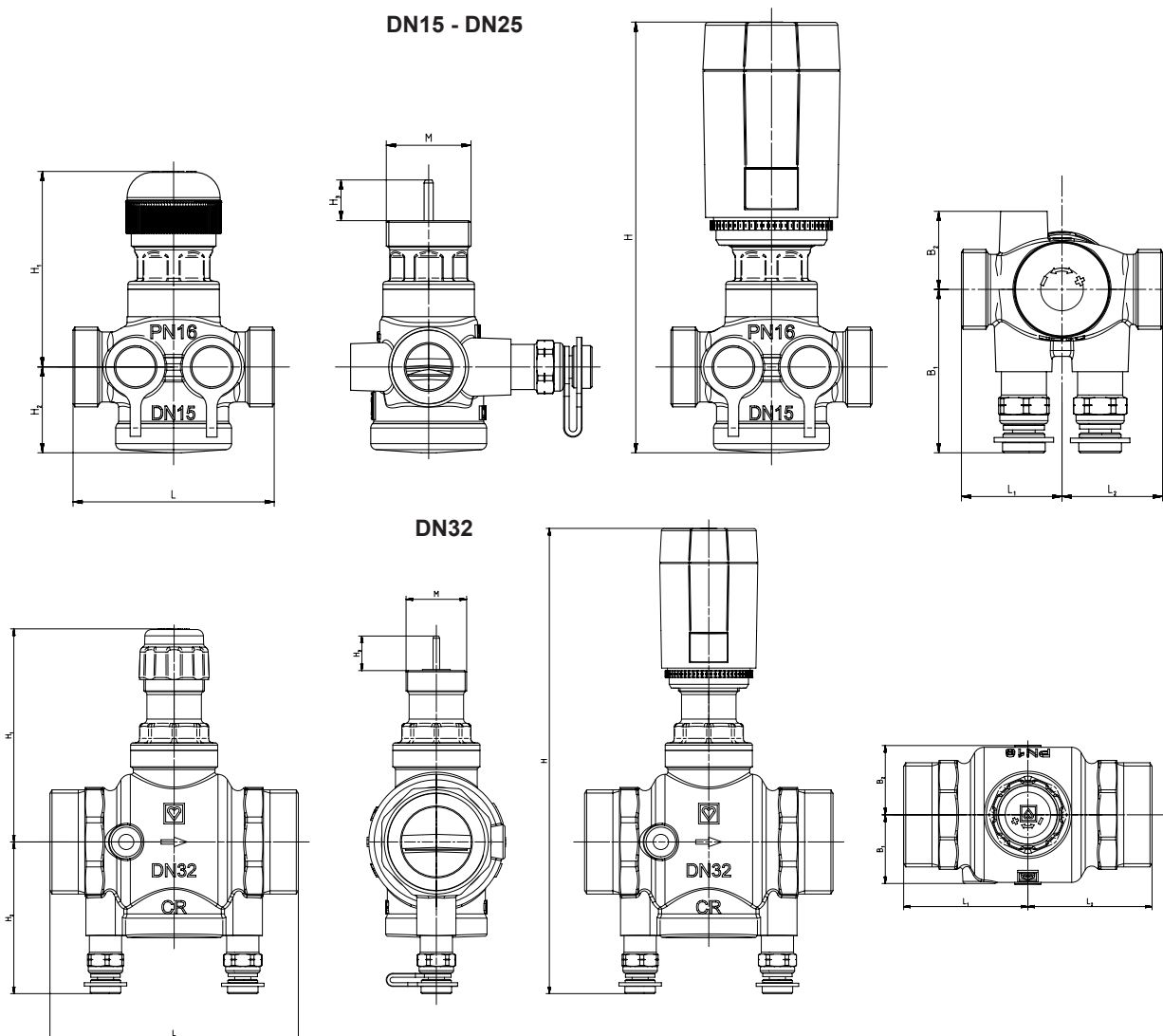


HERZ 2-port valve, pre-settable, pressure relieved

Data sheet for 1 4035 0X, Issue 0826

☑ Dimensions in mm



Order number	DN	Thread, inch		L [mm]	H ₁ [mm]	H ₂ [mm]	H ₃ [mm]	H [mm]	B ₁ [mm]	B ₂ [mm]	L ₁ [mm]	L ₂ [mm]	M [mm]
1 4035 01	15 SF	AG	G 3/4" flat sealing	66	64	28	13,35	141	54	26	33	33	M28x1,5
1 4035 11	15 HF	AG	G 3/4" flat sealing	66	64	28	13,35	141	54	26	33	33	
1 4035 18	15 SF	AG	G 3/4" conical sealing	66	64	28	13,35	141	54	26	33	33	
1 4035 19	15 HF	AG	G 3/4" conical sealing	66	64	28	13,35	141	54	26	33	33	
1 4035 02	20 SF	AG	G 1" flat sealing	76	65	29	13,35	142	56	28	38	38	
1 4035 12	20 HF	AG	G 1" flat sealing	76	65	29	13,35	142	56	28	38	38	
1 4035 04	32	AG	G 1 1/2" flat sealing	114	98	70	15,85	213,5	31,8	31,8	57	57	

☑ Technical Data

	DN15SF	DN15HF	DN20SF	DN20HF	DN25	DN32
k_{VS} - value	1.7	2.8	3.2	4.9	4.9	11.2
Valve characteristic	linear					
Stroke	4 mm					8 mm
Minimum preset	30 %					
Max. differential pressure at the housing	2 bar					
Operating pressure	max. 25 bar					
Min. operating temperature	2 °C (water); - 20 °C (non-freezing)					
Max. permissible operating temperature	130 °C					
Actuator connection	M 28 x 1,5					
Water quality	Water purity in accordance with the ÖNORM H 5195 and VDI 2035 standards Ethylene and propylene glycol can be mixed to a ratio of 25 - 50 vol.-%.					

☑ Material

Body	brass
Sealing material	EPDM
Valve seat	stainless steel
Valve cone	brass
Spindle	stainless steel

Ammonia contained in hemp can damage brass valve bodies, EPDM gaskets can be affected by Mineral oils, lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection.

Pursuant to Article 33 of the REACH Regulation (EC No. 1907/2006), we are obliged to point out that the material lead is listed on the SVHC list and that all brass components manufactured in our products exceed 0.1% (w/w) lead (CAS: 7439-92-1 / EINECS: 231-100-4). Since lead is a component part of an alloy, actual exposure is not expected and therefore no additional information on safe use is necessary.

☑ Application

HERZ pressure relieved 2-port valves are used for stepless flow control in heating and air-conditioning systems. The K_{vs} values of the valves can be adjusted via a preset function. This preset is based on stroke limitation. Actuators with valve position detection can therefore always utilize their full control range. They are designed for closed heating and cooling water circuits and provide reliable control characteristics under varying operating conditions. When combined with suitable actuators, they enable precise individual room or zone control.

☑ Installation instructions

The actuator can be mounted in any position, except in a suspended position. The ingress of condensate, dripping water, etc., into the actuator must be prevented. To retain impurities in the water (e.g., welding spatter, rust particles, etc.) and prevent damage to the spindle seal, the installation of HERZ dirt traps 4111 is recommended, e.g., one per floor or riser.

When insulating the HERZ pressure relieved 2-port valve, insulation should only be applied up to the height of the actuator's union nut.

☑ Entsorgung

The disposal of HERZ pressure relieved 2-port valves must not endanger the health or the environment. National legal regulations for proper disposal of the HERZ pressure relieved 2-port valves have to be followed.

☑ Presetting

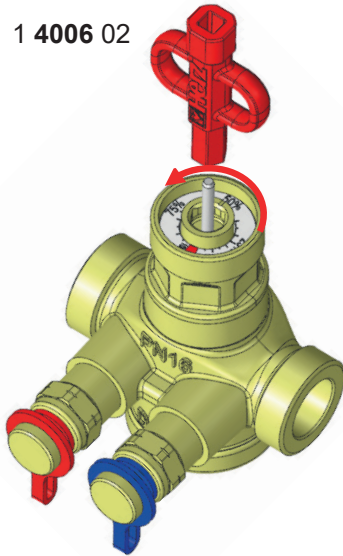
The respective setting of the control unit is clearly shown. The 2-port valve is preset with the HERZ setting key (1 4006 02). The required k_v value can be set using the tables and diagrams below on the scale. To shut off, turn to the right to <0 (red area).

DN15 - DN25

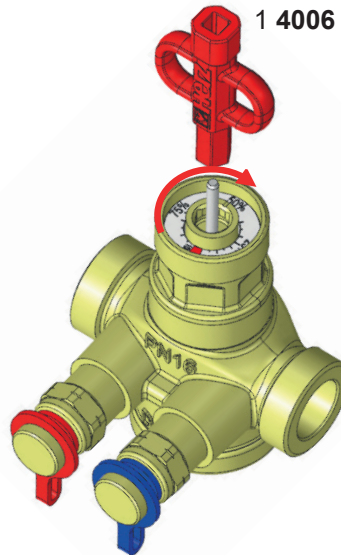
open = anticlockwise

close = clockwise

1 4006 02



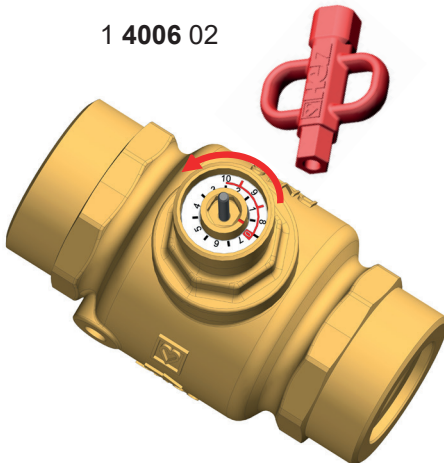
1 4006 02

**DN32**

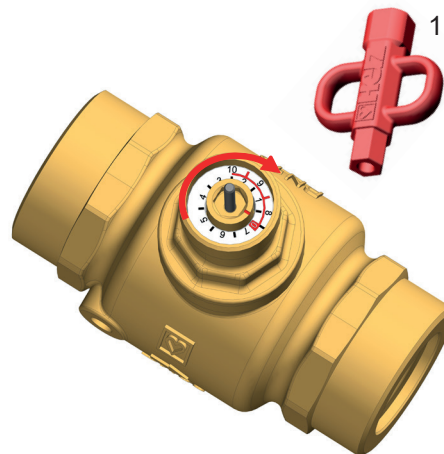
open = anticlockwise

close = clockwise

1 4006 02



1 4006 02



☒ kv values and the stroke of the 2-port valve DN15-DN25

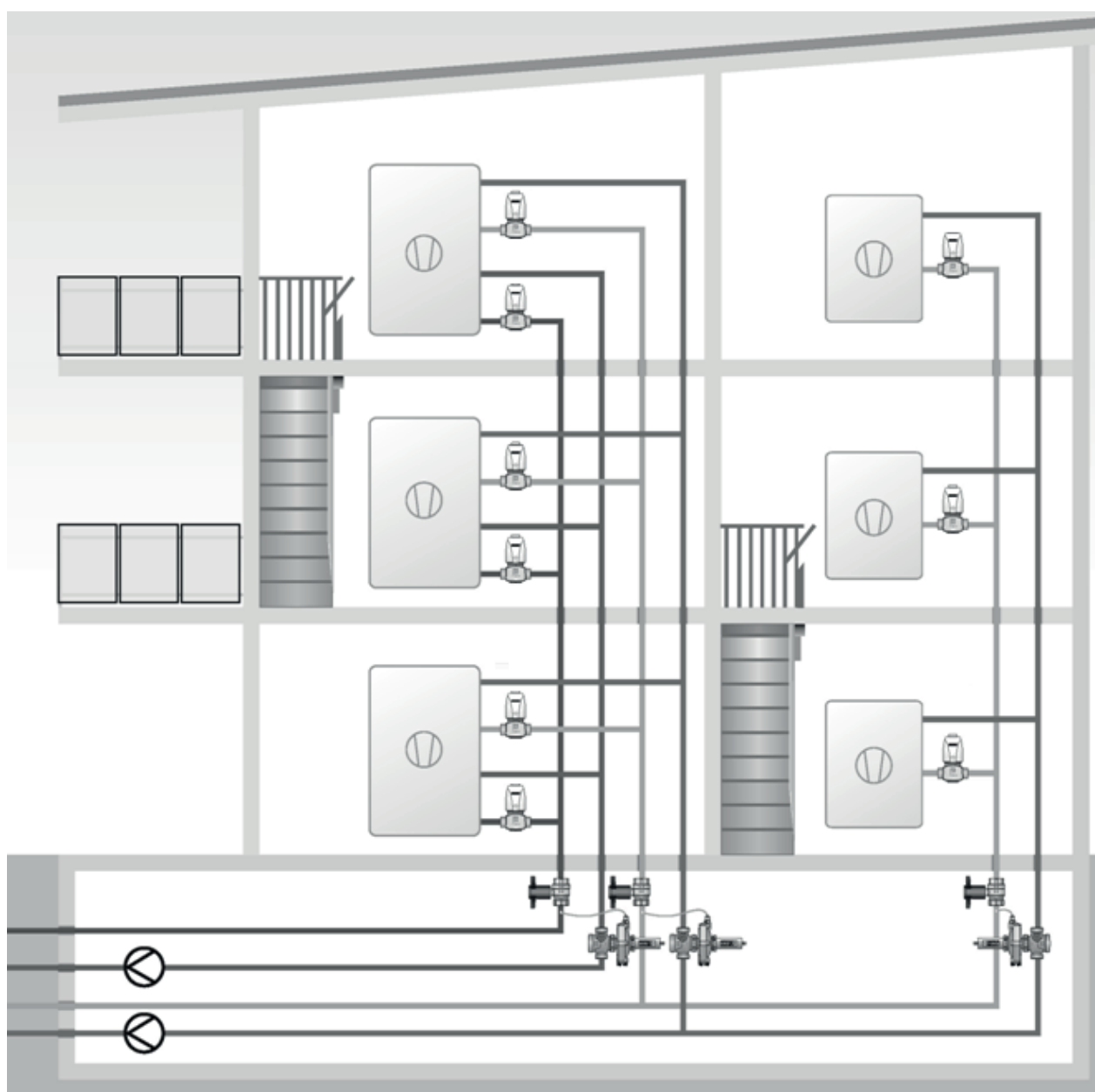
Setting, %	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Stroke, mm	0,4	0,6	0,8	1,0	1,2	1,4	1,6	1,8	2	2,2	2,4	2,6	2,8	3	3,2	3,4	3,6	3,8	4
DN 15 SF	0,33	0,37	0,41	0,47	0,52	0,59	0,67	0,74	0,82	0,88	0,95	1,02	1,08	1,18	1,28	1,40	1,51	1,58	1,65
DN 15 HF	0,55	0,62	0,68	0,80	0,93	1,09	1,26	1,41	1,57	1,70	1,83	1,99	2,15	2,28	2,40	2,53	2,65	2,74	2,82
DN 20 SF	0,55	0,62	0,68	0,82	0,95	1,15	1,34	1,50	1,66	1,83	2,00	2,17	2,34	2,50	2,66	2,82	2,98	3,10	3,21
DN 20 HF	0,98	1,27	1,56	1,76	1,96	2,17	2,37	2,60	2,82	3,09	3,36	3,63	3,90	4,14	4,39	4,57	4,75	4,85	4,94
DN 25	0,98	1,27	1,56	1,76	1,96	2,17	2,37	2,60	2,82	3,09	3,36	3,63	3,90	4,14	4,39	4,57	4,75	4,85	4,94

☒ kv values and the stroke of the 2-port valve DN32

Setting	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Stroke, mm	0,8	1,2	1,6	2	2,4	2,8	3,2	3,6	4	4,4	4,8	5,2	5,6	6	6,4	6,8	7,2	7,6	8
DN 32	1,15	1,51	1,88	2,43	2,99	3,67	4,35	5,05	5,75	6,40	7,06	7,67	8,29	8,85	9,41	9,88	10,36	10,76	11,15

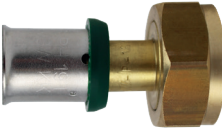
 Application example

HERZ pressure relieved 2-port valves are suitable as regulating valves in heating and air conditioning systems.

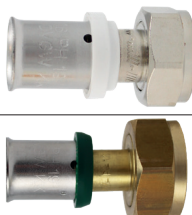


Connecting elements

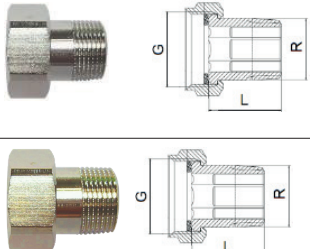
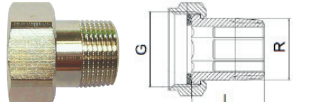
T 70XX Junction press fitting screw connection for composite pipes PE-RT for valve with male thread, flat-sealing

	Order number	Valve dimension	G	Pipe
	T 7016 41	DN 15	G 3/4"	16 x 2
	T 7020 41	DN 15	G 3/4"	20 x 2
	T 7016 42	DN 20	G 1"	16 x 2
	T 7020 42	DN 20	G 1"	20 x 2
	T 7026 42	DN 20	G 1"	26 x 3
	T 7026 43	DN 25	G 1 1/4"	26 x 3
	T 7032 43	DN 25	G 1 1/4"	32 x 3
	T 7040 43	DN 25	G 1 1/4"	40 x 3,5
	T 7040 45	DN 40	G 2"	40 x 3,5
	T 7050 45	DN 40	G 2"	50 x 4

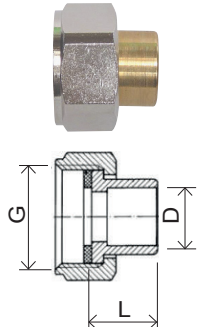
X 70XX Press fittings crew connection for composite pipes PE-RT for valve with male thread, konusdichtend

	Order number	Valve dimension	G	Pipe
	P 7016 82	DN 15	G 3/4"	16 x 2
	P 7020 82	DN 15	G 3/4"	20 x 2
	T 7016 81	DN 15	G 3/4"	16 x 2
	T 7020 81	DN 15	G 3/4"	20 x 2

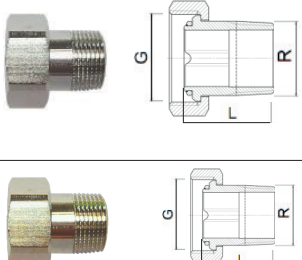
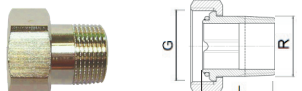
6220 Iron pipe connection flat seal with nut and seal

	Order number	Valve dimension	G	R	L, mm
	1 6220 21	DN 15	G 3/4"	R 1/2"	26,3
	1 6220 12	DN 20	G 1"	R 3/4"	31,4
	1 6220 63	DN 25	G 1 1/4"	R 1"	35,3
	1 6220 65	DN 32	G 1 3/4"	R 1 1/2"	49
	1 6220 94	DN32	G 1 3/4"	R 1 1/4"	37,7
	1 6220 95	DN40	G 2"	R 1 1/2"	49
	1 6220 96	DN50	G 2 1/2"	R 2"	56

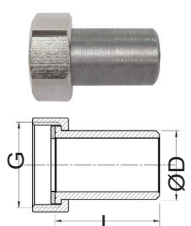
6236 Solder connection

	Order number	Valve dimension	G	Ø D, mm	L, mm
	1 6236 01	DN 15	G 3/4"	Ø 12	14
	1 6236 11	DN 15	G 3/4"	Ø 15	17
	1 6236 21	DN 15	G 3/4"	Ø 18	19
	1 6236 02	DN 20	G 1"	Ø 15	18
	1 6236 12	DN 20	G 1"	Ø 18	19
	1 6236 22	DN 20	G 1"	Ø 22	23
	1 6236 63	DN 25	G 1 1/4"	Ø 28	24
	1 6236 65	DN 32	G 1 3/4"	Ø 42	31
	1 6240 74	DN 40	G 2"	Ø 35	27

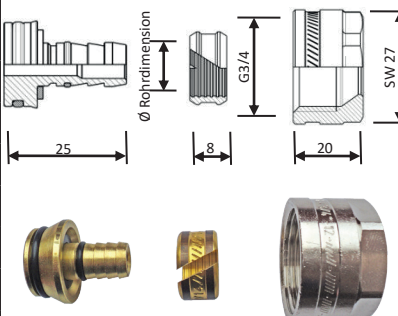
6210 Screw connections with cone

	Order number	Ventil Dimension	G	R	L, mm
	1 6210 21	DN 15	G 3/4"	R 1/2"	30
	1 6210 26	DN 15	G 3/4"	R 1/2"	26
	1 6210 11	DN 15	G 3/4"	R 1/2"	35
	1 6221 41	DN 15	G 3/4"	R 1/2"	30,4

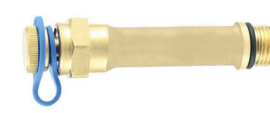
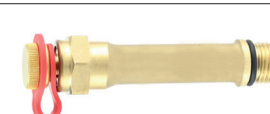
6240 Welding connection flat seal

	Order number	Valve dimension	G	Ø D, mm	L, mm
	1 6240 01	DN 15	G 3/4"	Ø 21,3	45
	1 6240 02	DN 20	G 1"	Ø 26,8	45
	1 6240 63	DN 25	G 1 1/4"	Ø 33,7	51
	1 6240 65	DN 32	G 1 3/4"	Ø 47,5	57

6098 Plastic pipe connections for PE-RT, PE-X, PB and aluminum composite pipes

	Order number	Valve dimension	G	Pipe
	1 6098 18	DN 15 (1 4035 18, 1 4035 19)	G 3/4"	10x1,3
	1 6098 02			14x2
	1 6098 16			15x2,5
	1 6098 03			16x2
	1 6098 13			16x2,25
	1 6098 04			17x2
	1 6098 05			17x2,5
	1 6098 07			18x2
	1 6098 06			18x2,5
	1 6098 17			18x3
	1 6098 08			20x2
	1 6098 20			20x2,25
	1 6098 10			20x3,5
	1 6098 11			20x2,5
	1 6098 09			20x2,8
	1 6098 19			20x3,4

☒ Accessories and spare parts

Order number	Dim.	Description	Model
1 0284 01	1/4"	Quick test point for HERZ pressure relieved 2-port valves, brass version, blue cap (return) for pressure transducer	
1 0284 02	1/4"	Quick test point for HERZ pressure relieved 2-port valves, brass version, blue cap (return) for pressure transducer	
1 0284 11	1/4"	Quick test point for HERZ pressure relieved 2-port valves, brass version, blue cap (return) for pressure transducer, extended design for valves with an insulation thickness up to 40 mm.	
1 0284 12	1/4"	Quick test point for HERZ pressure relieved 2-port valves, brass version, red cap (supply) for pressure transducer, extended design for valves with an insulation thickness up to 40 mm.	
1 4006 02		Pre-setting key HERZ Combi valve pressure-independent control valve for HERZ pressure relieved 2-port valves	

Accessories

Order number	Description	Image
1 7990 32	HERZ actuating drive for continuous control, NC M 28 x 1.5, 0..10 V, 6.5 mm stroke - for DN 32 to DN 40 valves, note the reduced flow rate at a 6.5 mm stroke. Adapter M 28 x 1.5 colour blue integrated, male connector, cable loose, without limit switch. Closing force 125 N, 1.2 watt with valve stroke detection. Operating voltage 24 V / AC, NC. Control signal 0 ... 10 V / DC.	
1 7990 31	HERZ actuating drive for continuous control, NC M 28 x 1.5, 0..10 V, 5 mm stroke - for DN 32 to DN 40 valves, note the reduced flow rate at a 5 mm stroke. Adapter M 28 x 1.5 colour blue integrated, male connector, cable loose, without limit switch. Closing force 100 N, 1.2 watt, Operating voltage 24 V / AC, NC. Control signal 0 ... 10 V / DC.	
1 7708 53	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves, NC, 230 V/AC, M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 5 mm stroke - for DN 32 to DN 40 valves, note the reduced flow rate at a 5 mm stroke. adapter M 28 x 1.5 colour red integrated, cable fixed, without limit switch. Closing force 100 N. Power consumption 1 watt.	
1 7708 52	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves, NC, 24 V / AC / DC, M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 5 mm stroke - for DN 32 to DN 40 valves, note the reduced flow rate at a 5 mm stroke. adapter M 28 x 1.5 colour red integrated, cable fixed, without limit switch. Closing force 100 N. Power consumption 1 watt.	
1 7708 27	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves, NC, 230 V/AC, M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 6.5 mm stroke - for DN 32 to DN 40 valves, note the reduced flow rate at a 6.5 mm stroke. Adapter M 28 x 1.5 colour blue integrated, cable fixed, without limit switch. Closing force 125 N. Power consumption 1.2 watt.	
1 7708 48	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves, NC, 24 V/AC/DC, M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 6.5 mm stroke - for DN 32 to DN 40 valves, note the reduced flow rate at a 6.5 mm stroke. Adapter M 28 x 1.5 colour blue integrated, cable fixed, without limit switch. Closing force 125 N. Power consumption 1.2 watt.	
1 7708 40	HERZ geared motor 3-point, 24V/AC/DC Adapter M 28 x 1.5 colour red integrated, 24 V, stroke distance max. 8.5 mm, max. actuation force 200 N.	
1 7708 41	HERZ geared motor 3-point, 230V/AC Adapter M 28 x 1.5 colour red integrated, 230 V, stroke distance max. 8.5 mm, max. actuation force 200 N.	
1 7708 42	HERZ geared motor DDC 0–10 V Adapter M 28 x 1.5 colour red integrated, 24 V, stroke distance max. 8.5 mm, max. actuation force 200 N. Operating voltage 24 V / AC / DC.	
1 7708 46	HERZ geared motor DDC 0–10 V Adapter M 28 x 1.5 colour red integrated, 24 V, stroke distance max. 8.5 mm, max. actuation force 200 N. With valve port detection and feedback channel. Operating voltage 24 V / AC / DC.	
1 7708 47	HERZ geared motor DDC 0–10 V failsafe Adapter M 28 x 1.5 colour red integrated, 24 V, stroke distance max. 8.5 mm, max. actuation force 200 N. With failsafe function, closes in case of power failure. With valve port detection and feedback channel.	

Hinweis: Alle Schemata haben symbolischen Charakter und erheben keinen Anspruch auf Vollständigkeit. Sämtliche in diesem Dokument enthaltenen Angaben entsprechen den zum Zeitpunkt der Drucklegung vorliegenden Informationen und dienen nur zur Information. Änderungen im Sinne des technischen Fortschrittes sind vorbehalten. Die Abbildungen verstehen sich als Symboldarstellungen und können somit optisch von den tatsächlichen Produkten abweichen. Mögliche Farbabweichungen sind drucktechnisch bedingt. Länderspezifische Produktabweichungen sind möglich. Änderungen von technischen Spezifikationen und der Funktion vorbehalten. Bei Fragen kontaktieren Sie bitte die nächstgelegene HERZ- Niederlassung.

