

HERZ - Ball valves for heating and chilled water

Datasheet collection

Datasheet 1 XXXX XX, Issue 0616

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HERZ - ball valves for heating and chilled water

General information

☑ Description of HERZ ball valves for heating and chilled water

HERZ ball valves for heating and chilled water are high quality products that are assembled and pressure tested during the manufacturing process under constant quality control.

Advantages of HERZ ball valves for heating and chilled water are:

- all integrated components are the result of our own development,
- possibility of high pressure, high or low temperature and high flow of medium,
- easy to use and maintain,
- reliable design and long service life,
- permanent quality control of production in our own factories,
- easy installation.

☑ Field of application

HERZ ball valves have to be used as shut off elements. Field of application are building services, such as heating or chilled water plants. Ball valves are used wherever the medium flow has to be reliably closed. Ball valve should not be used as regulating element so it has to be fully opened or fully closed (the handle should not be in intermediate position). All of HERZ ball valves have additional application advantages and features. Informations about this can be found in individual data sheets which are presented in this data sheet collection.

☑ Assembly instruction

The threads of the pipe have to be coated with a suitable sealing material (spinning material, Teflon ribbon, sealing paste). There should not be excess of sealing material on the pipe because it can damage the thread. The ball valve with thread (G, R) is screwed onto the pipe. The pipes have to be correctly aligned, so the valve is not loaded with a bending moment. When using cooper or plastic pipes take into account pressure and temperature limits of used material. When assembling, use a suitable assembly tool that adapts to valve end connections (Sw, Sw1). The ball valve can be mounted in any position: horizontal, vertical or upside-down. Following assembly, the connections of ball valve must be checked for water-tightness by the installer. All engineering standards and recognised regulations must be adhered by these specialist staff. If there are impurities in the medium (water too hard, dust, etc.) there should be a filter installed, in other case the impurities can damage the seals in the valve. Some of HERZ ball valves have additional assembly instructions. Informations about this can be found in individual data sheets which are presented in this data sheet collection.

☑ Brass

HERZ use top-quality brass that responds to the latest European norms DIN EN 12164, DIN EN 12165 and DIN EN 1982. Housings of ball valves are made from brass due to its good strenght, excellent corrosion resistance and variety of other properties. Please note that some of the ball valves are made from CW602N and CW626N because this material has DZR properties (dezinfication resistant brass).

☑ Function principle

Inspect the position of the handle to see whether the ball valve is opened or closed. It is opened if the handle is aligned with the pipe and it is closed if the handle is positioned perpendicularly to the pipe. Open or close the ball valve by rotating the handle for 90°.

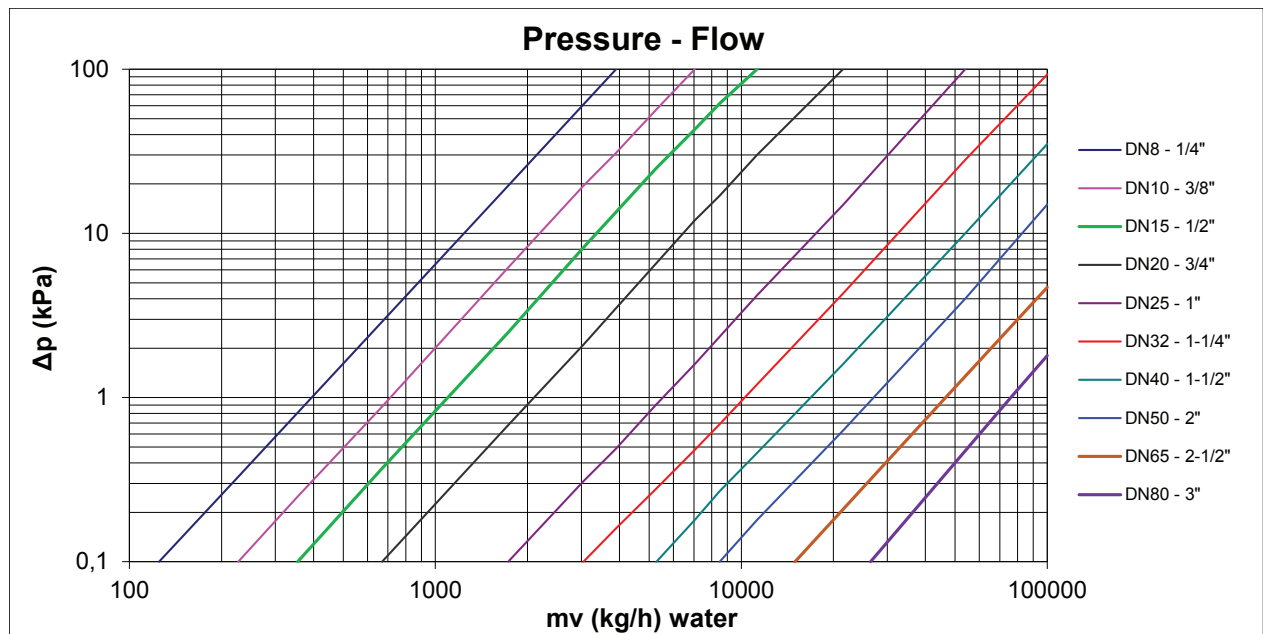
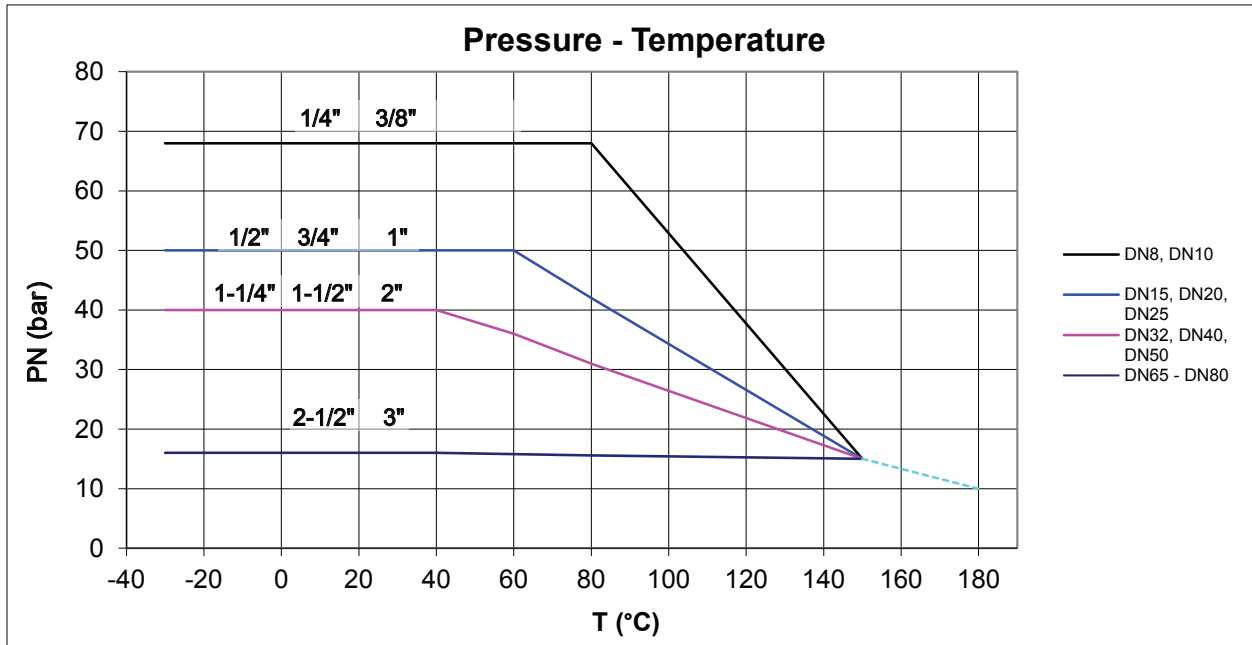
☑ Maintenance instruction

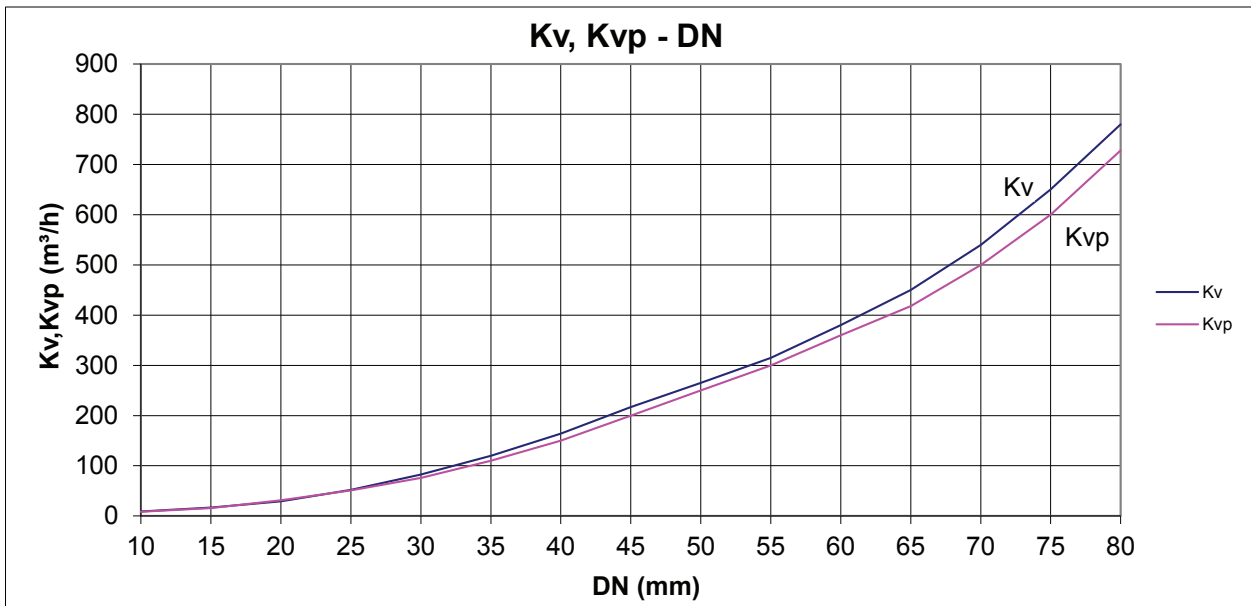
When the ball valve for heating and chilled water is installed, it does not require any special maintenance. It is recommended to close and open the ball valve periodically (at least twice a year).

☑ Disposal instruction

The disposal of HERZ ball valves for heating and chilled water must not endanger the health or the enviroment. National legal regulations for proper disposal of the HERZ ball valves for heating and chilled water have to be followed.

Diagrams





DN	8	10	15	20	25	32	40	50	65	80
Kv [m³/h]	7	9	17	34	55	102	165	270	450	780
Kvp [m³/h]	6,5	8,4	15,8	31,5	51	95	153	250	418	728

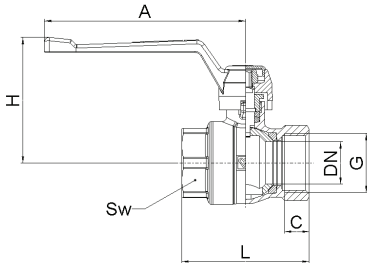
Kv: Outflow characteristic (m³ / h) - is the flow of water at temperature 15.5°C, a pressure drop of 1 bar (100 kPa) and a fully open valve

Kvp: Outflow characteristic (m³ / h) - is the flow of air with density of 1,16 kg/m³ at temperature 15.5°C, a pressure drop of 1 mbar (0,1 kPa) and a fully open valve.

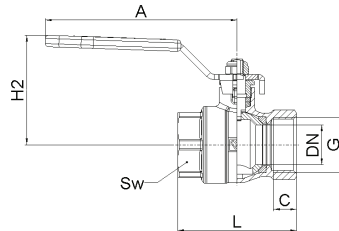
HERZ - Ball valve MODUL

Datasheet 1 220X XX

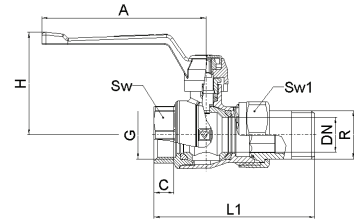
☑ Dimensions



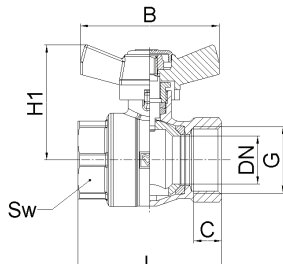
1 2201 01(06)



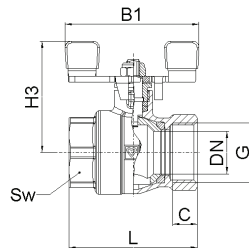
1 2201 21(26)



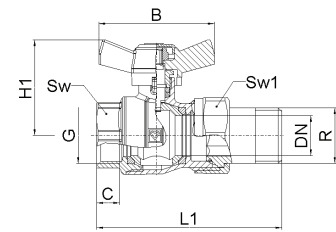
1 2211 01(06) (PN16)



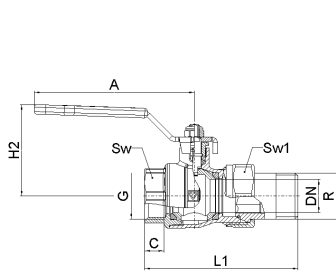
1 2201 11(14)



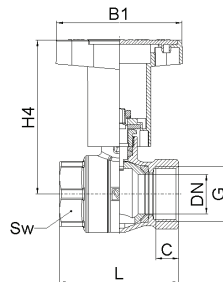
1 2201 31(34)



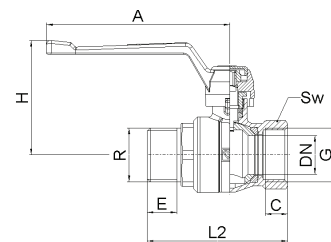
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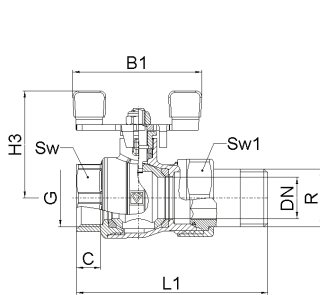
1 2211 21(26) (PN16)



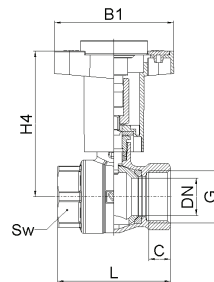
1 2201 41(46)
1 2201 51(56)



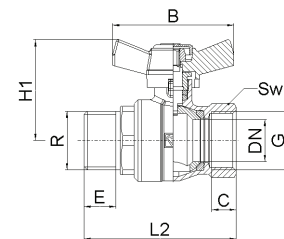
1 2228 01(06)



1 2211 31(34) (PN16)



1 2201 61(66)
1 2201 71(76)



1 2228 01 (06)

DN	PN [bar]	PN1 [bar]	G ISO228	R [ISO7/1]	L [mm]	L1 [mm]	L2 [mm]	C [mm]	E [mm]	A [mm]	B [mm]	B1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	Sw [mm]	Sw1 [mm]
15	25	16	G1/2	R1/2	51	74	64	10	13	90	55	60	53	42	49	46	70	25	30
20	25	16	G3/4	R3/4	57	88	69	11	15	90	55	60	56	46	52	49	74	31	36
25	25	16	G1	R1	73	106	84	16	17	135	75	85	72	56	63	64	81	39	46
32	25	16	G5/4	R5/4	84	123	97	18	19	135	75	85	77	61	68	69	86	48	52
40	25	16	G6/4	R6/4	95	142	105	17	20	180	-	120	93	-	86	-	121	55	60
50	25	16	G2	R2	112	166	120	19	23	180	-	120	100	-	93	-	128	70	75

Weight of ball valves

DN	Weight [kg]											
	1 2201 01 -6	1 2201 11 -4	1 2201 21 -6	1 2201 31 -4	1 2211 01 -6	1 2211 11 -4	1 2211 21 -6	1 2211 31 -4	1 2201 41 -6	1 2201 61 -6	1 2228 01 -6	1 2228 11 -4
15	0,170	0,163	0,178	0,170	0,232	0,225	0,250	0,230	0,172	0,206	0,195	0,188
20	0,250	0,242	0,253	0,246	0,360	0,355	0,380	0,382	0,252	0,286	0,290	0,274
25	0,458	0,440	0,486	0,458	0,680	0,670	0,700	0,669	0,460	0,475	0,506	0,500
32	0,706	0,670	0,765	0,712	1,025	1,01	1,046	1,022	0,690	0,730	0,800	0,780
40	1,186	/	1,213	/	1,612	/	1,634	/	1,136	1,152	1,186	/
50	1,958	/	2,0	/	2,628	/	2,625	/	1,926	1,954	2,125	/

Models

- 1 2201 01 (06) = IG x IG, Silumin – Lever handle
- 1 2201 11 (14) = IG x IG, Silumin – T-handle
- 1 2201 21 (26) = IG x IG, steel sheet - plated, lever handle
- 1 2201 31 (34) = IG x IG, steel sheet - plated, T-lever
- 1 2211 01 (06) = IG x connection, Silumin – lever handle
- 1 2211 11 (14) = IG x connection, Silumin – T-lever
- 1 2211 21 (26) = IG x connection, steel sheet - plated, lever handle
- 1 2211 31 (34) = IG x connection, steel sheet - plated, T-handle
- 1 2201 41 (46) = IG x IG, synthetic material - red
- 1 2201 51 (56) = IG x IG, synthetic material - blue
- 1 2201 61 (66) = IG x IG, synthetic material with thermometer – red
- 1 2201 71 (76) = IG x IG, synthetic material with thermometer –blue
- 1 2228 01 (06) = IG x AG, Silumin – lever handle
- 1 2228 11 (14) = IG x AG, Silumin – T-handle

Material and construction

Body:	forged brass acc. to EN 12165, nickel plated, CW617N
Ball:	forged brass acc. to EN 12165, hollow, full bore, hard chrome plated, CW617N
Spindle:	machined brass acc. to EN 12164, CW614N
Handles:	lever handle, red, silumin T-handle, red, silumin T-handle, red / blue, synthetic material PA66 GF30 T-handle with thermometer, red / blue, synthetic material PA66 GF30 lever handle, red, sheet steel - plated T-handle, red, sheet steel - plated
Ball seals:	PTFE
Spindle seals:	PTFE
Screw joint connector seals	
(1 2211 X1 - X3):	EPDM (O-ring)
(1 2211 X4 - X6):	KLINGER (flat sealing)
Internal threaded connectors:	acc. to ISO 228-1
External threaded connectors:	acc. to ISO 7-1

☑ Operating data

Max. operating pressure: PN 25 bar, screw joint connector PN 16 bar
Min. temperature: -30°C (water 0,5 °C)
Max. temperature: 150°C (water up to 110 °C - no steam)

Medium:

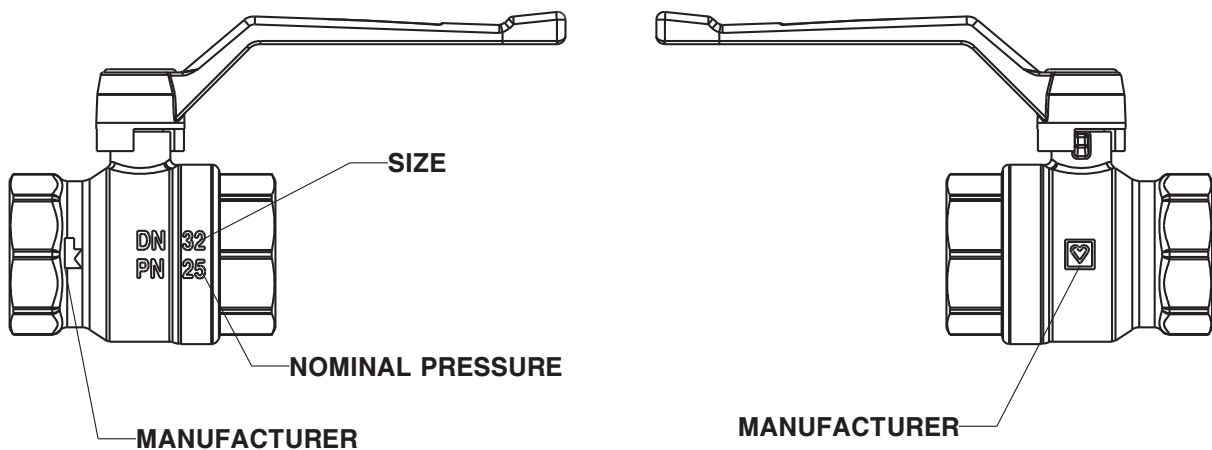
Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. Please note that EPDM gaskets will be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals in the valves that use EPDM seals. The HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustibile and explosive gases..) because it can destroy sealing components.

☑ Field of application

HERZ ball valve MODUL is designed for building services such as heating and chilled water plants. The operating conditions (temperature, pressure) should be constant.

☑ Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

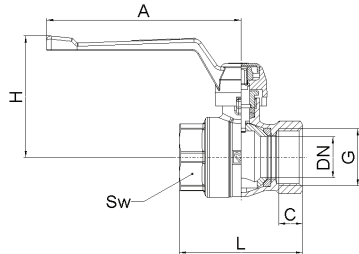
☑ Labels on ball valve

HERZ - Ball valve

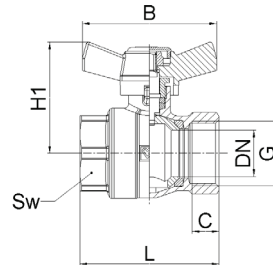
MODUL DZR

Datasheet 1 220X XX

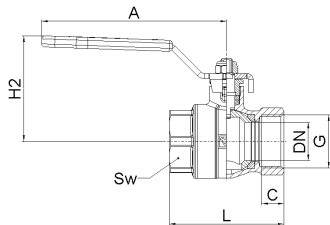
Dimensions



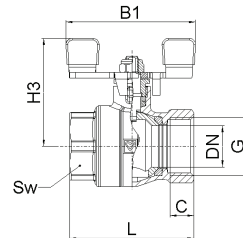
1 2206 01(06)



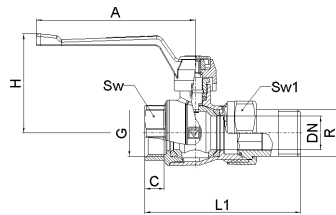
1 2206 11(14)



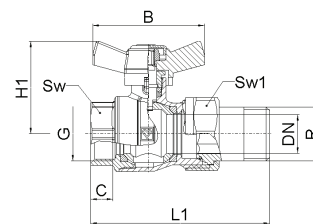
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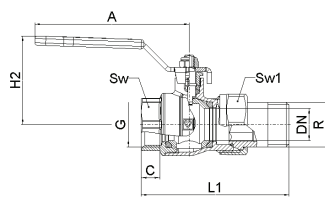
1 2206 31(34)



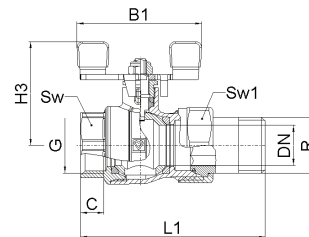
1 2216 01(06) (PN16)



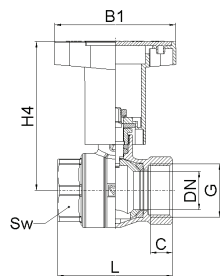
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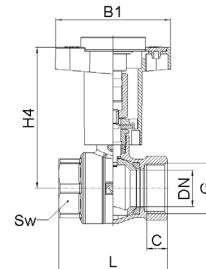
1 2216 21(26) (PN16)



1 2216 31(34) (PN16)



1 2206 41(46)
1 2206 51(56)



1 2206 61(66)
1 2206 71(76)

DN	PN [bar]	PN1 [bar]	G ISO228	R [ISO7/1]	L [mm]	L1 [mm]	L2 [mm]	C [mm]	E [mm]	A [mm]	B [mm]	B1 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	Sw [mm]	Sw1 [mm]
15	25	16	G1/2	R1/2	51	74	64	10	13	90	55	60	53	42	49	46	70	25	30
20	25	16	G3/4	R3/4	57	88	69	11	15	90	55	60	56	46	52	49	74	31	36
25	25	16	G1	R1	73	106	84	16	17	135	75	85	72	56	63	64	81	39	46
32	25	16	G5/4	R5/4	84	123	97	18	19	135	75	85	77	61	68	69	86	48	52
40	25	16	G6/4	R6/4	95	142	105	17	20	180	-	120	93	-	86	-	121	55	60
50	25	16	G2	R2	112	166	120	19	23	180	-	120	100	-	93	-	128	70	75

 Weight of ball valves

DN	Weight [kg]									
	1 2206 01 -6	1 2206 11 -4	1 2206 21 -6	1 2206 31 -4	1 2216 01 -6	1 2216 11 -4	1 2216 21 -6	1 2216 31 -4	1 2206 41 -6	1 2206 61 -6
15	0,170	0,163	0,178	0,170	0,232	0,225	0,250	0,230	0,172	0,206
20	0,250	0,242	0,253	0,246	0,360	0,355	0,380	0,382	0,252	0,286
25	0,458	0,440	0,486	0,458	0,680	0,670	0,700	0,669	0,460	0,475
32	0,706	0,670	0,765	0,712	1,025	1,01	1,046	1,022	0,690	0,730
40	1,186	/	1,213	/	1,612	/	1,634	/	1,136	1,152
50	1,958	/	2,0	/	2,628	/	2,625	/	1,926	1,954

 Models

- 1 2206 01 (06) = IG x IG, Silumin – Lever handle
- 1 2206 11 (14) = IG x IG, Silumin – T-handle
- 1 2206 21 (26) = IG x IG, steel sheet - plated, lever handle
- 1 2206 31 (34) = IG x IG, steel sheet - plated, T-lever
- 1 2216 01 (06) = IG x connection, Silumin – lever handle
- 1 2216 11 (14) = IG x connection, Silumin – T-lever
- 1 2216 21 (26) = IG x connection, steel sheet - plated, lever handle
- 1 2216 31 (34) = IG x connection, steel sheet - plated, T-handle
- 1 2206 41 (46) = IG x IG, synthetic material - red
- 1 2206 51 (56) = IG x IG, synthetic material - blue
- 1 2206 61 (66) = IG x IG, synthetic material with thermometer – red
- 1 2206 71 (76) = IG x IG, synthetic material with thermometer –blue

 Material and construction

Body:	forged brass acc. to EN 12165, CW602N, DZR
Ball:	forged brass acc. to EN 12165, hollow, full bore hard chrome plated, CW602N, DZR
Spindle:	machined brass acc. to EN 12164, CW614N
Handles:	lever handle, red, silumin T-handle, red, silumin T-handle, red / blue, synthetic material PA66 GF30 T-handle with thermometer, red / blue, synthetic material PA66 GF30 lever handle, red, sheet steel - plated T-handle, red, sheet steel - plated
Ball seals:	PTFE
Spindle seals:	PTFE
Screw joint connector seals:	
(1 2211 X1 - X3)	EPDM (O-ring)
(1 2211 X4 - X6)	KLINGER (flat sealing)
Internal threaded connectors:	acc. to ISO 228-1
External threaded connectors:	acc. to ISO 7-1

☑ Operating data

Max. operating pressure: PN 25 bar, screw joint connector PN 16 bar
Min. temperature: -30°C (water 0,5 °C)
Max. temperature: 150°C (water up to 110 °C - no steam)

Medium:

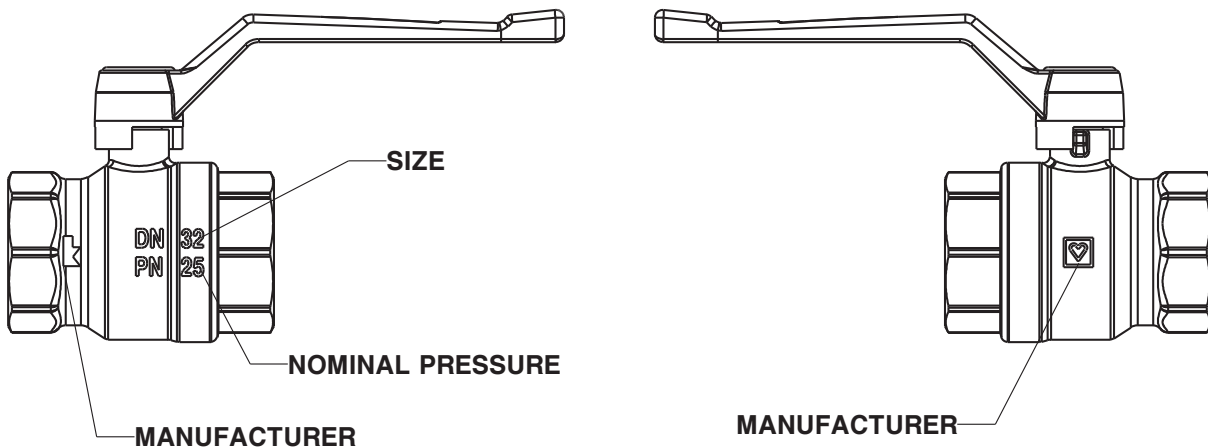
Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. Please note that EPDM gaskets will be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals in the valves that use EPDM seals. The HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

☑ Field of application

HERZ - ball valve MODUL DZR is designed for building services such as heating and chilled water plants. The operating conditions (temperature, pressure) should be constant. HERZ ball valve MODUL DZR is made from CW602N; this material has DZR properties (dezinfection resistant brass).

☑ Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

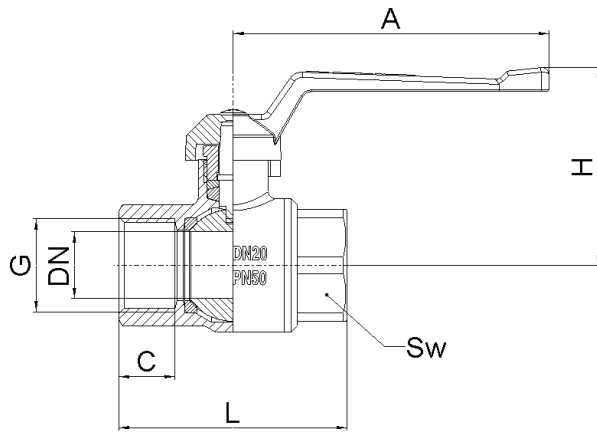
☑ Labels on ball valve

HERZ - Ball valve

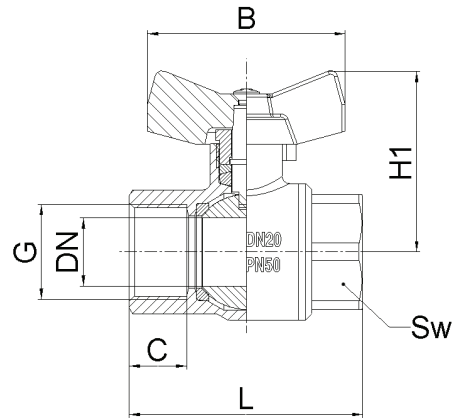
HEAVY TYPE

Datasheet 1 21X0 XX

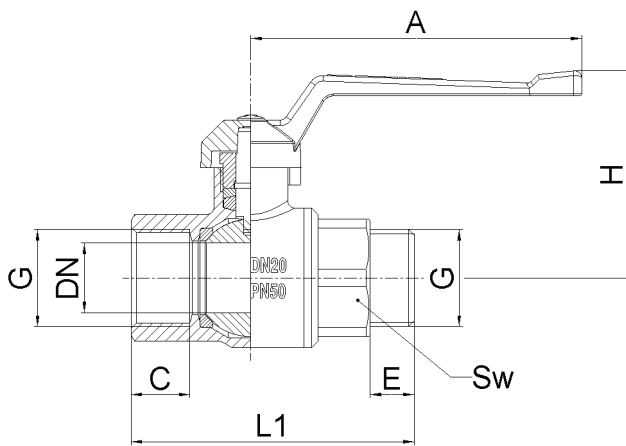
☑ Dimensions



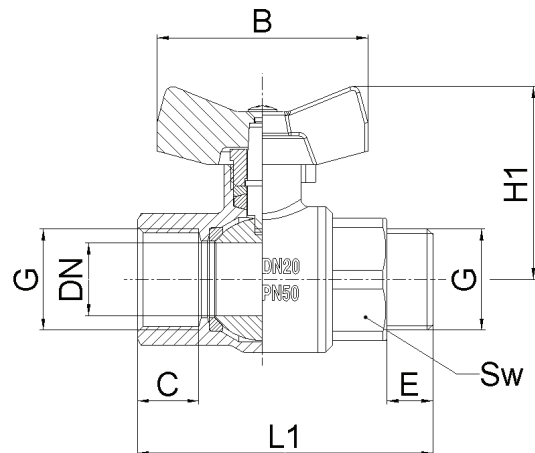
1 2100 00 (09)



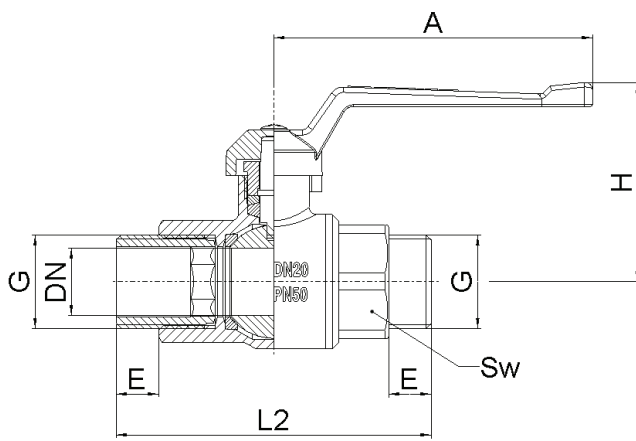
1 2100 10 (19)



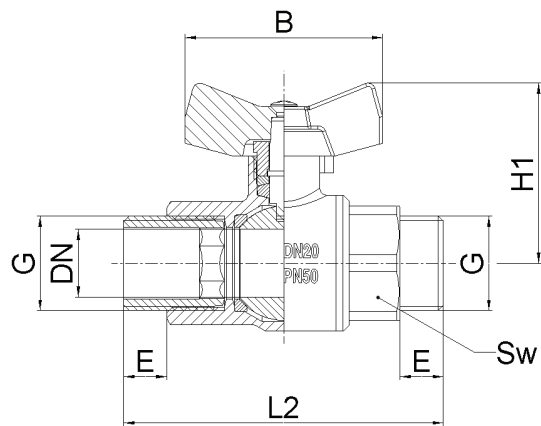
1 2160 00 (09)



1 2160 10 (19)



1 2180 00 (09)



1 2180 10 (19)

DN	PN [bar]	G [in]	L [mm]	L1 [mm]	L2 [mm]	C [mm]	E [mm]	A [mm]	B [mm]	H [mm]	H1 [mm]	Sw [mm]
8	63	1/4	43	52	61	10,5	9	60	40	45	41	17
10	63	3/8	45	54	63	11	9	60	40	56	43	21
15	50	1/2	59	72	85	15	13	90	55	53	47	25
20	50	3/4	65	77	89	16	13	90	55	57	53	32
25	50	1	80	95	110	19	15	135	75	77	57	41
32	40	1-1/4	91	106	122	19,5	16	135	75	81	60	48
40	40	1-1/2	104	120	136	22	16	180	/	96	/	55
50	40	2	125	142	159	25	17	180	/	101	/	70
65	16	2-1/2	146	/	/	25	/	210	/	124	/	85
80	16	3	179	/	/	28	/	210	/	134	/	100

Weight of ball valves [kg]

DN	1 2100 00 (09)	1 2100 10 (19)	1 2160 00 (09)	1 2160 10 (19)	1 2180 00 (09)	1 2180 10 (19)
8	0,120	0,118	0,130	0,122	0,130	0,125
10	0,140	0,138	0,156	0,138	0,178	0,174
15	0,230	0,230	0,260	0,260	0,300	0,290
20	0,350	0,350	0,400	0,400	0,440	0,434
25	0,660	0,640	0,744	0,718	0,820	0,800
32	0,950	0,930	1,100	1,065	1,217	01,165
40	1,640	/	1,178	/	1,834	/
50	2,780	/	3,000	/	3,100	/
65	4,760	/	/	/	/	/
80	6,200	/	/	/	/	/

Index of order numbers

When selecting the valve, please note the last number of the order number from the table below
(1 2100 0X / 1 2100 1X / 1 2160 0X / 1 2160 1X / 1 2180 0X / 1 2180 1X)

	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
X	9	0	1	2	3	4	5	6	7	8

Models of ball valves

- 1 2100 00 (09) = internal / internal thread, handle silumin lever handle red
- 1 2100 10 (19) = internal / internal thread, handle silumin T-handle red
- 1 2160 00 (09) = internal/external, handle silumin lever handle red
- 1 2160 10 (19) = internal/external, handle silumin T-handle red
- 1 2180 00 (09) = external / external thread, handle silumin lever handle red
- 1 2180 10 (19) = external / external thread, handle silumin T-handle red

Material and construction

Body (1 2100 X0 - X4, X9):	forged brass acc. to EN 12165, CW617N
Body (1 210X X7 - X8):	casted brass acc. to EN 1982, CW617N
Ball (1 2100 X0 - X4, X9):	forged brass acc. to EN 12165, hollow, full bore, hard chrome plated, CW617N
Ball (1 210X X7 - X8):	casted brass acc. to EN 1982, hollow, full bore, hard chrome plated, CW617N
Spindle:	machined brass acc. to EN 12164, CW614N
Handles:	lever handle, red, silumin T-handle, red, silumin
Ball seals:	PTFE
Spindle seals:	PTFE
Internal threaded connectors:	acc. to ISO 228-1

☑ Operating data

Max. operating pressure: see table above
Min. temperature: -30°C (water 0,5 °C)
Max. temperature: 150°C (water up to 110 °C - no steam)

Medium:

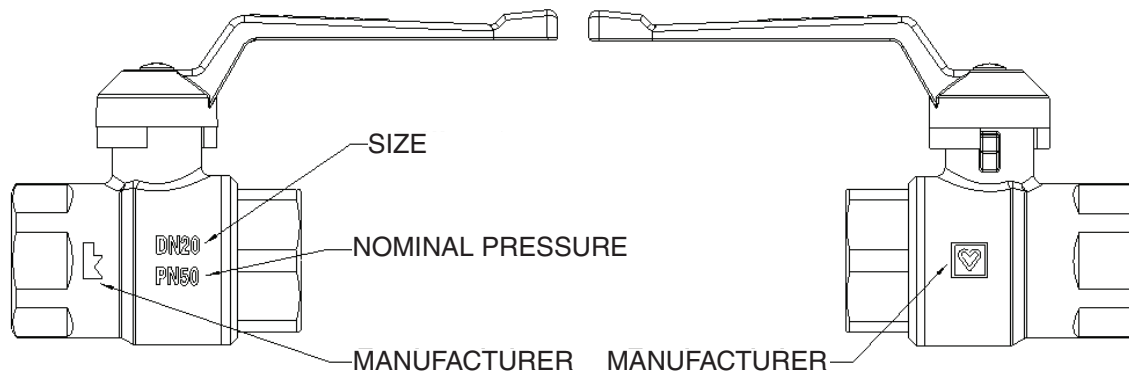
Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

☑ Field of application

Ball valve heavy type is designed for heating and cooling systems which have to withstand continuously changing working system parameters. It allows safe system operation even under conditions of significant changes of medium temperatures and sudden pressure loads. The ball valve is bi-directional, that means it allows flow of the medium in both directions.

☑ Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

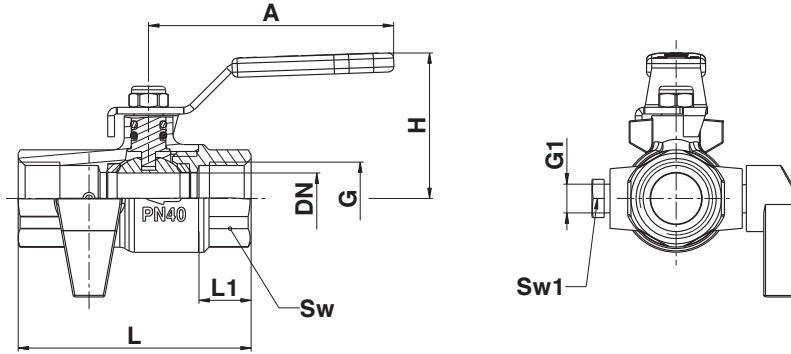
☑ Labels on ball valve

HERZ - Ball valve

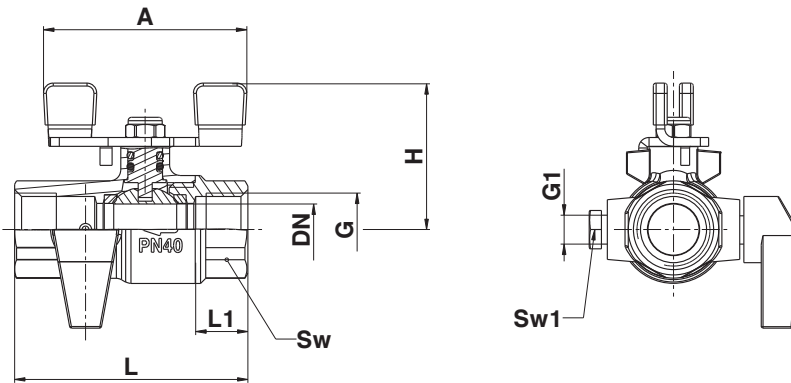
with drain cock and plug

Data sheet 1 2402 XX

☑ Dimensions



1 2402 0X



1 2402 1X

Order Nr.	DN	PN	G [in]	G1 [in]	L [mm]	L1 [mm]	H [mm]	A [mm]	Sw [mm]	Sw1 [mm]	Weight [kg]
1 2402 01	15	40	1/2"	1/8"	67	12	42	70	26	11	0,26
1 2402 02	20	40	3/4"	1/8"	71	14	49	90	32	11	0,38
1 2402 03	25	40	1"	1/8"	85	16	61	135	41	11	0,70
1 2402 04	32	40	1-1/4"	1/8"	101	26	65	135	50	11	0,11
1 2402 05	40	25	1-1/2"	1/8"	106	21,4	84	180	55	11	1,44
1 2402 11	15	40	1/2"	1/8"	67	12	42	60	25	11	0,26
1 2402 12	20	40	3/4"	1/8"	71	14	45	60	32	11	0,38
1 2402 13	25	40	1"	1/8"	85	16	63	85	41	11	0,68
1 2402 14	32	40	1-1/4"	1/8"	101	26	67	85	50	11	0,11

☑ Material and construction

Body:	forged brass acc. to EN 12165, nickel plated, CW617N
Ball:	forged brass acc. to EN 12165, hollow, full bore, hard chrome plated, CW617N
Spindle:	machined brass acc. to EN 12164, CW614N
Plug handle:	synthetic material
Handles:	steel sheet - plated, lever handle, red steel sheet - plated, T-handle, red
Ball seals:	PTFE
Spindle seals:	NBR
Internal threaded connectors:	acc. to ISO228

☑ Operating data

Max. operating pressure:	see table above
Min. operating temperature:	-10°C (water 0,5 °C)
Max. operating temperature:	80°C
Medium:	

Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

☑ Field of application

HERZ ball valve with drain cock and plug is used in building services such as heating and chilled water plants. Due to the special valve design it is possible to shut-off and drain the system. A plug is mounted at the outlet (G1). In case of draining the installation close the ball valve and then empty the medium by draining. Before refilling the installation the draining tap must be closed.

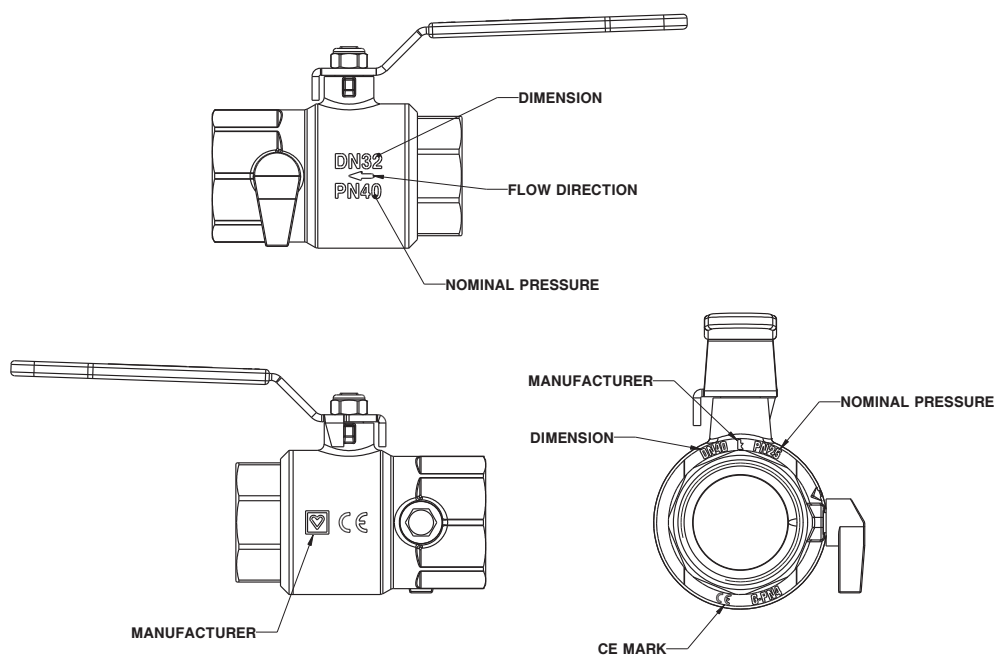
☑ Assembly instruction

The arrow on the housing indicates the medium flow direction, it is necessary to pay attention to the correct valve orientation during assembly.

☑ Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

☑ Labels on ball valves



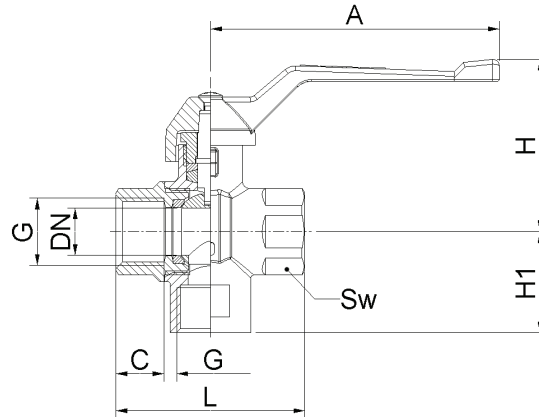
1 2402 01 (07)
1 2402 11 (13)

1 2402 05

HERZ - Three port ball valve

 Data sheet 1 **2412 01**

☑ Dimensions



Order Nr.	DN	G [in]	L [mm]	C [mm]	A [mm]	H [mm]	H1 [mm]	Sw	Weight [kg]
1 2412 01	15	1/2	59	15	90	54	32	25	0,374

☑ Material and construction

Body:	forged brass acc. to EN 12165, nickel plated, CW617N
Ball:	forged brass acc. to EN 12165, L bore, hard chrome plated, CW617N
Spindle:	machined brass acc. to EN 12164, CW614N
Handle:	Lever handle, red, silumin
Ball seals:	PTFE
Spindle seals:	PTFE
Internal threaded connectors:	acc. to ISO 228

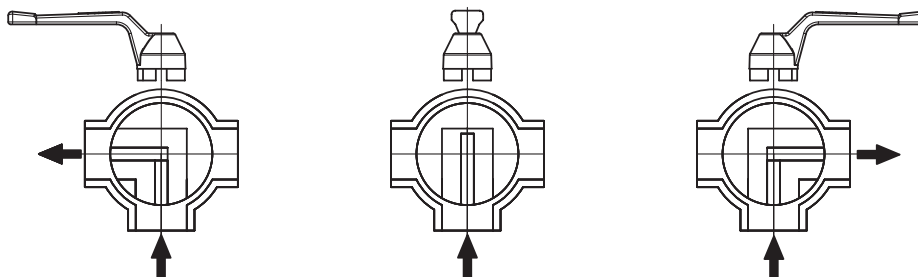
☑ Operating data

Max. operating pressure:	PN 40 bar
Min. operating temperature:	-30°C (water 0,5°C)
Max. operating temperature:	+150°C (water 110°C-no steam)

Medium:
 Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

☑ Field of application

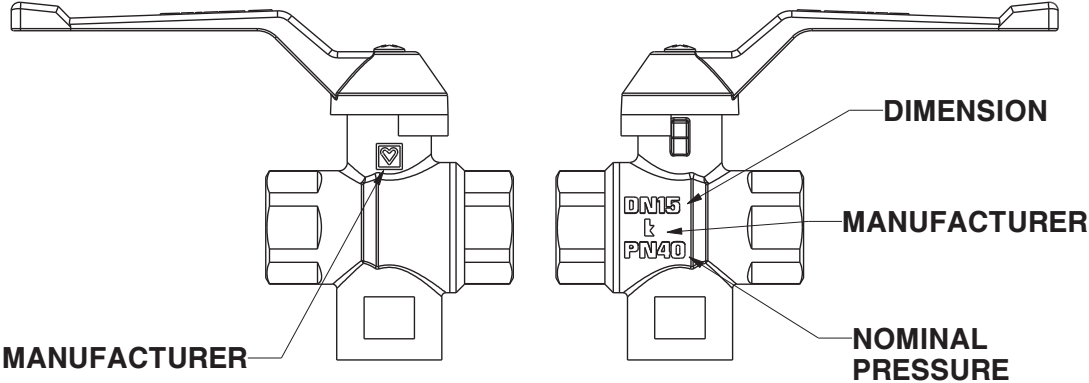
The ball with a T-shape flow apening allows different ways of closing - opening the flow direction. For more detailed usage of three-way ball valve see picture below.



Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

Labels on ball valve

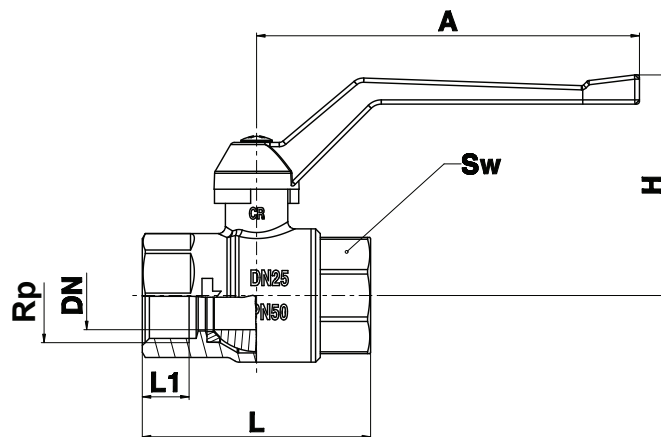


HERZ - Ball valve

with lever handle DZR

Data sheet 1 2190 0X

☑ Dimensions



Order Nr.	DN	PN	Rp [in]	L [mm]	L1 [mm]	H [mm]	A [mm]	Sw [mm]	Weight [kg]
1 2190 01	15	50	1/2"	59	13	53	90	25	0,24
1 2190 02	20	50	3/4"	65	14	56	90	32	0,36
1 2190 03	25	50	1"	80,5	16,5	77	135	41	0,67
1 2190 04	32	40	1-1/4"	91	17	81	135	48	0,95
1 2190 05	40	40	1-1/2"	104	19,5	95	180	55	1,67
1 2190 06	50	40	2"	125,5	22,5	101	180	70	2,78

☑ Material and construction

Body:	forged brass acc. to EN 12165, nickel plated, CW602N DZR
Ball:	forged brass acc. to EN 12165, hollow, full bore, hard chrome plated, CW617N
Spindle:	machined brass acc. to EN 12164, CW614N
Handles:	lever handle, red, silumin
Ball seals:	PTFE
Spindle seals:	PTFE
Internal threaded connectors:	acc. to ISO228

☑ Operating data

Max. operating pressure:	see table above
Min. operating temperature:	-30°C (water 0,5 °C)
Max. operating temperature:	150°C (water 110 °C - no steam)

Medium:

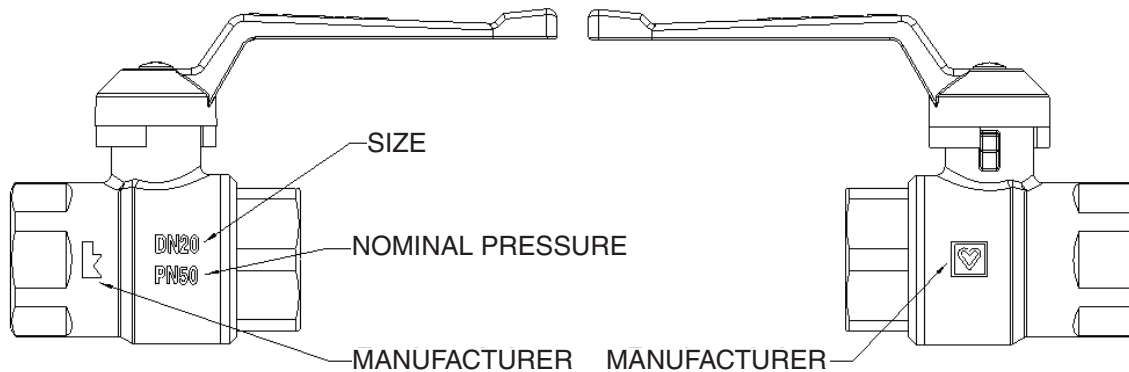
Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

☑ Field of application

HERZ ball valve with lever handle DZR is designed for heating and cooling systems which have to withstand continuously changing working system parameters. It allows safe system operation even under conditions of significant changes of medium temperatures and sudden pressure loads. HERZ ball valve with lever handle DZR is made from CW602N; this material has DZR properties (dezincification resistant brass). The ball valve is bi-directional, that means it allows flow of the medium in both directions.

☑ Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

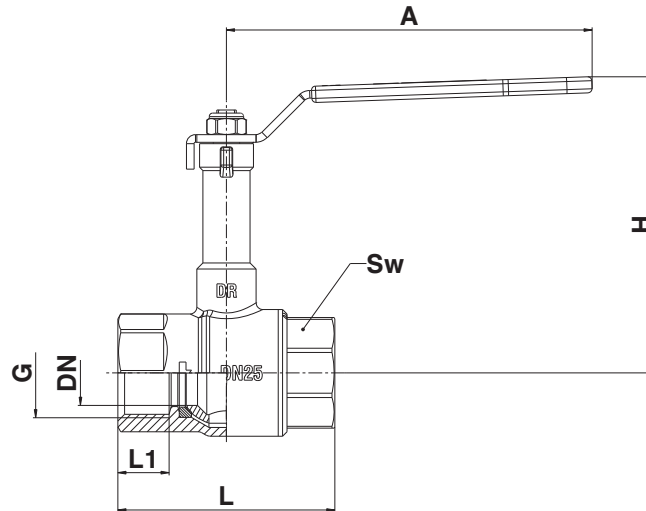
☑ Labels on ball valve

HERZ - Ball valve

with extended spindle DZR

 Data sheet 1 **2190 2X**

☑ Dimensions



Order Nr.	DN	G [in]	L [mm]	L1 [mm]	H [mm]	A [mm]	Sw [mm]	Weight [kg]
1 2190 21	15	1/2"	59	15	90	90	25	0,28
1 2190 22	20	3/4"	64	16	93	90	32	0,40
1 2190 23	25	1"	80,5	19	107	135	41	0,74
1 2190 24	32	1-1/4"	91	19,5	111	135	48	0,96
1 2190 25	40	1-1/2"	100	19,7	136	180	55	1,38
1 2190 26	50	2"	118	22,3	144	180	69	2,52

☑ Material and construction

Body:	forged brass acc. to EN 12165, nickel plated, CW602N DZR
Ball:	forged brass acc. to EN 12165, hollow, full bore, hard chrome plated, CW602N, DZR
Spindle:	machined brass acc. to EN 12164, CW614N
Handle:	lever handle, red, sheet steel - plated
Ball seals:	PTFE
Spindle seals:	EPDM
Internal threaded connectors:	acc. to ISO 228

☑ Operating data

Max. operating pressure:	PN 25 bar
Min. operating temperature:	-10°C (water 0,5°C)
Min. short-term temperature load:	-50°C
Max. operating temperature:	130°C (water 110°C-no steam)
Max. short-term temperature load:	150°C
Medium:	

Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. Please note that EPDM gaskets will be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals in the valves that use EPDM seals. HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

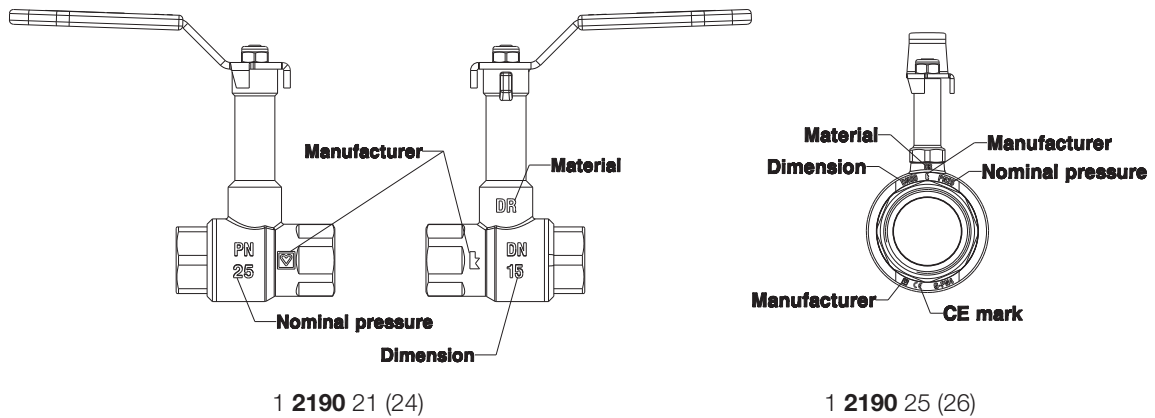
☑ Field of application

HERZ ball valve with extended spindle DZR is designed for building services such as heating or chilled water plants. The operating conditions (temperature, pressure) should be constant. Extended spindle allows easy installation of thicker insulation. The handle is isolated separately so that the valve can be opened and closed without breaking or damaging the insulation. HERZ ball valve with extended spindle DZR is made from CW602N; this material has DZR properties (dezincification resistant brass). The ball valve is bi-directional, that means it allows flow of the medium in both directions.

☑ Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

☑ Labels on ball valve



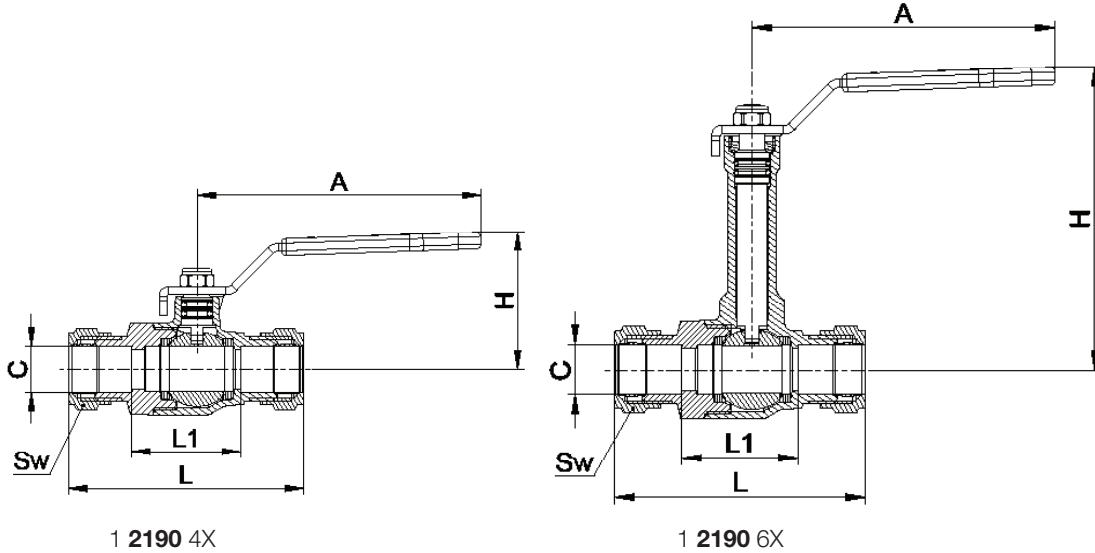


HERZ - BALL VALVE

with compression ends

Datasheet 1 2190 4X (6X)

Dimensions



Model	DN	PN [bar]	Cu	C [mm]	L [mm]	L1 [mm]	H [mm]	A [mm]	Sw
1 2190 41	15	16	15	15,2	76,5	35,5	47	90	24
1 2190 42	20	16	22	22,2	81	37	49	90	32
1 2190 43	25	16	28	28,1	95	44,4	61	135	37
1 2190 44	32	16	35	35,1	108,5	54,6	65	135	46
1 2190 45	40	16	42	42,2	122	60	84	180	60
1 2190 46	50	16	54	54,4	134	72	90	180	70
1 2190 61	15	16	15	15,2	76,5	35,5	94	90	24
1 2190 62	20	16	22	22,2	81	37	97	90	32
1 2190 63	25	16	28	28,1	95	44,4	110	135	37
1 2190 64	32	16	35	35,1	108,5	54,6	114	135	46
1 2190 65	40	16	42	42,2	122	60	135	180	60
1 2190 66	50	16	54	54,4	134	72	142	180	70

Material and construction

Body: forged brass acc. to EN 12165, CW602N, DZR
 Ball: forged brass acc. to EN 12165, hollow, full bore hard chrome plated, CW602N, DZR
 Spindle: machined brass acc. to EN 12164, CW614N
 Handles: lever handle, red, sheet steel - plated
 Ball seals: PTFE
 Spindle seals: EPDM

Operating data

Maximum pressure: 16 bar (20 °C)
 Temperature range: 120 °C (5 bar)
 Construction and tests: WRAS approved

☑ Field of application

HERZ – ball valve with compression ends is designed for easy and fast installation of the valve in the pipe network. It is suitable for heating and chilled water systems where the pipes are made from copper, carbon steel and stainless steel. Tightening pipe connection system is made from components that allow quick installation without special tools and sealing materials. It enables effective seal and easy adjustment of the position of the ball valve in the pipe network.

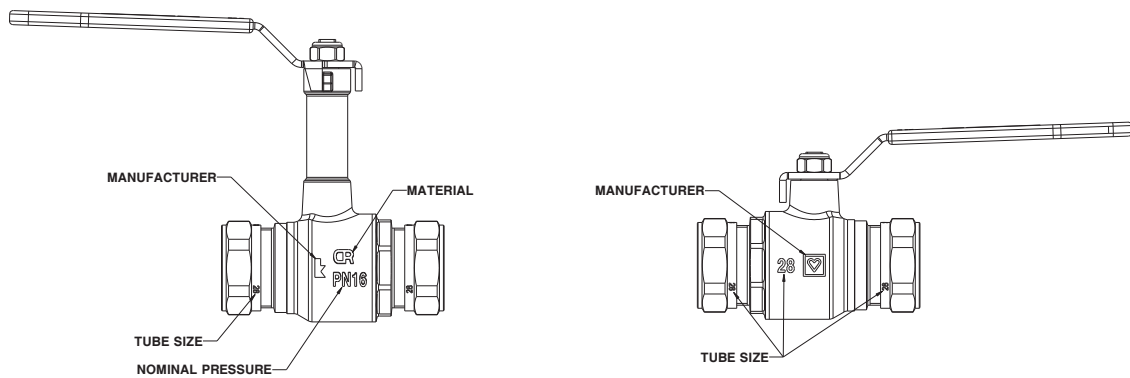
☑ Instruction for assembling and maintenance

Ensure that the tube has been cut straight and deburred properly leaving no sharp edges. Insert the tube firmly into the compression fitting, ensuring that the compression ring seats centrally and that the tube makes firm contact in the bottom of the valve housing.

Hand tighten the nut then, using a suitable spanner, further tighten a 3/4 turn (270°) for sizes 15mm to 42mm and one full turn for 54mm, ensuring the valve body is secured with a suitable tool. A light oil can be used on the threads to assist tightening. If sealant paste is required, use a suitable WRAS approved PTFE based compound.

☑ Additional informations

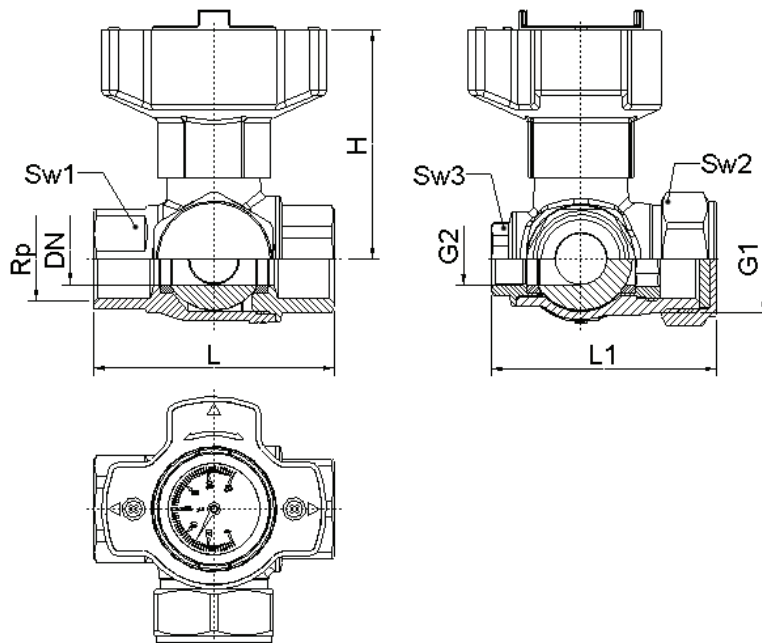
For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

☑ Labels on ball valves

HERZ - Multifunctional ball valve DZR

 Data sheet 1 **241X** OX

☑ Dimensions



Order Nr.	DN	Rp [in]	G1 [mm]	G2 [mm]	L [mm]	L1 [mm]	H [mm]	Sw1 [mm]	Sw2 [mm]	Sw3 [mm]	Colour	Weight [kg]
1 2414 02	20	3/4"	1"	3/8"	75	70	71	31	37	21	Red	0,62
1 2414 03	25	1"	1-1/4"	1/2"	96	98	78	41	46	26	Red	1,275
1 2414 04	32	1-1/4"	1/2"	1/2"	109	113	83	50	52	26	Red	1,712
1 2415 02	20	3/4"	1"	3/8"	75	70	71	31	37	21	Blue	0,62
1 2415 03	25	1"	1-1/4"	1/2"	96	98	78	41	46	26	Blue	1,275
1 2415 04	32	1-1/4"	1/2"	1/2"	109	113	83	50	52	26	Blue	1,712

☑ Material and construction

Body:	forged brass acc. to EN 12165, CW626N, DZR
Ball:	forged brass acc. to EN 12165, T-bore, hollow, hard chrome plated, CW626N, DZR
Spindle:	machined brass acc. to EN 12164, CW614N
Handles:	three-way handle with thermometer, red / blue, synthetic material PA66 GF30
Ball seals:	PTFE
Spindle seals:	PTFE, EPDM
Internal threaded connectors:	acc. to ISO228
Internal threaded connectors:	acc. to ISO7/1

☑ Operating data

Max. operating pressure:	PN 25 bar
Min. operating temperature:	-10°C (water 0,5 °C)
Min. short-term temperature load:	-30°C
Max. operating temperature:	110°C (water 110 °C - no steam)
Max. short-term temperature load:	150°C

Medium:

Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. Please note that EPDM gaskets will be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals in the valves that use EPDM seals. HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

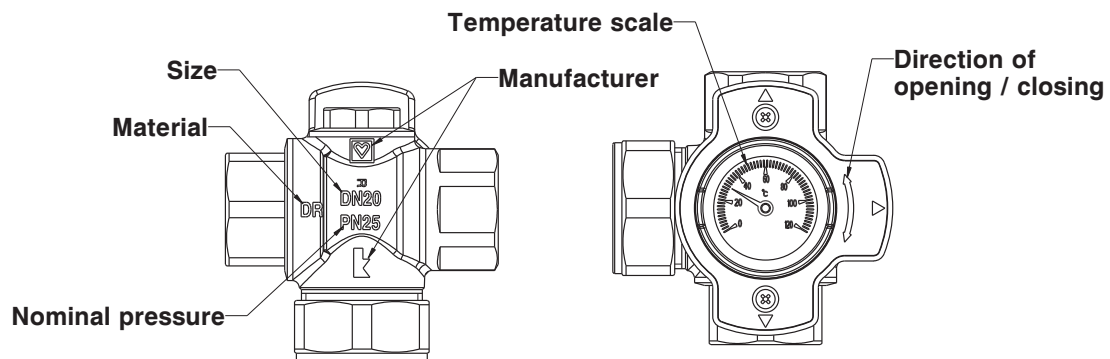
☑ Field of application

Multifunctional ball is used in installations as closing and filling-draining element. It can also be used for the indication of temperature of medium in the system. Because of its multifunctionality this valve can be used in plumbing, heating, cooling systems, industrial pipes and systems with potable water. Multifunctional ball valve is used in applications where the flow of the media has to be reliably shut off. Ball valve should not be used as regulating element so it has to be fully opened or fully closed (the handle should not be in intermediate position). Position of the T-ball is marked with the shape of handle. HERZ multifunctional ball valve DZR is made from CW626N; this material has DZR properties (dezincification resistant brass).

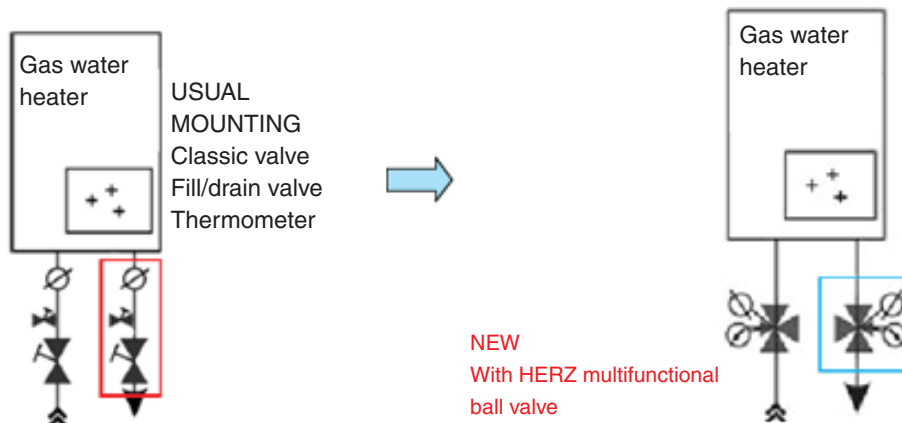
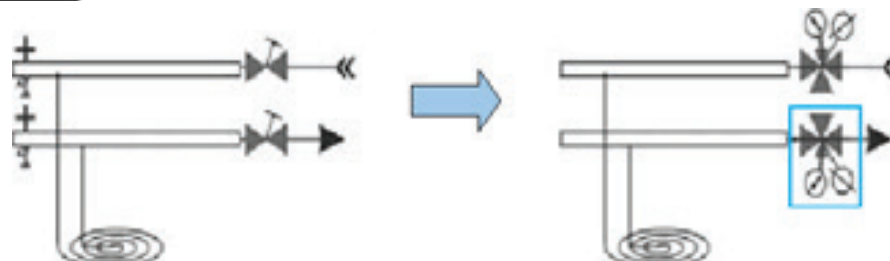
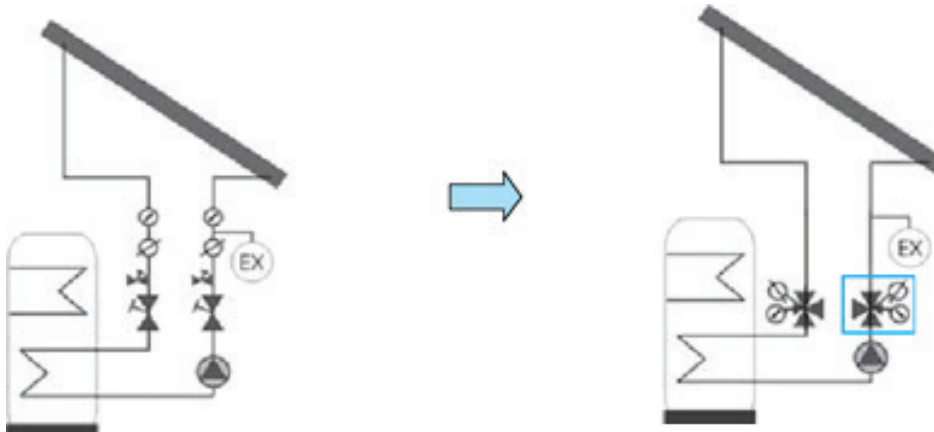
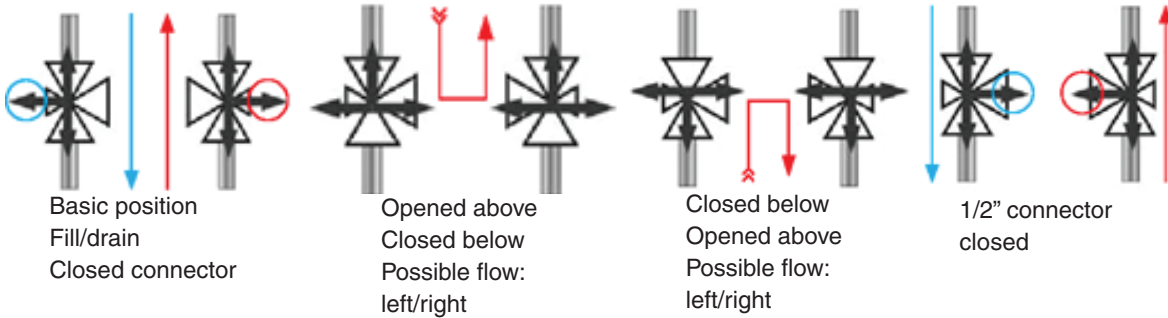
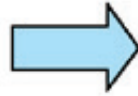
☑ Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

☑ Lables on ball valves



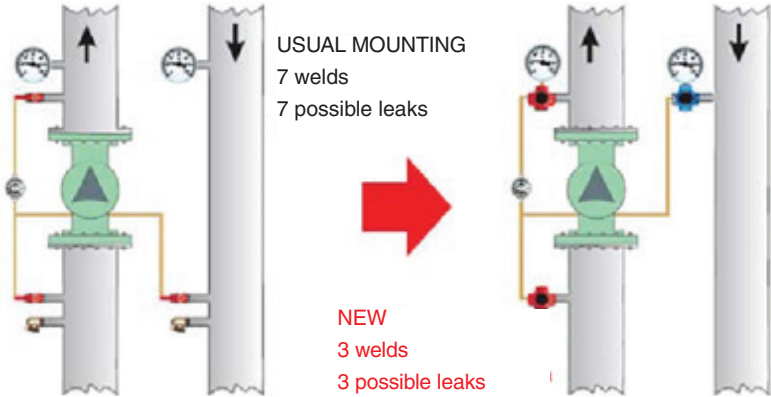
Field of application





USUAL MOUNTING: Classic ball valve and fill/drain valve

NEW: HERZ - multifunctional ball valve



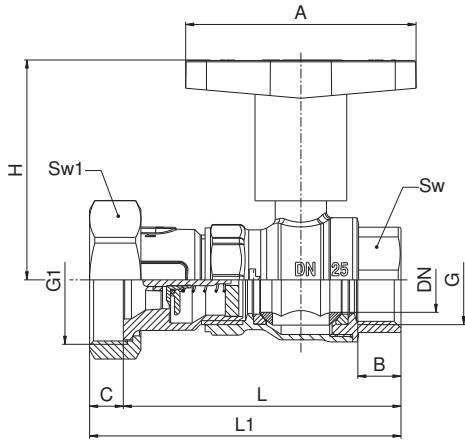
USUAL MOUNTING
7 welds
7 possible leaks

NEW
3 welds
3 possible leaks

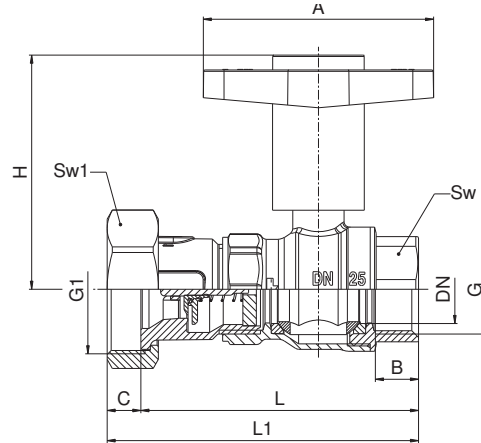
HERZ - ball valve for pump

Datasheet 1 22XX XX

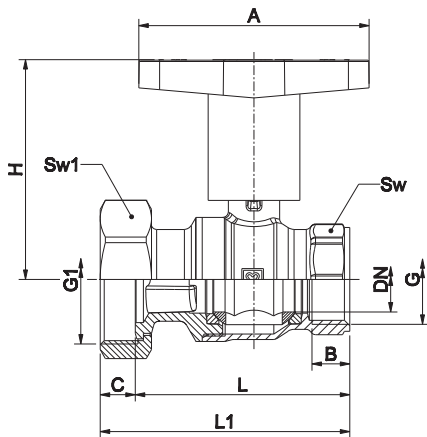
Dimensions



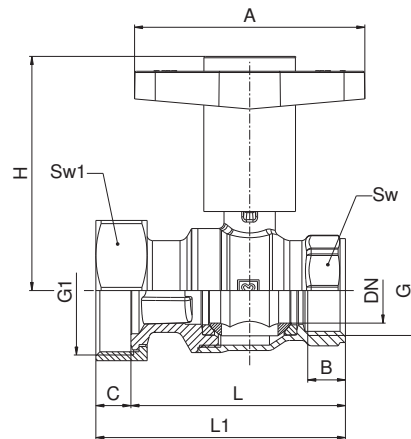
1 2229 03 (06)



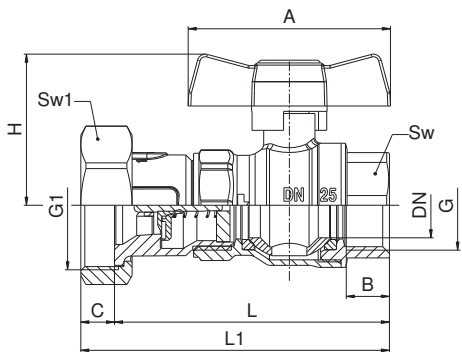
1 2229 13 (16)



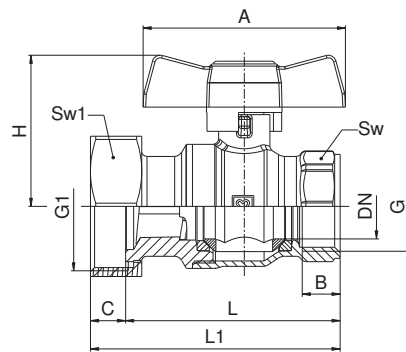
1 2229 23 (26)



1 2229 33 (36)



1 2268 03 (04)



1 2269 03 (04)

Model	DN	Handle cover	T	NV	G [in]	G1 [in]	L [mm]	L1 [mm]	A [mm]	B [mm]	C [mm]	H [mm]	Sw [mm]	Sw1 [mm]	Weight [kg]
1 2229 03	25	Red	No	Yes	1"	1-1/2"	103	115	85	16	12,5	81,5	39	52	0,74
1 2229 04	32	Red	No	Yes	1-1/4"	2"	118	131	85	18	13,5	86	48	65	1,09
1 2229 05	25	Blue	No	Yes	1"	1-1/2"	103	115	85	16	12,5	81,5	39	52	0,74
1 2229 06	32	Blue	No	Yes	1-1/4"	2"	118	131	85	18	13,5	86	48	65	1,09
1 2229 13	25	Red	Yes	Yes	1"	1-1/2"	103	115	85	16	12,5	86,8	39	52	0,78
1 2229 14	32	Red	Yes	Yes	1-1/4"	2"	118	131	85	18	13,5	91,8	48	65	1,13
1 2229 15	25	Blue	Yes	Yes	1"	1-1/2"	103	115	85	16	12,5	86,8	39	52	0,78
1 2229 16	32	Blue	Yes	Yes	1-1/4"	2"	118	131	85	18	13,5	91,8	48	65	1,13
1 2229 23	25	Red	No	No	1"	1-1/2"	79,5	92,5	85	14	13	81,5	39	52	0,59
1 2229 24	32	Red	No	No	1-1/4"	2"	89	102,5	85	16	13,5	86,8	48	65	0,89
1 2229 25	25	Blue	No	No	1"	1-1/2"	79,5	92,5	85	14	13	81,5	39	52	0,59
1 2229 26	32	Blue	No	No	1-1/4"	2"	89	102,5	85	16	13,5	86,8	48	65	0,89
1 2229 33	25	Red	Yes	No	1"	1-1/2"	79,5	92,5	85	14	13	86,8	39	52	0,63
1 2229 34	32	Red	Yes	No	1-1/4"	2"	89	102,5	85	16	13,5	91,8	48	65	0,93
1 2229 35	25	Blue	Yes	No	1"	1-1/2"	79,5	92,5	85	14	13	86,8	39	52	0,63
1 2229 36	32	Blue	Yes	No	1-1/4"	2"	89	102,5	85	16	13,5	91,8	48	65	0,93
1 2268 03	25	Red	No	Yes	1"	1-1/2"	102	114,5	75	16	12,5	56	39	52	0,76
1 2268 04	32	Red	No	Yes	1-1/4"	2"	116	129	75	18	13,5	62	48	65	1,27
1 2269 03	25	Red	No	No	1"	1-1/2"	79,5	92,5	75	14	13	56	39	52	0,59
1 2269 04	32	Red	No	No	1-1/4"	2"	89	102,5	75	16	13,5	62	48	65	1,07

T = Thermometer

NV = Non-return valve

☑ Material and construction

Body (1 2229 XX):	forged brass acc. to EN 12165, nickel plated, CW617N
Body (1 226X OX):	forged brass acc. to EN 12165, CW617N
Ball:	forged brass acc. to EN 12165, hollow, full bore, hard chrome plated, CW617N
Spindle:	turned brass acc. to EN 12164, CW614N
Handle :	T-handle, red, silumin T-handle, red / blue, synthetic material PA66 GF30 T-handle with thermometer, red / blue, synthetic material PA66 GF30
Spindle seals:	PTFE
Ball seals:	PTFE
Internal threaded connectors:	acc. to ISO 228

☑ Operating data

Max. operating pressure:	PN 16 bar
Min. operating temperature:	-30°C (water 0,5°C)
Max. operating temperature:	150°C (water 110°C-no steam)

Medium:

Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. HERZ ball valve for heating and chilled water is not suitable for usage of aggressive medium (such as: acids, alkalis, combustible and explosive gases..) because it can destroy sealing components.

☑ Field of application

HERZ pump ball valves are used as closing valves in central heating and other installations. Main advantage of pump ball valves are possibility of fast connection of circulating pump through screw joint in a pair with articles 1 226X XX and 1 2229 XX.

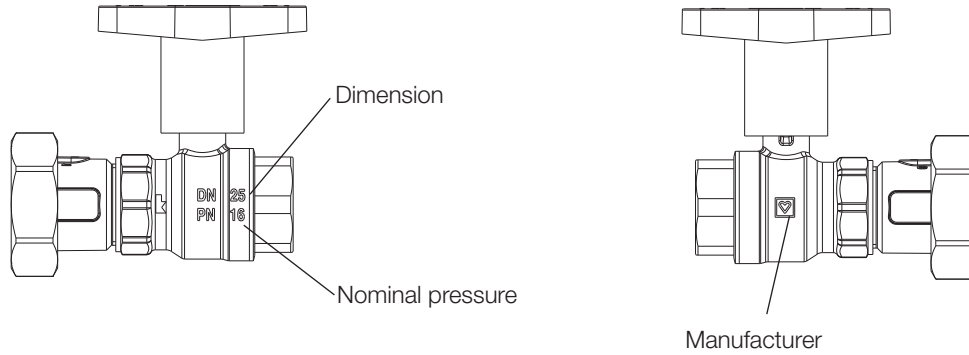
☑ Assembly instruction

Pump ball valve is mounted in front of the central heating circulating pump. The circulation pump is mounted with screw joint G1-1/2" and G2" that is attached to the valve flange. When assembling, use suitable assembly tool that adapts to valve end connections.

Additional informations

For further informations about the field of application, brass, function principle, assembly, maintenance and disposal instructions see chapter "General information" on page 2.

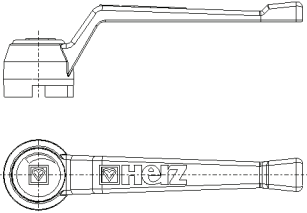
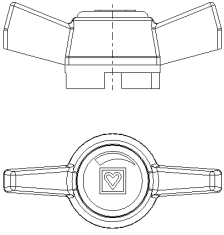
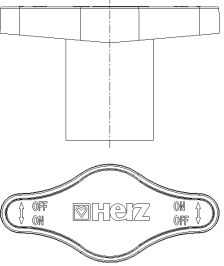
Labels on ball valve

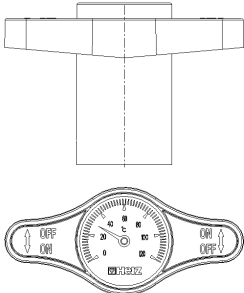
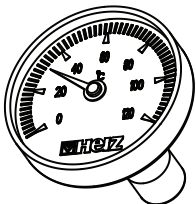


Please note: All specifications and information within this document are reflecting the information available at the time of going to print and meant for informational purpose only. Herz Armaturen reserves the right to modify and change products as well as its technical specifications and/or its function according to technological progress and requirements. All diagrams are indicative in nature and do not to be complete. It is understood that all images of Herz products are symbolic representations and therefore may visually differ from the actual product. Colours may differ due to printing technology used. In case of any further questions don't hesitate to contact your closest HERZ Branch-Office.

HERZ - ball valves for heating

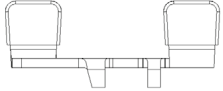
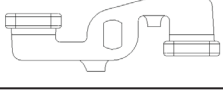
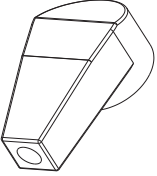
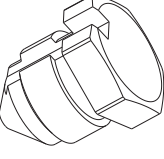
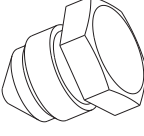
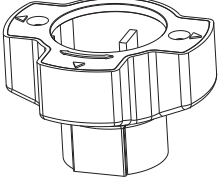
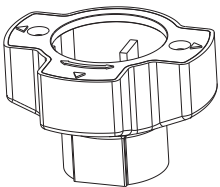


SPARE PARTS

Illustration	Description	Item number	Suitable with
	Lever handle RED L = 90 mm Silumin	1 6386 41	1 2201 01(02) 1 2211 01(02) 1 2228 01(02) 1 2206 01(02) 1 2216 01(02)
	Lever handle RED L = 135 mm Silumin	1 6386 42	1 2201 03(04) 1 2211 03(04) 1 2228 03(04) 1 2206 03(04) 1 2216 03(04)
	Lever handle RED L = 180 mm Silumin	1 6386 43	1 2201 05(06) 1 2211 05(06) 1 2228 05(06) 1 2206 05(06) 1 2216 05(06) 1 2228 05(06)
	T - handle RED L = 55 mm Silumin	1 6386 44	1 2201 11(12) 1 2211 11(12) 1 2228 01(02) 1 2206 11(12) 1 2216 11(12) 1 2268 03 (04) 1 2269 03 (04)
	T - handle RED L = 75 mm Silumin	1 6386 45	1 2201 13(14) 1 2211 13(14) 1 2228 03(04) 1 2206 13(14) 1 2216 13(14)
	T - handle RED L = 60 mm Synthetic material	1 6386 46	1 2201 41(42) 1 2206 41(42)
	T - handle BLUE L = 60 mm Synthetic material	1 6386 47	1 2201 51(52) 1 2206 51(52)
	T - handle RED L = 85 mm Synthetic material	1 6386 48	1 2201 43(44) 1 2206 43(44) 1 2229 03 (04) 1 2229 23 (24)
	T - handle BLUE L = 85 mm Synthetic material	1 6386 49	1 2201 53(54) 1 2206 53(54) 1 2229 05 (06) 1 2229 25 (26)
	T - handle RED L = 120 mm Synthetic material	1 6386 50	1 2201 45(46) 1 2206 45(46)
	T - handle BLUE L = 120 mm Synthetic material	1 6386 51	1 2201 55(56) 1 2206 55(56)

	T - handle RED L = 60 mm Synthetic material (thermometer not included)	1 6386 52	1 2201 61(62) 1 2206 61(62)
	T - handle BLUE L = 60 mm Synthetic material (thermometer not included)	1 6386 53	1 2201 71(72) 1 2206 71(72)
	T - handle RED L = 85 mm Synthetic material (thermometer not included)	1 6386 54	1 2201 63(64) 1 2206 63(64) 1 2229 13(14) 1 2229 33(34)
	T - handle BLUE L = 85 mm Synthetic material (thermometer not included)	1 6386 55	1 2201 73(74) 1 2206 73(74) 1 2229 15 (16) 1 2229 35 (36)
	T - handle RED L = 120 mm Synthetic material (thermometer not included)	1 6386 56	1 2201 65(66) 1 2206 65(66)
	T - handle BLUE L = 120 mm Synthetic material (thermometer not included)	1 6386 57	1 2201 75(76) 1 2206 75(76)
	Thermometer Scale 0 - 120°C	1 6386 58	1 2201 61(66) 1 2206 61(66) 1 2201 71(76) 1 2206 71 (76)

	<p>Lever handle RED L = 90 mm Sheet steel - plated</p>	<p>1 6386 59</p>	<p>1 2201 21(22) 1 2211 21(22) 1 2206 21(22) 1 2216 21(22)</p>
	<p>Lever handle RED L = 135 mm Sheet steel - plated</p>	<p>1 6386 60</p>	<p>1 2201 23(24) 1 2211 23(24) 1 2206 23(24) 1 2216 23(24)</p>
	<p>Lever handle RED L = 180 mm Sheet steel - plated</p>	<p>1 6386 61</p>	<p>1 2201 25(26) 1 2211 25(26) 1 2206 25(26) 1 2216 25(26)</p>
	<p>T - handle RED L = 60 Sheet steel - plated</p>	<p>1 6386 62</p>	<p>1 2201 31(32) 1 2211 31(32) 1 2206 31(32) 1 2216 31(32)</p>
	<p>T - handle RED L = 85 Sheet steel - plated</p>	<p>1 6386 63</p>	<p>1 2201 33(34) 1 2211 33(34) 1 2206 33(34) 1 2216 33(34)</p>
	<p>Lever handle RED L = 60 mm Silumin</p>	<p>1 6386 64</p>	<p>1 2100 09 (00) 1 2160 09 (00) 1 2180 09 (00)</p>
	<p>Lever handle RED L = 90 mm Silumin</p>	<p>1 6386 65</p>	<p>1 2100 01 (02) 1 2160 01 (02) 1 2180 01 (02) 1 2190 01 (02)</p>
	<p>Lever handle RED L = 135 mm Silumin</p>	<p>1 6386 66</p>	<p>1 2100 03 (04) 1 2160 03 (04) 1 2180 03 (04) 1 2190 03 (04)</p>
	<p>Lever handle RED L = 180 mm Silumin</p>	<p>1 6386 67</p>	<p>1 2180 05 (06) 1 2160 05 (06) 1 2180 05 (06) 1 2190 05 (06)</p>
	<p>Lever handle RED L = 265 mm Silumin</p>	<p>1 6386 68</p>	<p>1 2100 07 1 2100 08</p>

	T - handle RED L = 40 mm Silumin	1 6386 69	1 2100 19 (10) 1 2160 19 (10) 1 2180 19 (10)
	T - handle RED L = 55 mm Silumin	1 6386 70	1 2100 11 (12) 1 2160 11 (12) 1 2180 11 (12)
	T - handle RED L = 75 mm Silumin	1 6386 71	1 2100 13 (14) 1 2160 13 (14) 1 2180 13 (14) 1 2412 01
	Lever handle RED L = 70 mm Sheet steel - plated	1 6386 72	1 2402 01
	Lever handle RED L = 90 mm Sheet steel - plated	1 6386 73	1 2402 02 1 2190 21 (22) 1 2190 41 (42) 1 2190 61 (62)
	Lever handle RED L = 135 mm Sheet steel - plated	1 6386 74	1 2402 03 (04) 1 2190 23 (24) 1 2190 43 (44) 1 2190 63 (64)
	Lever handle RED L = 180 mm Sheet steel - plated	1 6386 75	1 2402 05 1 2190 25 (26) 1 2190 45 (46) 1 2190 65 (66)

	T - handle RED L = 60 Sheet steel - plated	1 6386 76	1 2402 (12)
	T - handle RED L = 85 Sheet steel - plated	1 6386 77	1 2402 13 (14)
	Drain lever Synthetic material	1 6386 78	1 2402 01 (05) 1 2402 11 (14)
	Vent valve G1/8" Brass	1 6386 79	1 2402 01 (05) 1 2402 11 (14)
	Drain plug G1/8" Brass	1 6386 80	1 2402 01 (05) 1 2402 11 (14)
	T - handle RED Synthetic material (thermometer not included)	1 6386 81	1 2414 02 (04)
	T - handle BLUE Synthetic material (thermometer not included)	1 6386 82	1 2415 02 (05)
	Thermometer RED Scale 0 - 120°C	1 6386 83	1 2414 02 (04)
	Thermometer BLUE Scale 0 - 120°C	1 6386 84	1 2415 02 (05)