free
Materials	
Body	GG25,Polyester coated
Ball	Stainless steel
Seat	RPTFE
Stem	Stainless steel
O-ring	EPDM
Characterizing disk	Stainless steel

Product features

- Simplified installation procedure
- Light weight comparing with same DN size valves
- Anti-corrosion treatment inside of the valve
- Solid linkage in insulation design

Mode of operation The characterized control valve is operated by a rotary actuator. The actuator is controlled by a standard modulating or 3-point control system and drives the ball of the valve - the throttling device - to the opening position dictated by the control signal.

Equal-percentage characteristic Equal-percentage characteristic of the flow rate ensured by the integral characterizing disc.

Manual operation Please refer to page 13...35.