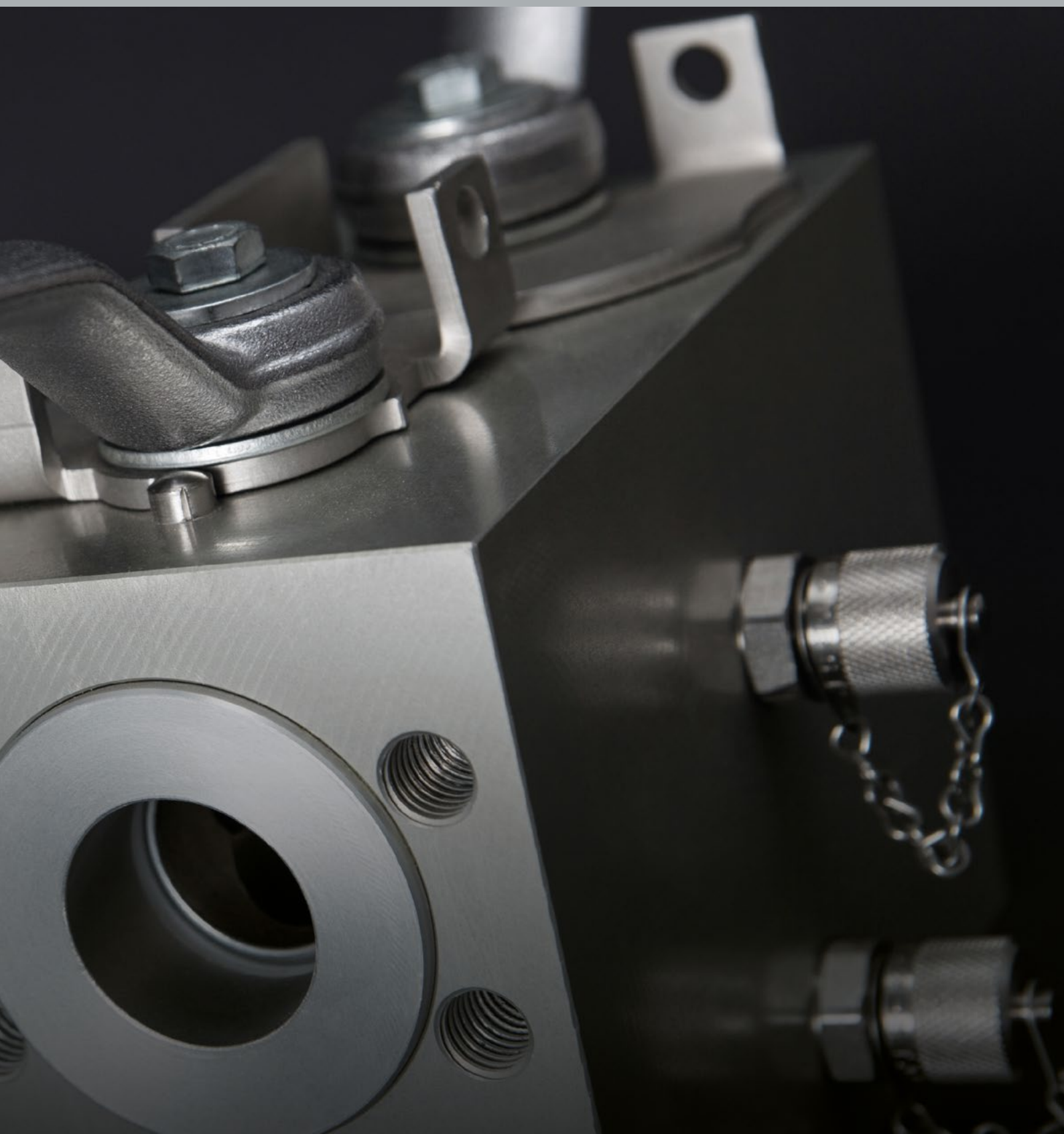




RÖTELMANN

Shut-off and control technology

A line of **ball valves and ideas**



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Appli- cations

Overview

Mobile hydraulics

Maritime industry

Defense industry

Hydrogen

Fire protection

Offshore

Energy

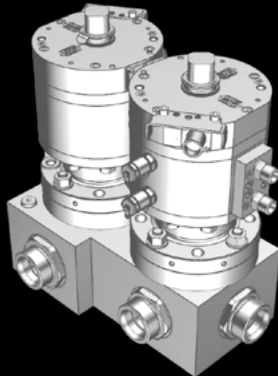
Process industry

Food, pharmaceutical, chemical industry

Mining

Rail sector

Rötelmann has developed standard ball valves, which can be used for broad range of needs, but also is known for developing valves and technology for special applications for more than fifty years. This can be a standard valve with only different seals up to just a problem, which we can solve for the customer. Here are only some examples of industries where we supply the solution. Just ask!



Defense industry

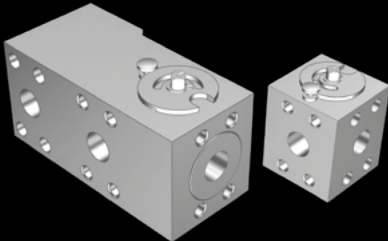
In defense equipment, many ball valves are needed for different purposes. As nearly all of them are specially designed as the application is extremely specific, Rötelmann is a respected partner for developing the perfect ball valve for critical demands. Also the experience with testing, certifications, approvals and reliability makes Rötelmann a often chosen partner for enterprises in this field.





Mobile hydraulics

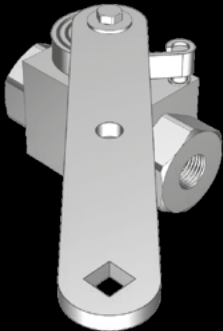
Rötelmann has developed many solutions for tasks in mobile applications. Not only excavators, but also hydraulic cranes, bulldozers, flat bed trailers, municipal vehicles and many others rely on Rötelmann products in their daily work. Quick operation to change tools is one of many possible ways to improve the workflow. In pushback trucks on airports, absolute tightness is a number one priority for the safety of passengers.

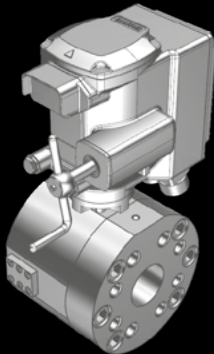




Hydrogen

Hydrogen is the first element in the periodic table and the first choice for the fuel of the future, the exhaust fume of burning hydrogen is steam. The production, transportation and handling of hydrogen requires not just simple ball valves but the entire technology around the valve. So Rötelmann is the preferred partner for companies that need superior technology for the future of energy.

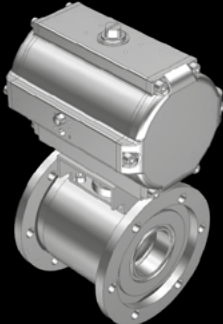




Maritime industry

There is a vast field of possibilities with Rötelmann valves on all kinds of ships. Whether for fuel filling systems, for hydraulic handling systems and gangways, controlling steering gears, cleaning systems on cruise ships or any other challenge that you can think of, Rötelmann offers the solution at hand. In maritime industry reliability, longevity and environmental safety play a crucial role when selecting the right ball valve for the actual challenge.

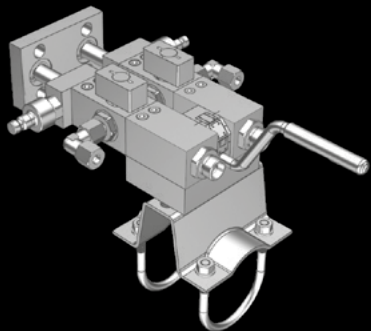




Fire protection

Modern fire extinguishing systems rely on gas, water is a cheaper solution, but destroys too much during the extinguishing process. As time is crucial, these systems lower the oxygen to a level that the fire is stopped, but human beings survive. The life and safety of humans are the most important things in any work place or institution, so also here Rötelmann valves are the best choice.

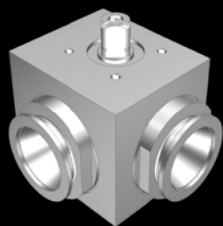




Offshore

It is obvious that safety and reliability in oil and gas exploration is of vital importance for humanity. So using Rötelmann valves for monitoring parameters in gas flow, for ensuring the fast reaction of blow out preventers, for hydraulic handling, for corrosion resistant valves that sometimes last for decades and many more tasks is the right decision for enterprises that want to save money on the long run.





Food, pharmaceutical, chemical industry

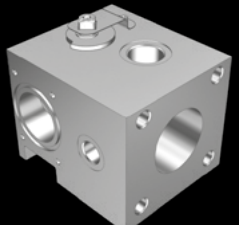
In food processing ball valves are used for many tasks, like handling, cleaning, testing and others. Avoiding pollution is decisive for the choice of ball valves. In pharmaceutical as well as in chemical industry the ability of designing the right ball valve with the appropriate sealing technology makes Rötelmann a reliable partner for these industries. In the chemical industry the right ball valve in the right place can save lives and protect the environment.





Energy

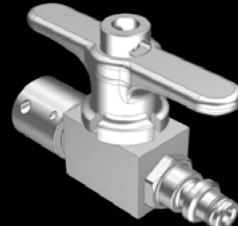
There are many ways of producing energy for the industry, all of them need safe, reliable and affordable ball valves and systems. Rötelmann has developed special ball valves for the maintenance, lubrication and cooling systems in wind turbines. Also with hydrogen used in fuel cells, may it be gaseous or liquid, Rötelmann is the preferred partner of high tech companies. Also for controlling gas turbines, Rötelmann has developed very individual solutions.

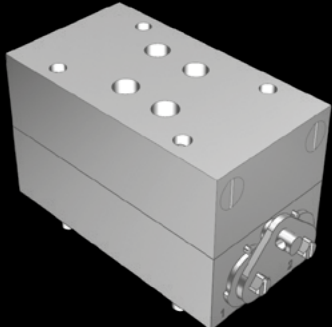




Mining

Rötelmann started to make ball valves for the mining industry already in the sixties of the last century. The experience is still today important and helps to improve the technology even today. To ensure safety and being competitive is not a contradiction. Without hydraulics and permanent progress, an effective mining would not be possible.

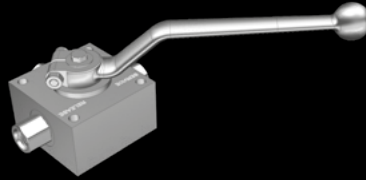




Process industry

In process industry, ball valves are used as well as in hydraulics but have very different demands. They are used for monitoring different parameters, as emergency shut-off elements, combining and separating different process lines as well as saving money because measurement instruments can be used in different locations. Here reliability, but also certifications and approvals are of vital importance.





Rail sector

In this sector intelligent solutions are important, saving weight in the train helps to transport more weight or passengers. Aluminum is the material of choice in this area. As Rötelmann has a vast experience and the right machines for developing and manufacturing many different materials, Rötelmann is here the right partner. Also in other industries we have a well kept and improved experience. A program with ball valves and ideas!



You will receive several certificates for our products.
Here is a small selection of the documentation we can supply.

500491

Inspection certificate 2.1 according to EN 10204
Certificate of compliance with the order

Rötelmann certified, that the delivered products comply with the demands of the order.

500492

Inspection certificate 2.2 according to EN 10204
Test report

Rötelmann certified, that the delivered products comply with the demands of the order.
The results of an unspecified test are also included.

500493

Inspection certificate 3.1

Inspection certificate 3.1 according to EN 10204 includes strength and tightness test.
This certificate is also created according to individual customer requirements.

500495

Inspection certificate 3.2

Inspection certificate 3.2 according to EN 10204 includes strength and tightness test together with a certified body.
This certificate is also created according to individual customer requirements including determination of which technical inspection agency accompanies these tests.

500500

Declaration of manufacturer

Rötelmann declares that certain accessories are not allowed to be affixed with a CE-sign, but are designed and manufactured in accordance with sound engineering practice.

500501

Declaration of conformity

Rötelmann declares that a certain pressure accessory is compliant to Directive 2014/68/EU.

500505

Type approval certificate

Issued to Rötelmann GmbH is found to comply with

- DNV rules for classification - Ships Pt.4 Ch.6 Piping systems
- DNV class programme DNV-CP-0186 - Type approval - Valves
- DNV -OS-D101 - Marine and machinery systems and equipment, Edition January 2018

Valves approved by this certificate are accepted for installation on all vessels classed by DNV.
Inspection certification DNV according to DNV-CP-0186 includes strength and tightness test.

500509

Initial sample inspection

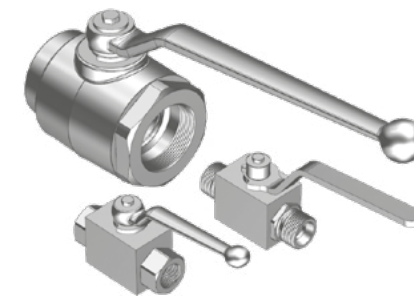
Initial sample inspection is according to individual customer requirements.

If required, please add the desired article number to your inquiry or order.
Would you like more information? Do you have questions about our documentation? **Please contact us.**

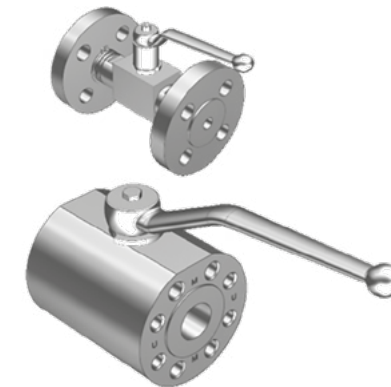
2-way ball valves

Product overview

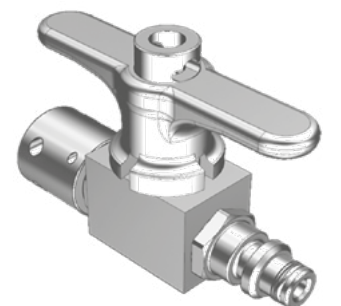
with threaded connector



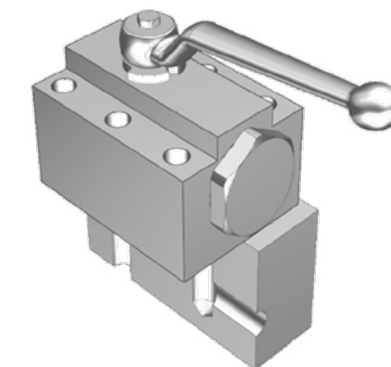
with flange connection



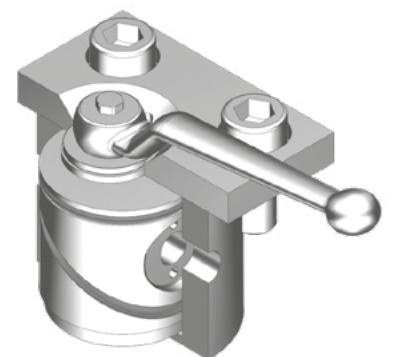
with staple-lock connector



for manifold mounting

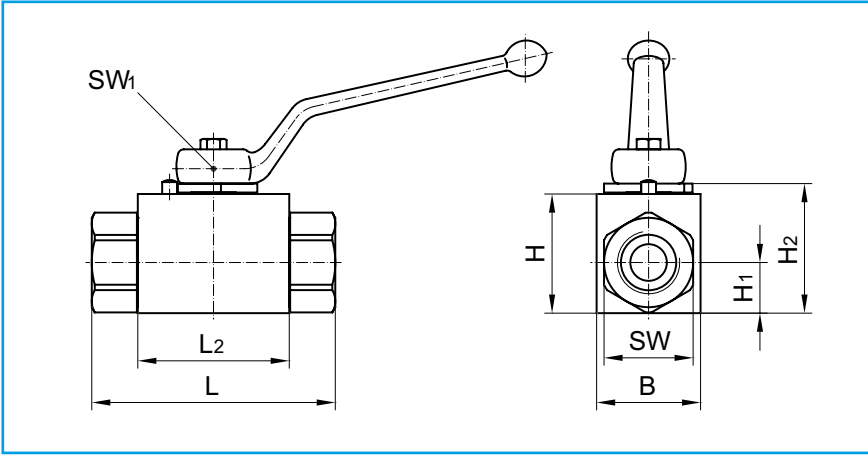


for manifold insertion
as cartridge type



2-way ball valves with threaded connector

Steel · DN 4 - DN 40/25



Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, black oxide	steel, zinc nickel plated	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	NBR	FKM	FKM
Handle:	zinc, die cast	zinc, die cast	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L ₁	L ₂	B	H	H ₁	H ₂	SW	SW ₁	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	67	10	36	20	25	10.0	27.5	19	7	12	0.2
	6	M 14 x 1.5	8	67	10	36	20	25	10.0	27.5	19	7	12	0.2
	8	M 16 x 1.5	10	75	11	45	30	35	14.5	38.5	24	8	13	0.4
	10	M 18 x 1.5	12	75	11	45	30	35	14.5	38.5	24	8	13	0.4
	12	M 22 x 1.5	15	83	12	51	35	40	17.0	43.5	30	10	14	0.6
	16	M 26 x 1.5	18	82	12	50	45	45	20.0	48.5	36	10	14	0.9
	20	M 30 x 2	22	99	14	60	45	55	24.0	59.0	41	14	15	1.2
	25	M 36 x 2	28	108	14	70	55	60	26.0	64.0	50	14	15	1.8
	32/25	M 45 x 2	35	116	16	70	55	60	26.0	64.0	50	14	15	1.9
	40/25	M 52 x 2	42	121	16	70	55	60	26.0	64.0	55	14	15	2.1

For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	M 16 x 1.5	8	73	12	36	20	25	10.0	27.5	19	7	12	0.2
	6	M 18 x 1.5	10	73	12	36	20	25	10.0	27.5	19	7	12	0.2
	8	M 20 x 1.5	12	77	12	45	30	35	14.5	38.5	24	8	13	0.4
	10	M 22 x 1.5	14	81	14	45	30	35	14.5	38.5	24	8	13	0.4
	12	M 24 x 1.5	16	87	14	51	35	40	17.0	43.5	30	10	14	0.7
	16	M 30 x 2	20	90	16	50	45	45	20.0	48.5	36	10	14	0.9
	20	M 36 x 2	25	107	18	60	45	55	24.0	59.0	41	14	15	1.3
	25	M 42 x 2	30	120	20	70	55	60	26.0	64.0	50	14	15	1.9
	32/25	M 52 x 2	38	134	22	70	55	60	26.0	64.0	55	14	15	2.2

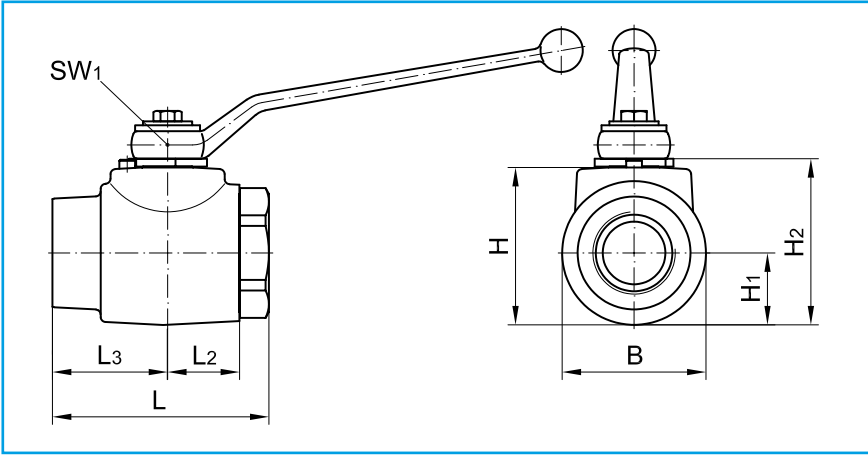
BSP-female thread DIN EN ISO 228-1	4	G 1/8	-	71	12	36	20	25	10.0	27.5	19	7	12	0.2
	6	G 1/4	-	71	12	36	20	25	10.0	27.5	19	7	12	0.2
	10	G 3/8	-	73	14	45	30	35	14.5	38.5	24	8	13	0.4
	12	G 1/2	-	82	15	51	35	40	17.0	43.5	30	10	14	0.7
	16	G 5/8	-	88	18	50	45	45	20.0	48.5	36	10	14	1.0
	20	G 3/4	-	93	18	60	45	55	24.0	59.0	41	14	15	1.3
	25	G 1	-	115	18	70	55	60	26.0	64.0	50	14	15	2.0
	32/25	G 1 1/4	-	134	20	70	55	60	26.0	64.0	50	14	15	2.1
	40/25	G 1 1/2	-	139	22	70	55	60	28.0	64.0	55	14	15	2.2

NPT-female thread ANSI/ASME B1.20.1-1983	4	1/8 - 27	NPT	-	69	6.9	36	20	25	10.0	27.5	19	7	12	0.2
	6	1/4 - 18	NPT	-	69	10.0	36	20	25	10.0	27.5	19	7	12	0.2
	10	3/8 - 18	NPT	-	73	10.3	45	30	35	14.5	38.5	24	8	13	0.4
	12	1/2 - 14	NPT	-	82	13.6	51	35	40	17.0	43.5	30	10	14	0.7
	20	3/4 - 14	NPT	-	93	14.1	60	45	55	24.0	59.0	41	14	15	1.3
	25	1 - 11 1/2	NPT	-	115	16.8	70	55	60	26.0	64.0	50	14	15	2.0
	32/25	1 1/4 - 11 1/2	NPT	-	131	17.3	70	55	60	26.0	64.0	50	14	15	2.1
	40/25	1 1/2 - 11 1/2	NPT	-	143	17.3	70	55	60	26.0	64.0	55	14	15	2.4

DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
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6	500	100002	500	700502	500	100052	500	700562
8	500	100003	500	700503	500	100053	500	700563
10	500	100004	500	700504	500	100054	500	700564
12	500	100005	500	700505	500	100055	500	700565
16	420	100006	420	700506	420	100056	420	700566
20	420	100007	420	700507	420	100057	420	700567
25	420	100008	420	700508	420	100058	420	700568
32/25	420	100037	420	700509	420	100087	420	700569
40/25	420	100038	420	700511	420	100088	420	700571
4	500	100009	500	700513	500	100059	500	700575
6	500	100010	500	700514	500	100060	500	700576
8	500	100011	500	700515	500	100061	500	700577
10	500	100012	500	700516	500	100062	500	700578
12	500	100013	500	700517	500	100063	500	700579
16	420	100014	420	700518	420	100064	420	700580
20	420	100015	420	700519	420	100065	420	700581
25	420	100016	420	700520	420	100066	420	700582
32/25	420	100039	420	700521	420	100089	420	700583
4	500	100017	500	700001	500	100067	500	700025
6	500	100018	500	700002	500	100068	500	700026
10	500	100019	500	700003	500	100069	500	700027
12	500	100020	500	700004	500	100070	500	700028
16	420	100021	420	700005	420	100071	420	700029
20	420	100022	420	700006	420	100072	420	700030
25	420	100023	420	700007	420	100073	420	700031
32/25	420	100047	420	700008	420	100097	420	700032
40/25	420	100048	420	700009	420	100098	420	700033
4	500	100024	500	700010	500	100074	500	700034
6	500	100025	500	700011	500	100075	500	700035
10	500	100026	500	700012	500	100076	500	700036
12	500	100027	500	700013	500	100077	500	700037
20	420	100028	420	700014	420	100078	420	700038
25	420	100029	420	700015	420	100079	420	700039
32/25	420	100049	420	700016	420	100099	420	700040
40/25	420	100050	420	700017	420	100100	420	700041

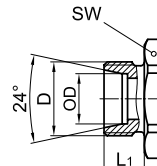
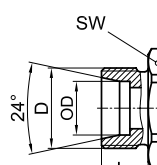
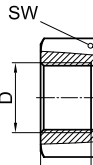
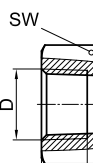
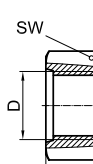
2-way ball valves with threaded connector

Steel · DN 32 - DN 50



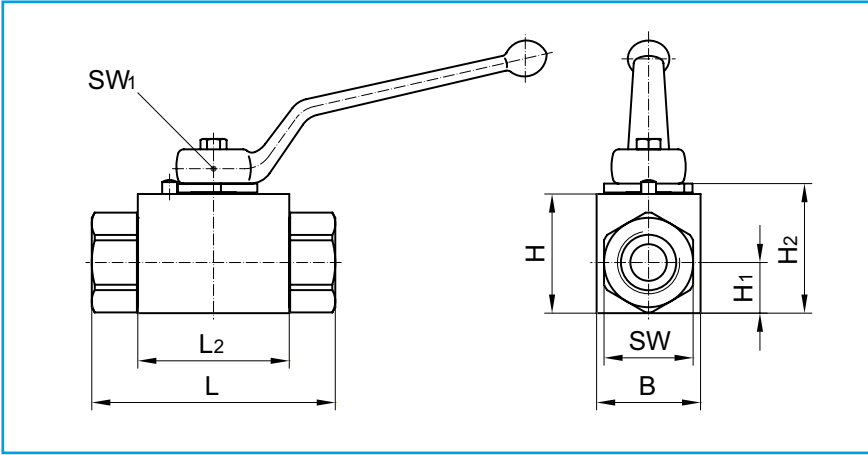
Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, black oxide	steel, zinc nickel plated	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	NBR	FKM	FKM
Handle:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection		DN	Thread D	OD	L	L ₁	L ₂	B	H	H ₁	H ₂	SW	SW ₁	Handle code	O-ring	Weight	DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1		32	M 45 x 2	35	121	16	36.5	58.5	73	80	36.5	84.5	60	17	21	2.6	32	420	100251	420	700510	420	100301	420	700570
		40	M 52 x 2	42	118	16	40.0	52.5	85	90	42.5	94.5	75	17	21	3.2	40	420	100252	420	700512	420	100302	420	700572
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1		32	M 52 x 2	38	127	22	36.5	58.2	73	80	36.5	84.5	60	17	21	2.7	32	420	100253	420	700522	420	100303	420	700584
BSP-female thread DIN EN ISO 228-1		32	G 1 ¼	-	110	24.0	36.5	58.5	73	80	36.5	84.5	60	17	21	3.1	32	420	100254	420	700049	420	100304	420	700058
		40	G 1 ½	-	114	26.0	40.0	57.0	85	90	42.5	94.5	75	17	21	4.0	40	420	100255	420	700050	420	100305	420	700059
		50	G 2	-	129	27.5	48.0	65.0	99	104	49.5	108.5	85	17	22	5.0	50	420	100256	420	700051	420	100306	420	700060
NPT female thread ANSI/ASME B1.20.1-1983		32	1 ¼ NPT - 11 ½ NPT	-	110	17.3	36.5	58.5	73	80	36.5	84.5	60	17	21	3.5	32	420	100257	420	700052	420	100307	420	700061
		40	1 ½ NPT - 11 ½ NPT	-	114	17.3	40.0	57.0	85	90	42.5	94.5	75	17	21	4.0	40	420	100258	420	700053	420	100308	420	700062
		50	2 NPT - 11 ½ NPT	-	129	17.7	48.0	65.0	99	104	49.5	108.5	85	17	22	5.3	50	420	100259	420	700054	420	100309	420	700063
Female thread ISO 11926-1		32	1 5/8 - 12 UN - 2B	-	110	19.2	36.5	58.5	73	80	36.5	84.5	60	17	21	2.6	32	420	100460	420	700055	420	100463	420	700064
		40	1 7/8 - 12 UN - 2B	-	114	19.2	40.0	57.0	85	90	42.5	94.5	75	17	21	4.4	40	420	100461	420	700056	420	100464	420	700065
		50	2 ½ - 12 UN - 2B	-	129	19.2	48.0	65.0	99	104	49.5	108.5	85	17	22	5.5	50	420	100462	420	700057	420	100465	420	700066

2-way ball valves with threaded connector

Steel · DN 4 - DN 40/25



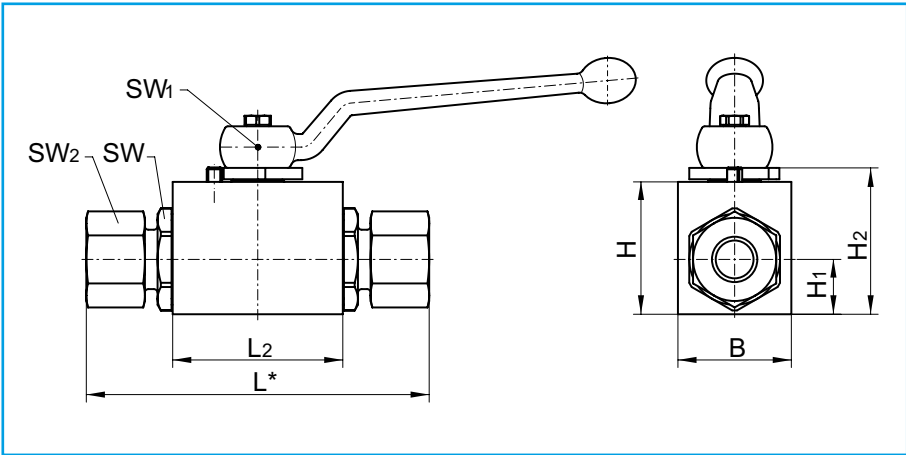
Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, black oxide	steel, zinc nickel plated	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	NBR	FKM	FKM
Handle:	zinc, die cast	zinc, die cast	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L ₁	L ₂	B	H	H ₁	H ₂	SW	SW ₁	Handle code	Weight	DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
For cut (clamp) ring tube fitting with ball lining DIN 7601 DIN 3863	4	M 12 x 1.5	6	67	10	36	20	25	10.0	27.5	19	7	12	0.2	4	500	100475	500	700586	500	100483	500	700595
	6	M 14 x 1.5	8	67	10	36	20	25	10.0	27.5	19	7	12	0.2	6	500	100476	500	700587	500	100484	500	700596
	8	M 16 x 1.5	10	75	11	45	30	35	14.5	38.5	24	8	13	0.4	8	500	100477	500	700588	500	100485	500	700597
	10	M 18 x 1.5	12	75	11	45	30	35	14.5	38.5	24	8	13	0.4	10	500	100478	500	700589	500	100486	500	700598
	12	M 22 x 1.5	15	83	12	51	35	40	17.0	43.5	30	10	14	0.6	12	500	100479	500	700590	500	100487	500	700599
	16	M 26 x 1.5	18	82	12	50	45	45	20.0	48.5	36	10	14	0.9	16	420	100480	420	700591	420	100488	420	700600
	20	M 30 x 1.5	22	99	14	60	45	55	24.0	59.0	41	14	15	1.2	20	420	100481	420	700592	420	100489	420	700601
NPT-male thread ANSI/ASME B1.20.1-1983	25	M 38 x 1.5	28	108	14	70	55	60	26.0	64.0	50	14	15	1.8	25	420	100482	420	700593	420	100490	420	700602
	4	1/8 - 27 NPT	-	67	10.0	36	20	25	10.0	27.5	19	7	12	0.2	4	500	100613	500	700604	500	100619	500	700612
	6	1/4 - 18 NPT	-	77	15.1	36	20	25	10.0	27.5	19	7	12	0.2	6	500	100614	500	700605	500	100620	500	700613
	8	3/8 - 18 NPT	-	85	15.3	45	30	35	14.5	38.5	24	8	13	0.5	8	500	100615	500	700606	500	100621	500	700614
	10	1/2 - 14 NPT	-	93	19.9	45	30	35	14.5	38.5	24	8	13	0.5	10	500	100616	500	700607	500	100622	500	700615
	16	3/4 - 14 NPT	-	99	20.2	50	45	45	20.0	48.5	36	10	14	0.9	16	420	100617	420	700608	420	100623	420	700616
	20	1 - 11½ NPT	-	121	25.0	60	45	55	24.0	59.0	41	14	15	1.3	20	420	100618	420	700609	420	100624	420	700617
BSP-male thread (flat seal) DIN EN ISO 228-1	25	1¼ - 11½ NPT	-	131	25.6	70	55	60	26.0	64.0	50	14	15	1.8	25	420	100647	420	700610	420	100648	420	700618
	4	G 1/8 M	-	67	10	36	20	25	10.0	27.5	19	7	12	0.2	4	500	100631	500	700620	500	100639	500	700629
	6	G 1/4 M	-	69	11	36	20	25	10.0	27.5	19	7	12	0.2	6	500	100632	500	700621	500	100640	500	700630
	8	G 3/8 M	-	77	12	45	30	35	14.5	38.5	24	8	13	0.4	8	500	100633	500	700622	500	100641	500	700631
	10	G 1/2 M	-	77	12	45	30	35	14.5	38.5	24	8	13	0.4	10	500	100634	500	700623	500	100642	500	700632
	12	G 5/8 M	-	83	12	51	35	40	17.0	43.5	30	10	14	0.6	12	500	100635	500	700624	500	100643	500	700633
	16	G 3/4 M	-	86	14	50	45	45	20.0	48.5	36	10	14	0.9	16	420	100636	420	700625	420	100644	420	700634
Female thread ISO 11926-1	20	G 1 M	-	103	16	60	45	55	24.0	59.0	41	14	15	1.2	20	420	100637	420	700626	420	100645	420	700635
	25	G 1¼ M	-	116	18	70	55	60	26.0	64.0	50	14	15	1.9	25	420	100638	420	700627	420	100646	420	700636
	6	7/16 - 20 UNF - 2B	-	69	11.5	36	20	25	10.0	27.5	19	7	12	0.2	6	500	100031	500	700018	500	100081	500	700042
	10	9/16 - 18 UNF - 2B	-	73	12.7	45	30	35	14.5	38.5	24	8	13	0.5	10	500	100032	500	700019	500	100082	500	700043
	12	3/4 - 16 UNF - 2B	-	82	14.5	51	35	40	17.0	43.5	30	10	14	0.8	12	500	100033	500	700020	500	100083	500	700044
	20	1 1/16 - 12 UN - 2B	-	93	19.2	60	45	55	24.0	59.0	41	10	14	1.2	20	420	100035	420	700021	420	100085	420	700045
	25	1 5/16 - 12 UN - 2B	-	115	19.2	70	55	60	26.0	64.0	50	14	15	1.5	25	420	100036	420	700022	420	100086	420	700046
	32/25	1 5/8 - 12 UN - 2B	-	131	19.2	70	55	60	26.0	64.0	55	14	15	2.2	32/25	420	100137	420	700023	420	100139	420	700047
	40/25	1 7/8 - 1 UN - 2B	-	134	19.2	70	55	60	26.0	64.0	65	14	15	2.3	40/25	420	100138	420	700024	420	100140	420	700048

2-way ball valves with threaded connector

Steel · DN 4 - DN 25 · preassembled



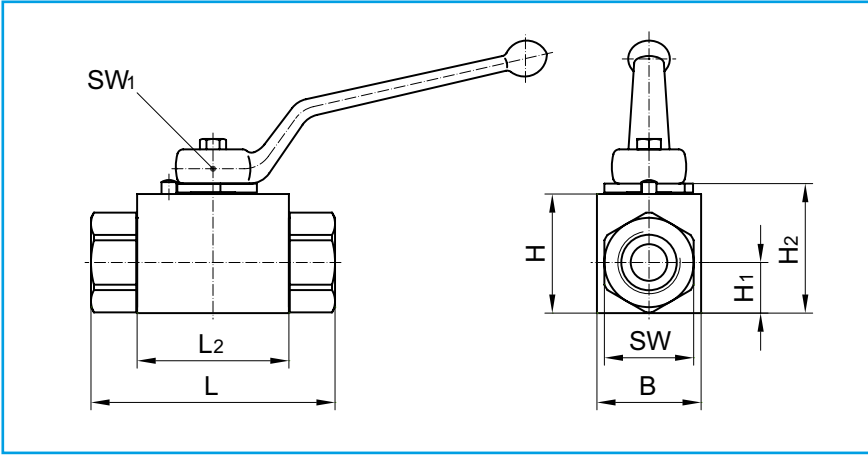
Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request

Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar
* Hand tight

Connection	DN	Thread D	OD	L*	L1	L2	B	H	H1	H2	SW	SW2	SW1	Handle code	Weight	DN	PN	Article no.	PN	Article no.
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	83	10	36	20	25	10.0	27.5	19	14	7	12	0.2	4	500	700840	500	700858
	6	M 14 x 1.5	8	83	10	36	20	25	10.0	27.5	19	17	7	12	0.2	6	500	700841	500	700859
	8	M 16 x 1.5	10	91	11	45	30	35	14.5	38.5	24	19	8	13	0.4	8	500	700842	500	700860
	10	M 18 x 1.5	12	91	11	45	30	35	14.5	38.5	24	22	8	13	0.4	10	500	700843	500	700861
	12	M 22 x 1.5	15	100	12	51	35	40	17.0	43.5	30	27	10	14	0.6	12	500	700844	500	700862
	16	M 26 x 1.5	18	101	12	50	45	45	20.0	48.5	36	32	10	14	0.9	16	420	700845	420	700863
	20	M 30 x 2	22	120	14	60	45	55	24.0	59.0	41	36	14	15	1.2	20	420	700846	420	700864
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	25	M 36 x 2	28	133	14	70	55	60	26.0	64.0	50	41	14	15	1.8	25	420	700847	420	700865
	4	M 16 x 1.5	8	89	12	36	20	25	10.0	27.5	19	19	7	12	0.2	4	500	700849	500	700867
	6	M 18 x 1.5	10	89	12	36	20	25	10.0	27.5	19	22	7	12	0.2	6	500	700850	500	700868
	8	M 20 x 1.5	12	95	12	45	30	35	14.5	38.5	24	24	8	13	0.4	8	500	700851	500	700869
	10	M 22 x 1.5	14	101	14	45	30	35	14.5	38.5	24	27	8	13	0.4	10	500	700852	500	700870
	12	M 24 x 1.5	16	107	14	51	35	40	17.0	43.5	30	30	10	14	0.7	12	500	700853	500	700871
	16	M 30 x 2	20	115	16	50	45	45	20.0	48.5	36	36	10	14	0.9	16	420	700854	420	700872
	20	M 36 x 2	25	134	18	60	45	55	24.0	59.0	41	46	14	15	1.3	20	420	700855	420	700873
	25	M 42 x 2	30	147	20	70	55	60	26.0	64.0	50	50	14	15	1.9	25	420	700856	420	700874

2-way ball valves with threaded connector

Steel · DN 4 - DN 25



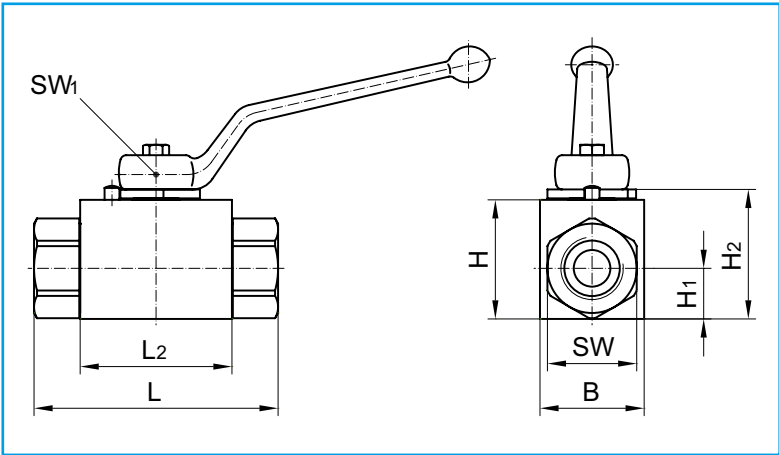
*) included in delivery
Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, black oxide	steel, zinc nickel plated	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	NBR	FKM	FKM
Handle:	zinc, die cast	zinc, die cast	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection		DN	Thread D	L	L1	L2	B	H	H1	H2	SW	SW1	Handle code	O-ring	Weight	DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
Male thread ISO 8434-3		6	9/16 -18 UNF	67	10.0	36	20	25	10.0	27.5	19	7	12	7.65 x 1.78*	0.2	6	500	101111	500	700638	500	101121	500	700646
		8	11/16 -16 UN	75	11.0	45	30	35	14.5	38.5	24	8	13	9.25 x 1.78*	0.4	8	500	101112	500	700639	500	101122	500	700647
		10	13/16 -16 UN	79	13.0	45	30	35	14.5	38.5	24	8	13	12.42 x 1.78*	0.4	10	500	101113	500	700640	500	101123	500	700648
		12	1 - 14 UNS	90	15.5	51	35	40	17.0	43.5	30	10	14	15.60 x 1.78*	0.7	12	500	101114	500	700641	500	101124	500	700649
		16	1 3/16 - 12 UN	92	17.0	50	45	45	20.0	48.5	36	10	14	18.77 x 1.78*	0.9	16	420	101115	500	700642	420	101125	500	700650
		20	1 7/16 -12 UN	106	17.5	60	45	55	24.0	59.0	41	14	15	23.52 x 1.78*	1.2	20	420	101116	420	700643	420	101126	420	700651
25	1 11/16 -12 UN	115	17.5	70	55	60	26.0	64.0	50	14	15	29.87 x 1.78*	1.8	25	420	101117	420	700644	420	101127	420	700652		
Female thread ISO 6149-1		4	M 10 x 1.0	69	10.0	36	20	25	10.0	27.5	19	7	12	-	0.2	4	500	101141	500	700654	500	101151	500	700663
		6	M 12 x 1.5	69	11.5	36	20	25	10.0	27.5	19	7	12	-	0.2	6	500	101142	500	700655	500	101152	500	700664
		8	M 14 x 1.5	73	11.5	45	30	35	14.5	38.5	24	8	13	-	0.4	8	500	101143	500	700656	500	101153	500	700665
		10	M 16 x 1.5	73	13.0	45	30	35	14.5	38.5	24	8	13	-	0.4	10	500	101144	500	700657	500	101154	500	700666
		12	M 18 x 1.5	82	14.5	51	35	40	17.0	43.5	30	10	14	-	0.7	12	500	101145	500	700658	500	101155	500	700667
		16	M 22 x 1.5	88	15.5	50	45	45	20.0	48.5	36	10	14	-	1.0	16	420	101146	420	700659	420	101156	420	700668
		20	M 27 x 2	93	19.0	60	45	55	24.0	59.0	41	14	15	-	1.3	20	420	101147	420	700660	420	101157	420	700669
		25	M 33 x 2	115	19.0	70	55	60	26.0	64.0	50	14	15	-	2.0	25	420	101148	420	700661	420	101158	420	700670
BSPT-female thread ISO 7-1		4	Rc 1/8	69	6.5	36	20	25	10.0	27.5	19	7	12	-	0.2	4	500	101361	500	700672	500	101367	500	700679
		6	Rc 1/4	69	9.7	36	20	25	10.0	27.5	19	7	12	-	0.2	6	500	101362	500	700673	500	101368	500	700680
		10	Rc 3/8	72	10.1	45	30	35	14.5	38.5	24	8	13	-	0.4	10	500	101363	500	700674	500	101369	500	700681
		12	Rc 1/2	83	13.2	51	35	40	17.0	43.5	30	10	14	-	0.7	12	500	101364	500	700675	500	101370	500	700682
		20	Rc 3/4	95	14.5	60	45	55	24.0	59.0	41	14	15	-	1.3	20	420	101365	420	700676	420	101371	420	700683
		25	Rc 1	113	16.8	70	55	60	26.0	64.0	50	14	15	-	2.0	25	420	101366	420	700677	420	101372	420	700684

2-way ball valves with threaded connector

Stainless steel · DN 4 - DN 25



Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Stainless steel (material no. 1.4571 - or other stainless steels)
Custom orders on request

Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

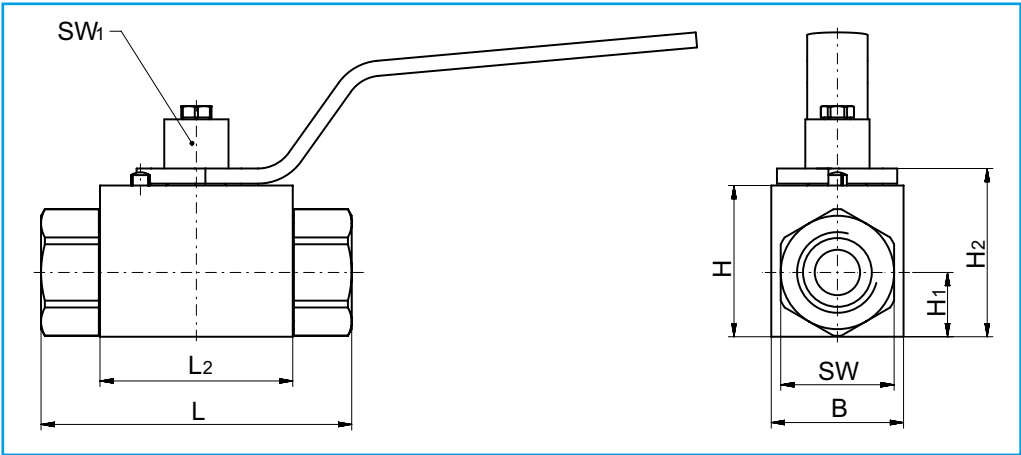
Body:	stainless steel	stainless steel	stainless steel
Ball:	stainless steel	stainless steel	stainless steel
Stem:	stainless steel	stainless steel	stainless steel
Ball seals:	POM	PTFE	PEEK
Stem seals:	FKM	FKM	FKM
Handle:	zinc, die cast	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L ₁	L ₂	B	H	H ₁	H ₂	SW	SW ₁	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	67	10	36	20	25	10.0	27.5	19	7	12	0.2
	6	M 14 x 1.5	8	67	10	36	20	25	10.0	27.5	19	7	12	0.2
	8	M 16 x 1.5	10	75	11	45	30	35	14.5	38.5	24	8	13	0.4
	10	M 18 x 1.5	12	75	11	45	30	35	14.5	38.5	24	8	13	0.4
	12	M 22 x 1.5	15	83	12	51	35	40	17.0	43.5	30	10	14	0.6
	16	M 26 x 1.5	18	99	12	60	45	55	24.0	59.0	41	14	15	1.2
	20	M 30 x 2	22	99	14	60	45	55	24.0	59.0	41	14	15	1.2
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	25	M 36 x 2	28	108	14	70	55	60	26.0	64.0	50	14	15	1.8
	4	M 16 x 1.5	8	73	12	36	20	25	10.0	27.5	19	7	12	0.2
	6	M 18 x 1.5	10	73	12	36	20	25	10.0	27.5	19	7	12	0.2
	8	M 20 x 1.5	12	77	12	45	30	35	14.5	38.5	24	8	13	0.4
	10	M 22 x 1.5	14	81	14	45	30	35	14.5	38.5	24	8	13	0.4
	12	M 24 x 1.5	16	87	14	51	35	40	17.0	43.5	30	10	14	0.7
	16	M 30 x 2	20	107	16	60	45	55	24.0	59.0	41	14	15	1.3
BSP-female thread DIN EN ISO 228-1	20	M 36 x 2	25	107	18	60	45	55	24.0	59.0	41	14	15	1.3
	25	M 42 x 2	30	120	20	70	55	60	26.0	64.0	50	14	15	1.9
	4	G 1/8	-	71	12	36	20	25	10.0	27.5	19	7	12	0.2
	6	G 1/4	-	71	12	36	20	25	10.0	27.5	19	7	12	0.2
	10	G 3/8	-	73	14	45	30	35	14.5	38.5	24	8	13	0.4
	12	G 1/2	-	82	15	51	35	40	17.0	43.5	30	10	14	0.7
	16	G 5/8	-	93	18	60	45	55	24.0	59.0	41	14	15	1.3
NPT-female thread ANSI/ASME B1.20.1-1983	20	G 3/4	-	93	18	60	45	55	24.0	59.0	41	14	15	1.3
	25	G 1	-	115	18	70	55	60	26.0	64.0	50	14	15	2.0
	4	1/8 - 27 NPT	-	69	6.9	36	20	25	10.0	27.5	19	7	12	0.2
	6	1/4 - 18 NPT	-	69	10.0	36	20	25	10.0	27.5	19	7	12	0.2
	10	3/8 - 18 NPT	-	73	10.3	45	30	35	14.5	38.5	24	8	13	0.4
	12	1/2 - 14 NPT	-	82	13.6	51	35	40	17.0	43.5	30	10	14	0.7
	20	3/4 - 14 NPT	-	93	14.1	60	45	55	24.0	59.0	41	14	15	1.3
	25	1 - 11 1/2 NPT	-	115	16.8	70	55	60	26.0	64.0	50	14	15	2.0

DN	PN	Article no.	PN	Article no.	PN	Article no.
4	500	109400	315	109460	500	109688
6	500	109401	315	109461	500	109689
8	500	109402	315	109462	500	109690
10	500	109403	315	109463	500	109691
12	500	109404	315	109464	500	109692
16	420	109405	250	109465	420	109693
20	420	109406	250	109466	420	109694
25	420	109407	250	109467	420	109695
4	500	109408	315	109468	500	109696
6	500	109409	315	109469	500	109697
8	500	109410	315	109470	500	109698
10	500	109411	315	109471	500	109699
12	500	109412	315	109472	500	109700
16	420	109413	250	109473	420	109701
20	420	109414	250	109474	420	109702
25	420	109415	250	109475	420	109703
4	500	109416	315	109476	500	109704
6	500	109417	315	109477	500	109705
10	500	109418	315	109478	500	109706
12	500	109419	315	109479	500	109707
16	420	109420	250	109480	420	109708
20	420	109421	250	109481	420	109709
25	420	109422	250	109482	420	109710
4	500	109423	315	109483	500	109711
6	500	109424	315	109484	500	109712
10	500	109425	315	109485	500	109713
12	500	109426	315	109486	500	109714
20	420	109427	250	109487	420	109715
25	420	109428	250	109488	420	109716

2-way ball valves with threaded connector

Stainless steel · DN 4 - DN 25 · with stainless steel handle



Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Stainless steel (material no. 1.4571 - or other stainless steels)
Custom orders on request
Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

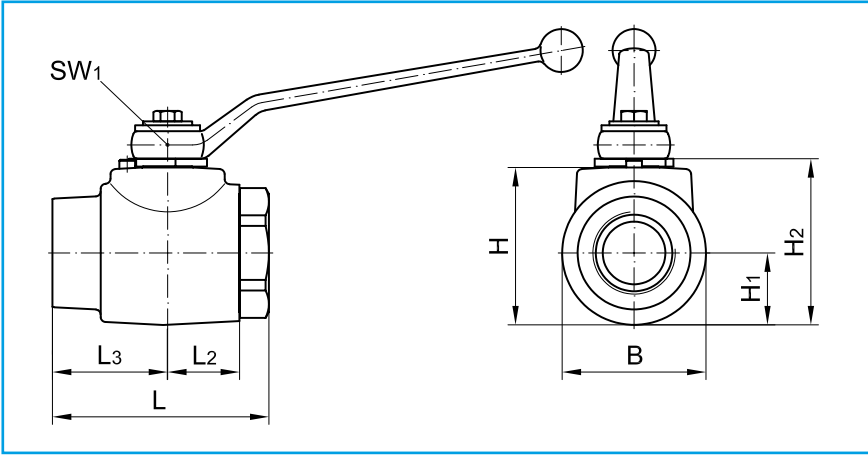
Body:	stainless steel	stainless steel	stainless steel
Ball:	stainless steel	stainless steel	stainless steel
Stem:	stainless steel	stainless steel	stainless steel
Ball seals:	POM	PTFE	PEEK
Stem seals:	FKM	FKM	FKM
Handle:	stainless steel	stainless steel	stainless steel

Connection	DN	Thread D	OD	L	L ₁	L ₂	B	H	H ₁	H ₂	SW	SW ₁	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	67	10	36	20	25	10.0	29.5	19	7	32	0.2
	6	M 14 x 1.5	8	67	10	36	20	25	10.0	29.5	19	7	32	0.2
	8	M 16 x 1.5	10	75	11	45	30	35	14.5	39.5	24	8	33	0.4
	10	M 18 x 1.5	12	75	11	45	30	35	14.5	39.5	24	8	33	0.4
	12	M 22 x 1.5	15	83	12	51	35	40	17.0	44.5	30	10	34	0.6
	16	M 26 x 1.5	18	99	12	60	45	55	24.0	60.5	41	14	35	1.2
	20	M 30 x 2	22	99	14	60	45	55	24.0	60.5	41	14	35	1.2
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	25	M 36 x 2	28	108	14	70	55	60	26.0	65.5	50	14	35	1.8
	4	M 16 x 1.5	8	73	12	36	20	25	10.0	29.5	19	7	32	0.2
	6	M 18 x 1.5	10	73	12	36	20	25	10.0	29.5	19	7	32	0.2
	8	M 20 x 1.5	12	77	12	45	30	35	14.5	39.5	24	8	33	0.4
	10	M 22 x 1.5	14	81	14	45	30	35	14.5	39.5	24	8	33	0.4
	12	M 24 x 1.5	16	87	14	51	35	40	17.0	44.5	30	10	34	0.7
	16	M 30 x 2	20	107	16	60	45	55	24.0	60.5	41	14	35	1.3
BSP-female thread DIN EN ISO 228-1	20	M 36 x 2	25	107	18	60	45	55	24.0	60.5	41	14	35	1.3
	25	M 42 x 2	30	120	20	70	55	60	26.0	65.5	50	14	35	1.9
	4	G 1/8	-	71	12	36	20	25	10.0	29.5	19	7	32	0.2
	6	G 1/4	-	71	12	36	20	25	10.0	29.5	19	7	32	0.2
	10	G 3/8	-	73	14	45	30	35	14.5	39.5	24	8	33	0.4
	12	G 1/2	-	82	15	51	35	40	17.0	44.5	30	10	34	0.7
	16	G 5/8	-	93	18	60	45	55	24.0	60.5	41	14	35	1.3
NPT-female thread ANSI/ASME B1.20.1-1983	20	G 3/4	-	93	18	60	45	55	24.0	60.5	41	14	35	1.3
	25	G 1	-	115	18	70	55	60	26.0	65.5	50	14	35	2.0
	4	1/8 - 27 NPT	-	69	6.9	36	20	25	10.0	29.5	19	7	32	0.2
	6	1/4 - 18 NPT	-	69	10.0	36	20	25	10.0	29.5	19	7	32	0.2
	10	3/8 - 18 NPT	-	73	10.3	45	30	35	14.5	39.5	24	8	33	0.4
	12	1/2 - 14 NPT	-	82	13.6	51	35	40	17.0	44.5	30	10	34	0.7
	20	3/4 - 14 NPT	-	93	14.1	60	45	55	24.0	60.5	41	14	35	1.3
	25	1 - 11½ NPT	-	115	16.8	70	55	60	26.0	65.5	50	14	35	2.0

DN	PN	Article no.	PN	Article no.	PN	Article no.
4	500	109490	315	109430	500	109718
6	500	109491	315	109431	500	109719
8	500	109492	315	109432	500	109720
10	500	109493	315	109433	500	109721
12	500	109494	315	109434	500	109722
16	420	109495	250	109435	420	109723
20	420	109496	250	109436	420	109724
25	420	109497	250	109437	420	109725
4	500	109498	315	109438	500	109727
6	500	109499	315	109439	500	109728
8	500	109500	315	109440	500	109729
10	500	109501	315	109441	500	109730
12	500	109502	315	109442	500	109731
16	420	109503	250	109443	420	109732
20	420	109504	250	109444	420	109733
25	420	109505	250	109445	420	109734
4	500	109506	315	109446	500	109736
6	500	109507	315	109447	500	109737
10	500	109508	315	109448	500	109738
12	500	109509	315	109449	500	109739
16	420	109510	250	109450	420	109740
20	420	109511	250	109451	420	109741
25	420	109512	250	109452	420	109742
4	500	109513	315	109453	500	109744
6	500	109514	315	109454	500	109745
10	500	109515	315	109455	500	109746
12	500	109516	315	109456	500	109747
20	420	109517	250	109457	420	109748
25	420	109518	250	109458	420	109749

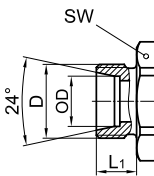
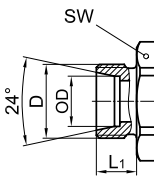
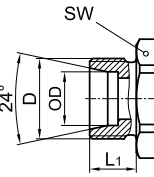
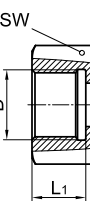
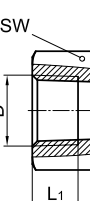
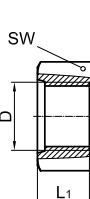
2-way ball valves with threaded connector

Stainless steel • DN 32 - DN 50



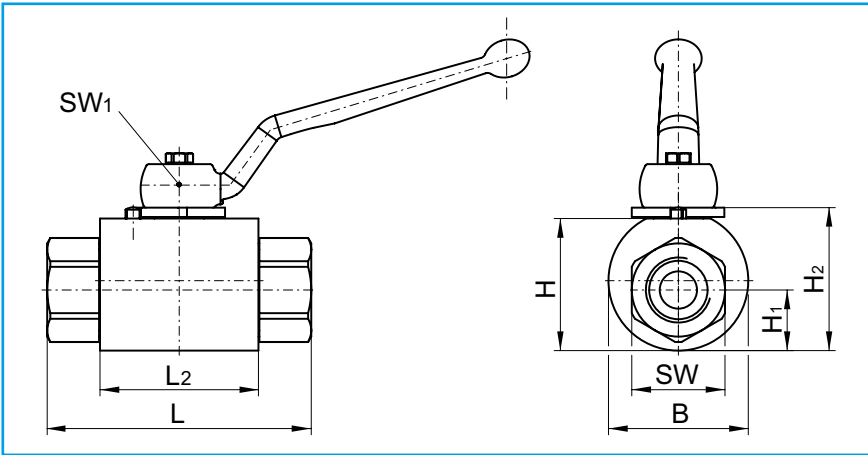
Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	stainless steel	stainless steel	stainless steel	stainless steel
Ball:	stainless steel	stainless steel	stainless steel	stainless steel
Stem:	stainless steel	stainless steel	stainless steel	stainless steel
Ball seals:	POM	POM	PTFE	PEEK
Stem seals:	NBR	FKM	FKM	FKM
Handle:	stainless steel	stainless steel	stainless steel	stainless steel
Stop plate:	stainless steel	stainless steel	stainless steel	stainless steel

Connection		DN	Thread D	OD	L	L1	L2	B	H	H1	H2	SW	SW1	Handle code	O-ring	Weight	DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1		32	M 45 x 2	35	121	16	36.5	58.5	73	80	36.5	84.5	60	17	37	2.6	32	420	109364	420	109373	100	109382	420	109758
		40	M 52 x 2	42	118	16	40.0	52.5	85	90	42.5	94.5	75	17	37	3.2	40	420	109365	420	109374	100	109383	420	109759
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1		32	M 52 x 2	38	127	22	36.5	58.5	73	80	36.5	84.5	60	17	37	2.7	32	420	109366	420	109375	100	109384	420	109735
BSP-female thread DIN EN ISO 228-1		32	G 1 ¼		110	24.0	36.5	58.5	73	80	36.5	84.5	60	17	37	3.1	32	420	109367	420	109376	100	109385	420	109754
		40	G 1 ½		114	26.0	40.0	57.0	85	90	42.5	94.5	75	17	37	4.0	40	420	109368	420	109377	100	109386	420	109755
		50	G 2		129	27.5	48.0	65.0	99	104	49.5	108.5	85	17	38	5.0	50	420	109369	420	109378	100	109387	420	109756
NPT-female thread ANSI/ASME B1.20.1-1983		32	1 ¼ - 11 ½ NPT		110	17.3	36.5	58.5	73	80	36.5	84.5	60	17	37	3.5	32	420	109370	420	109379	100	109388	420	109750
		40	1 ½ - 11 ½ NPT		114	17.3	40.0	57.0	85	90	42.5	94.5	75	17	37	4.0	40	420	109371	420	109380	100	109389	420	109751
		50	2 - 11 ½ NPT		129	17.7	48.0	65.0	99	104	49.5	108.5	85	17	38	5.3	50	420	109372	420	109381	100	109390	420	109752
Female thread ISO 11926-1		32	1 5/8 - 12 UN - 2B		110	19.2	36.5	58.5	73	80	36.5	84.5	60	17	21	2.6	32	420	700120	420	700123	100	109761	420	109764
		40	1 7/8 - 12 UN - 2B		114	19.2	40.0	57.0	85	90	42.5	94.5	75	17	21	4.4	40	420	700121	420	700124	100	109762	420	109765
		50	2 ½ - 12 UN - 2B		129	19.2	48.0	65.0	99	104	49.5	108.5	85	17	22	5.5	50	420	700122	420	700125	100	109763	420	109766

2-way ball valves with threaded connector

Stainless steel · DN 4 - DN 25 · round body



Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	stainless steel	stainless steel
Ball:	stainless steel	stainless steel
Stem:	stainless steel	stainless steel
Ball seals:	POM	POM
Stem seals:	NBR	FKM
Handle:	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	LW	Thread D	OD	L	L1	L2	D	H	H1	H2	SW	SW1	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	4	M 12 x 1.5	6	67	10	36	30	25	10.0	27.5	19	7	12	0.2
	6	6	M 14 x 1.5	8	67	10	36	30	25	10.0	27.5	19	7	12	0.2
	8	8	M 16 x 1.5	10	75	11	45	40	35	14.5	38.5	24	8	13	0.4
	10	10	M 18 x 1.5	12	75	11	45	40	35	14.5	38.5	24	8	13	0.4
	12	12	M 22 x 1.5	15	84	12	51	45	40	17.0	43.5	30	10	14	0.6
	16	12	M 26 x 1.5	18	84	12	51	45	40	17.0	43.5	30	10	14	0.7
	20	19	M 30 x 2	22	102	14	60	60	55	24.0	59.0	41	14	15	1.2
	25	24	M 36 x 2	28	108	14	70	65	60	26.0	64.0	50	14	15	1.8

For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	4	M 16 x 1.5	8	73	12	36	30	25	10.0	27.5	19	7	12	0.2
	6	6	M 18 x 1.5	10	73	12	36	30	25	10.0	27.5	19	7	12	0.2
	8	8	M 20 x 1.5	12	77	12	45	40	35	14.5	38.5	24	8	13	0.4
	10	10	M 22 x 1.5	14	84	14	45	40	35	14.5	38.5	24	8	13	0.4
	12	12	M 24 x 1.5	16	87	14	51	45	40	17.0	43.5	30	10	14	0.7
	16	12	M 30 x 2	20	91	16	51	45	40	17.0	43.5	30	10	14	1.3
	20	19	M 36 x 2	25	110	18	60	60	55	24.0	59.0	41	14	15	1.3
	25	24	M 42 x 2	30	120	20	70	65	60	26.0	64.0	50	14	15	1.9

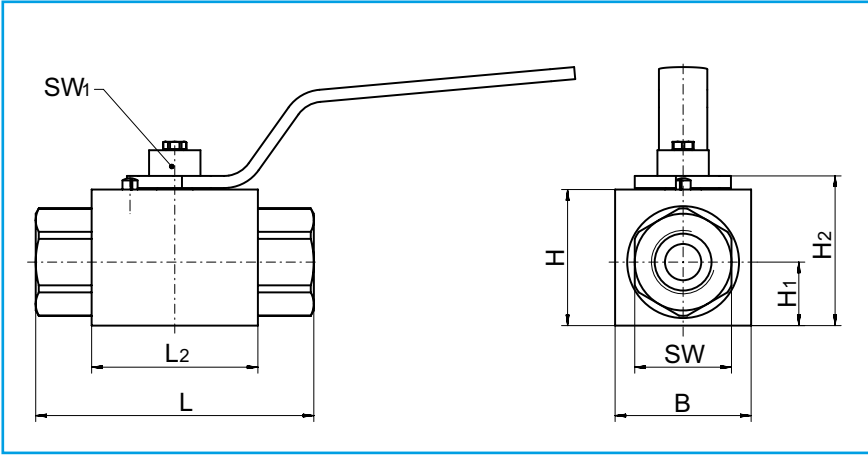
BSP-female thread DIN EN ISO 228-1	4	4	G 1/8	-	71	12	36	30	25	10.0	27.5	19	7	12	0.2
	6	6	G 1/4	-	71	12	36	30	25	10.0	27.5	19	7	12	0.2
	10	10	G 3/8	-	73	14	45	40	35	14.5	38.5	24	8	13	0.4
	12	12	G 1/2	-	85	15	51	45	40	17.0	43.5	30	10	14	0.7
	16	12	G 5/8	-	84	18	51	45	40	17.0	43.5	30	10	14	1.3
	20	19	G 3/4	-	96	18	60	60	55	24.0	59.0	41	14	15	1.3
	25	24	G 1	-	113	18	70	65	60	26.0	64.0	50	14	15	2.0

NPT-female thread ANSI/ASME B1.20.1-1983	4	4	1/8 - 27 NPT	-	69	6.9	36	30	25	10.0	27.5	19	7	12	0.2
	6	6	1/4 - 18 NPT	-	69	10.0	36	30	25	10.0	27.5	19	7	12	0.2
	10	10	3/8 - 18 NPT	-	73	10.3	45	40	35	14.5	38.5	24	8	13	0.4
	12	12	1/2 - 14 NPT	-	92	13.6	51	45	40	17.0	43.5	30	10	14	0.7
	20	19	3/4 - 14 NPT	-	97	14.1	60	60	55	24.0	59.0	41	14	15	1.3
	25	24	1 - 11½ NPT	-	113	16.8	70	65	60	26.0	64.0	50	14	15	2.0

DN	PN	Article no.	PN	Article no.
4	500	109620	500	109650
6	500	109621	500	109651
8	500	109622	500	109652
10	500	109623	500	109653
12	500	109624	500	109654
16	420	109625	420	109655
20	420	109626	420	109656
25	420	109627	420	109657
4	500	109628	500	109658
6	500	109629	500	109659
8	500	109630	500	109660
10	500	109631	500	109661
12	500	109632	500	109662
16	420	109633	420	109663
20	420	109634	420	109664
25	420	109635	420	109665
4	500	109636	500	109666
6	500	109637	500	109667
10	500	109638	500	109668
12	500	109639	500	109669
16	420	109640	420	109670
20	420	109641	420	109671
25	420	109642	420	109672
4	500	109643	500	109673
6	500	109644	500	109674
10	500	109645	500	109675
12	500	109646	500	109676
20	420	109647	420	109677
25	420	109648	420	109678

2-way ball valves with threaded connector

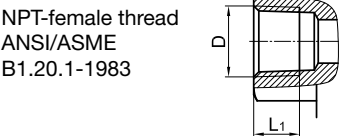
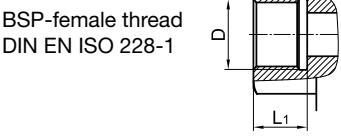
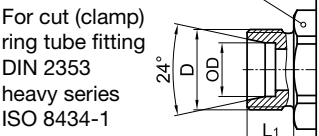
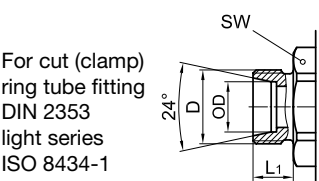
Stainless steel · DN 4 - DN 25 · 630 bar



Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Stainless steel (material no. 1.4571 - or other stainless steels)
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	stainless steel	stainless steel
Ball:	stainless steel	stainless steel
Stem:	stainless steel	stainless steel
Ball seals:	PEEK	PEEK
Stem seals:	FKM	NBR
Handle:	stainless steel	stainless steel

Connection

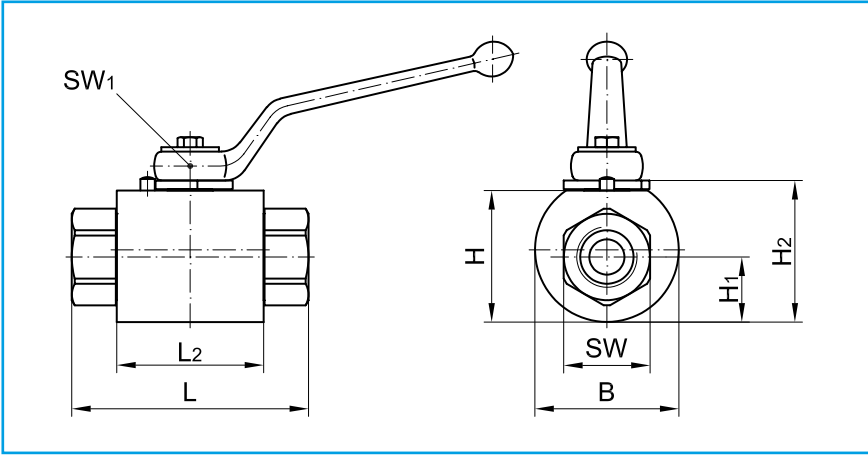


DN	Thread D	OD	L	L ₁	L ₂	B	H	H ₁	H ₂	SW	SW ₁	Handle code	Weight
4	M 12 x 1.5	6	73	10	41	30	30	13.7	34.5	22	7	32	0.4
6	M 14 x 1.5	8	73	10	41	30	30	13.7	34.5	22	7	32	0.4
8	M 16 x 1.5	10	87	11	53	40	40	18.0	44.5	30	8	33	0.8
10	M 18 x 1.5	12	87	11	53	40	40	18.0	44.5	30	8	33	0.8
12	M 22 x 1.5	15	91	12	55	45	45	21.0	49.5	32	10	34	1.0
16	M 26 x 1.5	18	101	12	65	65	65	31.0	70.5	46	14	35	2.5
20	M 30 x 2	22	105	14	65	65	65	31.0	70.5	46	14	35	2.5
25	M 36 x 2	28	112	14	71	75	75	38.0	80.5	50	14	35	3.1
4	M 16 x 1.5	8	76	12	41	30	30	13.7	34.5	22	7	32	0.4
6	M 18 x 1.5	10	76	12	41	30	30	13.7	34.5	22	7	32	0.4
8	M 20 x 1.5	12	89	12	53	40	40	18.0	44.5	30	8	33	0.9
10	M 22 x 1.5	14	93	14	53	40	40	18.0	44.5	30	8	33	0.9
12	M 24 x 1.5	16	96	14	55	45	45	21.0	49.5	32	10	34	1.1
16	M 30 x 1.5	20	109	16	65	65	65	31.0	70.5	46	14	35	2.6
20	M 36 x 2	25	113	18	65	65	65	31.0	70.5	46	14	35	2.6
25	M 42 x 2	30	124	20	71	75	75	38.0	80.5	50	14	35	3.2
4	G 1/8	-	71	11	41	30	30	13.7	34.5	22	7	32	0.4
6	G 1/4	-	75	14	41	30	30	13.7	34.5	22	7	32	0.4
10	G 3/8	-	86	14	53	40	40	18.0	44.5	30	8	33	0.9
12	G 1/2	-	92	16	55	45	45	21.0	49.5	32	10	34	1.1
16	G 5/8	-	111	19	65	65	65	31.0	70.5	46	14	35	2.6
20	G 3/4	-	111	20	65	65	65	31.0	70.5	46	14	35	2.7
25	G 1	-	122	22	71	75	75	38.0	80.5	50	14	35	3.3
4	1/8 - 27 NPT	-	82	6.9	41	30	30	13.7	34.5	22	7	32	0.4
6	1/4 - 18 NPT	-	82	10.0	41	30	30	13.7	34.5	22	7	32	0.4
10	3/8 - 18 NPT	-	95	10.3	53	40	40	18.0	44.5	30	8	33	1.0
12	1/2 - 14 NPT	-	108	13.6	55	45	45	21.0	49.5	32	10	34	1.2
20	3/4 - 14 NPT	-	111	14.1	65	65	65	31.0	70.5	46	14	35	2.7
25	1 - 11 1/2 NPT	-	122	16.8	71	75	75	38.0	80.5	50	14	35	3.3

DN	PN	Article no.	PN	Article no.
4	630	101309	630	100861
6	630	101310	630	100862
8	630	101311	630	100863
10	630	101312	630	100864
12	630	101313	630	100865
16	630	109124	630	100866
20	630	109102	630	100867
25	630	109103	630	100868
4	630	101317	630	100869
6	630	101318	630	100870
8	630	101319	630	100871
10	630	101320	630	100872
12	630	101321	630	100873
16	630	109168	630	100874
20	630	109105	630	100875
25	630	109106	630	100876
4	630	101325	630	100877
6	630	101326	630	100878
10	630	101327	630	100879
12	630	101328	630	100880
16	630	109172	630	100881
20	630	109108	630	100882
25	630	109109	630	100883
4	630	101332	630	100884
6	630	101333	630	100885
10	630	101334	630	100886
12	630	101335	630	100887
20	630	109111	630	100888
25	630	109112	630	100889

2-way ball valves with threaded connector

Steel/Stainless steel · DN 4 - DN 25 · 840 bar



Note: Use only with fluid media!

Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, black oxide	stainless steel	stainless steel
Ball:	steel, hard chrome plated	stainless steel	stainless steel
Stem:	steel, zinc nickel plated	stainless steel	stainless steel
Ball seals:	PEEK	PEEK	PEEK
Stem seals:	NBR	NBR	FKM
Handle:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L1	L2	B	H	H1	H2	SW	SW1	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	M 16 x 1.5	8	114	12	67	65	62.5	30	66	41	10	19	1.8
	6	M 18 x 1.5	10	114	12	67	65	62.5	30	66	41	10	19	1.9
	8	M 20 x 1.5	12	114	12	67	65	62.5	30	66	41	10	19	1.9
	10	M 22 x 1.5	14	118	14	67	65	62.5	30	66	41	10	19	2.0
	12	M 24 x 1.5	16	118	14	67	65	62.5	30	66	41	10	19	2.0
	20	M 36 x 2	25	156	18	90	108	102.0	51	106	70	14	20	6.6
	25	M 42 x 2	30	160	20	90	108	102.0	51	106	70	14	20	6.6

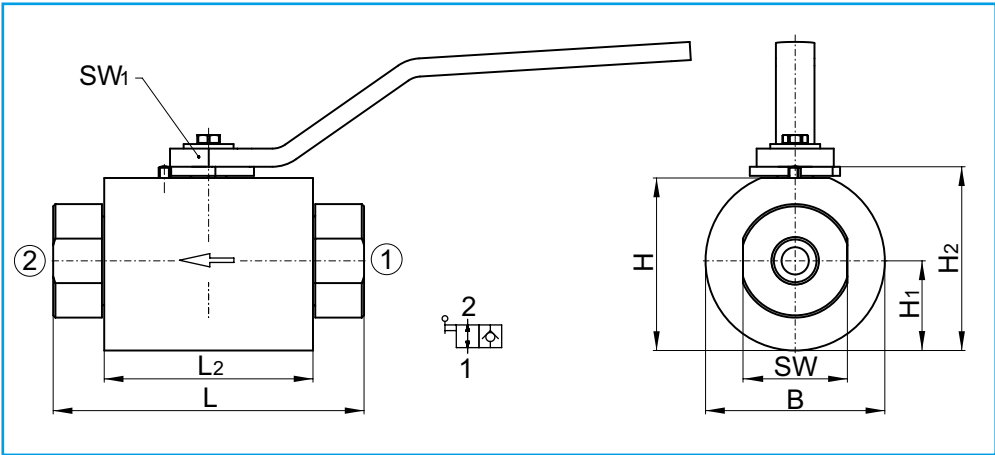
BSP-female thread DIN EN ISO 228-1	4	G 1/8	-	90	11	67	65	62.5	30	66	41	10	19	1.8
	6	G 1/4	-	90	14	67	65	62.5	30	66	41	10	19	1.8
	10	G 3/8	-	90	14	67	65	62.5	30	66	41	10	19	1.8
	12	G 1/2	-	90	17	67	65	62.5	30	66	41	10	19	1.9
	20	G 3/4	-	120	18	90	108	102.0	51	106	70	14	20	6.5
	25	G 1	-	120	21	90	108	102.0	51	106	70	14	20	6.5

NPT female thread ANSI/ASME B1.20.1-1983	4	1/8 - 27 NPT	-	90	6.9	67	65	62.5	30	66	41	10	19	1.8
	6	1/4 - 18 NPT	-	90	10.0	67	65	62.5	30	66	41	10	19	1.8
	10	3/8 - 18 NPT	-	90	10.3	67	65	62.5	30	66	41	10	19	1.8
	12	1/2 - 14 NPT	-	90	13.6	67	65	62.5	30	66	41	10	19	1.9
	20	3/4 - 14 NPT	-	120	14.1	90	108	102.0	51	106	70	14	20	6.5
	25	1 - 11 1/2 NPT	-	120	16.8	90	108	102.0	51	106	70	14	20	6.5

DN	PN	Article no.	PN	Article no.	PN	Article no.
4	840	101338	840	101380	840	101447
6	840	101339	840	101381	840	101448
8	840	101340	840	101382	840	101449
10	840	101341	840	101383	840	101450
12	840	101342	840	101384	840	101451
20	840	101343	840	101385	840	101452
25	840	101344	840	101386	840	101453
4	840	101345	840	101387	840	101454
6	840	101346	840	101388	840	101455
10	840	101347	840	101389	840	101456
12	840	101348	840	101390	840	101457
20	840	101349	840	101391	840	101458
25	840	101350	840	101392	840	101459
4	840	101351	840	101393	840	101460
6	840	101352	840	101394	840	101461
10	840	101353	840	101395	840	101462
12	840	101354	840	101396	840	101463
20	840	101355	840	101397	840	101464
25	840	101356	840	101398	840	101465

2-way ball valves with threaded connector

Stainless steel · DN 6 - DN 25 · ultra-high pressure



DN 6 - DN 12:
can be actuated up to 500 bar

DN 20 + DN 25:
can be actuated up to 400 bar

Unidirectional installation!
Note: Use only with fluid media!

*) Deviating from the standard:
longer connection thread

Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	stainless steel
Ball:	stainless steel
Stem:	bronze
Ball seals:	PEEK
Stem seals:	FKM
Handle:	stainless steel

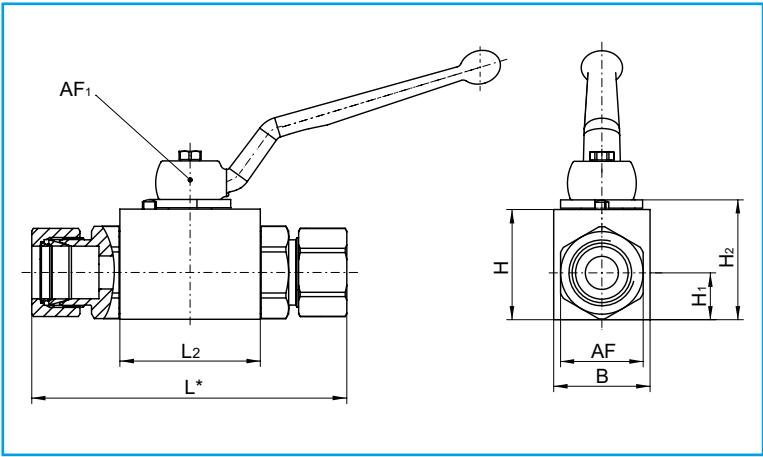
Connection	DN	Thread D	OD	L	L ₁	L ₂	B	H	H ₁	H ₂	SW	SW ₁	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	6	M 18 x 1.5	10	144.0	18*	92	79	76	39.5	81	46	12	34	4.1
	8	M 20 x 1.5	12	144.0	18*	92	79	76	39.5	81	46	12	34	4.1
	10	M 22 x 1.5	14	150.0	21*	92	79	76	39.5	81	46	12	34	4.1
	12	M 24 x 1.5	16	150.0	21*	92	79	76	39.5	81	46	12	34	4.1
	20	M 36 x 1.5	25	178.5	23*	115	90	88	45.0	93	55	12	34	6.1
	25	M 42 x 1.5	30	202.0	25*	128	100	95	50.0	101	70	17	36	9.2
BSP-female thread DIN EN ISO 228-1	6	G 1/4	-	108.0	12	92	79	76	39.5	81	46	12	34	4.1
	10	G 3/8	-	120.0	14	92	79	76	39.5	81	46	12	34	4.2
	12	G 1/2	-	137.0	16	92	79	76	39.5	81	46	12	34	4.4
	20	G 3/4	-	132.5	19	115	90	88	45.0	93	55	12	34	5.8
	25	G 1	-	152.5	21	128	99	95	47.5	101	70	17	36	8.7

DN	PN	Article no.
6	1500	100900
8	1500	100901
10	1500	100902
12	1500	100903
20	1400	100994
25	1000	100991
6	1500	100906
10	1500	100907
12	1500	100908
20	1400	100995
25	1000	100993

2-way ball valves with threaded connector

Stainless steel · DN 4 - DN 25 · R:LOK

NEW!



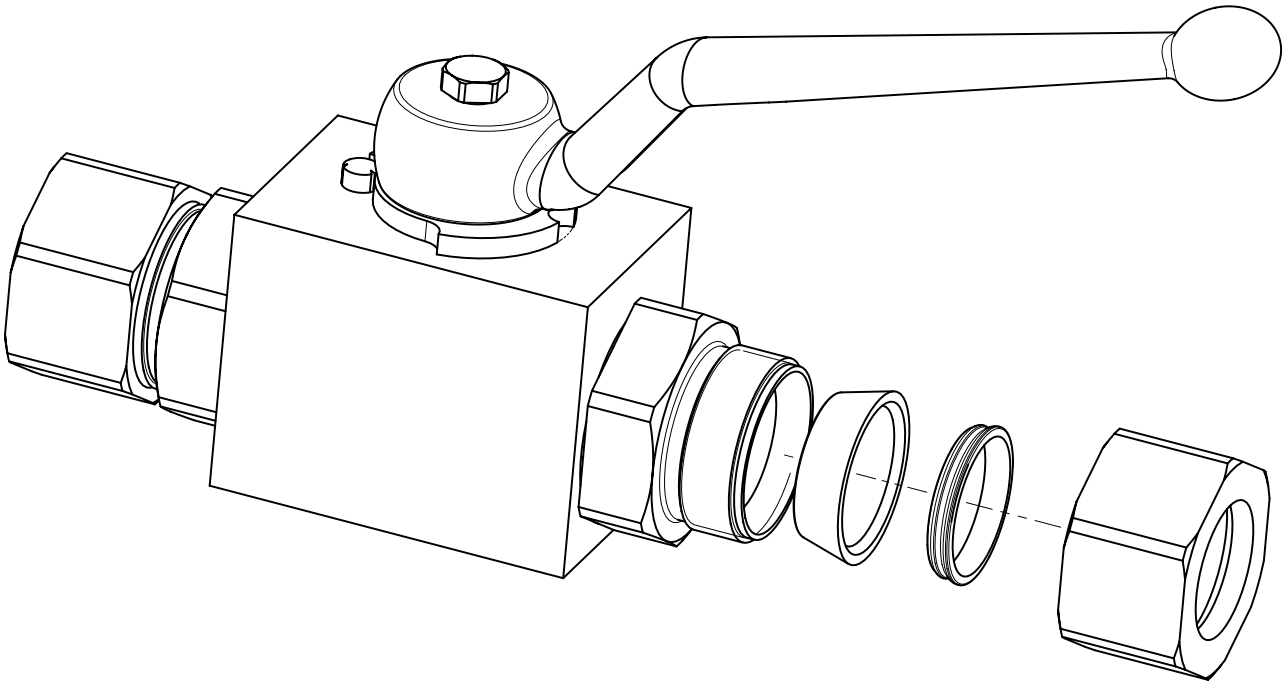
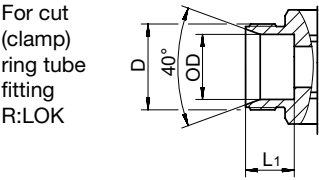
Handle included in delivery
Please check pressure rating of the pipe fittings!
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
Also available with most other connections

All dimensions subject to change without notice
Nuts and bite rings included in delivery
Dimensions in inches | Weight in lbs | Pressure in psi
* Hand tight | ** Dimensions in mm

Body:	stainless steel
Ball:	stainless steel
Stem:	stainless steel
Ball seals:	PEEK
Stem seals:	FKM
Handle:	zinc, die cast
Stop plate:	steel, zinc nickel plated

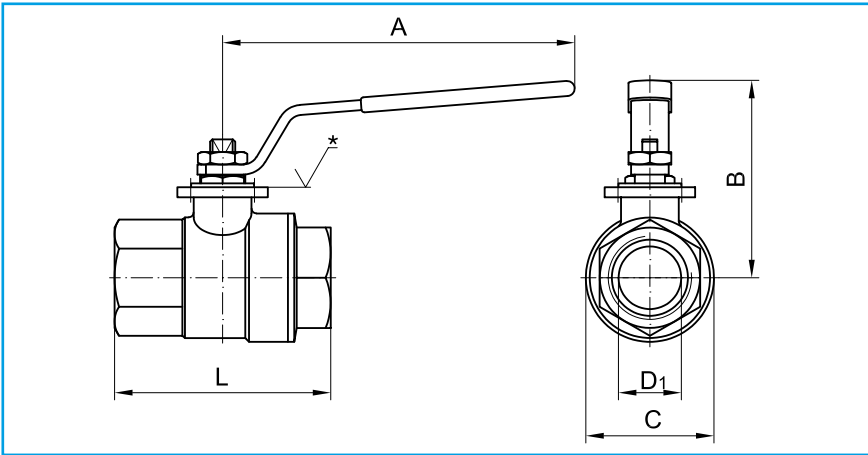
Connection	DN	Thread D	OD	L*	L1	L2	B	H	H1	H2	AF	AF**	Handle code	Weight
For cut (clamp) ring tube fitting R:LOK	4	1/16	5/16	3.43	0.38	1.42	0.79	0.98	0.39	2.75	9/16	7	12	0.66
	6	1/8	3/8	3.39	0.38	1.42	0.79	0.98	0.39	2.75	3/4	7	12	0.66
	8	1/4	1/2	4.17	0.51	1.77	1.18	1.38	0.57	3.85	15/16	8	13	0.88
	10	3/8	5/8	4.26	0.56	1.78	1.18	1.38	0.57	3.85	15/16	8	13	1.10
	12	1/2	3/4	4.59	0.56	2.01	1.38	1.58	0.67	4.35	1 1/8	10	14	1.70
	20	3/4	1	5.45	0.56	2.36	1.77	2.17	0.95	5.90	1 5/16	14	15	3.04
	25	1	1 1/4	6.98	0.61	2.76	2.17	2.36	1.02	6.40	1 7/8	14	15	4.56

DN	Psi	Article no.
4	3625	101280
6	3625	101281
8	3625	101282
10	3625	101283
12	3625	101284
20	3000	101285
25	3000	101286



2-way ball valves with threaded connector

Stainless steel · DN 10 - DN 50



Handle included in delivery
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

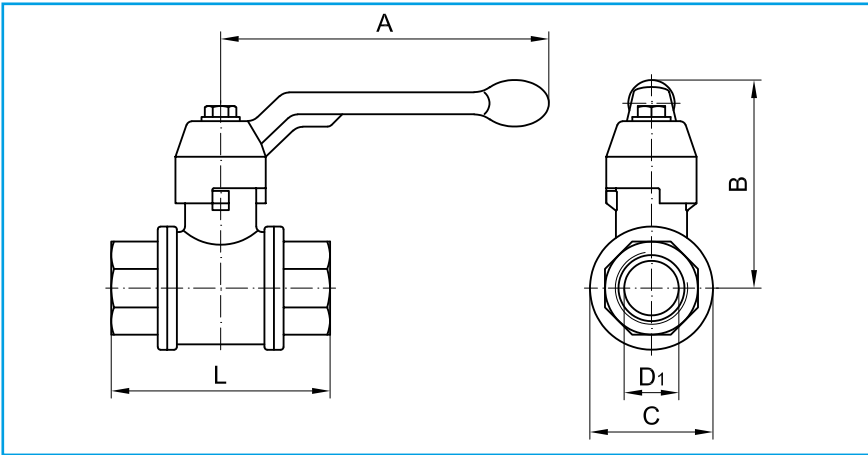
Body:	stainless steel
Ball:	stainless steel
Stem:	stainless steel
Ball seals:	PTFE
Stem seals:	FKM
Handle:	stainless steel

Connection	DN	Thread D	D1	L	L1	A	B	C	* Porting pattern DIN EN ISO 5211	Weight
	10	Rp 3/8	10	55	11.4	110	52	29.0	F 03	0.2
	12	Rp 1/2	15	65	15.0	110	55	34.5	F 03	0.3
	20	Rp 3/4	20	70	16.3	140	66	42.5	F 03	0.5
	25	Rp 1	25	85	19.1	140	70	50.5	F 03	0.8
	32	Rp 1¼	32	95	21.4	180	85	63.0	F 04	1.3
	40	Rp 1½	40	105	21.4	180	91	75.5	F 04	1.8
	50	Rp 2	50	125	25.7	230	105	91.0	F 05	3.2

DN	PN	Article no.
10	100	101523
12	100	101524
20	100	101525
25	100	101526
32	64	101527
40	64	101528
50	40	101529

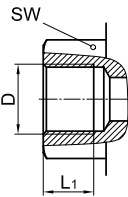
2-way ball valves with threaded connector

Brass · DN 4 - DN 80



Handle included in delivery
Approved by DVGW for use up to PN 4
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

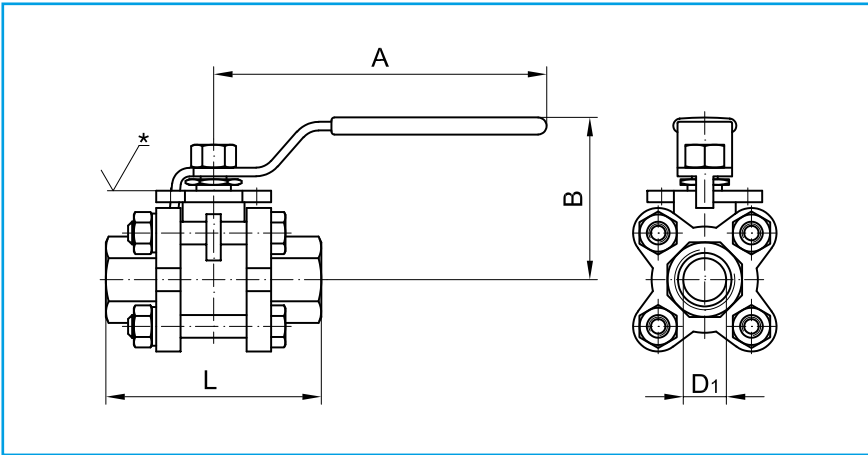
Body:	brass
Ball:	brass
Stem:	brass
Ball seals:	PTFE
Stem seals:	PTFE

Connection	DN	Thread D	D1	L	L1	A	B	C	Weight
 BSP-female thread DIN EN 10226-1	4	Rp 1/8	8	48	10	75	52	23	0.2
	6	Rp 1/4	8	51	13	75	52	23	0.2
	10	Rp 3/8	10	55	13	100	61	29	0.3
	12	Rp 1/2	15	69	16	100	64	36	0.4
	20	Rp 3/4	20	77	17	120	76	45	0.6
	25	Rp 1	25	89	19	120	80	54	0.9
	32	Rp 1¼	32	103	22	150	98	65	1.6
	40	Rp 1½	40	114	22	150	104	79	2.3
	50	Rp 2	50	134	27	175	119	96	3.6
	65	Rp 2½	65	160	32	280	155	119	5.5
	80	Rp 3	80	185	35	280	167	144	8.4

DN	PN	Article no.
4	100	101531
6	100	101532
10	100	101533
12	100	101534
20	100	101535
25	100	101536
32	100	101537
40	100	101538
50	80	101539
65	40	101540
80	40	101541

2-way ball valves with threaded connector

Stainless steel · with removable centre · DN 6 - DN 50



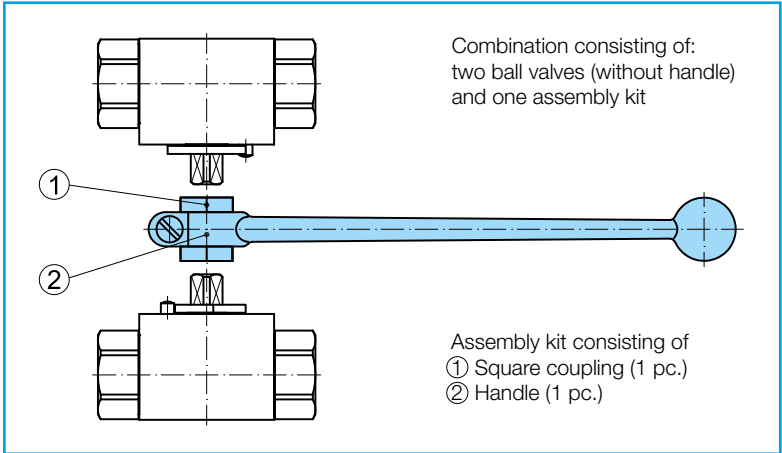
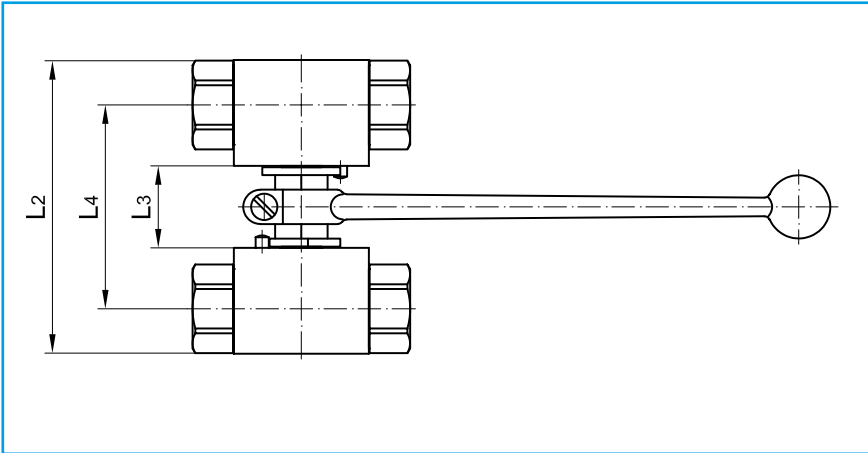
Handle included in delivery
Overall length DIN 3202-4-M3
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	stainless steel
Ball:	stainless steel
Stem:	stainless steel
Ball seals:	PTFE
Stem seals:	PTFE

Connection	DN	Thread D	D1	L	L1	A	B	* Porting pattern DIN EN ISO 5211	Weight	DN	PN	Article no.
BSP-female thread DIN EN ISO 228-1	6	G 1/4	11.6	50	12.0	105	51	F04	0.5	6	63	100853
	10	G 3/8	12.7	60	12.0	105	51	F04	0.5	10	63	100854
	12	G 1/2	15.0	75	15.0	105	61	F04	0.7	12	63	100855
	20	G 3/4	20.0	80	19.0	125	66	F04	0.8	20	63	100856
	25	G 1	25.0	90	22.0	152	78	F04	1.2	25	63	100857
	32	G 1 1/4	32.0	110	21.4	152	82	F04	1.8	32	63	100858
	40	G 1 1/2	38.0	120	21.4	191	95	F05	2.4	40	63	100859
BSP-female thread DIN EN 10266-1	50	G 2	49.0	140	26.0	191	104	F05	3.6	50	40	100860
	6	Rp 1/4	11.6	50	12.0	105	51	F04	0.5	6	63	100890
	10	Rp 3/8	12.7	60	12.0	105	51	F04	0.5	10	63	100891
	12	Rp 1/2	15.0	75	15.0	105	61	F04	0.7	12	63	100892
	20	Rp 3/4	20.0	80	19.0	125	66	F04	0.8	20	63	100893
	25	Rp 1	25.0	90	22.0	152	78	F04	1.2	25	63	100894
	32	Rp 1 1/4	32.0	110	21.4	152	82	F04	1.8	32	63	100895
NPT-female thread ANSI/ASME B1.20.1-1983	40	Rp 1 1/2	38.0	120	21.4	191	95	F05	2.4	40	63	100896
	50	Rp 2	49.0	140	26.0	191	104	F05	3.6	50	40	100897
	6	1/4 - 18 NPT	11.6	50	10.0	105	51	F04	0.5	6	63	100913
	10	3/8 - 18 NPT	12.7	60	10.3	105	51	F04	0.5	10	63	100914
	12	1/2 - 14 NPT	15.0	75	13.6	105	61	F04	0.7	12	63	100915
	20	3/4 - 14 NPT	20.0	80	14.1	125	66	F04	0.8	20	63	100916
	25	1 - 11 1/2 NPT	25.0	90	16.8	152	78	F04	1.2	25	63	100917
	32	1 1/4 - 11 1/2 NPT	32.0	110	17.3	152	82	F04	1.8	32	63	100918
	40	1 1/2 - 11 1/2 NPT	38.0	120	17.3	191	95	F05	2.4	40	63	100919
	50	2 - 11 1/2 NPT	49.0	140	17.7	191	104	F05	3.6	50	40	100920

2-way ball valves with threaded connector

Steel or stainless steel · as combination · DN 4 - DN 50 · assembly kits

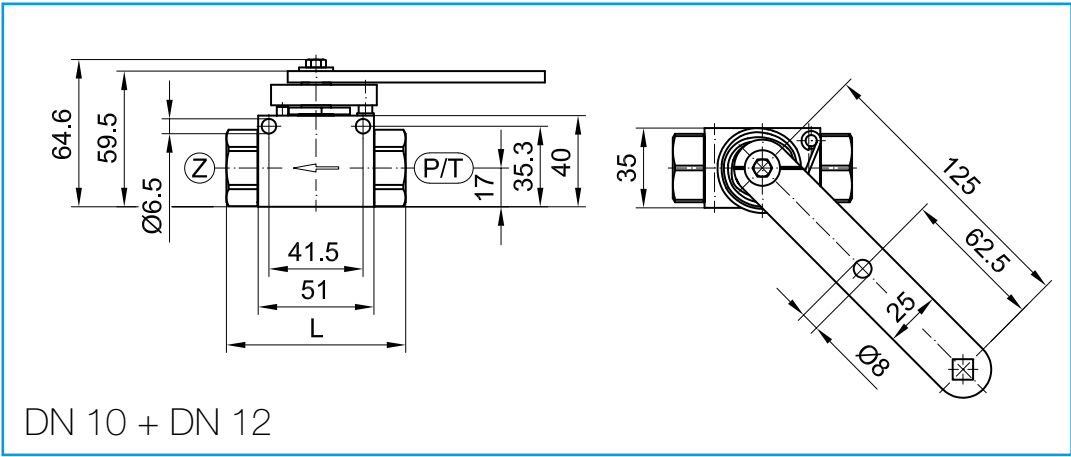


Assembly kits are identical in design for multi-way ball valves with floating ball.
For dimensions and article numbers for ball valve bodies refer to the respective chapter.
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm
Also available completely assembled

Connection	DN	Steel			Stainless steel (standard) (up to 500 bar)			Stainless steel (630 bar)			Assembly kits	Stainless steel	
		L2	L3	L4	L2	L3	L4	L2	L3	L4		DN	Article no.
ALL	4	67	17	47	67	17	47	77	17	49.6	4	100849	
	6	67	17	47	67	17	47	77	17	49.6	6	100849	
	8	94	24	65	94	24	65	104	24	68.0	8	100850	
	10	94	24	65	94	24	65	104	24	68.0	10	100850	
	12	111	31	77	111	31	77	121	31	79.0	12	100851	
	16	121	31	81	150	40	102	170	40	108.0	16	100852	
	20	150	40	102	150	40	102	170	40	108.0	20	100852	
	25	160	40	108	160	40	108	190	40	114.0	25	100852	
	32	203	43	130	203	43	130	-	-	-	32	100803	
	40	223	43	138	223	43	138	-	-	-	40	100803	
	50	251	43	152	251	43	152	-	-	-	50	100803	

2-way ball valves with threaded connector

Steel · with spring-return and integrated check valve

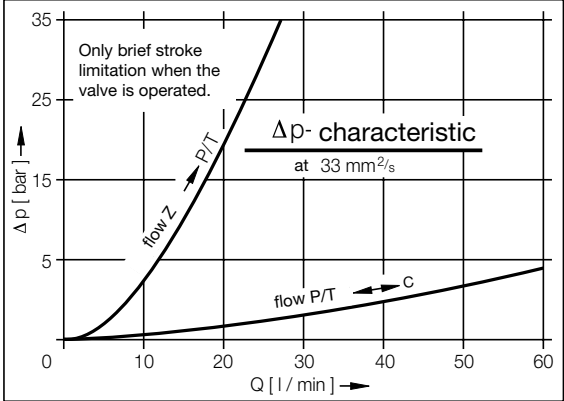
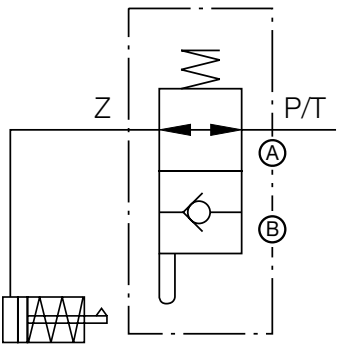


Unidirectional installation!

Please check pressure rating of the pipe fittings!
Custom orders on request
All dimensions subject to change without notice
Handle included in delivery
Also available without check valve
Dimensions in mm | Weight in kg | Pressure in bar

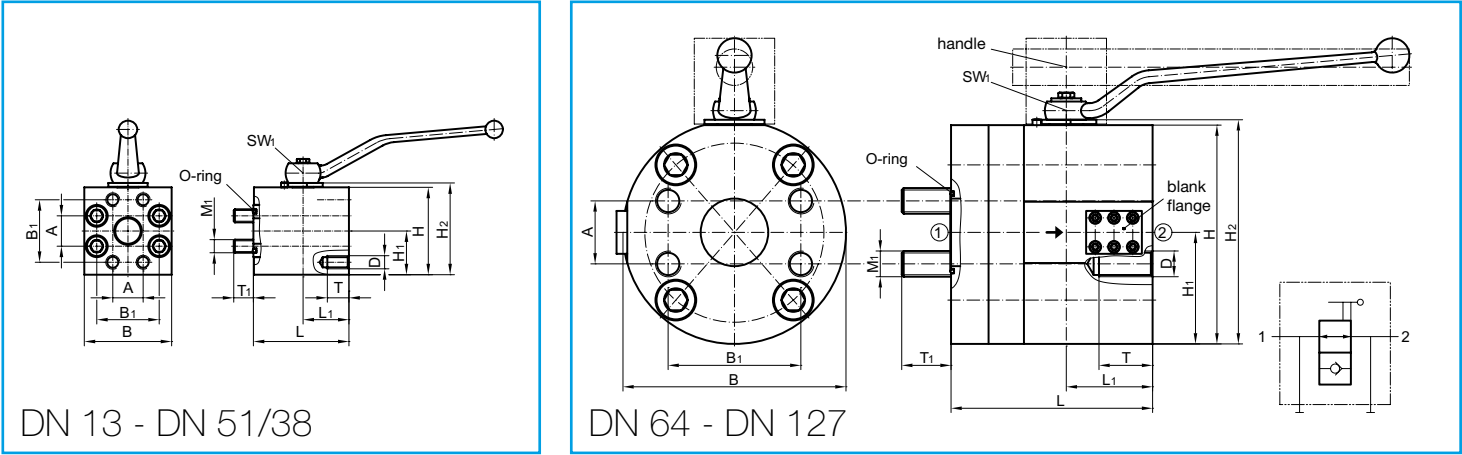
Connection	DN Thread D	OD	L	L ₁	SW	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	10 M 18 x 1.5	12	81	11	30	0.8
	12 M 22 x 1.5	15	83	12	30	0.8
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	10 M 22 x 1.5	14	87	14	30	0.9
	12 M 24 x 1.5	16	87	14	30	0.9
BSP-female thread DIN EN ISO 228-1	10 G 3/8	79	14	30	0.8	
	12 G 1/2	82	15	30	0.8	

DN	PN	Article no.	PN	Article no.
10	500	300004	500	300010
12	500	300005	500	300011
10	500	300008	500	300012
12	500	300009	500	300013
10	500	300006	500	300014
12	500	300007	500	300015



2-way ball valves with flange connection

Steel · ISO 6162-1 (SAE) · DN 13 - DN 127 · direct flangeable

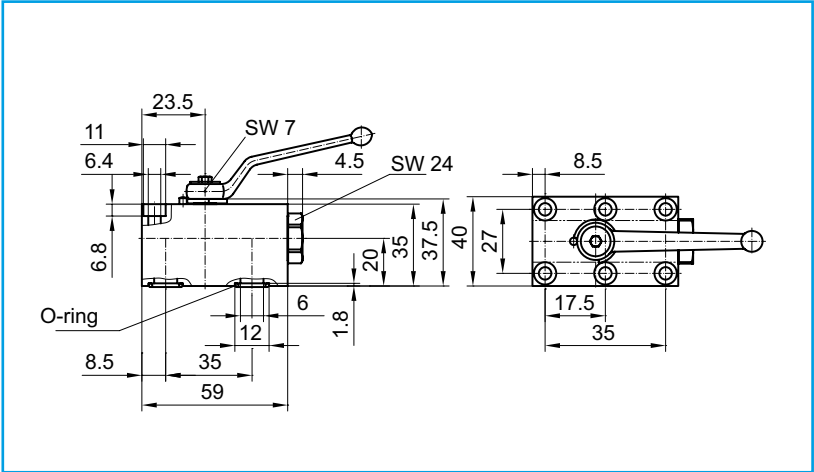


Handle and o-ring included in delivery
For handle refer to "Attachments, accessories"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, zinc nickel plated	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM
Stem seals:	NBR	FKM
Handle (DN 13 - DN 25):	zinc, die cast	zinc, die cast
Handle (DN 32 - DN 125):	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate (DN 13 - DN 76):	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Flange size (inch)	D	T	A	B1	L	L1	B	H	H1	H2	SW1	M1*	T1	Handle code	Weight	DN	O-ring	PN	Article no.	PN	Article no.
ISO 6162-1	13	1/2	M 8	14.0	17.5	38.1	55.5	27.0	60	55	28.5	58.5	10	M 8	14.0	14	1.3	13	18.64 x 3.53	350	104365	350	104377
	19	3/4	M 10	18.0	22.2	47.6	62.5	31.0	70	70	35.0	74.0	14	M 10	18.0	15	2.0	19	24.99 x 3.53	350	104366	350	104378
	25	1	M 10	18.0	26.2	52.4	75.5	38.5	80	80	40.0	84.0	14	M 10	18.0	15	3.0	25	32.92 x 3.53	320	104367	320	104379
	32	1 1/4	M 10	18.0	30.2	58.7	82.0	43.5	100	100	50.0	104.5	17	M 10	18.0	21	5.8	32	37.69 x 3.53	280	104368	280	104380
	38/32	1 1/2	M 12	22.0	35.7	69.9	99.0	53.5	120	120	60.0	124.5	17	M 12	22.0	21	9.5	38/32	47.22 x 3.53	210	104369	210	104381
	51/38	2	M 12	22.0	42.8	77.8	109.5	61.0	134	123	61.5	128.5	17	M 12	22.0	22	11.1	51/38	56.74 x 3.53	210	104370	210	104382
	64	2 1/2	M 12	22.0	88.9	50.8	150.0	75.5	180	175	85.0	180.0	17	M 12	22.0	22	26.0	64	69.44 x 3.53	175	104389	175	104213
	76	3	M 16	29.0	106.4	61.9	155.0	70.5	208	231	98.0	207.5	19	M 16	29.0	58	40.0	76	85.32 x 3.53	160	104390	160	104214
ISO 6162-1	102	4	M 16	29.0	130.2	77.8	170.0	85.0	258	251	122.0	258.0	27	M 16	29.0	57	67.0	102	110.72 x 3.53	35	104391	35	104215
	127	5	M 16	29.0	152.4	92.1	210.0	105.0	295	287.5	140.0	294.5	27	M 16	29.0	57	100.0	127	136.12 x 3.53	35	104392	35	104216
	13	1/2	5/16 - 18 UNC	21.0	17.5	38.1	55.5	27.0	60	55	28.5	58.5	10	5/16 - 18 UNC	21.0	14	1.3	13	18.64 x 3.53	350	104371	350	104383
	19	3/4	3/8 - 16 UNC	22.0	22.2	47.6	62.5	31.0	70	70	35.0	74.0	14	3/8 - 16 UNC	22.0	15	2.0	19	24.99 x 3.53	350	104372	350	104384
	25	1	3/8 - 16 UNC	22.0	26.2	52.4	75.5	38.5	80	80	40.0	84.0	14	3/8 - 16 UNC	22.0	15	3.0	25	32.92 x 3.53	320	104373	320	104385
	32	1 1/4	7/16 - 14 UNC	28.0	30.2	58.7	82.0	43.5	100	100	50.0	104.5	17	7/16 - 14 UNC	28.0	21	5.8	32	37.69 x 3.53	280	104374	280	104386
	38/32	1 1/2	1/2 - 13 UNC	27.0	35.7	69.9	99.0	53.5	120	120	60.0	124.5	17	1/2 - 13 UNC	27.0	21	9.5	38/32	47.22 x 3.53	210	104375	210	104387
	51/38	2	1/2 - 13 UNC	27.0	42.8	77.8	109.5	61.0	134	123	61.5	128.5	17	1/2 - 13 UNC	27.0	22	11.1	51/38	56.74 x 3.53	210	104376	210	104388
ISO 6162-1	64	2 1/2	1/2 - 13 UNC	27.0	88.9	50.8	150.0	75.5	180	175	85.0	180.0	17	1/2 - 13 UNC	27.0	22	26.0	64	69.44 x 3.53	175	104393	175	104396
	76	3	5/8 - 11 UNC	30.0	106.4	61.9	155.0	70.5	208	231	98.0	207.5	19	5/8 - 11 UNC	30.0	58	40.0	76	85.32 x 3.53	160	104393	160	104397
	102	4	5/8 - 11 UNC	30.0	130.2	77.8	170.0	85.0	258	251	122.0	258.0	27	5/8 - 11 UNC	30.0	57	67.0	102	110.72 x 3.53	35	104394	35	104398
	127	5	5/8 - 11 UNC	30.0	152.4	92.1	210.0	105.0	295	287.5	140.0	294.5	27	5/8 - 11 UNC	30.0	57	100.0	127	136.12 x 3.53	35	104395	35	104399

Bypass-ball valve for DN 64 – DN 127



DN	Handle code	Weight	O-ring
6	12	0.58	7.5 x 2.50

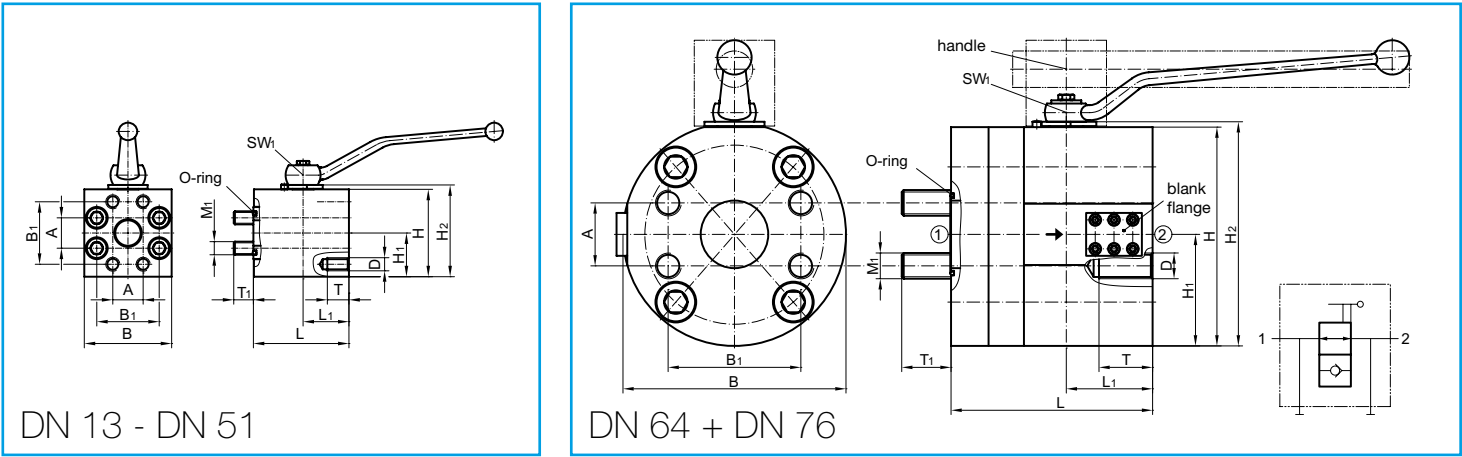
Bolts included in delivery

steel, zinc nickel plated

PN	Article no.
420	106040

2-way ball valves with flange connection

Steel · ISO 6162-2 (SAE) · DN 13 - DN 76 · direct flangeable



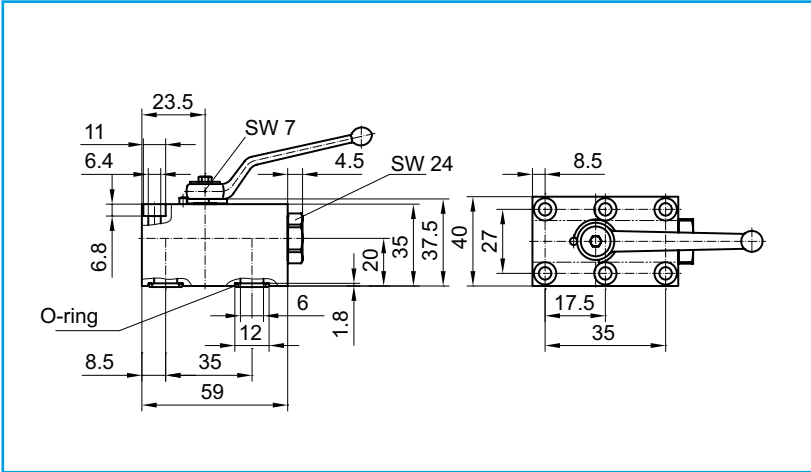
Handle and o-ring included in delivery
For handle refer to "Attachments, accessories"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

**Bypass-ball valve instead of blank flange retrofittable,
also deliverable completely assembled with bypass-ball valve**
Full flow, no reduction!
*) Fixing bolts are not included as standard equipment.
Please check property class of the fixing bolts.
**) DN 64 and DN 76: steel, zinc nickel plated

Connection	DN	Flange size (inch)	D	T	A	B ₁	L	L ₁	B	H	H ₁	H ₂	SW ₁	M ₁ *	T ₁	Handle	Weight	code	DN	O-ring	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.	
ISO 6162-2	13	1/2	M 8	15.0	18.2	40.5	55.5	27.0	60	55	28.5	58.5	10	M 8 x 60	13.5	14	1.3			13	18.64 x 3.53	420	104093	420	700550	420	104120	420	104252
	19	3/4	M 10	16.5	23.8	50.8	62.5	31.0	70	70	35.0	74.0	14	M 10 x 65	14.0	15	2.0			19	24.99 x 3.53	420	104094	420	700551	420	104121	420	104253
	25	1	M 12	21.5	27.8	57.2	75.5	38.5	80	80	40.0	84.0	14	M 12 x 80	18.0	15	3.0			25	32.92 x 3.53	420	104095	420	700552	420	104422	420	104254
	32	1¼	M 12	23.5	31.8	66.6	82.0	43.5	100	100	50.0	104.5	17	M 12 x 85	18.0	21	5.8			32	37.69 x 3.53	420	104166	420	700553	420	104167	420	104255
	38	1½	M 16	26.0	36.5	79.3	99.0	53.5	120	120	60.0	124.5	17	M 16 x 100	18.0	21	9.5			38	47.22 x 3.53	420	104097	420	700554	420	104124	420	104256
	51	2	M 20	34.0	44.5	96.8	109.5	61.0	134	123	61.5	128.5	17	M 20 x 110	22.0	22	11.1			51	56.74 x 3.53	420	104098	420	700555	420	104125	420	104262
	64	2½	M 24	50.0	58.7	123.8	188.0	80.5	208	204	104.0	209.0	17	M 24 x 55	48.0	22	46.0			64	69.44 x 3.53	420	-	420	700556	420	104281**	420	104238
	76	3	M 30	60.0	71.4	152.4	214.0	91.0	248	231	124.0	-	19	M 30 x 70	56.0	58	78.0			76	85.32 x 3.53	420	-	420	700557	420	104282**	420	104239
ISO 6162-2	13	1/2	5/16 - 18 UNC	19.0	18.2	40.5	55.5	27.0	60	55	28.5	58.5	10	5/16 UNC x 2½	17.5	14	1.3			13	18.64 x 3.53	420	104099	420	700810	420	104126	420	104257
	19	3/4	3/8 - 16 UNC	21.0	23.8	50.8	62.5	31.0	70	70	35.0	74.0	14	3/8 UNC x 2¾	19.0	15	2.0			19	24.99 x 3.53	420	104100	420	700811	420	104127	420	104258
	25	1	7/16 - 14 UNC	21.0	27.8	57.2	75.5	38.5	80	80	40.0	84.0	14	7/16 UNC x 3¼	20.0	15	3.0			25	32.92 x 3.53	420	104101	420	700812	420	104128	420	104259
	32	1¼	1/2 - 13 UNC	25.0	31.8	66.6	82.0	43.5	100	100	50.0	104.5	17	1/2 UNC x 3½	21.0	21	5.8			32	37.69 x 3.53	420	104102	420	700813	420	104129	420	104260
	38	1½	5/8 - 11 UNC	28.0	36.5	79.3	99.0	53.5	120	120	60.0	124.5	17	5/8 UNC x 4¼	26.0	21	9.5			38	47.22 x 3.53	420	104103	420	700814	420	104130	420	104261
	51	2	3/4 - 10 UNC	34.0	44.5	96.8	109.5	61.0	134	123	61.5	128.5	17	3/4 UNC x 4½	26.0	22	11.1			51	56.74 x 3.53	420	104104	420	700815	420	104131	420	104263
	64	2½	7/8 - 9 UNC	50.0	58.7	123.8	188.0	80.5	208	204	104.0	209.0	17	7/8 UNC x 2¼	46.0	22	46.0			64	69.44 x 3.53	420	-	420	700816	420	104283**	420	104238
	76	3	11/8 - 7 UNC	60.0	71.4	152.4	214.0	91.0	248	231	124.0	-	19	11/8 UNC x 2¾	56.0	58	78.0			76	85.32 x 3.53	420	-	420	700817	420	104284**	420	104239

Pressure application only completely assembled!

Bypass-ball valve for DN 64 and DN 76



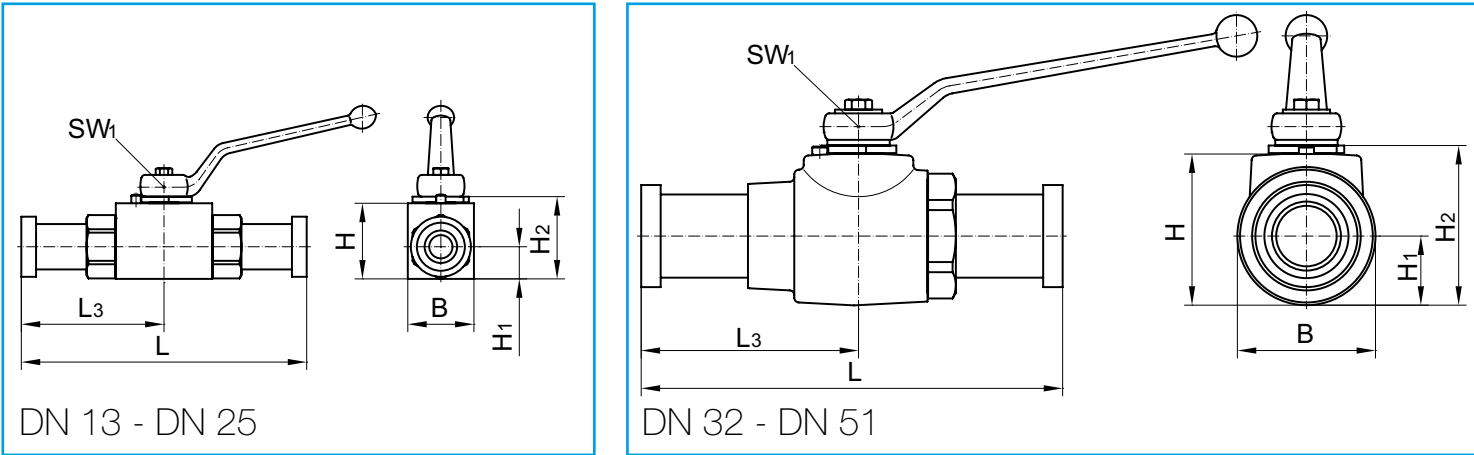
DN	Handle code	Weight	O-ring
6	12	0.6	7.5 x 2.50

steel, zinc nickel plated		stainless steel	
PN	Article no.	PN	Article no.
420	106040	420	106043

Bolts included in delivery

2-way ball valves with flange connection

Steel · ISO 6162 (SAE) · DN 13 - DN 51 · for split flanges

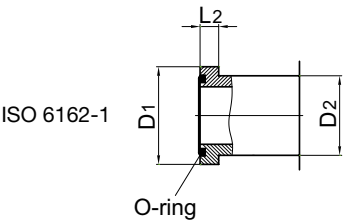


Handle and o-ring included in delivery
For actuators and handles refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

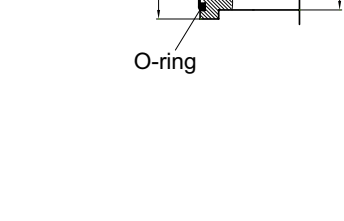
DN 32 - DN 51 also available with completely assembled full flanges

Body:	steel, black oxide	steel, zinc nickel plated	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	NBR	FKM	FKM
Handle (DN 13 - DN 25):	zinc, die cast	zinc, die cast	zinc, die cast	zinc, die cast
Handle (DN 32 - DN 51):	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate (DN 13 - DN 51):	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection



ISO 6162-2



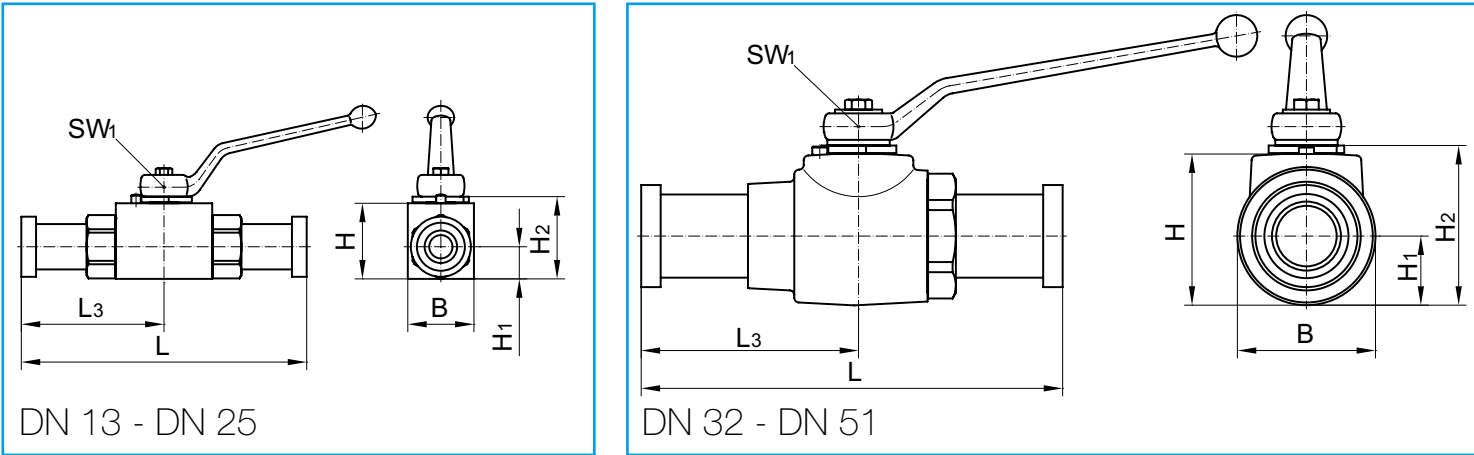
DN	Flange size (inch)	D1	D2	L	L1	L2	L3	B	H	H1	H2	SW1	Handle code	Weight
13	1/2	30.20	24.0	151	6.8	75.5	35	40	17.0	43.5	10	14	0.9	1.3
19	3/4	38.10	31.5	162	6.8	81.0	45	55	24.0	59.0	14	15	1.7	2.0
25	1	44.45	38.0	178	8.0	89.0	55	60	26.0	64.0	14	15	2.5	3.0
32	1 1/4	50.80	43.0	191	8.0	99.0	73	80	36.5	84.5	17	21	3.8	5.8
38	1 1/2	60.35	50.0	231	8.0	115.5	85	90	42.5	94.5	17	21	4.5	9.5
51	2	71.40	62.0	232	9.6	116.0	99	104	49.5	108.5	17	22	6.1	11.1

DN	O-ring	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
13	18.64 x 3.53	350	104523	350	700126	350	104533	350	700138
19	24.99 x 3.53	350	104524	350	700127	350	104534	350	700139
25	32.92 x 3.53	320	104501	320	700128	320	104511	320	700140
32	37.69 x 3.53	280	104502	280	700129	280	104512	280	700141
38	47.22 x 3.53	210	104503	210	700130	210	104513	210	700142
51	56.74 x 3.53	210	104504	210	700131	210	104514	210	700143

13	18.64 x 3.53	420	104528	420	700132	420	104538	420	700144
19	24.99 x 3.53	420	104529	420	700133	420	104539	420	700145
25	32.92 x 3.53	420	104505	420	700134	420	104515	420	700146
32	37.69 x 3.53	420	104506	420	700135	420	104516	420	700147
38	47.22 x 3.53	420	104507	420	700136	420	104517	420	700148
51	56.74 x 3.53	420	104508	420	700137	420	104518	420	700149

2-way ball valves with flange connection

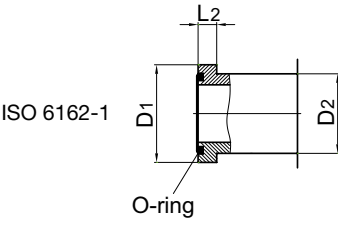
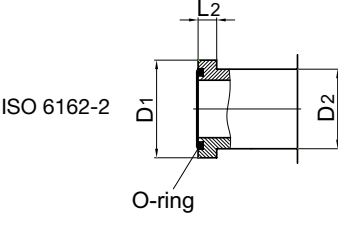
Stainless steel · ISO 6162 (SAE) · DN 13 - DN 51· for split flanges



Handle and o-ring included in delivery
For actuators and handles refer to "Attachments, accessories"
Stainless steel (material no. 1.4571 - or other stainless steels)
Custom orders on request

All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar
DN 32 - DN 51 also available with completely assembled flanges

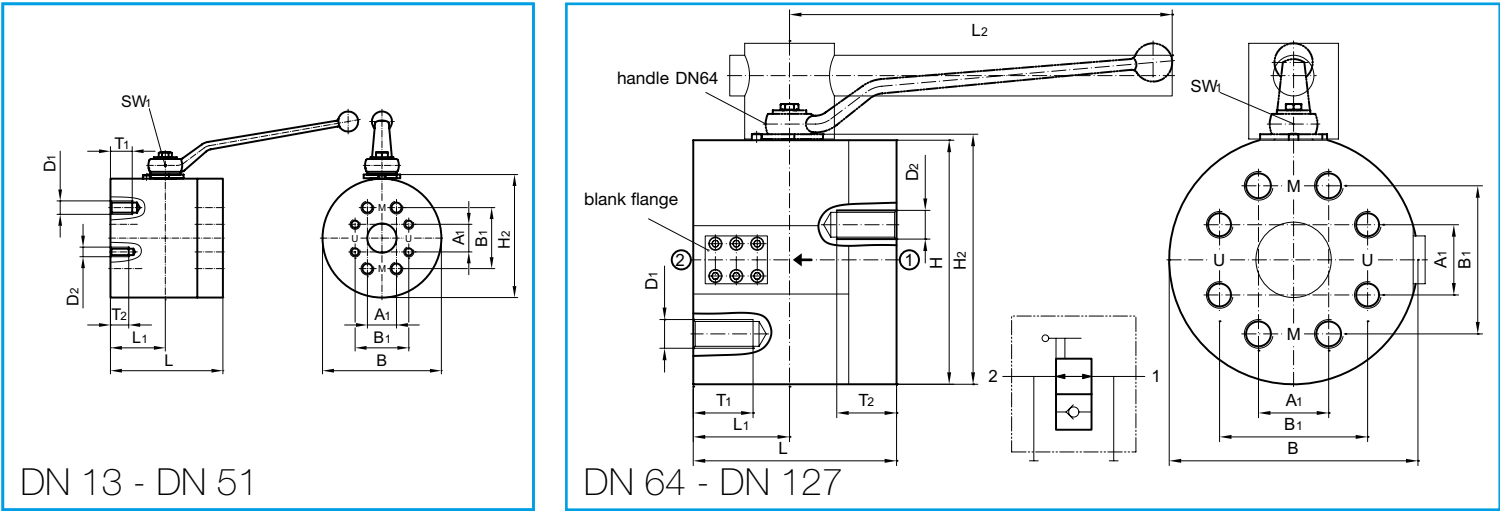
Body:	stainless steel	stainless steel
Ball:	stainless steel	stainless steel
Stem:	stainless steel	stainless steel
Ball seals:	POM	POM
Stem seals:	NBR	FKM
Handle (DN 13 - DN 25):	zinc, die cast	zinc, die cast
Stop plate (DN 13 - DN 25):	steel, zinc nickel plated	steel, zinc nickel plated
Handle (DN 32 - DN 51):	stainless steel	stainless steel
Stop plate (DN 32 - DN 51):	stainless steel	stainless steel

Connection	DN	Flange size (inch)	D1	D2	L	L2	L3	B	H	H1	H2	SW1	Handle code	Weight
 ISO 6162-1	13	1/2	30.20	24.0	151	6.8	75.5	35	40	17.0	43.5	10	14	0.9
	19	3/4	38.10	31.5	162	6.8	81.0	45	55	24.0	59.0	14	15	1.7
	25	1	44.45	38.0	178	8.0	89.0	55	60	26.0	64.0	14	15	2.5
	32	1 1/4	50.80	43.0	191	8.0	99.0	73	80	36.5	84.5	17	37	3.8
	38	1 1/2	60.35	50.0	231	8.0	115.5	85	90	42.5	94.5	17	37	4.5
	51	2	71.40	62.0	232	9.6	116.0	99	104	49.5	108.5	17	38	6.1
 ISO 6162-2	13	1/2	31.8	24	151	7.8	75.5	35	40	17.0	43.5	10	14	1.0
	19	3/4	41.3	32	174	8.8	87.0	45	55	24.0	59.0	14	15	1.8
	25	1	47.6	38	198	9.5	99.0	55	60	26.0	64.0	14	15	2.6
	32	1 1/4	54.0	44	223	10.3	115.0	73	80	36.5	84.5	17	37	4.0
	38	1 1/2	63.5	51	281	12.6	140.5	85	90	42.5	94.5	17	37	5.6
	51	2	79.4	67	316	12.6	158.5	99	104	49.5	108.5	17	38	7.7

DN	O-ring	PN	Article no.	PN	Article no.
13	18.64 x 3.53	350	104315	350	104327
19	24.99 x 3.53	350	104316	350	104328
25	32.92 x 3.53	320	104317	320	104329
32	37.69 x 3.53	280	104318	280	104330
38	47.22 x 3.53	210	104319	210	104331
51	56.74 x 3.53	210	104320	210	104332
13	18.64 x 3.53	420	104321	420	104333
19	24.99 x 3.53	420	104322	420	104334
25	32.92 x 3.53	420	104323	420	104335
32	37.69 x 3.53	420	104324	420	104336
38	47.22 x 3.53	420	104325	420	104337
51	56.74 x 3.53	420	104326	420	104338

2-way ball valves with flange connection

Steel · ISO 6162 (SAE) · DN 13 - DN 127



Handle and o-ring included in delivery
For handles refer to "Attachments, accessories"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Bypass-ball valve instead of blank flange retrofittable, also deliverable completely assembled with bypass-ball valve

Metric and UNC-thread in the same body!

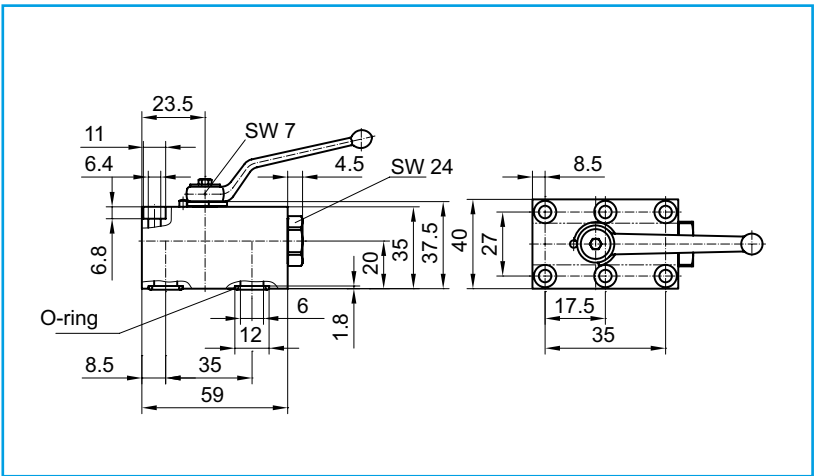
*) DN 64 and DN 127: steel, zinc nickel plated

Body:	steel. black oxide	steel. black oxide
Ball:	steel. hard chrome plated	steel. hard chrome plated
Stem:	steel. zinc nickel plated	steel. zinc nickel plated
Ball seals:	POM	POM
Stem seals:	NBR	FKM
Handle (DN 13 - DN 25):	zinc, die cast	zinc, die cast
Handle (DN 32 - DN 127):	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate (DN 13 - DN 76):	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Flange size (inch)	D1	T1	D2	T2	A1	B1	L	L1	B	H	H2	SW1	Handle code	Weight	DN	PN	Article no.	PN	Article no.
ISO 6162-1	13	1/2	M 8	14	5/16 - 18 UNC	21	17.5	38.1	76.0	38.0	55	54.0	57.5	10	14	1.3	13	350	104200	350	104206
	19	3/4	M 10	18	3/8 - 16 UNC	22	22.3	47.6	78.0	36.5	70	66.0	70.0	14	15	2.1	19	350	104201	350	104207
	25	1	M 10	16	3/8 - 16 UNC	22	26.2	52.4	80.0	34.0	78	73.0	77.0	14	15	2.6	25	320	104202	320	104208
	32	1 1/4	M 10	22	7/16 - 14 UNC	28	30.2	58.7	123.0	60.0	130	130.0	134.5	17	21	11.8	32	280	104175	280	104185
	38	1 1/2	M 12	25	1/2 - 13 UNC	27	35.7	69.9	133.0	61.0	140	140.0	144.5	17	21	13.6	38	210	104176	210	104186
	51	2	M 12	25	1/2 - 13 UNC	27	42.9	77.8	162.0	79.0	160	158.0	162.5	17	22	20.9	51	210	104177	210	104187
	64	2 1/2	M 12	23	1/2 - 13 UNC	30	50.8	88.9	150.0	75.5	180	175.0	180.0	17	22	28.0	64	175	104178*	175	104213*
	76	3	M 16	30	5/8 - 11 UNC	30	61.9	106.4	155.0	70.5	208	202.0	-	19	58	43.0	76	160	104179*	160	104214*
ISO 6162-2	102	4	M 16	30	5/8 - 11 UNC	30	77.8	130.2	170.0	85.0	258	251.0	-	27	57	73.0	102	35	104180*	35	104215*
	127	5	M 16	30	5/8 - 11 UNC	30	92.1	152.4	210.0	105.0	295	287.5	-	27	57	108.0	127	35	104181*	35	104216*
	13	1/2	M 8	16	5/16 - 18 UNC	21	18.2	40.5	81.0	40.5	59	36.0	59.5	10	14	1.7	13	420	104203	420	104209
	19	3/4	M 10	18	3/8 - 16 UNC	24	23.8	50.8	83.0	41.5	74	72.0	76.0	14	15	2.6	19	420	104204	420	104210
	25	1	M 12	23	7/16 - 14 UNC	27	27.8	57.2	99.5	49.5	85	82.7	86.7	14	15	4.0	25	420	104205	420	104211
	32	1 1/4	M 12**	20	1/2 - 13 UNC	25	31.8	66.7	123.0	60.0	130	130.0	134.5	17	21	11.8	32	420	104182	420	104192
	38	1 1/2	M 16	27	5/8 - 11 UNC	35	36.5	79.4	133.0	61.0	140	140.0	144.5	17	21	13.6	38	420	104183	420	104193
	51	2	M 20	35	3/4 - 10 UNC	38	44.5	96.8	162.0	79.0	160	158.0	162.5	17	22	20.9	51	420	104184	420	104194
	64	2 1/2	M 24	50	7/8 - 9 UNC	50	58.7	123.8	170.0	80.5	208	204.0	209.0	17	22	42.0	64	-	-	420	104217*
	76	3	M 30	60	1 1/8 - 7 UNC	60	71.4	152.4	196.0	91.0	248	231.0	-	19	58	74.0	76	-	-	420	104218*

**) ISO changed from M14 to M12

Bypass-ball valve for DN 64 - DN 127



DN	Handle code	Weight	O-ring
6	12	0.6	7.5 x 2.50

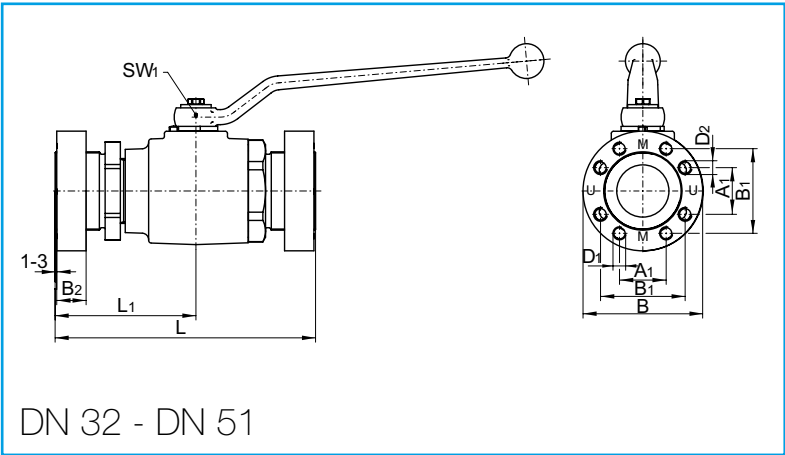
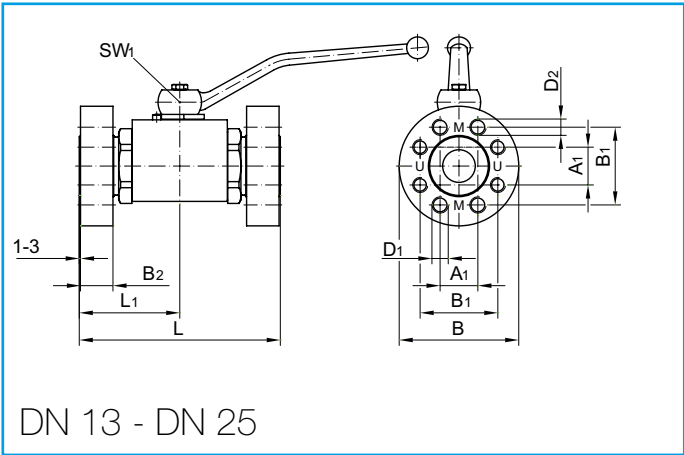
steel, zinc nickel plated

PN	Article no.
420	106040

Bolts included in delivery

2-way ball valves with flange connection

Steel · ISO 6162 (SAE) · DN 13 - DN 51



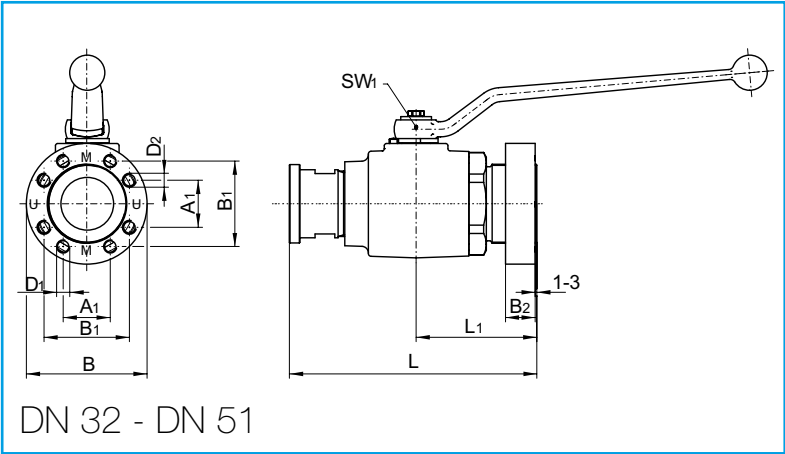
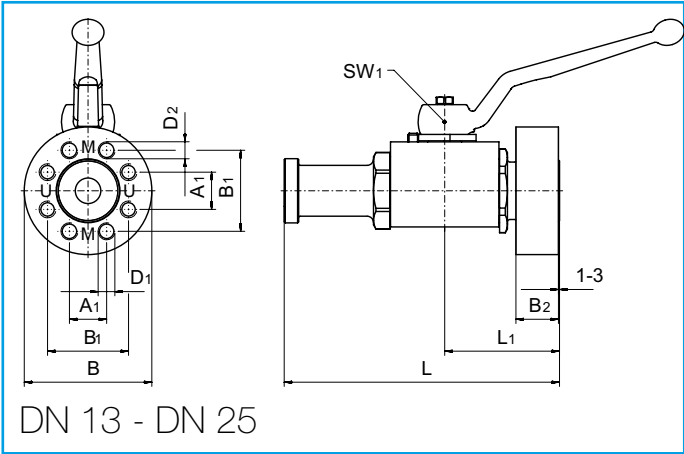
For dimensions of ball valves refer to the respective chapter "2-way ball valves".
Actuators: refer to "Attachments, accessories"
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, zinc nickel plated	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM
Stem seals:	NBR	FKM
Handle (DN 13 - DN 25):	zinc, die cast	zinc, die cast
Handle (DN 32 - DN 51):	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate(DN 13 - DN 51):	steel, zinc nickel plated	steel, zinc nickel plated

Connection		DN	Flange size (inch)	D1	D2	A1	B1	B2	L	L1	B	SW1	Handle code	Weight	DN	PN	Article no.	PN	Article no.
ISO 6162-1		13	1/2	M 8	5/16 - 18 UNC	17.5	38.1	20	108.0	54	60	10	14	1.3	13	350	700196	350	700208
		19	3/4	M 10	3/8 - 16 UNC	22.3	47.6	22	131.0	66	70	14	15	2.6	19	350	700197	350	700209
		25	1	M 10	3/8 - 16 UNC	26.2	52.4	22	144.0	72	75	14	15	3.7	25	320	700198	320	700210
		32	1¼	M 10	7/16 - 14 UNC	30.2	58.7	25	181.0	104	85	17	21	8.3	32	280	700199	280	700211
		38	1½	M 12	1/2 - 13 UNC	35.7	69.9	27	209.0	118	100	17	21	9.5	38	210	700200	210	700212
		51	2	M 12	1/2 - 13 UNC	42.9	77.8	27	239.5	130	110	17	22	13.1	51	210	700201	210	700213
ISO 6162-2		13	1/2	M 8	5/16 - 18 UNC	18.2	40.5	21	108.0	54	60	10	14	1.4	13	420	700202	420	700214
		19	3/4	M 10	3/8 - 16 UNC	23.8	50.8	24	131.0	66	80	14	15	2.8	19	420	700203	420	700215
		25	1	M 12	7/16 - 14 UNC	27.8	57.2	27	144.0	72	90	14	15	4.1	25	420	700204	420	700216
		32	1¼	M 12	1/2 - 13 UNC	31.8	66.7	25	181.0	104	100	17	21	5.0	32	420	700205	420	700217
		38	1½	M 16	5/8 - 11 UNC	36.5	79.4	35	209.0	118	120	17	21	10.2	38	420	700206	420	700218
		51	2	M 20	3/4 - 10 UNC	44.5	96.8	38	239.5	130	140	17	22	14.1	51	420	700207	420	700219

2-way ball valves with flange connection

Steel · ISO 6162 (SAE) · DN 13 - DN 51 · for split flanges + flange connection



For dimensions of ball valves refer to the respective chapter "2-way ball valves".

Actuators: refer to "Attachments, accessories"

Custom orders on request

All dimensions subject to change without notice

Dimensions in mm | Weight in kg | Pressure in bar

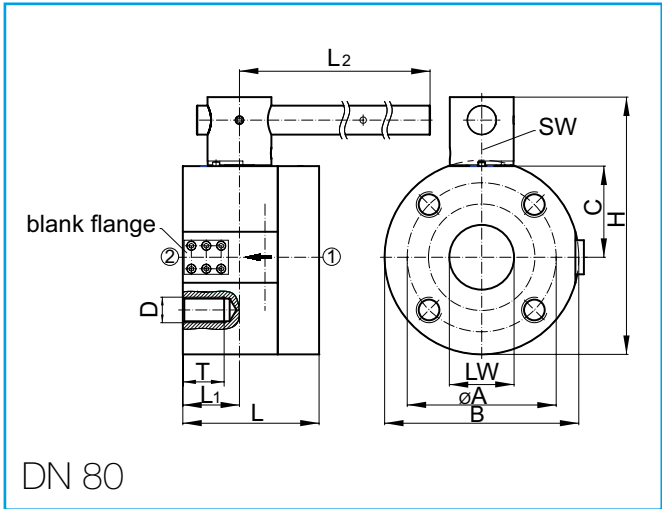
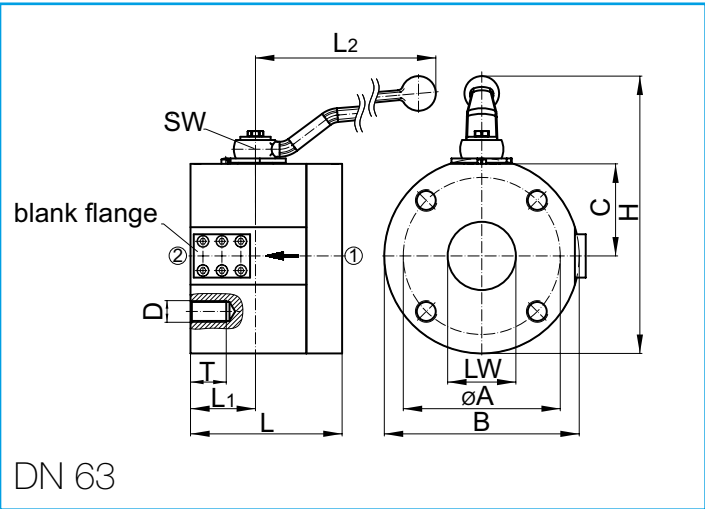
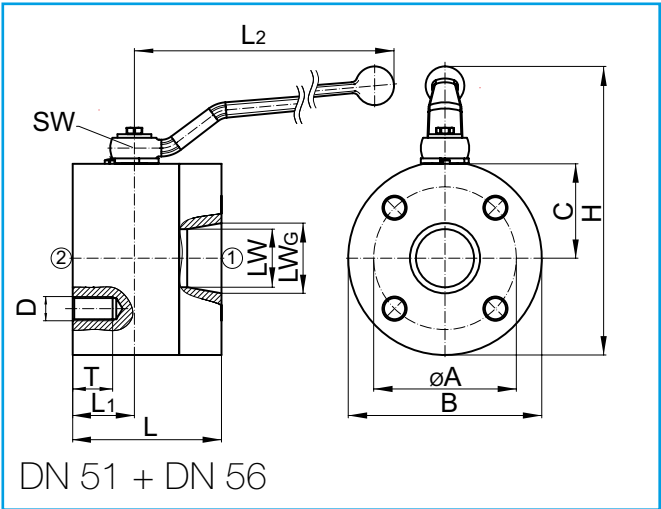
DN 32 - DN 51 also available with completely assembled full flanges

Body:	steel, zinc nickel plated	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM
Stem seals:	NBR	FKM
Handle (DN 13 - DN 25):	zinc, die cast	zinc, die cast
Handle (DN 32 - DN 51):	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate (DN 13 - DN 51):	steel, zinc nickel plated	steel, zinc nickel plated

Connection		DN	Flange size (inch)	D1	D2	A1	B1	B2	D3	D4	L	L1	L2	B	SW1	Handle code	Weight	DN	O-ring	PN	Article no.	PN	Article no.
ISO 6162-1		13	1/2	M 8	5/16 - 18 UNC	17.5	38.1	20	30.20	24.0	129.5	54	6.8	60	10	14	1.1	13	18.64 x 3.53	350	700244	350	700256
		19	3/4	M 10	3/8 - 16 UNC	22.3	47.6	22	38.10	31.5	146.5	66	6.8	70	14	15	2.2	19	24.99 x 3.53	350	700245	350	700257
		25	1	M 10	3/8 - 16 UNC	26.2	52.4	22	44.45	38.0	161.0	72	8.0	75	14	15	3.1	25	32.92 x 3.53	320	700246	320	700258
		32	1 1/4	M 10	7/16 - 14 UNC	30.2	58.7	25	50.80	43.0	176.5	78	8.0	85	17	21	6.1	32	37.69 x 3.53	280	700247	280	700259
		38	1 1/2	M 12	1/2 - 13 UNC	35.7	69.9	27	60.35	50.0	207.0	92	8.0	100	17	21	7.0	38	47.22 x 3.53	210	700248	210	700260
ISO 6162-2		51	2	M 12	1/2 - 13 UNC	42.9	77.8	27	71.40	62.0	226.5	110	9.6	110	17	22	9.6	51	56.74 x 3.53	210	700249	210	700261
		13	1/2	M 8	5/16 - 18 UNC	18.2	40.5	21	31.8	24.0	129.5	54	7.8	60	10	14	1.2	13	18.64 x 3.53	420	700250	420	700262
		19	3/4	M 10	3/8 - 16 UNC	23.8	50.8	24	41.3	32.0	152.5	66	8.8	80	14	15	2.3	19	24.99 x 3.53	420	700251	420	700263
		25	1	M 12	7/16 - 14 UNC	27.8	57.2	27	47.6	38.0	171.0	72	9.5	90	14	15	3.4	25	32.92 x 3.53	420	700252	420	700264
		32	1 1/4	M 12	1/2 - 13 UNC	31.8	66.7	25	54.0	44.0	192.5	78	10.3	100	17	21	4.1	32	37.69 x 3.53	420	700253	420	700265
		38	1 1/2	M 16	5/8 - 11 UNC	36.5	79.4	35	63.5	51.0	232.0	92	12.6	120	17	21	7.9	38	47.22 x 3.53	420	700254	420	700266
		51	2	M 20	3/4 - 10 UNC	44.5	96.8	38	79.4	67.0	268.5	110	12.6	140	17	22	10.9	51	56.74 x 3.53	420	700255	420	700267

2-way ball valves with flange connection

Steel · ISO 6164 · DN 51 - DN 80



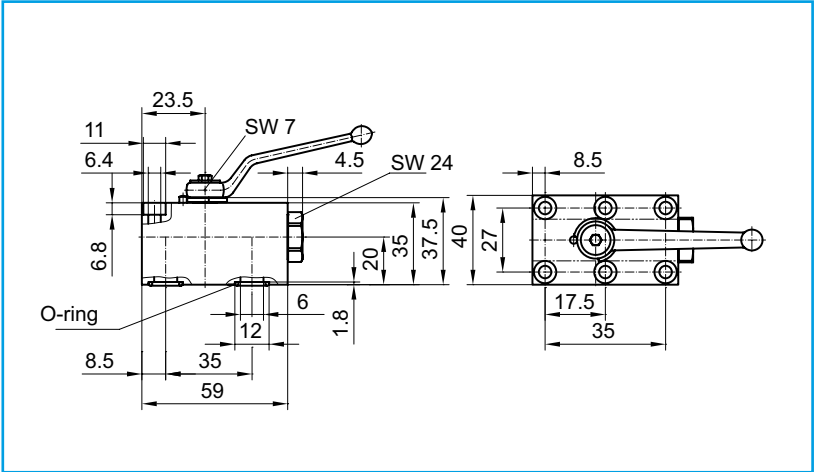
Handle included in delivery
For handle refer to "Attachments, accessories"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, zinc nickel plated
Ball:	steel, hard chrome plated
Stem:	steel, zinc nickel plated
Ball seals:	POM
Stem seals:	NBR
Handle (DN 51 - DN 80):	steel, zinc nickel plated
Stop plate(DN 51 - DN 80):	steel, zinc nickel plated

Connection	DN	LW	LWG	D	T	øA	C	L	L1	L2	B	H	SW	Handle code	Weight
ISO 6164-1	51	48	48	M 16	25.5	98	78.0	116	53.0	320	160	239	17	22	18.0
	56	48	58	M 20	33.0	118	78.0	123	51.0	320	160	239	17	22	17.5
	63	63	63	M 20	33.0	145	85.0	140	60.0	320	180	256	17	22	25.0
ISO 6164-2	51	48	48	M 16	25.5	98	78.0	116	53.0	320	160	239	17	22	18.0
	56	48	58	M 20	33.0	118	78.0	123	51.0	320	160	239	17	22	17.5
	63	63	63	M 24	37.5	145	100.0	150	70.0	320	208	285	17	22	37.0
	80	76	76	M 30	48.5	175	107.0	160	66.5	550	228	302	19	58	50.0

DN	PN	Article no.
51	250	700876
56	250	700877
63	250	700878
51	420	700879
56	420	700880
63	420	700881
80	315	700882

Bypass-ball valve for DN 63 and DN 80



DN	Handle code	Weight	O-ring
6	12	0.6	7.5 x 2.50

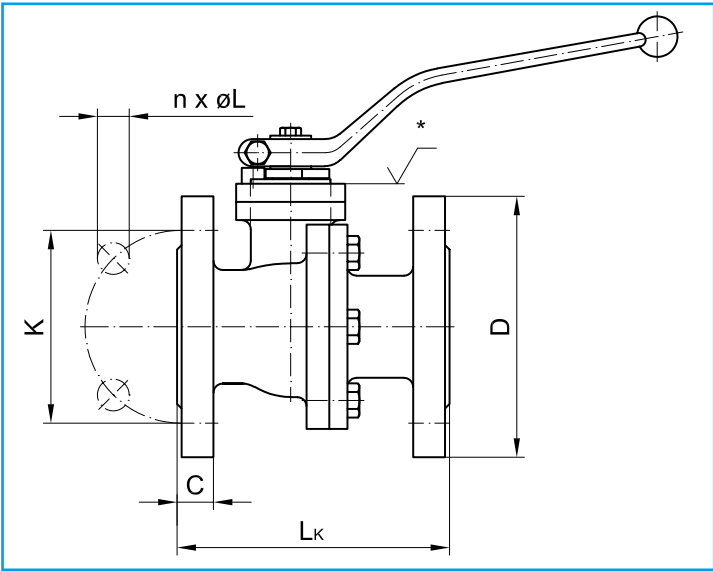
steel, zinc nickel plated

PN	Article no.
420	106040

Bolts included in delivery

2-way ball valves with flange connection

Steel and stainless steel · DIN · DN 15 - DN 200



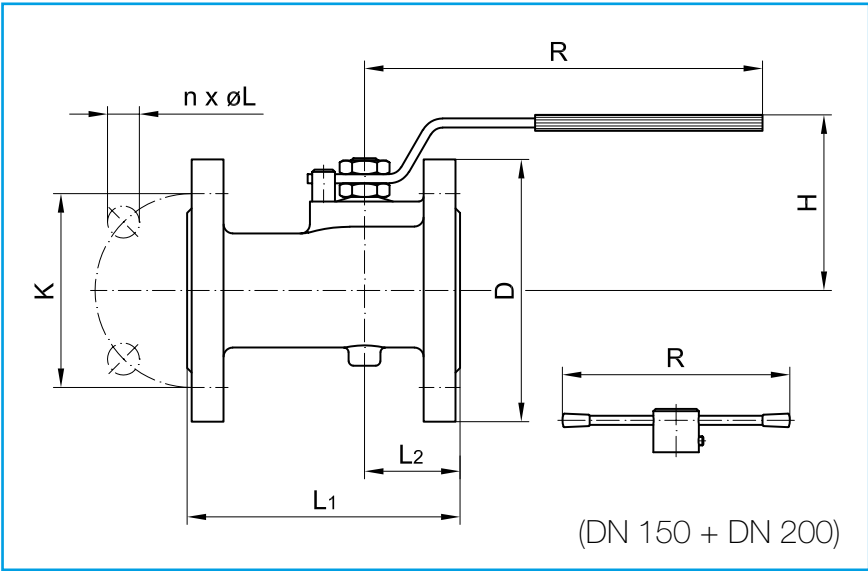
Flange-connecting dimension: DIN EN 1092-2 (DIN 2501-1)
Overall length: DIN EN 558 basic range 27 (DIN 3202-1-F4/F5)
1) design with inspection certificate according to DIN EN 10204
2) deviating from the standard PN 40
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	GS	stainless steel	stainless steel
Ball:	stainless steel	stainless steel	stainless steel
Stem:	stainless steel	stainless steel	stainless steel
Ball seals:	PTFE	PTFE	PTFE
Stem seals:	PTFE	PTFE	PTFE

Connection	DN	D	C	K	Number n	ØL	Lk	*porting pattern DIN EN ISO 5211	DN	Article no.	Weight	Article no.	Weight	Article no. ¹⁾	Weight
PN 10	15	95	16 ²⁾	65	4	14	115	F 05	15	105271	3.9	105071	3.0	105215	3.9
	20	105	18 ²⁾	75	4	14	120	F 05	20	105272	4.4	105072	3.6	105216	4.4
	25	115	18 ²⁾	85	4	14	125	F 05	25	105273	4.6	105073	4.5	105217	4.6
	32	140	18 ²⁾	100	4	18	130	F 05	32	105274	6.4	105074	6.1	105218	6.4
	40	150	18 ²⁾	110	4	18	140	F 07	40	105275	8.5	105075	8.2	105219	8.5
	50	165	20 ²⁾	125	4	18	150	F 07	50	105276	12.8	105076	10.7	105220	12.8
	65	185	18	145	4	18	170	F 10	65	105277	19.0	105077	13.5	105221	19.0
	80	200	20	160	8	18	180	F 10	80	105278	25.0	105078	21.0	105222	25.0
	100	220	20	180	8	18	190	F 10	100	105279	30.0	105079	28.6	105223	30.0
	125	250	22	210	8	18	325	F 12	125	105280	67.0	-	-	105224	67.0
PN 16	15	95	16 ²⁾	65	4	14	115	F 05	15	105271	3.9	105071	3.0	105215	3.9
	20	105	18 ²⁾	75	4	14	120	F 05	20	105272	4.4	105072	3.6	105216	4.4
	25	115	18 ²⁾	85	4	14	125	F 05	25	105273	4.6	105073	4.5	105217	4.6
	32	140	18 ²⁾	100	4	18	130	F 05	32	105274	6.4	105074	6.1	105218	6.4
	40	150	18 ²⁾	110	4	18	140	F 07	40	105275	8.5	105075	8.2	105219	8.5
	50	165	20 ²⁾	125	4	18	150	F 07	50	105276	12.8	105076	10.7	105220	12.8
	65	185	18	145	4	18	170	F 10	65	105277	19.0	105077	13.5	105221	19.0
	80	200	20	160	8	18	180	F 10	80	105278	25.0	105078	21.0	105222	25.0
	100	220	20	180	8	18	190	F 10	100	105279	30.0	105079	28.6	105223	30.0
	125	250	22	210	8	18	325	F 12	125	105280	67.0	-	-	105224	67.0
PN 25 PN 40	15	95	16	65	4	14	115	F 05	15	105284	3.9	105084	3.0	105230	3.9
	20	105	18	75	4	14	120	F 05	20	105285	4.4	105085	3.6	105231	4.4
	25	115	18	85	4	14	125	F 05	25	105286	4.6	105086	4.5	105232	4.6
	32	140	18	100	4	18	130	F 05	32	105287	6.4	105087	6.1	105233	6.4
	40	150	18	110	4	18	140	F 07	40	105288	8.5	105088	8.2	105234	8.5
	50	165	20	125	4	18	150	F 07	50	105289	12.8	105089	10.7	105235	12.8
	65	185	22	145	8	18	170	F 10	65	105290	20.0	105090	14.5	105236	20.0
	80	200	24	160	8	18	180	F 10	80	105291	25.0	105091	22.6	105237	25.0
	100	235	24	190	8	22	190	F 10	100	105292	33.5	105092	30.8	105238	33.5
	125	270	26	220	8	26	325	F 12	125	105293	72.0	-	-	105239	72.0
	150	300	28	250	8	26	350	F 12	150	105294	106.0	-	-	105240	106.0

2-way ball valves with flange connection

Grey cast iron · sim. to DIN · DN 25 - DN 200



Overall length: DN 25 - DN 150: DIN EN 558 basic range 14 (DIN 3202-1-F4)
Overall length: DN 200: DIN EN 558 basic range 15 (DIN 3262-1-F5)
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	GG
Ball:	brass
Stem:	steel
Ball seals:	PTFE
Stem seals:	NBR

Connection	DN	D	K	Number n	ØL	L1	L2	H	R	Weight	DN	Article no.
PN 10 PN 16	25	115	85	4	M 12	125	42	79	174	3.1	25	105050
	32	140	100	4	M 16	130	47	85	174	4.8	32	105051
	40	150	110	4	M 16	140	49	103	250	6.1	40	105052
	50	165	125	4	M 16	150	52	110	250	7.8	50	105053
	65	185	145	4	M 16	170	65	126	321	11.4	65	105054
	80	200	160	8	M 16	180	66	137	321	14.1	80	105055
	100	220	180	8	M 16	190	89	158	381	20.0	100	105056
	125	250	210	8	M 16	200	100	180	381	30.4	125	105057
	150	285	240	8	M 20	210	105	265	700	44.5	150	105058
	200	340	295	8	Ø22	400	200	308	700	103.0	200	105059

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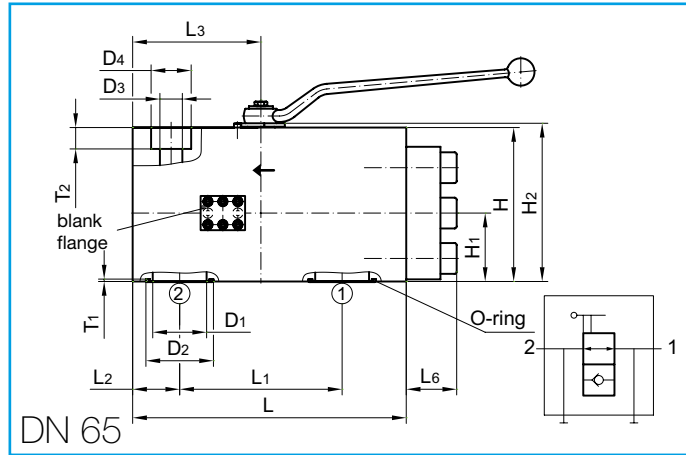
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RÖTELMANN

Technical drawing of a 3-way ball valve in closed position, showing front and side views with dimensions and labels.

Labels: SW₁, SW, O-ring, L₃, L₆, L₂, L₁, L, D₄, D₃, T₂, D₁, D₂, T₁, H₁, H, H₂, B, L₅, B₁, L₇, L₄.

Dimensions: L₃, L₆, L₂, L₁, L, D₄, D₃, T₂, D₁, D₂, T₁, H₁, H, H₂, B, L₅, B₁, L₇, L₄.



**Bypass- ball valve instead of blank flange retrofittable,
also deliverable completely assembled with bypass-ball valve**

Connection	DN	L	L ₁	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	B	B ₁	H	H ₁	H ₂	T ₁	T ₂	DN	D ₁	D ₂	D ₃	D ₄
Body-Flange with o-ring- seal	6	59	35	8.5	23.5	35	8.5	4.5	17.5	40	27	35	20	38	1.8	6.8	6	6.0	12.0	6.4	11
	10	73	44	10.0	29.0	55	7.5	7.0	27.5	55	40	45	25	49	1.8	8.0	10	9.5	15.0	8.4	-
	12	98	58	16.0	42.5	83	7.5	10.0	41.5	60	45	55	32	59	1.8	8.0	12	12.5	25.0	8.4	-
	20	117	69	20.0	52.0	97	10.0	12.0	48.5	70	51	70	39	74	2.7	11.0	20	20.0	30.0	10.5	17
	25	138	81	24.0	62.0	115	10.0	7.0	57.5	80	60	80	46	84	2.7	11.0	25	24.0	35.0	10.5	17
	32	165	96	29.0	75.0	136	12.0	11.0	68.0	100	78	100	57	105	2.7	12.0	32	32.0	40.0	13.0	19
	40	175	112	28.5	84.5	112	28.5	25.0	56.0	130	95	100	53	105	2.7	17.5	40	38.0	48.5	17.0	26
	50	215	136	38.0	106.0	136	38.0	25.0	68.0	150	112	110	55	115	2.7	20.0	50	48.0	55.5	21.0	33
	65	320	190	55.0	150.0	210	45.0	63.0	105.0	235	185	157	79	162	2.8	25.5	65	62.0	79.0	26.0	40

SW	SW1	Handle code	Weight	For cylinder head screw DIN EN ISO 4762 (DIN 912)
24	7	12	0.6	M 6
32	8	13	1.2	M 8
36	10	14	2.3	M 8
-	14	15	4.0	M 10
50	14	15	5.8	M 10
70	17	21	11.0	M 12
-	17	21	15.3	M 16
-	17	22	23.2	M 20
-	17	22	101.5	M 24

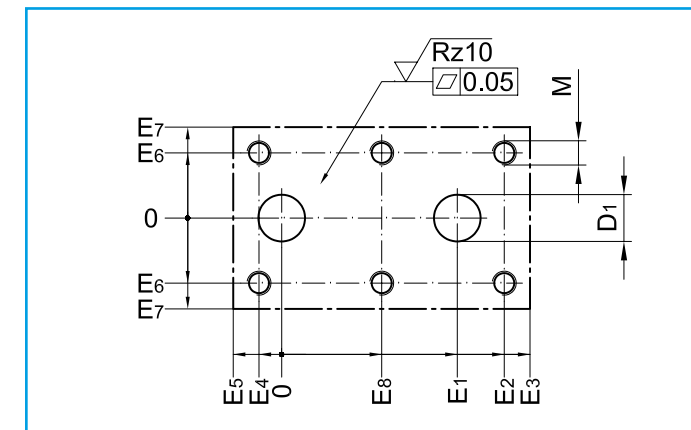
PN	Article no.	PN	Article no.	PN	Article no.
500	106021	500	700162	500	106031
500	106022	500	700163	500	106032
500	106023	500	700164	500	106033
420	106024	420	700165	420	106034
420	106025	420	700166	420	106035
420	106026	420	700167	420	106036
420	106027	420	700168	420	106037
420	106028	420	700169	420	106038
420	106041	420	700170	420	106042

	DN	D ₁	E ₁	E ₂	E ₃	E ₄	E ₅	E ₆	E ₇	E ₈	M	O-ring
General tolerances DIN ISO 2768 Surfaces DIN EN ISO 4287	6	59	35	8.5	23.5	35	8.5	4.5	17.5	40	27	35
	10	73	44	10.0	29.0	55	7.5	7.0	27.5	55	40	45
	12	98	58	16.0	42.5	83	7.5	10.0	41.5	60	45	55
	20	117	69	20.0	52.0	97	10.0	12.0	48.5	70	51	70
	25	138	81	24.0	62.0	115	10.0	7.0	57.5	80	60	80
	32	165	96	29.0	75.0	136	12.0	11.0	68.0	100	78	100
	40	175	112	28.5	84.5	112	28.5	25.0	56.0	130	95	100
	50	215	136	38.0	106.0	136	38.0	25.0	68.0	150	112	110
	65	320	190	55.0	150.0	210	45.0	63.0	105.0	235	185	157

Technical drawing of a mechanical assembly, showing a side view and a top view. The side view includes dimensions: 11, 6.4, 23.5, 6.8, 8.5, 35, 59, 12, 6, 1.8, 20, 35, 37.5, 40, 27, 8.5, 17.5, 35. Labels include: O-ring, SW 7, SW 24, and 4.5. The top view shows a rectangular block with a central circular feature and four smaller circular features at the corners. The side view shows a cross-section of the assembly with a central shaft and a flange. The dimensions are in millimeters.

DN	Handle code	Weight	O-ring
6	12	0.6	7.5 x 2.50

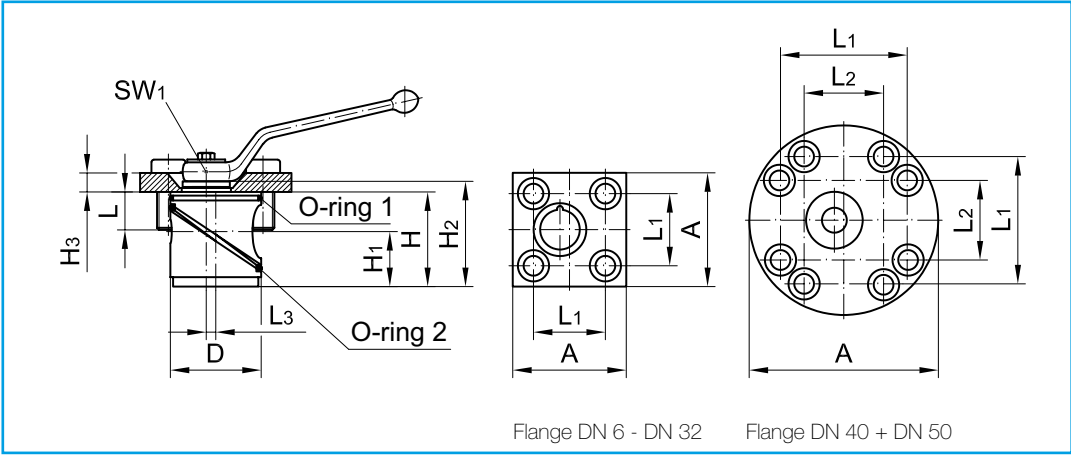
Drilling pattern



PN	Article no.
420	106040

2-way ball valves for manifold insertion as cartridge type

Steel · DN 6 - DN 50



Handle and attachment screws included in delivery
For handle refer to "Attachments, accessories"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, black oxide	steel, black oxide	stainless steel
Ball:	steel, hard chrome plated	steel, hard chrome plated	stainless steel
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	stainless steel
Body seals:	NBR	FKM	FKM
Ball seals:	POM	POM	PEEK
Stem seals:	NBR	FKM	FKM
Handle (DN 6 - DN 25):	zinc, die cast	zinc, die cast	zinc, die cast
Handle (DN 32 - DN 50):	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate (DN 6 - DN 50):	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	D	H	H ₁	H ₂	H ₃	L	L ₁	L ₂	L ₃	SW ₁	A	Handle DN code	O-ring 1	O-ring 2	Weight	For cylinder head screws DIN EN ISO 4762 (DIN 912)	PN	Article no.	PN	Article no.	PN	Article no.
Cavity	6	36	34.6	21.0	40.5	8	20	38	-	5.0	7	60	12 6	31.00 x 1.50	32.00 x 3.00	0.6	M 10 x 25	500	107001	500	107021	500	107061
	10	45	45.4	27.0	50.0	10	20	50	-	5.0	8	80	13 10	40.00 x 2.00	42.00 x 3.00	1.1	M 12 x 25	500	107002	500	107022	500	107062
	12	48	49.9	29.0	56.5	10	20	50	-	5.0	10	80	14 12	43.00 x 2.00	46.00 x 3.00	1.3	M 12 x 25	420	107003	420	107023	420	107063
	16	54	53.9	31.0	59.5	10	20	60	-	5.5	10	90	14 16	49.00 x 2.00	50.39 x 3.53	1.6	M 12 x 25	315	107009	315	107029	315	107064
	20	63	64.9	36.0	74.5	18	25	70	-	7.0	14	100	15 20	55.20 x 3.00	61.00 x 3.50	3.0	M 16 x 35	315	107004	315	107024	315	107065
	25	70	70.9	39.0	81.0	18	25	70	-	7.0	14	100	15 25	63.00 x 3.00	67.00 x 4.00	3.4	M 16 x 35	315	107005	315	107025	315	107066
	32	92	90.0	47.5	122.5	35	30	100	-	10.0	17	140	21 32	82.14 x 3.53	92.00 x 5.00	9.1	M 20 x 50	315	107006	315	107026	315	107067
	40	107	106.0	56.0	140.5	35	30	134	84	10.0	17	200	21 40	98.02 x 3.53	108.00 x 6.00	14.7	M 20 x 50	315	107007	315	107027	315	107068
	50	126	120.0	63.0	155.0	35	30	152	96	11.0	17	230	22 50	117.07 x 3.53	124.00 x 6.00	20.6	M 20 x 50	315	107008	315	107028	315	107069

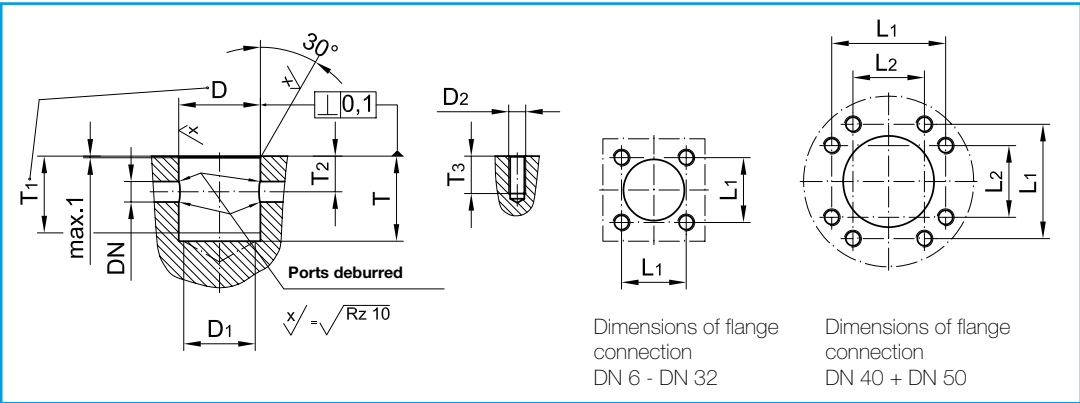
DN	D	D ₁	D ₂	L ₁	L ₂	T	T ₁	T ₂	T ₃
	H ₉	max.		±0.2	±0.2	0.1	0.2	0.1	min.
6	36	31	M 10	38	-	34,7	33	13.6	22
10	45	39	M 12	50	-	45,5	41	18.4	22
12	48	42	M 12	50	-	50,0	45	20.9	22
16	54	47	M 12	60	-	54,0	49	22.9	22
20	63	55	M 16	70	-	65,0	61	28.9	28
25	70	62	M 16	70	-	71,0	66	31.9	28
32	92	80	M 20	100	-	90,0	86	42.5	33
40	107	95	M 20	134	84	106,0	101	50.0	33
50	126	115	M 20	152	96	120,0	115	57.0	33

General tolerances
DIN ISO 2768
Surfaces
DIN EN ISO 4287

Mounting-tool

DN	Article no.
6	107051
10	107052
12	107053
16	107054
20	107055
25	107056
32	107057
40	107058
50	107059

Drilling pattern

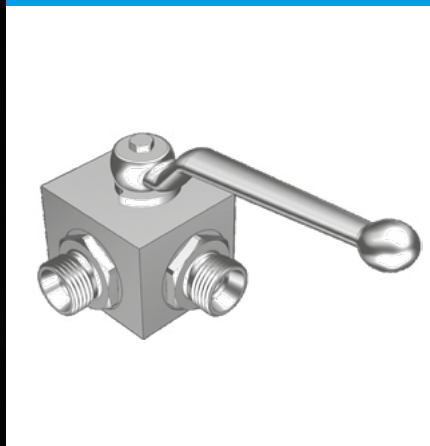


Multi-way ball valves



Product overview

with floating ball



with trunnion ball



Multi-way ball valves

Standard- and special porting patterns



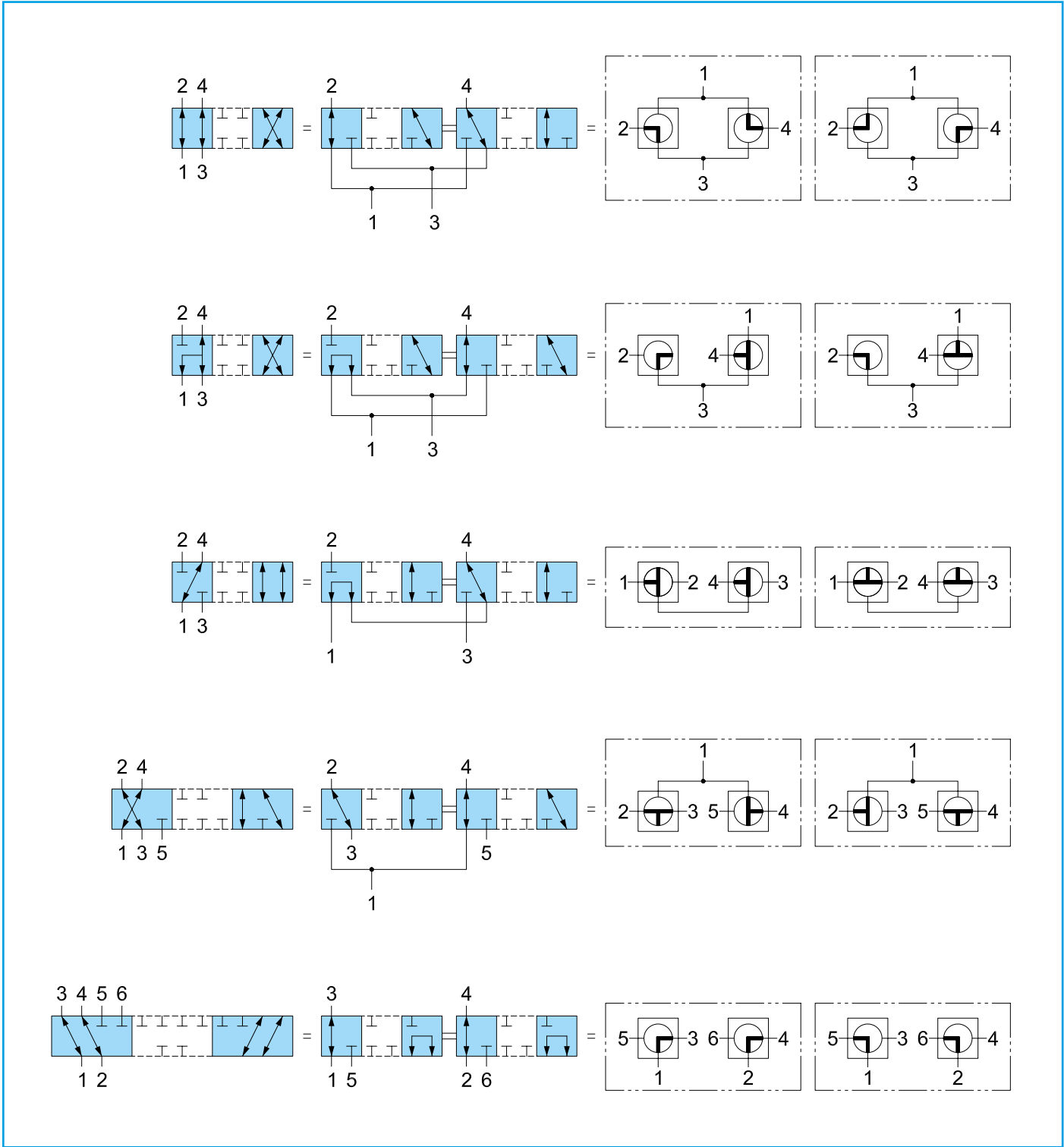
Ref-No.	Ball valve style	Cycling	Porting symbols	Descriptions
01	3-way compact ball valve with L-bore	90°		Floating ball, all ports connected in the cross-over position, pressure should not be applied from the closed port
03	3-way compact ball valve with T-bore	90°		Floating ball, all ports connected in the cross-over position, pressure should not be applied from the closed port
08	3-way ball valve with L-bore	90°		Trunnion ball, all ports closed in the cross-over position, full bore
09	3-way ball valve with T-bore	90°		Trunnion ball, all ports closed in the cross-over position, full bore
10	3-way ball valve with T-bore	2 x 90°		Trunnion ball, all ports closed in the cross-over position, full bore, detent at center position is recommended
11	4-way ball valve with L-bore	90°		Trunnion ball, all ports closed in the cross-over position, full bore
12	4-way ball valve with L-bore	2 x 90°		Trunnion ball, all ports closed in the cross-over position, full-bore, detent at center position is recommended
13	4-way ball valve with double L-bore	90°		Trunnion ball, temporary connection of all ports in the cross-over position but with full shut-off at center point, reduced bore
14	4-way ball valve with double L-bore and additional bore	2 x 45°		Trunnion ball, all ports connected in the cross-over position with center shut-off position, reduced bore, detent for center position is recommended
15	4-way ball valve with double L-bore and additional bore	2 x 45°		Trunnion ball, all ports connected in the cross-over position, reduced bore, detent for center position is recommended
16	4-way ball valve with Y-bore	2 x 45°		Trunnion ball, all ports connected in the cross-over position, reduced bore, detent for center position is recommended
17	5-way ball valve with double L-bore perpendicular	3 x 90°		Trunnion ball, all ports closed, full-bore passage, detents for switching positions are recommended
18	4-way ball valve with T- and L-bore	45°		Trunnion ball, all ports connected in the cross-over position, reduced bore
19	4-way ball valve with double L-bore and additional bore	45°		Trunnion ball, all ports connected in the cross-over position, reduced bore
20	3-way ball valve with L-bore and additional bore	90°		Trunnion ball, all ports connected in the cross-over position, full bore
21	3-way ball valve with T-bore and additional bore	2 x 45°		Trunnion ball, all ports connected in the cross-over position, reduced bore
22	3-way ball valve with L-bore and additional bore	45°		Trunnion ball, all ports connected in the cross-over position, reduced bore

Other special porting patterns on request

Multi-way ball valves

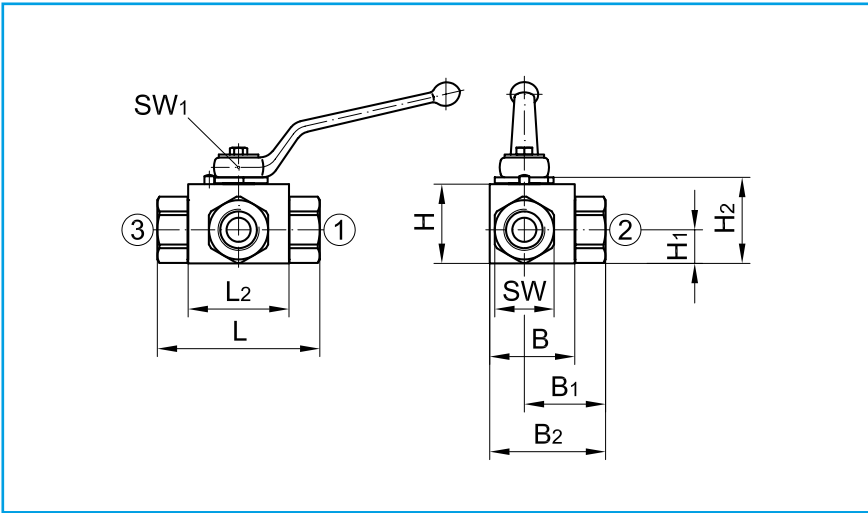
Special porting patterns · examples for combinations

By combining simple patterns more complex functions can be achieved.



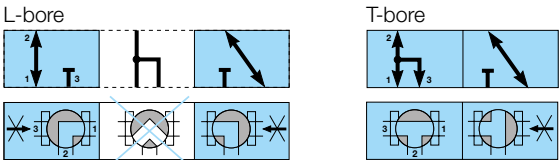
Multi-way ball valves with floating ball

3-way · steel · threaded connector · DN 4 - DN 40/25



Handle included in delivery. For handle refer to "Attachments, accessories"
✦ Application of pressure only as indicated in chapter "Technical information"
Please check pressure rating of the pipe fittings!
Actuators and custom orders on request
All dimensions subject to change without notice
Also available with most other connections

All ball valves available with mounting plate
Dimensions in mm | Weight in kg | Pressure in bar



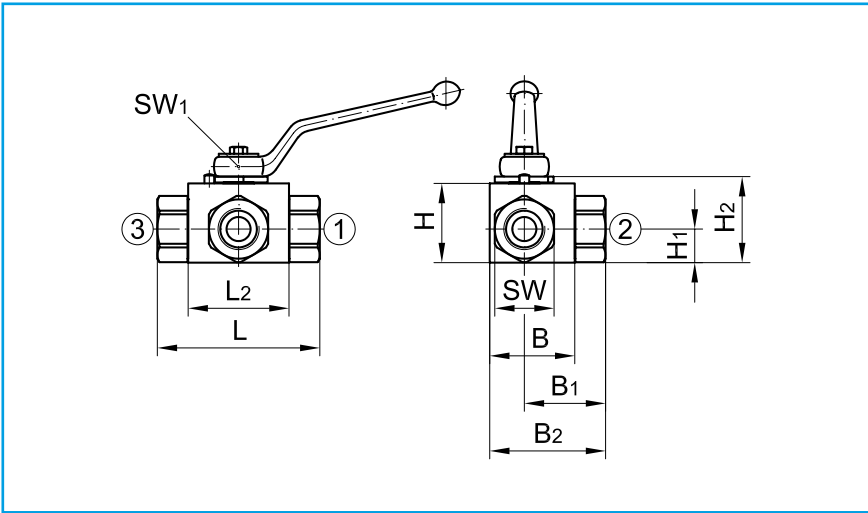
Bore:	L	L	T	T
Cycling:	90°	90°	90°	90°
Body:	steel, black oxide	steel, zinc nickel plated	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	NBR	NBR	NBR
Handle:	zinc, die cast	zinc, die cast	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L1	L2	B	B1	B2	H	H1	H2	SW	SW1	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	67	10	36	30	33.5	45.5	30	15.0	32.5	19	7	12	0.3
	6	M 14 x 1.5	8	67	10	36	30	33.5	45.5	30	15.0	32.5	19	7	12	0.3
	8	M 16 x 1.5	10	75	11	45	40	37.5	55.0	35	14.5	38.5	24	8	13	0.6
	10	M 18 x 1.5	12	75	11	45	40	37.5	55.0	35	14.5	38.5	24	8	13	0.6
	12	M 22 x 1.5	15	83	12	51	45	41.5	61.0	45	22.0	48.5	30	10	14	0.9
	16	M 26 x 1.5	18	82	12	50	50	41.0	66.0	50	25.0	53.5	36	10	14	1.1
	20	M 30 x 2	22	99	14	60	55	51.0	74.5	60	29.0	64.0	41	14	15	1.6
	25	M 36 x 2	28	108	14	70	65	54.0	84.0	65	31.0	69.0	50	14	15	2.3
	32/25	M 45 x 2	35	116	16	70	65	58.0	88.0	65	31.0	69.0	50	14	15	2.5
	40/25	M 52 x 2	42	121	16	70	65	60.5	90.5	65	31.0	69.0	55	14	15	2.6
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	M 16 x 1.5	8	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	12	0.4
	6	M 18 x 1.5	10	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	12	0.4
	8	M 20 x 1.5	12	77	12	46	40	38.5	56.0	35	14.5	38.5	24	8	13	0.6
	10	M 22 x 1.5	14	81	14	45	40	40.5	58.0	35	14.5	38.5	24	8	13	0.6
	12	M 24 x 1.5	16	87	14	51	45	43.5	63.0	45	22.0	48.5	30	10	14	0.9
	16	M 30 x 2	20	90	16	50	50	45.0	70.0	50	25.0	53.5	36	10	14	1.1
	20	M 36 x 2	25	107	18	60	55	55.0	78.5	60	29.0	64.0	41	14	15	1.7
	25	M 42 x 2	30	120	20	70	65	60.0	90.0	65	31.0	69.0	50	14	15	2.4
	32/25	M 52 x 2	38	134	22	70	65	67.0	97.0	65	31.0	69.0	55	14	15	3.0
BSP-female thread DIN EN ISO 228-1	4	G 1/8	-	71	12	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	6	G 1/4	-	71	12	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	10	G 3/8	-	73	14	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6
	12	G 1/2	-	82	15	51	45	41.0	60.5	45	22.0	48.5	30	10	14	0.9
	16	G 5/8	-	88	18	50	50	44.0	69.0	50	25.0	53.5	36	10	14	1.2
	20	G 3/4	-	93	18	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.7
	25	G 1	-	115	18	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7
	32/25	G 1¼	-	134	20	70	65	67.0	97.0	65	31.0	69.0	50	14	15	2.7
	40/25	G 1½	-	139	22	70	65	69.5	99.5	65	31.0	69.0	55	14	15	2.9

DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
4	500	200151	500	700530	500	200191	500	700699
6	500	200152	500	700531	500	200192	500	700700
8	500	200153	500	700532	500	200193	500	700701
10	500	200154	500	700533	500	200194	500	700702
12	500	200155	500	700534	500	200195	500	700703
16	420	200156	420	700535	420	200196	420	700704
20	420	200157	420	700536	420	200197	420	700705
25	420	200158	420	700537	420	200198	420	700706
32/25	420	200159	420	700538	420	200199	420	700707
40/25	420	200160	420	700539	420	200200	420	700708
4	500	200161	500	700540	500	200201	500	700710
6	500	200162	500	700541	500	200202	500	700711
8	500	200163	500	700542	500	200203	500	700712
10	500	200164	500	700543	500	200204	500	700713
12	500	200165	500	700544	500	200205	500	700714
16	420	200166	420	700545	420	200206	420	700715
20	420	200167	420	700546	420	200207	420	700716
25	420	200168	420	700547	420	200208	420	700717
32/25	420	200169	420	700548	420	200209	420	700718
4	500	200171	500	700292	500	200211	500	700316
6	500	200172	500	700293	500	200212	500	700317
10	500	200173	500	700294	500	200213	500	700318
12	500	200174	500	700295	500	200214	500	700319
16	420	200175	420	700296	420	200215	420	700320
20	420	200176	420	700297	420	200216	420	700321
25	420	200177	420	700298	420	200217	420	700322
32/25	420	200178	420	700299	420	200218	420	700323
40/25	420	200179	420	700300	420	200219	420	700324

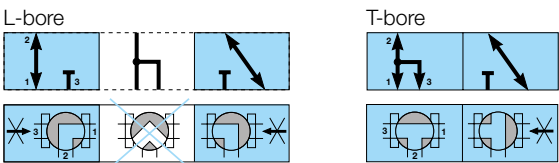
Multi-way ball valves with floating ball

3-way · steel · threaded connector · DN 4 - DN 40/25



Handle included in delivery. For handle refer to "Attachments, accessories"
✦ Application of pressure only as indicated in chapter "Technical information"
Please check pressure rating of the pipe fittings!
Actuators and custom orders on request
All dimensions subject to change without notice
Also available with most other connections

All ball valves available with mounting plate
Dimensions in mm | Weight in kg | Pressure in bar

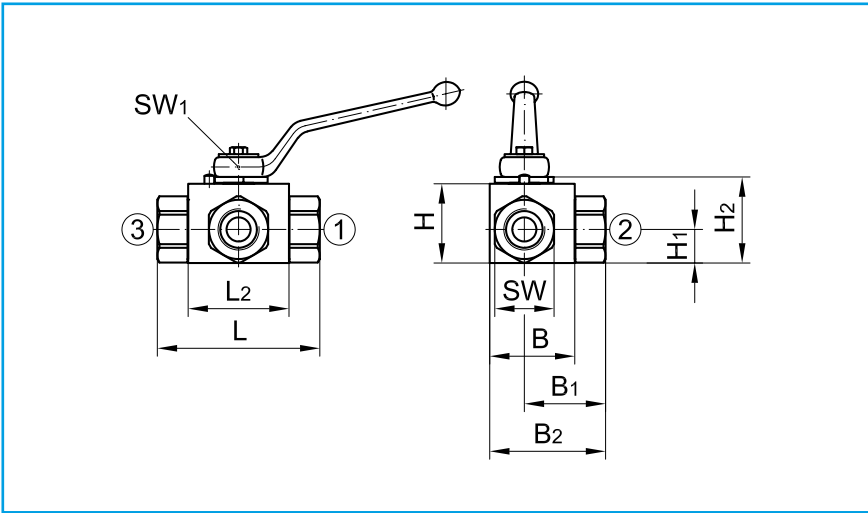


Bore:	L	L	T	T
Cycling:	90°	90°	90°	90°
Body:	steel, black oxide	steel, zinc nickel plated	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	NBR	NBR	NBR
Handle:	zinc, die cast	zinc, die cast	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	L	L1	L2	B	B1	B2	H	H1	H2	SW	SW1	Handle code	Weight	DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
NPT-female thread ANSI/ASME B1.20.1-1983	4	1/8 - 27 NPT	69	6.9	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4	4	500	200181	500	700301	500	200221	500	700325
	6	1/4 - 18 NPT	69	10.0	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4	6	500	200182	500	700302	500	200222	500	700326
	10	3/8 - 18 NPT	73	10.3	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6	10	500	200183	500	700303	500	200223	500	700327
	12	1/2 - 14 NPT	82	13.6	51	45	41.0	60.5	45	22.0	48.5	30	10	14	0.9	12	500	200184	500	700304	500	200224	500	700328
	20	3/4 - 14 NPT	93	14.1	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.8	20	420	200185	420	700305	420	200225	420	700329
	25	1 - 11½ NPT	115	16.8	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7	25	420	200186	420	700306	420	200226	420	700330
	32/25	1¼ - 11½ NPT	131	17.3	70	65	67.0	97.0	65	31.0	69.0	50	14	15	2.8	32/25	420	200187	420	700307	420	200227	420	700331
Female thread ISO 11926-1	40/25	1½ - 11½ NPT	143	17.3	70	65	69.5	99.5	65	31.0	69.0	55	14	15	2.9	40/25	420	200188	420	700308	420	200228	420	700332
	6	7/16 - 20 UNF - 2B	69	11.7	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4	6	500	-	500	700309	500	-	500	700333
	10	9/16 - 18 UNF - 2B	73	12.7	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6	10	500	-	500	700310	500	-	500	700334
	12	3/4 - 16 UNF - 2B	82	14.5	51	45	41.0	60.5	45	22.0	48.5	30	10	14	1.0	12	500	-	500	700311	500	-	500	700335
	20	1½ - 12 UN - 2B	93	19.2	60	55	48.0	71.5	60	29	64.0	41	14	15	1.8	20	420	-	420	700312	420	-	420	700336
	25	1½ - 12 UN - 2B	115	19.2	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7	25	420	-	420	700313	420	-	420	700337
	32/25	1½ - 12 UN - 2B	131	19.2	70	65	65.5	95.5	65	31	69.0	55	14	15	3.1	32/25	420	-	420	700314	420	-	420	700338
	40/25	1¾ - 12 UN - 2B	135	19.2	70	65	67.0	97.0	65	31.0	69.0	65	14	15	2.9	40/25	420	-	420	700315	420	-	420	700339

Multi-way ball valves with floating ball

3-way · steel · threaded connector · DN 32 - DN 50



Handle included in delivery. For handle refer to "Attachments, accessories"

✖ Application of pressure only as indicated in chapter "Technical information"

Please check pressure rating of the pipe fittings!

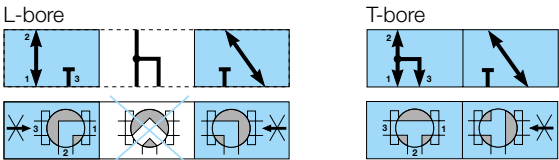
Actuators and custom orders on request

All dimensions subject to change without notice

Also available with most other connections

All ball valves available with mounting plate

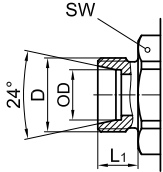
Dimensions in mm | Weight in kg | Pressure in bar



Bore:	L	T
Cycling:	90°	90°
Body:	steel, zinc nickel plated	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM
Stem seals:	NBR	NBR
Handle:	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated

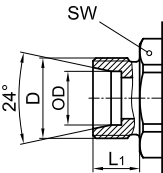
Connection

For cut (clamp)
ring tube fitting
DIN 2353
light series
ISO 8434-1



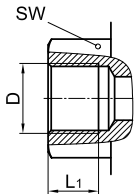
DN	Thread D	OD	L	L1	L2	B	B1	B2	H	H1	H2	SW	SW1	Handle code	Weight
32	M 45 x 2	35	125	16.0	74	80	70.5	105.5	80	36.6	84	60	17	21	3.1
40	M 52 x 2	42	131	16.0	90	100	83.0	125.0	90	42.6	94	75	17	21	5.2

For cut (clamp)
ring tube fitting
DIN 2353
heavy series
ISO 8434-1



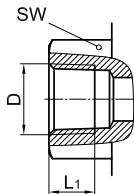
32	M 52 x 2	38	137	22.0	74	80	76.5	111.5	80	36.6	84	60	17	21	3.3
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BSP-female thread
DIN EN ISO 228-1



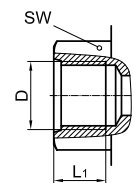
32	G 1¼	- 103	24.0	74	80	59.5	94.5	80	36.6	84	60	17	21	3.8
40	G 1½	- 114	26.0	90	100	76.4	118.4	90	42.6	94	75	17	21	6.3
50	G 2	- 128	27.5	110	120	93.5	144.5	110	55.1	114	85	17	21	10.4

NPT female thread
ANSI/ASME
B1.20.1-1983



32	1¼ - 11½ NPT	- 103	17.3	74	80	59.5	94.5	80	36.6	84	60	17	21	3.9
40	1½ - 11½ NPT	- 114	17.3	90	100	76.4	118.4	90	42.6	94	75	17	21	6.3
50	2 - 11½ NPT	- 128	17.3	110	120	93.5	144.5	110	55.1	114	85	17	21	10.4

Female thread
ISO 11926-1



32	1⅝- 12 UN - 2B	- 103	19.2	74	80	59.5	94.5	80	36.6	84	60	17	21	3.9
40	1⅞- 12 UN - 2B	- 114	19.2	90	100	76.4	118.4	90	42.6	94	75	17	21	6.3
50	2½ - 12 UN - 2B	- 128	19.2	110	120	93.5	144.5	110	55.1	114	85	17	22	10.5

DN	PN	Article no.
32	420	700720
40	420	700721

32	420	700722
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32	420	700412
40	420	700413
50	420	700414

32	420	700415
40	420	700416
50	420	700417

32	420	700418
40	420	700419
50	420	700420

PN	Article no.
420	700723
420	700724

420	700725
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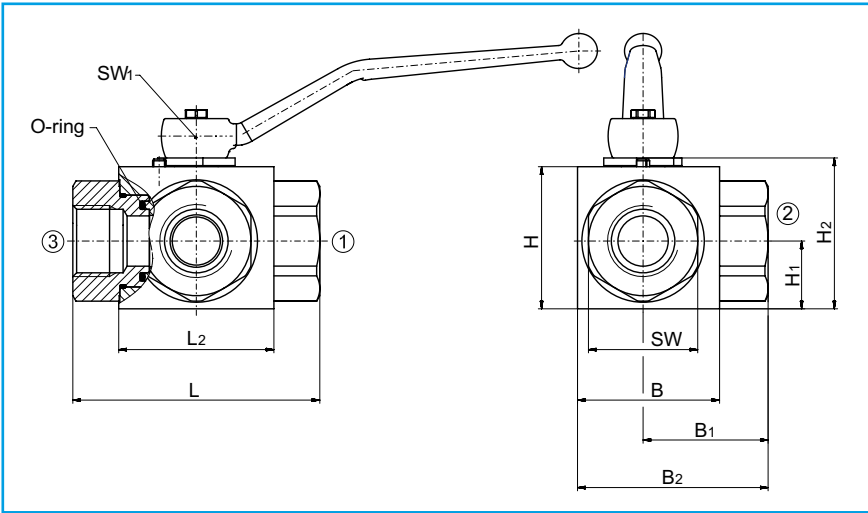
420	700726
420	700727
420	700728

420	700729
420	700730
420	700731

420	700732
420	700733
420	700734

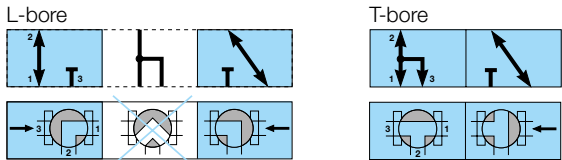
Multi-way ball valves with floating ball

3-way · steel · threaded connector · DN 4 - DN 40/25



A.D.-VERSION (true 3-way)

Handle included in delivery. For handle refer to "Attachments, accessories"
Please check pressure rating of the pipe fittings!
Actuators and custom orders on request
All dimensions subject to change without notice
Also available with most other connections
All ball valves available with mounting plate
Dimensions in mm | Weight in kg | Pressure in bar



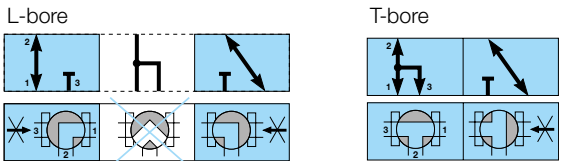
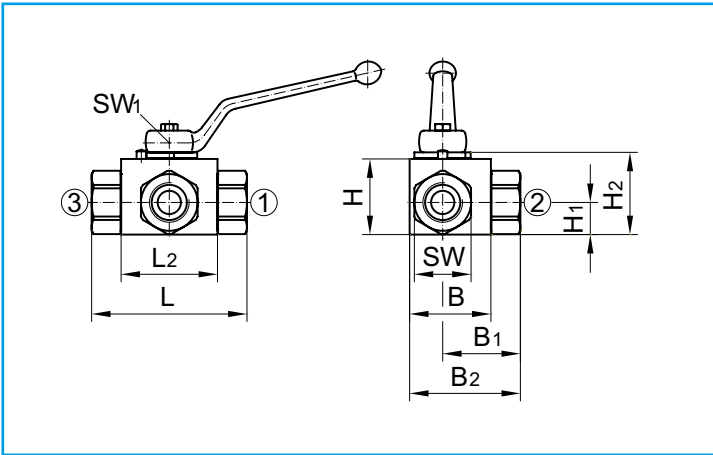
Bore:	L	L
Cycling:	90°	90°
Body:	steel, zinc nickel plated	stainless steel
Ball:	steel, hard chrome plated	stainless steel
Stem:	steel, zinc nickel plated	stainless steel
Ball seals:	PEEK A.D.	PEEK A.D.
Stem seals:	NBR	FKM
Handle:	zinc, die cast	zinc, die cast
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L ₁	L ₂	B	B ₁	B ₂	H	H ₁	H ₂	SW	SW ₁	Handle code	Weight
	4	M 12 x 1.5	6	67	10	36	30	33.5	45.5	30	15.0	32.5	19	7	12	0.3
	6	M 14 x 1.5	8	67	10	36	30	33.5	45.5	30	15.0	32.5	19	7	12	0.3
	8	M 16 x 1.5	10	75	11	45	40	37.5	55.0	35	14.5	38.5	24	8	13	0.6
	10	M 18 x 1.5	12	75	11	45	40	37.5	55.0	35	14.5	38.5	24	8	13	0.6
	12	M 22 x 1.5	15	83	12	51	45	41.5	61.0	45	22.0	48.5	30	10	14	0.9
	16	M 26 x 1.5	18	82	12	50	50	41.0	66.0	50	25.0	53.5	36	10	14	1.1
	20	M 30 x 2	22	99	14	60	55	51.0	74.5	60	29.0	64.0	41	14	15	1.6
	25	M 36 x 2	28	108	14	70	65	54.0	84.0	65	31.0	69.0	50	14	15	2.3
	32/25	M 45 x 2	35	116	16	70	65	58.0	88.0	65	31.0	69.0	50	14	15	2.5
	40/25	M 52 x 2	42	121	16	70	65	60.5	90.5	65	31.0	69.0	55	14	15	2.6
	4	M 16 x 1.5	8	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	12	0.4
	6	M 18 x 1.5	10	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	12	0.4
	8	M 20 x 1.5	12	77	12	46	40	38.5	56.0	35	14.5	38.5	24	8	13	0.6
	10	M 22 x 1.5	14	81	14	45	40	40.5	58.0	35	14.5	38.5	24	8	13	0.6
	12	M 24 x 1.5	16	87	14	51	45	43.5	63.0	45	22.0	48.5	30	10	14	0.9
	16	M 30 x 2	20	90	16	50	50	45.0	70.0	50	25.0	53.5	36	10	14	1.1
	20	M 36 x 2	25	107	18	60	55	55.0	78.5	60	29.0	64.0	41	14	15	1.7
	25	M 42 x 2	30	120	20	70	65	60.0	90.0	65	31.0	69.0	50	14	15	2.4
	32/25	M 52 x 2	38	134	22	70	65	67.0	97.0	65	31.0	69.0	55	14	15	3.0
	40/25	M 52 x 2	38	134	22	70	65	67.0	97.0	65	31.0	69.0	55	14	15	3.0
	4	G 1/8	-	71	12	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	6	G 1/4	-	71	12	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	10	G 3/8	-	73	14	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6
	12	G 1/2	-	82	15	51	45	41.0	60.5	45	22.0	48.5	30	10	14	0.9
	16	G 5/8	-	88	18	50	50	44.0	69.0	50	25.0	53.5	36	10	14	1.2
	20	G 3/4	-	93	18	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.7
	25	G 1	-	115	18	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7
	32/25	G 1 1/4	-	134	20	70	65	67.0	97.0	65	31.0	69.0	50	14	15	2.7
	40/25	G 1 1/2	-	139	22	70	65	69.5	99.5	65	31.0	69.0	55	14	15	2.9
	40/25	G 1 1/2	-	139	22	70	65	69.5	99.5	65	31.0	69.0	55	14	15	2.9
	4	1/8 - 27 NPT	-	69	6.9	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	6	1/4-18 NPT	-	69	10.0	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	10	3/8-18 NPT	-	73	10.3	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6
	12	1/2-14 NPT	-	82	13.6	51	45	41.0	60.5	45	22.0	48.5	30	10	14	0.9
	20	3/4-14 NPT	-	93	14.1	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.8
	25	1-11 1/2 NPT	-	115	16.8	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7
	32/25	1 1/4 - 11 1/2 NPT	-	131	17.3	70	65	67.0	97.0	65	31.0	69.0	50	14	15	2.8
	40/25	1 1/2-11 1/2 NPT	-	143	17.3	70	65	69.5	99.5	65	31.0	69.0	55	14	15	2.9
	40/25	1 1/2-11 1/2 NPT	-	143	17.3	70	65	69.5	99.5	65	31.0	69.0	55	14	15	2.9
	40/25	1 1/2-11 1/2 NPT	-	143	17.3	70	65	69.5	99.5	65	31.0	69.0	55	14	15	2.9

DN	PN	Article no.	PN	Article no.
4	500	700819	500	201876
6	500	700820	500	201877
8	500	700821	500	201878
10	500	700822	500	201879
12	500	700823	500	201880
16	420	700824	420	201881
20	420	700825	420	201882
25	420	700826	420	201883
32/25	420	700827	420	201884
40/25	420	700828	420	201885
4	500	700830	500	201887
6	500	700831	500	201888
8	500	700832	500	201889
10	500	700833	500	201890
12	500	700834	500	201891
16	420	700835	420	201892
20	420	700836	420	201893
25	420	700837	420	201894
32/25	420	700838	420	201895
4	500	700340	500	201897
6	500	700341	500	201898
10	500	700342	500	201899
12	500	700343	500	201900
16	420	700344	420	201901
20	420	700345	420	201902
25	420	700346	420	201903
32/25	420	700347	420	201904
40/25	420	700348	420	201905
4	500	700349	500	201907
6	500	700350	500	201908
10	500	700351	500	201909
12	500	700352	500	201910
20	420	700353	420	201911
25	420	700354	420	201912
32/25	420	700355	420	201913
40/25	420	700356	420	201914

Multi-way ball valves with floating ball

3-way · stainless steel · threaded connector · DN 4 - DN 25



Handle included in delivery. For handle refer to "Attachments, accessories"
✦ Application of pressure only as indicated in chapter "Technical information"
Please check pressure rating of the pipe fittings!
Full-PTFE-version. actuators and custom orders on request
Stainless steel (material no. 1.4571 - or other stainless steels)

All ball valves available with mounting plate.
Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

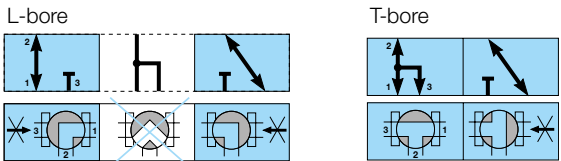
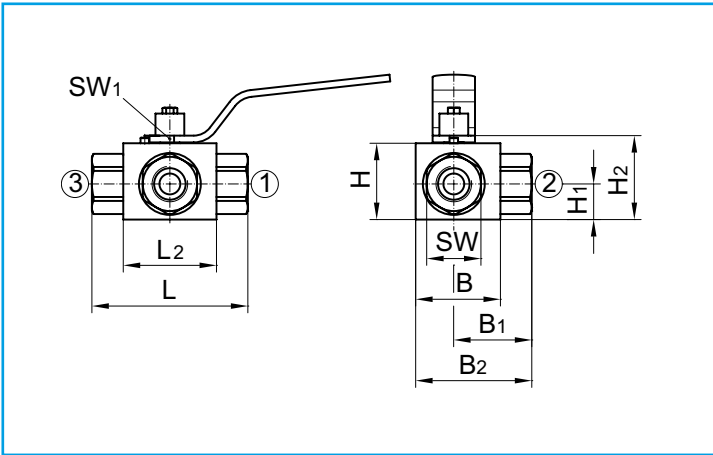
Bore:	L	T	L	T
Cycling:	90°	90°	90°	90°
Body:	stainless steel	stainless steel	stainless steel	stainless steel
Ball:	stainless steel	stainless steel	stainless steel	stainless steel
Stem:	stainless steel	stainless steel	stainless steel	stainless steel
Ball seals:	POM	POM	PEEK	PEEK
Stem seals:	FKM	FKM	FKM	FKM
Handle:	zinc, die cast	zinc, die cast	zinc, die cast	zinc, die cast
Stop plate	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L1	L2	B	B1	B2	H	H1	H2	SW	SW1	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M12 x 1.5	6	67	10	36	30	33.5	45.5	30	15.0	32.5	19	7	12	0.3
	6	M 14 x 1.5	8	67	10	36	30	33.5	45.5	30	15.0	32.5	19	7	12	0.3
	8	M 16 x 1.5	10	75	11	45	40	37.5	55.0	35	14.5	38.5	24	8	13	0.6
	10	M 18 x 1.5	12	75	11	45	40	37.5	55.0	35	14.5	38.5	24	8	13	0.6
	12	M 22 x 1.5	15	83	12	51	45	41.5	61.0	45	22.0	48.5	30	10	14	0.9
	16	M 26 x 1.5	18	99	14	60	55	51.0	74.5	60	29.0	64.0	41	14	15	1.7
	20	M 30 x 2	22	99	14	60	55	51.0	74.5	60	29.0	64.0	41	14	15	1.6
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	25	M 36 x 2	28	108	14	70	65	54.0	84.0	65	31.0	69.0	50	14	15	2.3
	4	M 16 x 1.5	8	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	12	0.4
	6	M 18 x 1.5	10	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	12	0.4
	8	M 20 x 1.5	12	77	12	46	40	38.5	56.0	35	14.5	38.5	24	8	13	0.6
	10	M 22 x 1.5	14	81	14	45	40	40.5	58.0	35	14.5	38.5	24	8	13	0.6
	12	M 24 x 1.5	16	87	14	51	45	43.5	63.0	45	22.0	48.5	30	10	14	0.9
	16	M 30 x 2	20	107	18	60	55	55.0	78.5	60	29.0	64.0	41	14	15	1.8
BSP-female thread DIN EN ISO 228-1	20	M 36 x 2	25	107	18	60	55	55.0	78.5	60	29.0	64.0	41	14	15	1.7
	25	M 42 x 2	30	120	20	70	65	60.0	90.0	65	31.0	69.0	50	14	15	2.4
	4	G 1/8	-	69	12	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	6	G 1/4	-	69	12	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.3
	10	G 3/8	-	73	14	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6
	12	G 1/2	-	82	15	51	45	41.0	60.5	45	22.0	48.5	30	10	14	0.9
	16	G 5/8	-	93	18	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.8
NPT-female thread ANSI/ASME B1.20.1-1983	20	G 3/4	-	93	18	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.7
	25	G 1	-	115	18	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7
	4	1/8 - 27 NPT	-	69	6.9	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4
	6	1/4 - 18 NPT	-	69	10.0	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.3
	10	3/8 - 18 NPT	-	73	10.3	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6
	12	1/2 - 14 NPT	-	82	13.6	51	45	41.0	60.5	45	22.0	48.5	30	10	14	0.9
	20	3/4 - 14 NPT	-	93	14.1	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.8
	25	1 - 11½ NPT	-	115	16.8	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7

DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
4	500	200481	500	200581	500	201810	500	201843
6	500	200482	500	200582	500	201811	500	201844
8	500	200483	500	200583	500	201812	500	201845
10	500	200484	500	200584	500	201813	500	201846
12	500	200485	500	200585	500	201814	500	201847
16	420	200486	420	200586	420	201815	420	201848
20	420	200487	420	200587	420	201816	420	201849
25	420	200488	420	200588	420	201817	420	201850
4	500	200489	500	200589	500	201819	500	201852
6	500	200490	500	200590	500	201820	500	201853
8	500	200491	500	200591	500	201821	500	201854
10	500	200492	500	200592	500	201822	500	201855
12	500	200493	500	200593	500	201823	500	201856
16	420	200494	420	200594	420	201824	420	201857
20	420	200495	420	200595	420	201825	420	201858
25	420	200496	420	200596	420	201826	420	201859
4	500	200497	500	200597	500	201828	500	201861
6	500	200498	500	200598	500	201829	500	201862
10	500	200499	500	200599	500	201830	500	201863
12	500	200500	500	200530	500	201831	500	201864
16	420	200541	420	200531	420	201832	420	201865
20	420	200542	420	200532	420	201833	420	201866
25	420	200543	420	200533	420	201834	420	201867
4	500	200544	500	200534	500	201836	500	201869
6	500	200545	500	200535	500	201837	500	201870
10	500	200546	500	200536	500	201838	500	201871
12	500	200547	500	200537	500	201839	500	201872
20	420	200548	420	200538	420	201840	420	201873
25	420	200549	420	200539	420	201841	420	201874

Multi-way ball valves with floating ball

3-way · stainless steel · threaded connector · DN 4 - DN 25



Handle included in delivery. For handle refer to "Attachments, accessories"
✦ Application of pressure only as indicated in chapter "Technical information"
Please check pressure rating of the pipe fittings!
Full-PTFE-version, actuators and custom orders on request
Stainless steel (material no. 1.4571 - or other stainless steels)

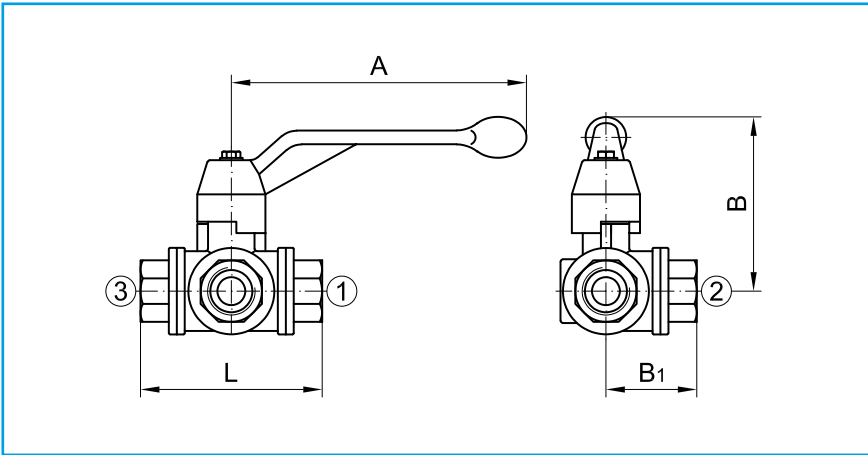
All ball valves available with mounting plate.
Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Bore:	L	T
Cycling:	90°	90°
Body:	stainless steel	stainless steel
Ball:	stainless steel	stainless steel
Stem:	stainless steel	stainless steel
Ball seals:	PTFE	PTFE
Stem seals:	FKM	FKM
Handle with stop plate:	stainless steel	stainless steel

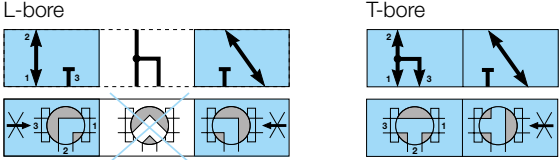
Connection	DN	Thread D	OD	L	L1	L2	B	B1	B2	H	H1	H2	SW	SW1	Handle code	Weight	DN	PN	Article no.	PN	Article no.
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	67	10	36	30	33.5	45.5	30	15.0	34.5	19	7	32	0.3	4	315	200643	315	200695
	6	M 14 x 1.5	8	67	10	36	30	33.5	45.5	30	15.0	34.5	19	7	32	0.3	6	315	200644	315	200696
	8	M 16 x 1.5	10	75	11	45	40	37.5	55.0	35	14.5	39.5	24	8	33	0.6	8	315	200645	315	200697
	10	M 18 x 1.5	12	75	11	45	40	37.5	55.0	35	14.5	39.5	24	8	33	0.6	10	315	200646	315	200698
	12	M 22 x 1.5	15	83	12	51	45	41.5	61.0	45	22.0	49.5	30	10	34	0.9	12	315	200647	315	200699
	16	M 26 x 1.5	18	99	14	60	55	51.0	74.5	60	29.0	65.5	41	14	35	1.7	16	250	200648	250	200700
	20	M 30 x 2	22	99	14	60	55	51.0	74.5	60	29.0	65.5	41	14	35	1.6	20	250	200649	250	200701
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	25	M 36 x 2	28	108	14	70	65	54.0	84.0	65	31.0	70.5	50	14	35	2.3	25	250	200650	250	200702
	4	M 16 x 1.5	8	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	32	0.4	4	315	200651	315	200703
	6	M 18 x 1.5	10	73	12	36	30	36.5	48.5	30	15.0	32.5	19	7	32	0.4	6	315	200652	315	200704
	8	M 20 x 1.5	12	77	12	46	40	38.5	56.0	35	14.5	38.5	24	8	33	0.6	8	315	200653	315	200705
	10	M 22 x 1.5	14	81	14	45	40	40.5	58.0	35	14.5	38.5	24	8	33	0.6	10	315	200654	315	200706
	12	M 24 x 1.5	16	87	14	51	45	43.5	63.0	45	22.0	48.5	30	10	34	0.9	12	315	200655	315	200707
	16	M 30 x 2	20	107	18	60	55	55.0	78.5	60	29.0	64.0	41	14	35	1.8	16	250	200656	250	200708
BSP-female thread DIN EN ISO 228-1	20	M 36 x 2	25	107	18	60	55	55.0	78.5	60	29.0	64.0	41	14	35	1.7	20	250	200657	250	200709
	25	M 42 x 2	30	120	20	70	65	60.0	90.0	65	31.0	69.0	50	14	35	2.4	25	250	200658	250	200710
	4	G 1/8	-	69	12	36	30	34.5	46.5	30	15.0	32.5	19	7	32	0.4	4	315	200659	315	200711
	6	G 1/4	-	69	12	36	30	34.5	46.5	30	15.0	32.5	19	7	32	0.3	6	315	200660	315	200712
	10	G 3/8	-	73	14	45	40	36.5	54.0	35	14.5	38.5	24	8	33	0.6	10	315	200661	315	200713
	12	G 1/2	-	82	15	51	45	41.0	60.5	45	22.0	48.5	30	10	34	0.9	12	315	200662	315	200714
	16	G 5/8	-	93	18	60	55	48.0	71.5	60	29.0	64.0	41	14	35	1.8	16	250	200663	250	200715
NPT-female thread ANSI/ASME B1.20.1-1983	20	G 3/4	-	93	18	60	55	48.0	71.5	60	29.0	64.0	41	14	35	1.7	20	250	200664	250	200716
	25	G 1	-	115	18	70	65	57.5	87.5	65	31.0	69.0	50	14	35	2.7	25	250	200665	250	200717
	4	1/8 - 27 NPT	-	69	6.9	36	30	34.5	46.5	30	15.0	32.5	19	7	32	0.4	4	315	200666	315	200718
	6	1/4 - 18 NPT	-	69	10.0	36	30	34.5	46.5	30	15.0	32.5	19	7	32	0.3	6	315	200667	315	200719
	10	3/8 - 18 NPT	-	73	10.3	45	40	36.5	54.0	35	14.5	38.5	24	8	33	0.6	10	315	200668	315	200720
	12	1/2 - 14 NPT	-	82	13.6	51	45	41.0	60.5	45	22.0	48.5	30	10	34	0.9	12	315	200669	315	200721
	20	3/4 - 14 NPT	-	93	14.1	60	55	48.0	71.5	60	29.0	64.0	41	14	35	1.8	20	250	200670	250	200722
Female thread ISO 11926-1	25	1 - 11½ NPT	-	115	16.8	70	65	57.5	87.5	65	31.0	69.0	50	14	35	2.7	25	250	200671	250	200723
	6	7/16 - 20 UNF - 2B	-	69	11.7	36	30	34.5	46.5	30	15.0	32.5	19	7	12	0.4	6	315	200725	315	200731
	10	9/16 - 18 UNF - 2B	-	73	12.7	45	40	36.5	54.0	35	14.5	38.5	24	8	13	0.6	10	315	200726	315	200732
	12	3/4 - 16 UNF - 2B	-	82	14.5	51	45	41.0	60.5	45	22.0	48.5	30	10	14	1.0	12	315	200727	315	200733
	20	11 1/16 - 12 UN - 2B	-	93	19.0	60	55	48.0	71.5	60	29.0	64.0	41	14	15	1.8	20	250	200728	250	200734
	25	15/16 - 12 UN - 2B	-	115	19.0	70	65	57.5	87.5	65	31.0	69.0	50	14	15	2.7	25	250	200729	250	200735

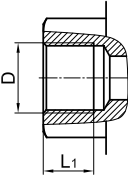
Multi-way ball valves with floating ball

3-way · brass · threaded connector · DN 6 - DN 80



Handle included in delivery.
✖ Application of pressure only as indicated in chapter "Technical information"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar



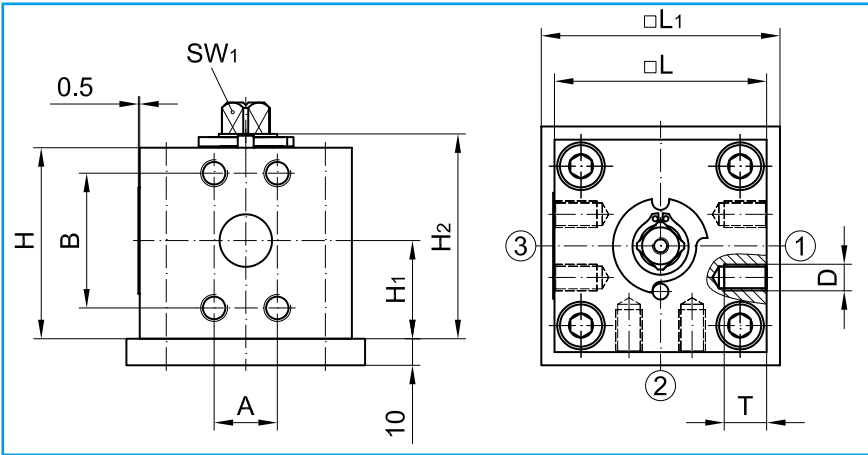
Connection	DN/CW	Thread D	L	L1	A	B	B1	Weight
BSP-female thread DIN EN 10226-1 	6/10	Rp 1/4	71	13	130	85	35.5	0.7
	10/13	Rp 3/8	71	13	130	85	35.5	0.7
	15/13	Rp 1/2	80	13	130	85	40.0	0.7
	20/18	Rp 3/4	96	15	160	98	48.0	1.1
	25/23	Rp 1	113	17	160	102	56.5	1.7
	32/29	Rp 1¼	130	19	195	121	65.0	2.6
	40/35	Rp 1½	147	22	195	125	73.5	3.7
	50/44	Rp 2	169	27	235	141	84.5	5.8
	80/44	Rp 3	202	35	235	141	101.0	7.0

Bore:	L	T
Cycling:	90°	90°
Body:	brass	brass
Ball:	brass, hard chrome plated	brass, hard chrome plated
Stem:	brass	brass
Ball seals:	PTFE	PTFE
Stem seals:	PTFE	PTFE

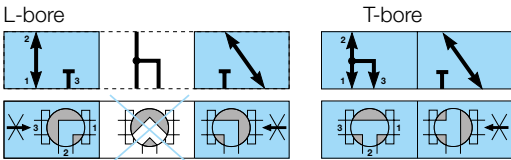
DN/CW	PN	Article no.	PN	Article no.
6/10	40	201501	40	201551
10/13	40	201502	40	201552
15/13	40	201503	40	201553
20/18	40	201504	40	201554
25/23	25	201505	25	201555
32/29	16	201506	16	201556
40/35	16	201507	16	201557
50/44	16	201508	16	201558
80/44	16	201509	16	201559

Multi-way ball valves with floating ball

3-way · steel · ISO 6162 (SAE) · DN 19 - DN 32



Handle on request, refer to "Attachments, accessories".
✦ Application of pressure only as indicated in chapter "Technical information"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

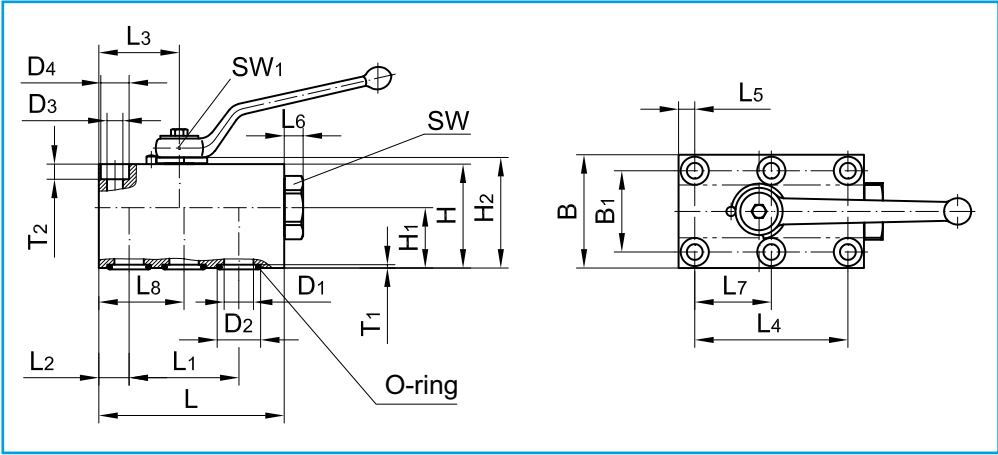


Bore	L	L	T	T
Cycling	90°	90°	90°	90°
Body:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Ball seals:	POM	POM	POM	POM
Stem seals:	NBR	FKM	NBR	FKM

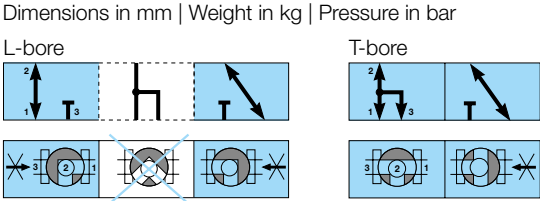
Connection	DN	Flange size (inch)	D	T	A	B	L	L1	H	H1	H2	SW1	Weight	DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
ISO 6162-2	19	3/4	M 10	21	23.8	50.8	80	90	72	37	77.5	14	4.0	19	420	204301	420	204306	420	204311	420	204316
	25	1	M 12	23	27.8	57.2	90	100	80	40	85.5	14	5.5	25	420	204302	420	204307	420	204312	420	204317
	32	1 1/4	M 12	24	31.8	66.6	100	110	100	50	106.0	17	8.0	32	420	204304	420	204309	420	204314	420	204319
	19	3/4	3/8 - 16 UNC	24	23.8	50.8	80	90	72	37	77.5	14	4.0	20	420	204321	420	204326	420	204331	420	204336
	25	1	7/16 - 14 UNC	27	27.8	57.2	90	100	80	40	85.5	14	5.5	25	420	204322	420	204327	420	204332	420	204337
	32	1 1/4	1/2 - 13 UNC	28	31.8	66.7	100	110	100	50	106.0	17	8.0	32	420	204323	420	204328	420	204333	420	204338

Multi-way ball valves with floating ball

3-way · steel · manifold mounting · DN 6 - DN 65



Handle and o-rings included in delivery
For handle refer to "Attachments, accessories"
Application of pressure only as indicated in chapter "Technical information"
Actuators and custom orders on request
All dimensions subject to change without notice
*) DN 32 to DN 65: grey cast iron



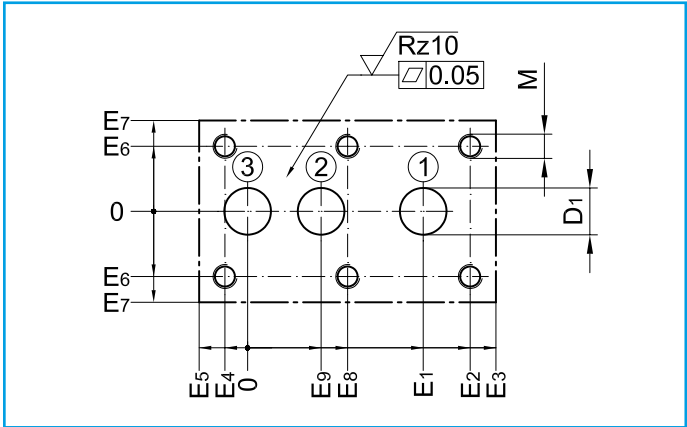
Bore:	L	T	L
Cycling:	90°	90°	90°
Body*:	steel, black oxide	steel, black oxide	steel, zinc nickel plated
Ball:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated
Body seals:	NBR	NBR	NBR
Ball seals:	POM	POM	POM
Stem seals:	NBR	NBR	NBR

Connection	DN	L	L1	L2	L3	L4	L5	L6	L7	L8	B	B1	H	H1	H2	T1	T2	DN	D1	D2	D3	D4	SW	SW1	Handle code	Weight	For cylinder head screws DIN EN ISO 4762 (DIN 912)	PN	Article no.	PN	Article no.	PN	Article no.
Body-Flange with O-ring seal	6	59	35	8.5	23.5	35	8.5	4.5	17.5	26.0	40	27	35	20	38	1.8	6.8	6	6.0	12.0	6.4	11	24	7	12	0.6	M 6	500	206101	500	206121	500	700421
	10	73	44	10.0	29.0	55	7.5	7.0	27.5	29.0	55	40	45	25	49	1.8	8.0	10	9.5	15.0	8.4	-	32	8	13	1.2	M 8	500	206102	500	206122	500	700422
	12	98	58	16.0	42.5	83	7.5	10.0	41.5	42.5	60	45	55	32	59	1.8	8.0	12	12.5	25.0	8.4	-	36	10	14	2.1	M 8	500	206103	500	206123	500	700423
	20	117	69	20.0	52.0	97	10.0	12.0	48.5	52.0	70	51	70	39	74	2.7	11.0	20	20.0	30.0	10.5	17	-	14	15	4.0	M 10	420	206104	420	206124	420	700424
	25	138	81	24.0	62.0	115	10.0	7.0	57.5	62.0	80	60	80	46	84	2.7	11.0	25	24.0	35.0	10.5	17	50	14	15	5.6	M 10	420	206105	420	206125	420	700425
	32	165	96	29.0	75.0	136	12.0	11.0	68.0	75.0	100	75	100	57	105	2.7	12.0	32	32.0	40.0	13.0	19	70	17	21	11.1	M 12	420	206106	420	206126	420	700426
	40	175	112	28.5	84.5	112	28.5	25.0	56.0	84.5	130	95	100	53	105	2.7	17.5	40	38.0	48.5	17.0	26	-	17	21	15.2	M 16	420	206107	420	206127	420	700427
	50	215	136	38.0	106.0	136	38.0	25.0	68.0	106.0	150	112	110	55	115	2.7	20.0	50	48.0	55.5	21.0	33	-	17	22	22.7	M 20	420	206108	420	206128	420	700428
	65	320	190	55.0	150.0	210	45.0	63.0	105.0	150.0	235	185	157	79	162	2.8	25.5	65	62.0	79.0	26.0	40	-	22	11	101.5	M 24	420	206109	420	206129	420	-

DN	D1	E1	E2	E3	E4	E5	E6	E7	E8	E9	M	O-ring
6	6.0	35	35.0	50.5	0.0	8.5	13.5	20.0	17.5	17.5	M 6	7.50 x 2.50
10	9.5	44	52.5	63.0	2.5	10.0	20.0	27.5	25.0	19.0	M 8	10.50 x 2.50
12	15.5	58	74.5	82.0	8.5	16.0	22.5	30.0	33.0	26.5	M 8	20.50 x 2.50
20	20.0	69	87.0	97.0	10.0	20.0	25.5	35.0	38.5	32.0	M 10	23.50 x 3.50
25	24.0	81	101.0	114.0	14.0	24.0	30.0	40.0	43.5	38.0	M 10	28.50 x 3.50
32	32.0	96	119.0	136.0	17.0	29.0	39.0	50.0	51.0	46.0	M 12	33.50 x 3.50
40	38.0	112	112.0	146.5	0.0	28.5	47.5	65.0	56.0	56.0	M 16	42.00 x 3.50
50	48.0	136	136.0	177.0	0.0	38.0	56.0	75.0	68.0	68.0	M 20	49.00 x 3.50
65	62.0	190	200.0	265.0	10.0	55.0	92.5	117.5	95.0	95.0	M 24	72.66 x 3.53

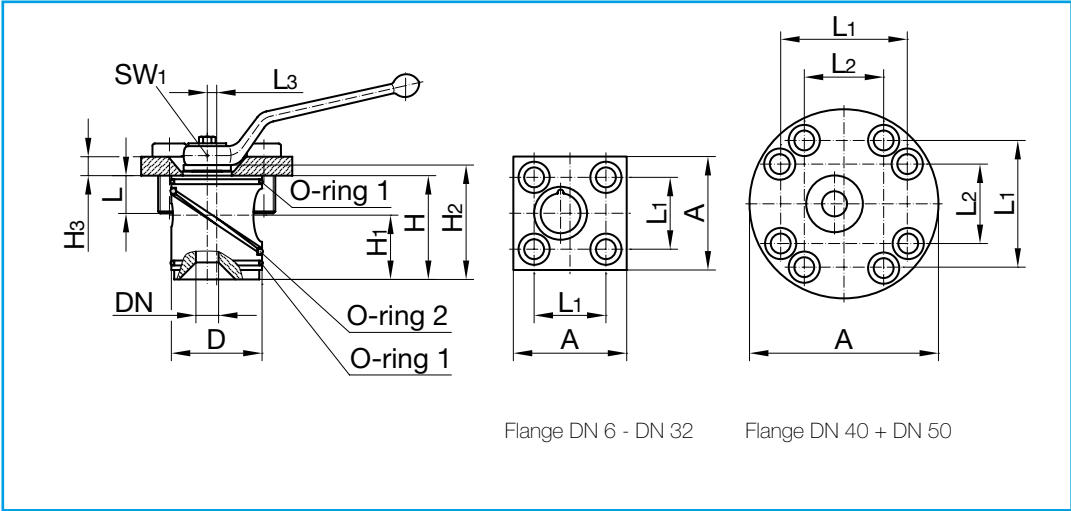
General tolerances
DIN ISO 2768
Surfaces
DIN EN ISO 4287

Drilling pattern

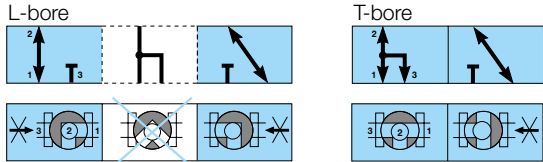


Multi-way ball valves with floating ball

3-way · steel · manifold insertion as cartridge type · DN 6 - DN 50



Handle and attachment screws included in delivery
For handles refer to "Attachments, accessories"
✦ Application of pressure only as indicated in chapter "Technical information"
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar



Bore:	L	T
Cycling:	90°	90°
Body*:	steel, black oxide	steel, black oxide
Ball:	steel, hard chrome plated	steel, hard chrome plated
Stem:	steel, zinc nickel plated	steel, zinc nickel plated
Body seals:	NBR	NBR
Ball seals:	POM	POM
Stem seals:	NBR	NBR
Handle (DN 6 - DN 25):	zinc, die cast	zinc, die cast
Handle (DN 32 - DN 50):	steel, zinc nickel plated	steel, zinc nickel plated
Stop plate (DN 6 - DN 50):	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	D	H	H ₁	H ₂	H ₃	L	L ₁	L ₂	L ₃	SW ₁	A	Handle code
Body-Flange with O-ring seal	6	36	39.9	26.3	45.8	8	20	38	-	5.0	7	60	12
	10	45	50.9	32.5	55.8	10	20	50	-	5.0	8	80	13
	12	48	54.9	34.0	61.5	10	20	50	-	5.0	10	80	14
	16	54	58.9	36.0	64.5	10	20	60	-	5.5	10	90	14
	20	63	72.9	44.0	82.5	18	25	70	-	7.0	14	100	15
	25	70	78.9	47.0	89.0	18	25	70	-	7.0	14	100	15
	32	92	100.0	57.5	132.5	35	30	100	-	10.0	17	140	21
	40	107	116.0	66.0	150.5	35	30	134	84	10.0	17	200	21
	50	126	130.0	73.0	165.0	35	30	152	96	11.6	17	230	22

DN	O-ring 1	O-ring 2	Weight	For cylinder head screw DIN EN ISO 4762 (DIN 912)
6	31.00 x 1.50	32.00 x 3.00	0.6	M 10 x 25
10	40.00 x 2.00	42.00 x 3.00	1.2	M 12 x 25
12	43.00 x 2.00	46.00 x 3.00	1.3	M 12 x 25
16	49.00 x 2.00	50.39 x 3.53	1.6	M 12 x 25
20	55.20 x 3.00	61.00 x 3.50	3.0	M 16 x 35
25	63.00 x 3.00	67.00 x 4.00	3.3	M 16 x 35
32	82.14 x 3.53	92.00 x 5.00	9.3	M 20 x 50
40	98.02 x 3.53	108.00 x 6.00	14.8	M 20 x 50
50	117.07 x 3.53	124.00 x 6.00	20.6	M 20 x 50

PN	Article no.	PN	Article no.
500	107031	500	107041
500	107032	500	107042
420	107033	420	107043
315	107034	315	107044
315	107035	315	107045
315	107036	315	107046
315	107037	315	107047
315	107038	315	107048
315	107039	315	107049

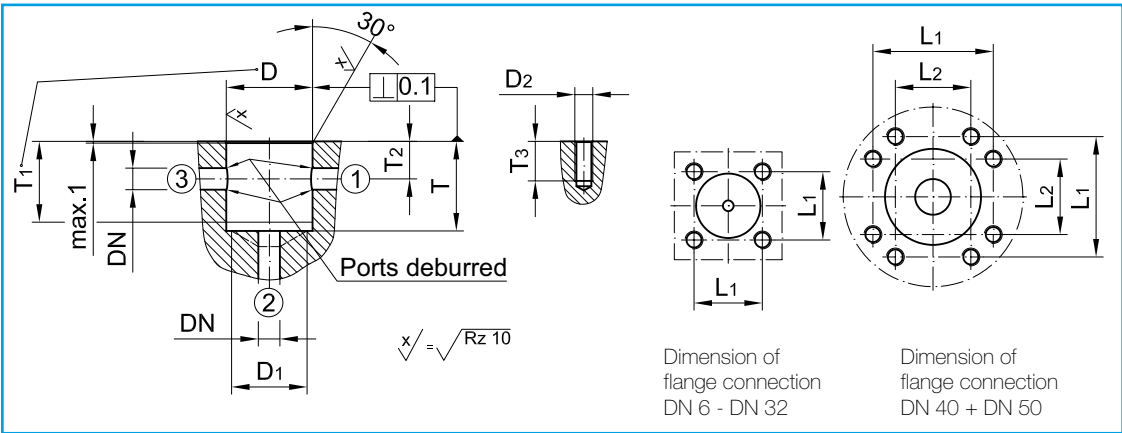
General tolerances
DIN ISO 2768
Surfaces
DIN EN ISO 4287

DN	D	D ₁	D ₂	L ₁	L ₂	T	T ₁	T ₂	T ₃
	H ₉	max.		±0.2	±0.2	0.1	0.2	0.1	min.
6	36	31	M 10	38	-	40	38	13.6	22
10	45	39	M 12	50	-	51	47	18.4	22
12	48	42	M 12	50	-	55	50	20.9	22
16	54	47	M 12	60	-	59	54	22.9	22
20	63	55	M 16	70	-	73	69	28.9	28
25	70	62	M 16	70	-	79	74	31.9	28
32	92	80	M 20	100	-	100	96	42.5	33
40	107	95	M 20	134	84	116	111	55.00	33
50	126	115	M 20	152	96	130	125	57.00	33

Mounting-tool

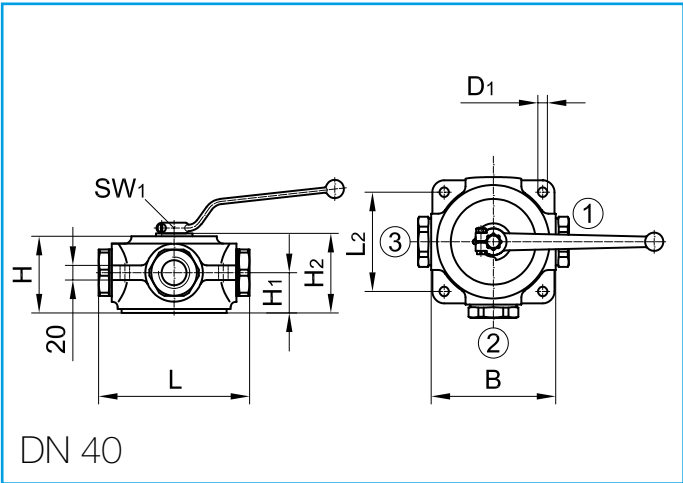
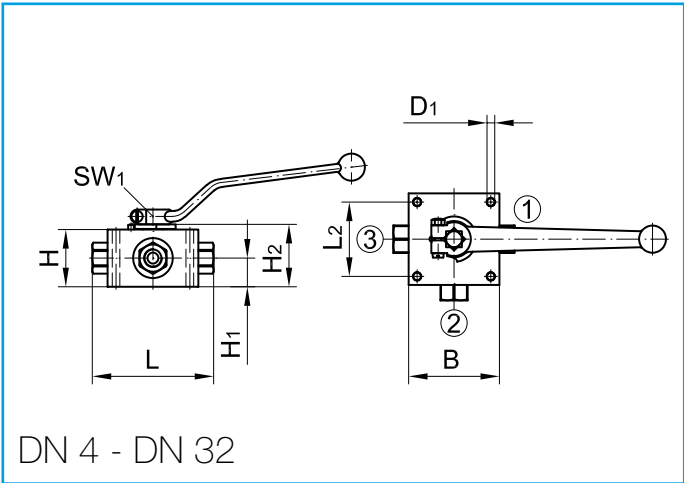
DN	Article no.
6	107051
10	107052
12	107053
16	107054
20	107055
25	107056
32	107057
40	107058
50	107059

Drilling pattern



Multi-way ball valves with trunnion ball

3-way · steel · threaded connector · DN 4 - DN 40



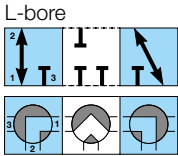
Handle included in delivery

For more porting patterns refer to "Standard- and special porting patterns".

Also available with most other connections

Please check pressure rating of the pipe fittings!

*) can be actuated up to 100 bar manually



**) DN 40: grey cast iron

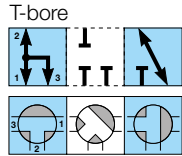
***) DN 40: grey cast iron, hard chrome plated

For handles refer to "Attachments, accessories"

Actuators and custom orders on request

All dimensions subject to change without notice

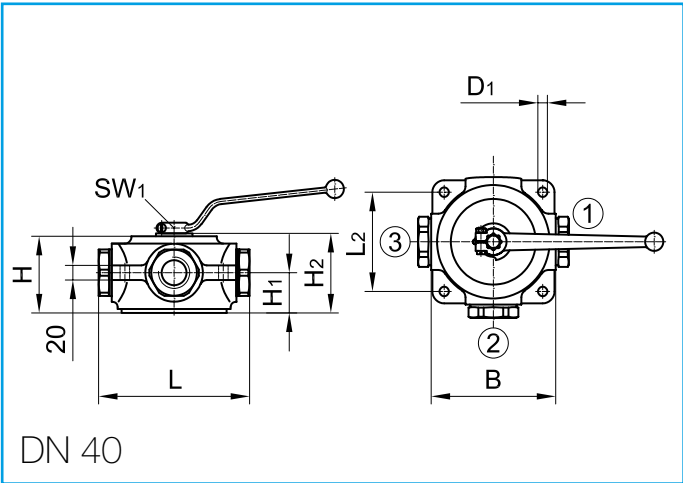
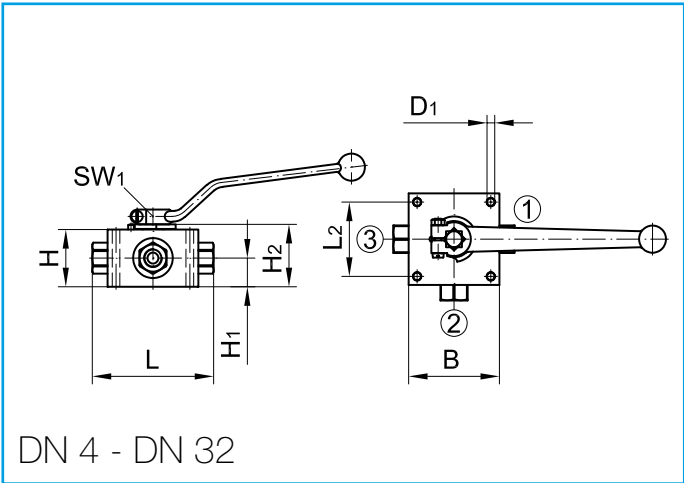
Dimensions in mm | Weight in kg | Pressure in bar



Connection	DN	Thread D	OD	L	L1	L2	B	H	H1	H2	D1	SW	SW1	Handle code	Weight	DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6	4	500	202001	100	202026	500	202051	100	202076
	6	M 14 x 1.5	8	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6	6	500	202002	100	202027	500	202052	100	202077
	8	M 16 x 1.5	10	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5	8	500	202003	100	202028	500	202053	100	202078
	10	M 18 x 1.5	12	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5	10	500	202004	100	202029	500	202054	100	202079
	12	M 22 x 1.5	15	130	12	80	100	55	27.5	59.5	8.4	30	14	8	4.2	12	500	202005	100	202030	500	202055	100	202080
	16/12	M 26 x 1.5	18	136	12	80	100	55	27.5	59.5	8.4	30	14	8	4.3	16/12	500	202006	100	202031	500	202056	100	202081
	20	M 30 x 2	22	138	14	85	100	75	40.0	79.5	8.4	41	19	10	5.7	20	315	202901	100	202902	315	202903	100	202904
	25	M 36 x 2	28	157	14	105	120	81	43.5	85.5	10.5	50	19	10	8.6	25	315	202921	100	202922	315	202923	100	202924
	32	M 45 x 2	35	210	16	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.1	32	315*	202253	100	202278	315*	202303	100	202328
	40	M 52 x 2	42	256	16	150	190	116	61.0	120.5	14.5	75	19	10	20.8	40	100	202940	100	202955	100	202970	100	202985
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	M 16 x 1.5	8	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6	4	500	202007	100	202032	500	202057	100	202082
	6	M 18 x 1.5	10	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6	6	500	202008	100	202033	500	202058	100	202083
	8	M 20 x 1.5	12	111	12	65	80	50	25.0	54.5	6.7	24	14	8	2.5	8	500	202009	100	202034	500	202059	100	202084
	10	M 22 x 1.5	14	115	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5	10	500	202010	100	202035	500	202060	100	202085
	12	M 24 x 1.5	16	134	14	80	100	55	27.5	59.5	8.4	30	14	8	4.2	12	500	202011	100	202036	500	202061	100	202086
	16/12	M 30 x 2	20	144	16	80	100	55	27.5	59.5	8.4	36	14	8	4.3	16/12	500	202012	100	202037	500	202062	100	202087
	20	M 36 x 2	25	146	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8	20	315	202905	100	202906	315	202907	100	202908
	25	M 42 x 2	30	169	20	105	120	81	43.5	85.5	10.5	50	19	10	8.7	25	315	202925	100	202926	315	202927	100	202928
	32	M 52 x 2	38	222	22	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.4	32	315*	202257	100	202282	315*	202307	100	202332
BSP-female thread DIN EN ISO 228-1	4	G 1/8	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6	4	500	202013	100	202038	500	202063	100	202088
	6	G 1/4	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6	6	500	202014	100	202039	500	202064	100	202089
	10	G 3/8	-	107	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5	10	500	202015	100	202040	500	202065	100	202090
	12	G 1/2	-	129	15	80	100	55	27.5	59.5	8.4	30	14	8	4.2	12	500	202016	100	202041	500	202066	100	202091
	16/12	G 5/8	-	146	18	80	100	55	27.5	59.5	8.4	36	14	8	4.3	16/12	500	202017	100	202042	500	202067	100	202092
	20	G 3/4	-	132	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8	20	315	202909	100	202910	315	202911	100	202912
	25	G 1	-	162	20	105	120	81	43.5	85.5	10.5	50	19	10	9.0	25	315	202929	100	202930	315	202931	100	202932
	32	G 1 1/4	-	188	20	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6	32	315*	202260	100	202285	315*	202310	100	202335
	40	G 1 1/2	-	224	25	150	190	116	61.0	120.5	14.5	75	19	10	20.3	40	100	202947	100	202962	100	202977	100	202992
NPT-female thread ANSI/ASME B1.20.1-1983	4	1/8 - 27 NPT	-	102	6.9	55	70	40	20.0	44.5	6.7	19	12	7	1.6	4	500	202018	100	202043	500	202068	100	202093
	6	1/4 - 18 NPT	-	102	10.0	55	70	40	20.0	44.5	6.7	19	12	7	1.6	6	500	202019	100	202044	500	202069	100	202094
	10	3/8 - 18 NPT	-	107	10.3	65	80	50	25.0	54.5	6.7	24	14	8	2.5	10	500	202020	100	202045	500	202070	100	202095
	12	1/2 - 14 NPT	-	129	13.6	80	100	55	27.5	59.5	8.4	30	14	8	4.2	12	500	202021	100	202046	500	202071	100	202096
	20	3/4 - 14 NPT	-	132	14.1	85	100	75	40.0	79.5	8.4	41	19	10	5.8	20	315	202913	100	202914	315	202915	100	202916
	25	1 - 11 1/2 NPT	-	162	16.8	105	120	81	43.5	85.5	10.5	50	19	10	9.0	25	315	202933	100	202934	315	202935	100	202936
	32	1 1/4 - 11 1/2 NPT	-	188	17.3	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6	32	315*	202264	100	202289	315*	202314	100	202339
	40	1 1/2 - 11 1/2 NPT	-	224	17.3	150	190	116	61.0	120.5	14.5	75	19	10	20.3	40	100	202951	100	202966	100	202981	100	202996

Multi-way ball valves with trunnion ball

3-way · steel · threaded connector · DN 4 - DN 40



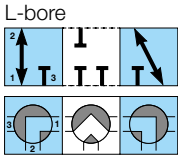
Handle included in delivery

For more porting patterns refer to "Standard- and special porting patterns".

Also available with most other connections

Please check pressure rating of the pipe fittings!

*) can be actuated up to 100 bar manually



**) DN 40: grey cast iron

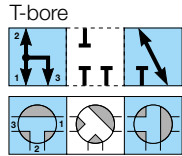
***) DN 40: grey cast iron, hard chrome plated

For handles refer to "Attachments, accessories"

Actuators and custom orders on request

All dimensions subject to change without notice

Dimensions in mm | Weight in kg | Pressure in bar

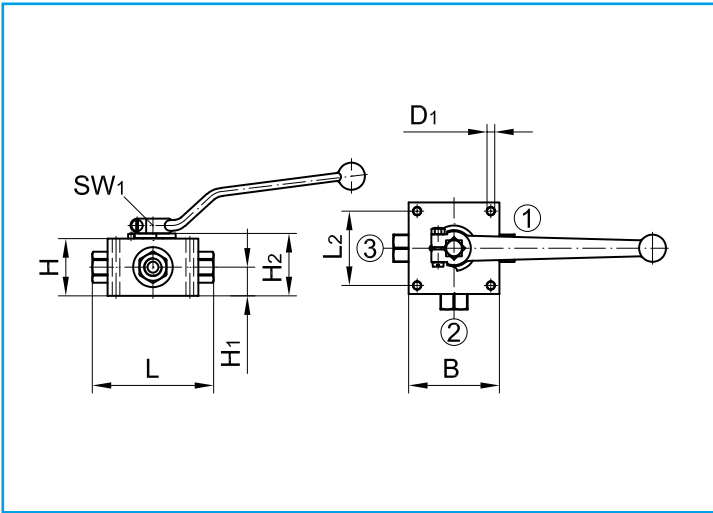


Connection	DN	Thread D	OD	L	L1	L2	B	H	H1	H2	D1	SW	SW1	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	M 14 x 1.5	8	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	8	M 16 x 1.5	10	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	10	M 18 x 1.5	12	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	M 22 x 1.5	15	130	12	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	16/12	M 26 x 1.5	18	136	12	80	100	55	27.5	59.5	8.4	30	14	8	4.3
	20	M 30 x 2	22	138	14	85	100	75	40.0	79.5	8.4	41	19	10	5.7
	25	M 36 x 2	28	157	14	105	120	81	43.5	85.5	10.5	50	19	10	8.6
	32	M 45 x 2	35	210	16	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.1
	40	M 52 x 2	42	256	16	150	190	116	61.0	120.5	14.5	75	19	10	20.8
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	M 16 x 1.5	8	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	M 18 x 1.5	10	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	8	M 20 x 1.5	12	111	12	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	10	M 22 x 1.5	14	115	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	M 24 x 1.5	16	134	14	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	16/12	M 30 x 2	20	144	16	80	100	55	27.5	59.5	8.4	36	14	8	4.3
	20	M 36 x 2	25	146	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
	25	M 42 x 2	30	169	20	105	120	81	43.5	85.5	10.5	50	19	10	8.7
	32	M 52 x 2	38	222	22	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.4
BSP-female thread DIN EN ISO 228-1	4	G 1/8	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	G 1/4	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	10	G 3/8	-	107	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	G 1/2	-	129	15	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	16/12	G 5/8	-	146	18	80	100	55	27.5	59.5	8.4	36	14	8	4.3
	20	G 3/4	-	132	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
	25	G 1	-	162	20	105	120	81	43.5	85.5	10.5	50	19	10	9.0
	32	G 1¼	-	188	20	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6
	40	G 1½	-	224	25	150	190	116	61.0	120.5	14.5	75	19	10	20.3
NPT-female thread ANSI/ASME B1.20.1-1983	4	1/8 - 27 NPT	-	102	6.9	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	1/4 - 18 NPT	-	102	10.0	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	10	3/8 - 18 NPT	-	107	10.3	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	1/2 - 14 NPT	-	129	13.6	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	20	3/4 - 14 NPT	-	132	14.1	85	100	75	40.0	79.5	8.4	41	19	10	5.8
	25	1 - 11½ NPT	-	162	16.8	105	120	81	43.5	85.5	10.5	50	19	10	9.0
	32	1¼ - 11½ NPT	-	188	17.3	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6
	40	1½ - 11½ NPT	-	224	17.3	150	190	116	61.0	120.5	14.5	75	19	10	20.3

DN	PN	Article no.	PN	Article no.
4	500	700736	500	700773
6	500	700737	500	700774
8	500	700738	500	700775
10	500	700739	500	700776
12	500	700740	500	700777
16/12	500	700741	500	700778
20	315	700742	315	700779
25	315	700743	315	700780
32	315*	700744	315*	700781
40	100	700745	100	700782
4	500	700746	500	700783
6	500	700747	500	700784
8	500	700748	500	700785
10	500	700749	500	700786
12	500	700750	500	700787
16/12	500	700751	500	700788
20	315	700752	315	700789
25	315	700753	315	700790
32	315*	700754	315*	700791
4	500	700755	500	700792
6	500	700756	500	700793
10	500	700757	500	700794
12	500	700758	500	700795
16/12	500	700759	500	700796
20	315	700760	315	700797
25	315	700761	315	700798
32	315*	700762	315*	700799
40	100	700763	100	700800
4	500	700764	500	700801
6	500	700765	500	700802
10	500	700766	500	700803
12	500	700767	500	700804
20	315	700768	315	700805
25	315	700769	315	700806
32	315*	700770	315*	700807
40	100	700771	100	700808

Multi-way ball valves with trunnion ball

3-way · stainless steel · threaded connector · DN 4 - DN 32



Handle included in delivery
For handles refer to "Attachments, accessories"
For more porting patterns refer to "Standard- and special porting patterns".

Stainless steel (material no. 1.4571 - or other stainless steels)
Also available with most other connections
Actuators and custom orders on request
All dimensions subject to change without notice

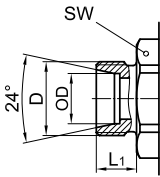
*) can be actuated up to 100 bar manually
Dimensions in mm | Weight in kg | Pressure in bar



Bore:	L	L	T	T
Cycling:	90°	90°	90°	90°
Body:	stainless steel	stainless steel	stainless steel	stainless steel
Trunnion ball:	stainless steel	stainless steel	stainless steel	stainless steel
Ball seals:	PTFE	PEEK	PTFE	PEEK
Stem seals:	FKM	FKM	FKM	FKM
Handle:	aluminum	aluminum	aluminum	aluminum
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

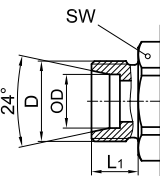
Connection	DN	Thread D	OD	L	L1	L2	B	H	H1	H2	D1	SW	SW1	Handle code	Weight
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For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1



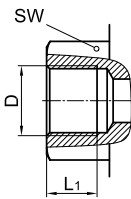
4	M 12 x 1.5	6	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
6	M 14 x 1.5	8	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
8	M 16 x 1.5	10	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
10	M 18 x 1.5	12	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
12	M 22 x 1.5	15	130	12	80	100	55	27.5	59.5	8.4	30	14	8	4.2
16/12	M 26 x 1.5	18	136	12	80	100	55	27.5	59.5	8.4	30	14	8	4.3
20	M 30 x 2	22	138	14	85	100	75	40.0	79.5	8.4	41	19	10	5.7
25	M 36 x 2	28	157	14	105	120	81	43.5	85.5	10.5	50	19	10	8.6
32	M 45 x 2	35	210	16	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.1

For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1



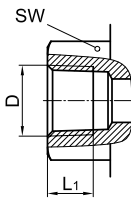
4	M 16 x 1.5	8	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
6	M 18 x 1.5	10	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
8	M 20 x 1.5	12	111	12	65	80	50	25.0	54.5	6.7	24	14	8	2.5
10	M 22 x 1.5	14	115	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
12	M 24 x 1.5	16	134	14	80	100	55	27.5	59.5	8.4	30	14	8	4.2
16/12	M 30 x 2	20	144	16	80	100	55	27.5	59.5	8.4	36	14	8	4.3
20	M 36 x 2	25	146	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
25	M 42 x 2	30	169	20	105	120	81	43.5	85.5	10.5	50	19	10	8.7
32	M 52 x 2	38	222	22	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.4

BSP-female thread DIN EN ISO 228-1



4	G 1/8	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
6	G 1/4	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
10	G 3/8	-	107	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
12	G 1/2	-	129	15	80	100	55	27.5	59.5	8.4	30	14	8	4.2
16/12	G 5/8	-	146	18	80	100	55	27.5	59.5	8.4	36	14	8	4.3
20	G 3/4	-	132	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
25	G 1	-	162	20	105	120	81	43.5	85.5	10.5	50	19	10	9.0
32	G 1 1/4	-	188	20	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6

NPT-female thread ANSI/ASME B1.20.1-1983

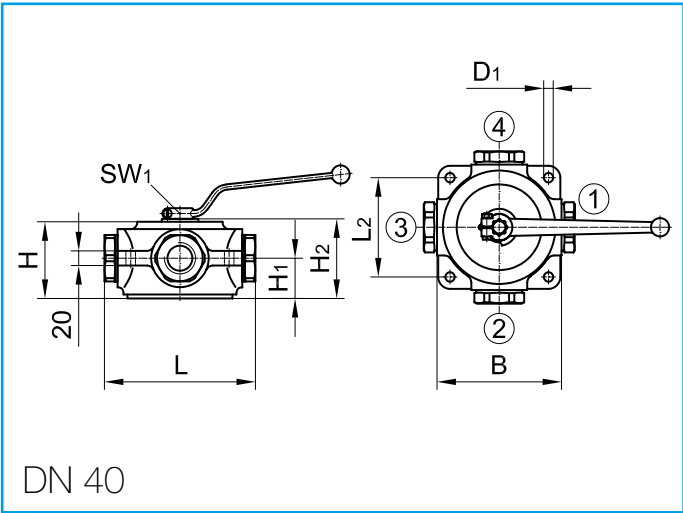
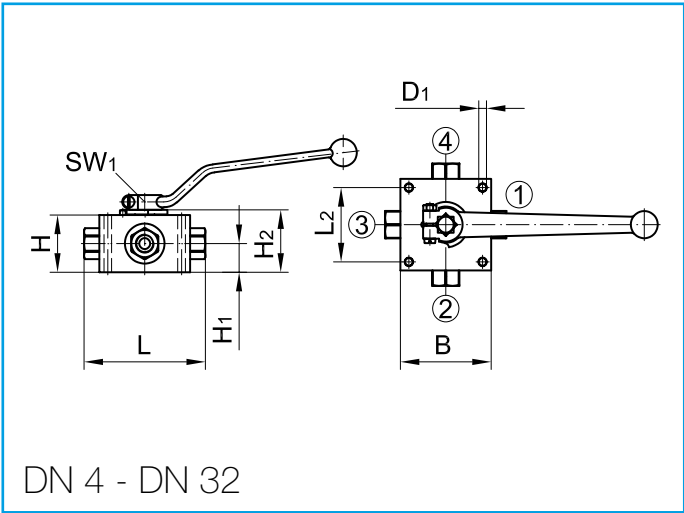


4	1/8 - 27	NPT	-	102	6.9	55	70	40	20.0	44.5	6.7	19	12	7	1.6
6	1/4 - 18	NPT	-	102	10.0	55	70	40	20.0	44.5	6.7	19	12	7	1.6
10	3/8 - 18	NPT	-	107	10.3	65	80	50	25.0	54.5	6.7	24	14	8	2.5
12	1/2 - 14	NPT	-	129	13.6	80	100	55	27.5	59.5	8.4	30	14	8	4.2
20	3/4 - 14	NPT	-	132	14.1	85	100	75	40.0	79.5	8.4	41	19	10	5.8
25	1 - 11 1/2	NPT	-	162	16.8	105	120	81	43.5	85.5	10.5	50	19	10	9.0
32	1 1/4 - 11 1/2	NPT	-	188	17.3	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6

DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
4	100	202501	500	202650	100	202551	500	202685
6	100	202502	500	202651	100	202552	500	202686
8	100	202503	500	202652	100	202553	500	202687
10	100	202504	500	202653	100	202554	500	202688
12	100	202505	500	202654	100	202555	500	202689
16/12	100	202506	500	202655	100	202556	500	202690
20	100	202751	315	202656	100	202801	315	202691
25	100	202752	315	202657	100	202802	315	202692
32	100	202753	315*	202658	100	202803	315*	202693
4	100	202507	500	202660	100	202557	500	202695
6	100	202508	500	202661	100	202558	500	202696
8	100	202509	500	202662	100	202559	500	202697
10	100	202510	500	202663	100	202560	500	202698
12	100	202511	500	202664	100	202561	500	202699
16/12	100	202512	500	202665	100	202562	500	202700
20	100	202755	315	202666	100	202805	315	202701
25	100	202756	315	202667	100	202806	315	202702
32	100	202757	315*	202668	100	202807	315*	202703
4	100	202513	500	202669	100	202563	500	202704
6	100	202514	500	202670	100	202564	500	202705
10	100	202515	500	202671	100	202565	500	202706
12	100	202516	500	202672	100	202566	500	202707
16/12	100	202517	500	202673	100	202567	500	202708
20	100	202758	315	202674	100	202808	315	202709
25	100	202759	315	202675	100	202809	315	202710
32	100	202760	315*	202676	100	202810	315*	202711
4	100	202518	500	202677	100	202568	100	202712
6	100	202519	500	202678	100	202569	100	202713
10	100	202520	500	202679	100	202570	100	202714
12	100	202521	500	202680	100	202571	100	202715
20	100	202762	315	202681	100	202812	315	202716
25	100	202763	315	202682	100	202813	315	202717
32	100	202764	315*	202683	100	202814	315*	202718

Multi-way ball valves with trunnion ball

4-way · steel · threaded connector · DN 4 - DN 40



Handle included in delivery

For more porting patterns refer to "Standard- and special porting patterns".

Also available with most other connections

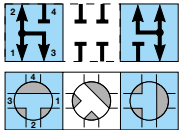
Please check pressure rating of the pipe fittings!

*) can be actuated up to 100 bar manually

**) DN 40: grey cast iron

***) DN 40: grey cast iron, hard chrome plated

T-bore



For handles refer to "Attachments, accessories"

Actuators and custom orders on request

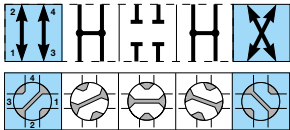
All dimensions subject to change without notice

Dimensions in mm

Weight in kg

Pressure in bar

Double L-bore



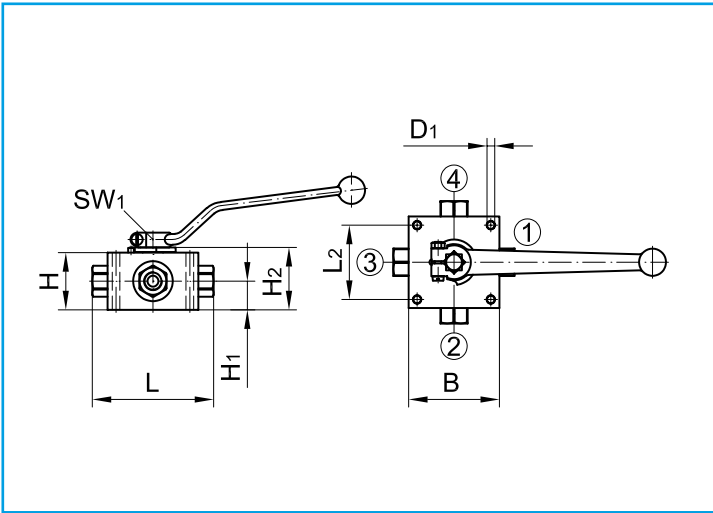
Bore:	T	T	Double-L	Double-L
Cycling:	90°	90°	90°	90°
Body**:	steel, black oxide	steel, black oxide	steel, black oxide	steel, black oxide
Trunnion ball***:	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated	steel, hard chrome plated
Ball seals:	POM	PTFE	POM	PTFE
Stem seals:	NBR	FKM	NBR	FKM
Handle:	aluminum	aluminum	aluminum	aluminum
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	Thread D	OD	L	L1	L2	B	H	H1	H2	D1	SW	SW1	Handle code	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	M 14 x 1.5	8	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	8	M 16 x 1.5	10	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	10	M 18 x 1.5	12	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	M 22 x 1.5	15	130	12	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	16/12	M 26 x 1.5	18	136	12	80	100	55	27.5	59.5	8.4	30	14	8	4.3
	20	M 30 x 1.5	22	138	14	85	100	75	40.0	79.5	8.4	41	19	10	5.7
	25	M 36 x 2	28	157	14	105	120	81	43.5	85.5	10.5	50	19	10	8.6
	32	M 45 x 2	35	210	16	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.1
	40	M 52 x 2	42	256	16	150	190	116	61.0	120.5	14.5	75	19	10	20.8
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	M 16 x 1.5	8	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	M 18 x 1.5	10	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	8	M 20 x 1.5	12	111	12	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	10	M 22 x 1.5	14	115	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	M 24 x 1.5	16	134	14	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	16/12	M 30 x 2	20	144	16	80	100	55	27.5	59.5	8.4	36	14	8	4.3
	20	M 36 x 2	25	146	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
	25	M 42 x 2	30	169	20	105	120	81	43.5	85.5	10.5	50	19	10	8.7
	32	M 52 x 2	38	222	22	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.4
BSP-female thread DIN EN ISO 228-1	4	G 1/8	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	G 1/4	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	10	G 3/8	-	107	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	G 1/2	-	129	15	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	16/12	G 5/8	-	146	18	80	100	55	27.5	59.5	8.4	36	14	8	4.3
	20	G 3/4	-	132	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
	25	G 1	-	162	20	105	120	81	43.5	85.5	10.5	50	19	10	9.0
	32	G 1¼	-	188	20	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6
	40	G 1½	-	224	25	150	190	116	61.0	120.5	14.5	75	19	10	20.3
NPT-female thread ANSI/ASME B1.20.1-1983	4	1/8 - 27 NPT	-	102	6.9	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	6	1/4 - 18 NPT	-	102	10.0	55	70	40	20.0	44.5	6.7	19	12	7	1.6
	10	3/8 - 18 NPT	-	107	10.3	65	80	50	25.0	54.5	6.7	24	14	8	2.5
	12	1/2 - 14 NPT	-	129	13.6	80	100	55	27.5	59.5	8.4	30	14	8	4.2
	20	3/4 - 14 NPT	-	132	14.1	85	100	75	40.0	79.5	8.4	41	19	10	5.9
	25	1 - 11½ NPT	-	162	16.8	105	120	81	43.5	85.5	10.5	50	19	10	9.0
	32	1¼ - 11½ NPT	-	188	17.3	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6
	40	1½ - 11½ NPT	-	224	17.3	150	190	116	61.0	120.5	14.5	75	19	10	20.3

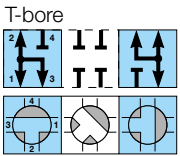
DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
4	500	203001	100	203026	500	203051	100	203076
6	500	203002	100	203027	500	203052	100	203077
8	500	203003	100	203028	500	203053	100	203078
10	500	203004	100	203029	500	203054	100	203079
12	500	203005	100	203030	500	203055	100	203080
16/12	500	203006	100	203031	500	203056	100	203081
20	315	203911	100	203912	315	203913	100	203914
25	315	203931	100	203932	315	203933	100	203934
32	315*	203253	100	203278	315*	203303	100	203328
40	100	204204	100	204219	100	204234	100	204249
4	500	203007	100	203032	500	203057	100	203082
6	500	203008	100	203033	500	203058	100	203083
8	500	203009	100	203034	500	203059	100	203084
10	500	203010	100	203035	500	203060	100	203085
12	500	203011	100	203036	500	203061	100	203086
16/12	500	203012	100	203037	500	203062	100	203087
20	315	203915	100	203916	315	203917	100	203918
25	315	203935	100	203936	315	203937	100	203938
32	315*	203257	100	203282	315*	203307	100	203332
4	500	203013	100	203038	500	203063	100	203088
6	500	203014	100	203039	500	203064	100	203089
10	500	203015	100	203040	500	203065	100	203090
12	500	203016	100	203041	500	203066	100	203091
16/12	500	203017	100	203042	500	203067	100	203092
20	315	203919	100	203920	315	203921	100	203922
25	315	203939	100	203940	315	203941	100	203942
32	315*	203260	100	203285	315*	203310	100	203335
40	100	204211	100	204226	100	204241	100	204256
4	500	203018	100	203043	500	203068	100	203093
6	500	203019	100	203044	500	203069	100	203094
10	500	203020	100	203045	500	203070	100	203095
12	500	203021	100	203046	500	203071	100	203096
20	315	203923	100	203924	315	203925	100	203926
25	315	203943	100	203944	315	203945	100	203946
32	315*	203264	100	203289	315*	203314	100	203339
40	100	204215	100	204230	100	204245	100	204260

Multi-way ball valves with trunnion ball

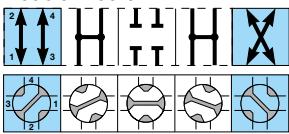
4-way · stainless steel · threaded connector · DN 4 - DN 32



Handle included in delivery
For handles refer to "Attachments, accessories"
For more porting patterns refer to "Standard- and special porting patterns".
Stainless steel (material no. 1.4571 - or other stainless steels)
Also available with most other connections



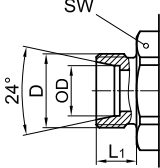
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar
Double L-bore
(reduced bore)



Bore:	T	T	Double-L	Double-L
Cycling:	90°	90°	90°	90°
Body:	stainless steel	stainless steel	stainless steel	stainless steel
Trunnion ball:	stainless steel	stainless steel	stainless steel	stainless steel
Ball seals:	PTFE	PEEK	PTFE	PEEK
Stem seals:	FKM	FKM	FKM	FKM
Handle:	aluminum	aluminum	aluminum	aluminum
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated	steel, zinc nickel plated

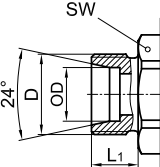
Connection	DN	Thread D	RA	L	L1	L2	B	H	H1	H2	D1	SW	SW1	Handle code	Weight
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For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1



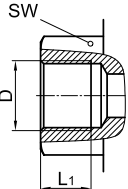
4	M 12 x 1.5	6	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
6	M 14 x 1.5	8	100	10	55	70	40	20.0	44.5	6.7	19	12	7	1.6
8	M 16 x 1.5	10	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
10	M 18 x 1.5	12	109	11	65	80	50	25.0	54.5	6.7	24	14	8	2.5
12	M 22 x 1.5	15	130	12	80	100	55	27.5	59.5	8.4	30	14	8	4.2
16/12	M 26 x 1.5	18	136	12	80	100	55	27.5	59.5	8.4	30	14	8	4.3
20	M 30 x 2	22	138	14	85	100	75	40.0	79.5	8.4	41	19	10	5.7
25	M 36 x 2	28	157	14	105	120	81	43.5	85.5	10.5	50	19	10	8.6
32	M 45 x 2	35	210	16	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.1

For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1



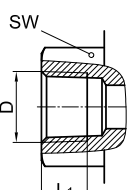
4	M 16 x 1.5	8	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
6	M 18 x 1.5	10	106	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
8	M 20 x 1.5	12	111	12	65	80	50	25.0	54.5	6.7	24	14	8	2.5
10	M 22 x 1.5	14	115	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
12	M 24 x 1.5	16	134	14	80	100	55	27.5	59.5	8.4	30	14	8	4.2
16/12	M 30 x 2	20	144	16	80	100	55	27.5	59.5	8.4	36	14	8	4.3
20	M 36 x 2	25	146	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
25	M 42 x 2	30	169	20	105	120	81	43.5	85.5	10.5	50	19	10	8.7
32	M 52 x 2	38	222	22	106	Ø180	100	50.0	104.5	10.5	60	19	10	17.4

BSP-female thread DIN EN ISO 228-1



4	G 1/8	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
6	G 1/4	-	102	12	55	70	40	20.0	44.5	6.7	19	12	7	1.6
10	G 3/8	-	107	14	65	80	50	25.0	54.5	6.7	24	14	8	2.5
12	G 1/2	-	129	15	80	100	55	27.5	59.5	8.4	30	14	8	4.2
16/12	G 5/8	-	146	18	80	100	55	27.5	59.5	8.4	36	14	8	4.3
20	G 3/4	-	132	18	85	100	75	40.0	79.5	8.4	41	19	10	5.8
25	G 1	-	162	20	105	120	81	43.5	85.5	10.5	50	19	10	9.0
32	G 1 1/4	-	188	20	106	Ø180	100	50.0	104.5	10.5	60	19	10	16.6

NPT-female thread ANSI/ASME B1.20.1-1983

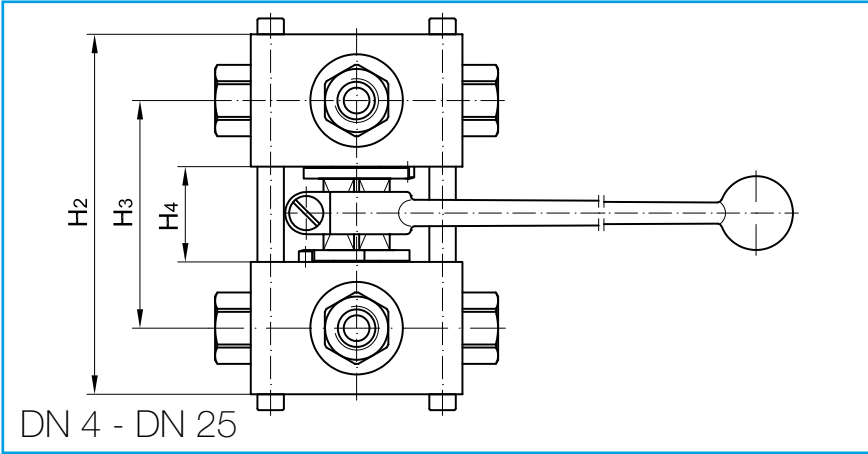


4	1/8 - 27	NPT	-	102	6.9	55	70	40	20.0	44.5	6.7	19	19	7	1.6
6	1/4 - 18	NPT	-	102	10.0	55	70	40	20.0	44.5	6.7	19	19	7	1.6
10	3/8 - 18	NPT	-	107	10.3	65	80	50	25.0	54.5	6.7	24	24	8	2.5
12	1/2 - 14	NPT	-	129	13.6	80	100	55	27.5	59.5	8.4	30	30	8	4.2
20	3/4 - 14	NPT	-	132	14.1	85	100	75	40.0	79.5	8.4	41	41	10	5.9
25	1 - 11 1/2	NPT	-	162	16.8	105	120	81	43.5	85.5	10.5	50	50	10	9.0
32	1 1/4 - 11 1/2	NPT	-	188	17.3	106	Ø180	100	50.0	104.5	10.5	60	60	10	16.6

DN	PN	Article no.	PN	Article no.	PN	Article no.	PN	Article no.
4	100	203501	500	203650	100	203551	500	203685
6	100	203502	500	203651	100	203552	500	203686
8	100	203503	500	203652	100	203553	500	203687
10	100	203504	500	203653	100	203554	500	203688
12	100	203505	500	203654	100	203555	500	203689
16/12	100	203506	500	203655	100	203556	500	203690
20	100	203751	315	203656	100	203801	315	203691
25	100	203752	315	203657	100	203802	315	203692
32	100	203753	315*	203658	100	203803	315*	203693
4	100	203507	500	203659	100	203557	500	203694
6	100	203508	500	203660	100	203558	500	203695
8	100	203509	500	203661	100	203559	500	203696
10	100	203510	500	203662	100	203560	500	203697
12	100	203511	500	203663	100	203561	500	203698
16/12	100	203512	500	203664	100	203562	500	203699
20	100	203755	315	203665	100	203805	315	203700
25	100	203756	315	203666	100	203806	315	203701
32	100	203757	315*	203667	100	203807	315*	203702
4	100	203513	100	203668	100	203563	100	203703
6	100	203514	100	203669	100	203564	100	203704
10	100	203515	100	203670	100	203565	100	203705
12	100	203516	100	203671	100	203566	100	203706
16/12	100	203517	100	203672	100	203567	100	203707
20	100	203758	315	203673	100	203808	315	203708
25	100	203759	315	203674	100	203809	315	203709
32	100	203760	315*	203675	100	203810	315*	203710
4	100	203518	500	203676	100	203568	500	203711
6	100	203519	500	203677	100	203569	500	203712
10	100	203520	500	203678	100	203570	500	203713
12	100	203521	500	203679	100	203571	500	203714
20	100	203762	315	203680	100	203812	315	203715
25	100	203763	315	203681	100	203813	315	203716
32	100	203764	315*	203682	100	203814	315*	203717

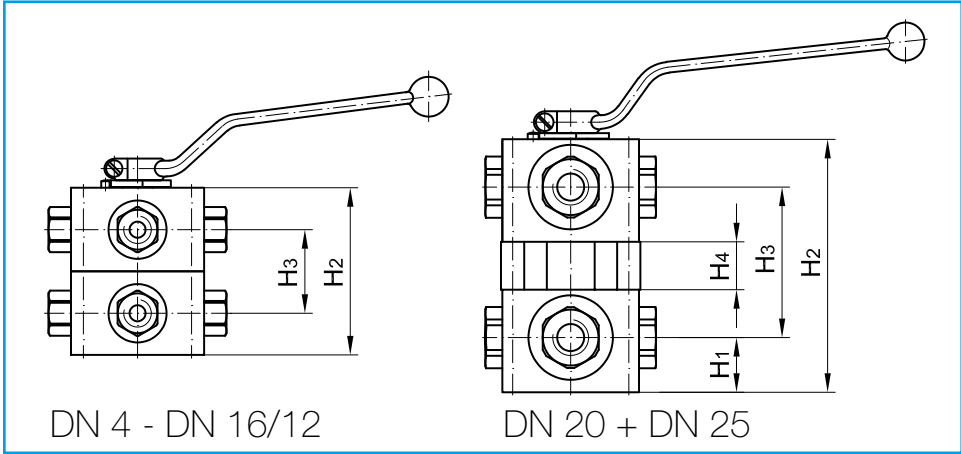
Multi-way ball valves with trunnion ball

Steel or stainless steel · as combination · assembly kits



Handle included in delivery
For dimensions and article-numbers for ball valve bodies refer to the respective chapter.
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm
Also available completely assembled

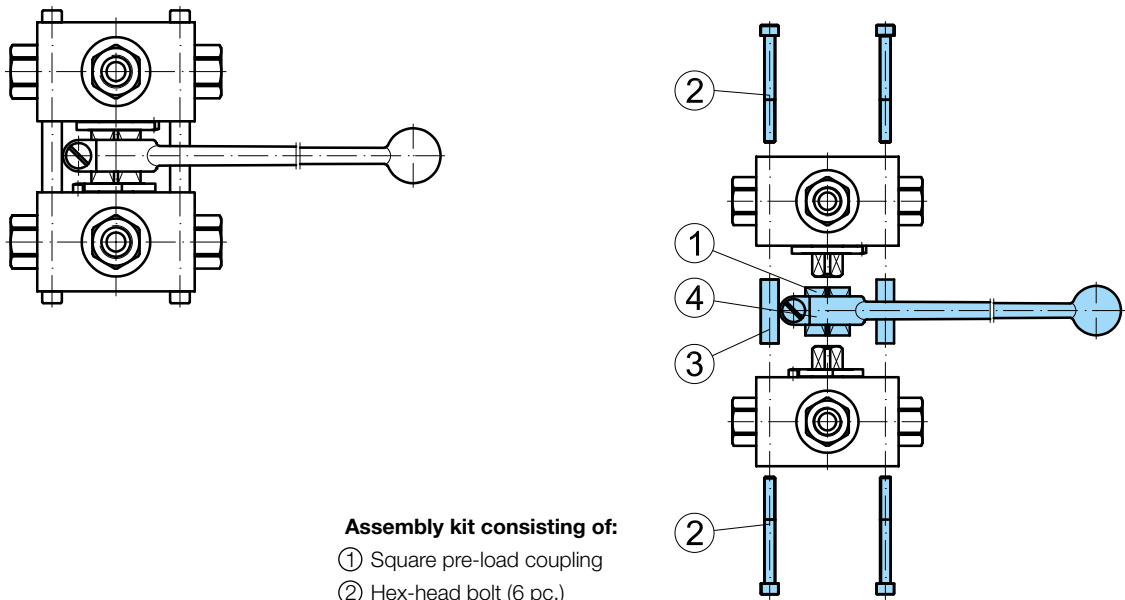
Connection	DN	H2	H3	H4	Handle code	Article no.
ALL	4	114	74	34	44	203890
	6	114	74	34	44	203890
	8	136	86	36	45	203891
	10	136	86	36	45	203891
	12	146	91	36	45	203892
	16/12	146	91	36	45	203892
	20	195	115	45	47	203893
	25	207	207	45	47	203894



Handle included in delivery
For dimensions and article-numbers for ball valve bodies refer to the respective chapter.
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm

Connection	DN	H1	H2	H3	H4	Handle code
ALL	4	-	80	40	-	44
	6	-	80	40	-	44
	8	-	100	50	-	45
	10	-	100	50	-	45
	12	-	110	55	-	45
	16/12	-	110	55	-	45
	20	40.0	185	110	35	47
	25	43.5	197	116	35	47

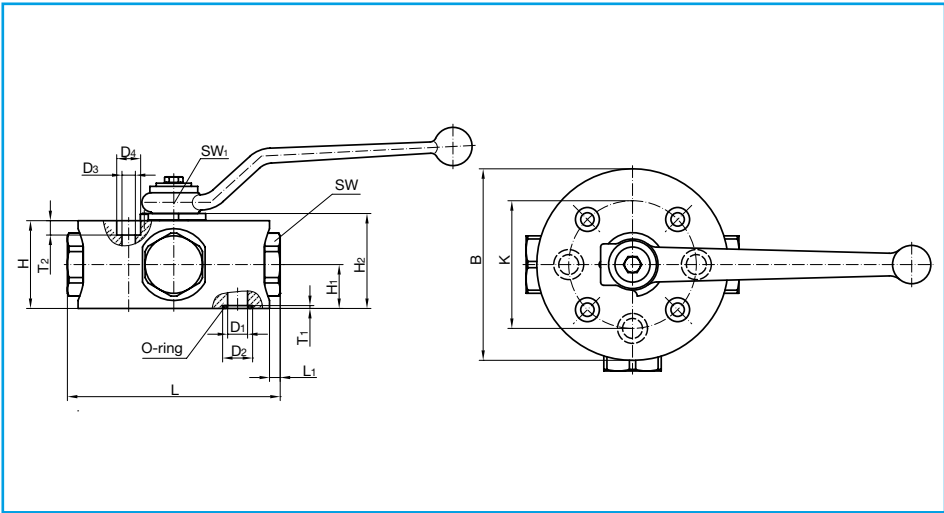
Combination consisting of:
two multi-way ball valves (without handle) and one assembly kit



Assembly kit consisting of:
① Square pre-load coupling
② Hex-head bolt (6 pc.)
③ Spacer sleeves (3 pc.)
④ Handle

Multi-way ball valves with trunnion ball

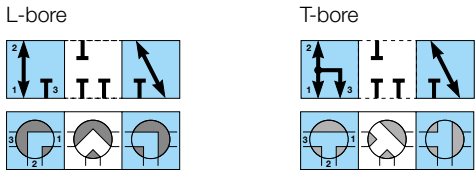
3-way · steel · manifold mounting · DN 6 - DN 32



The body of the 3-way-version is identical with that of the 4-way-version.

The unused port is then to be sealed against the hydraulic manifold with an o-ring.

Handle and o-rings included in delivery
For handles refer to "Attachments, accessories"
For more porting patterns refer to "Standard- and special porting patterns".
*) can be actuated up to 100 bar manually
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar



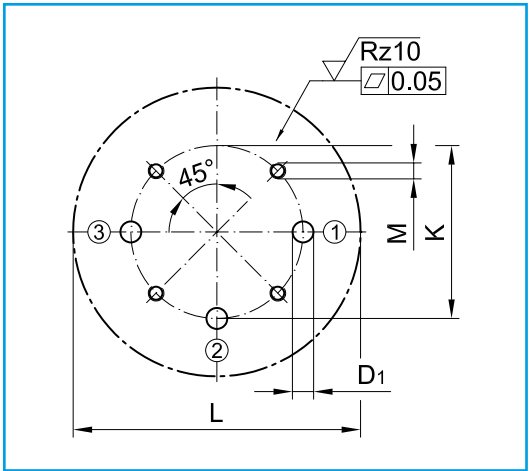
Bore:	L	T
Cycling:	90°	90°
Body:	steel, black oxide	steel, black oxide
Trunnion ball:	steel, hard chrome plated	steel, hard chrome plated
Body seals:	NBR	NBR
Ball seals:	POM	POM
Stem seals:	NBR	NBR
Handle:	aluminum	aluminum
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	L	L1	B	H	H1	H2	K	D1	D2	D3	D4	T1	T2	DN	SW	SW1	Handle code	Weight	For cylinder head screws DIN EN ISO 4762 (DIN 912)	PN	Article no.	PN	Article no.
Body-flange with o-ring-seal	6	95	2.5	Ø90	40.5	20.5	45.0	55	6.0	12.5	6.4	11	1.8	6.8	6	24	12	7	1.7	M 6	400	206501	400	206561
	10	108	4.0	Ø100	50.0	25.0	54.5	65	8.0	15.0	6.4	11	1.8	6.8	10	30	14	8	2.7	M 6	400	206502	400	206562
	12	133	6.5	Ø120	55.0	27.5	59.5	80	12.5	18.8	8.4	15	1.8	9.0	12	36	14	8	4.6	M 8	400	206503	400	206563
	20	190	5.0	Ø180	75.0	40.0	79.5	115	19.0	30.0	17.0	26	3.0	22.0	20	50	19	10	13.0	M 16	315	206504	315	206564
	25	210	5.0	Ø200	81.0	43.5	85.5	135	23.5	35.0	21.0	33	3.0	21.5	25	60	19	10	16.6	M 20	315	206505	315	206565
	32	300	5.0	Ø290	100.0	50.0	104.5	200	32.0	40.0	25.0	40	3.0	26.5	32	70	19	10	41.5	M 24	315*	206506	315*	206566

General tolerances
DIN ISO 2768
Surfaces
DIN EN ISO 4287

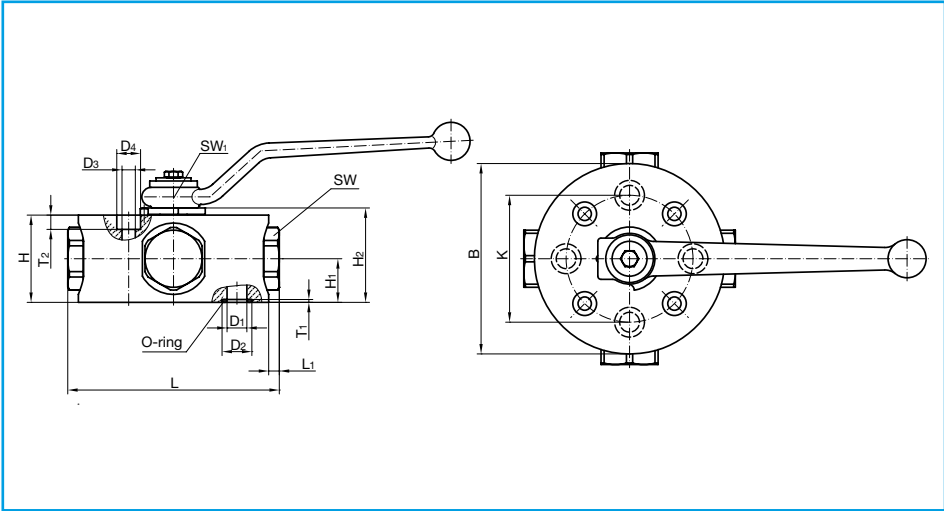
DN	D1	K	L	M	O-ring
6	6.0	55	95	M 6	8.0 x 2.5
10	8.0	65	108	M 6	10.0 x 2.5
12	12.5	80	133	M 8	14.0 x 2.5
20	19.0	115	190	M 16	23.5 x 3.5
25	23.5	135	210	M 20	28.1 x 3.5
32	32.0	200	300	M 24	33.5 x 3.5

Drilling pattern
DN 6 - DN 32

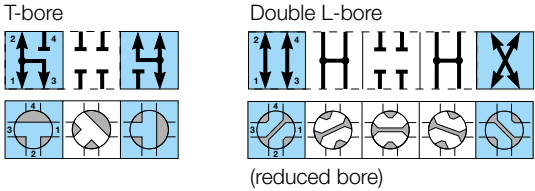


Multi-way ball valves with trunnion ball

4-way · steel · manifold mounting · DN 6 - DN 32



Handle and o-rings included in delivery
For handles refer to "Attachments, accessories"
For more porting patterns refer to "Standard- and special porting patterns".
*) can be actuated up to 100 bar manually
Actuators and custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar



Bore:	T	Double-L
Cycling:	90°	90°
Body:	steel, black oxide	steel, black oxide
Trunnion ball:	steel, hard chrome plated	steel, hard chrome plated
Body seals:	NBR	NBR
Ball seals:	POM	POM
Stem seals:	NBR	NBR
Handle:	aluminum	aluminum
Stop plate:	steel, zinc nickel plated	steel, zinc nickel plated

Connection	DN	L	L1	B	H	H1	H2	K	D1	D2	D3	D4	T1	T2
Body-flange with o-ring-seal	6	95	2.5	Ø90	40.5	20.5	45.0	55	6.0	12.5	6.4	11	1.8	6.8
	10	108	4.0	Ø100	50.0	25.0	54.5	65	8.0	15.0	6.4	11	1.8	6.8
	12	133	6.5	Ø120	55.0	27.5	59.5	80	12.5	18.8	8.4	15	1.8	9.0
	20	190	5.0	Ø180	75.0	40.0	79.5	115	19.0	30.0	17.0	26	3.0	22.0
	25	210	5.0	Ø200	81.0	43.5	85.5	135	23.5	35.0	21.0	33	3.0	21.5
	32	300	5.0	Ø290	100.0	50.0	104.5	200	32.0	40.0	25.0	40	3.0	26.5

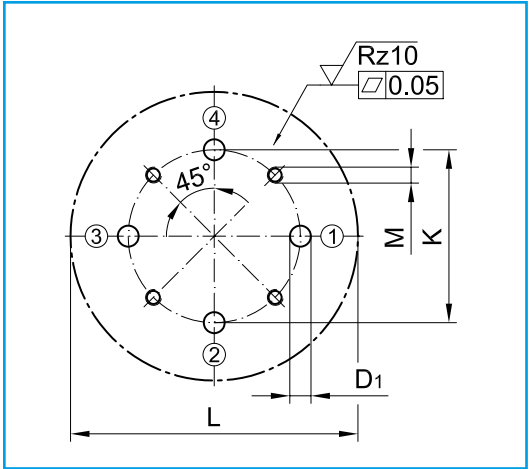
DN	SW	SW1	Handle code	Weight	For cylinder head screws DIN EN ISO 4762 (DIN 912)
6	24	12	7	1.7	M 6
10	30	14	8	2.7	M 6
12	36	14	8	4.6	M 8
20	50	19	10	13.0	M 16
25	60	19	10	16.6	M 20
32	70	19	10	41.5	M 24

PN	Article no.	PN	Article no.
400	206521	400	206541
400	206522	400	206542
400	206523	400	206543
315	206524	315	206544
315	206525	315	206545
315*	206526	315*	206546

General tolerances
DIN ISO 2768
Surfaces
DIN EN ISO 4287

DN	D1	K	L	M	O-ring
6	6.0	55	95	M 6	8.0 x 2.5
10	8.0	65	108	M 6	10.0 x 2.5
12	12.5	80	133	M 8	14.0 x 2.5
20	19.0	115	190	M 16	23.5 x 3.5
25	23.5	135	210	M 20	28.1 x 3.5
32	32.0	200	300	M 24	33.5 x 3.5

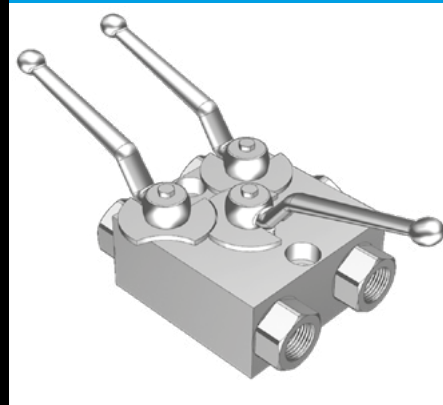
Drilling pattern
DN 6 - DN 32



Ball valve function systems

Product overview

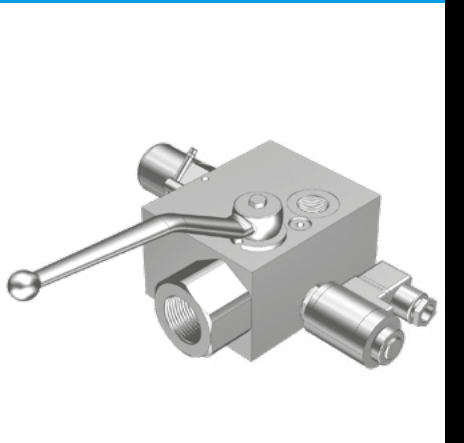
Shut-off blocks with
integrated bypass and
safety-lock



Sandwich plates

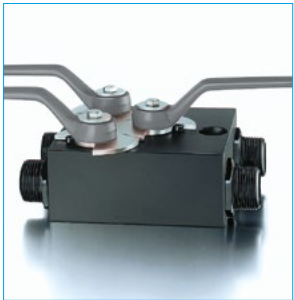


Accumulator
safety blocks

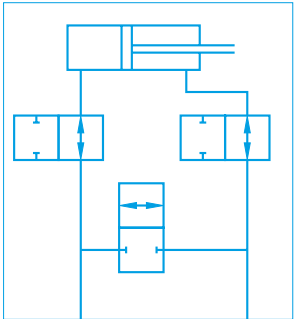


Ball valve function systems

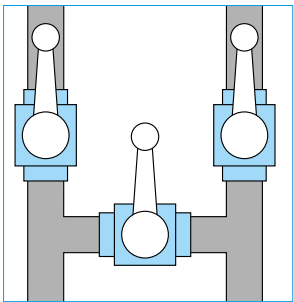
Shut-off blocks · technical information



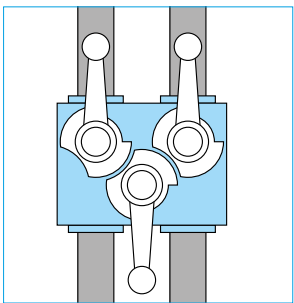
Shut-off blocks with integrated bypass and safety-lock



Application/function:
For liquid and oily media as per the compatibility table in the technical data appendix; for insertion upline of actuator cylinders with the capability to both block the cylinder feed lines and to short-circuit them.



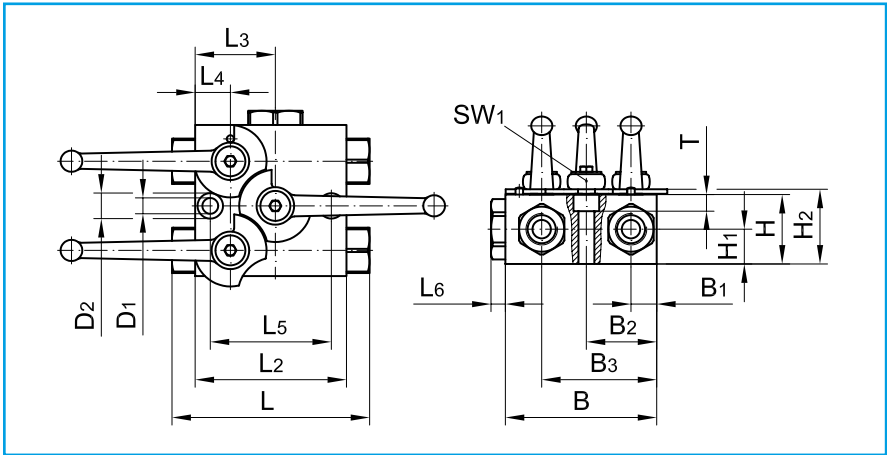
The previous situation:
Installation of separate ball valves in the piping system. Here a total of twelve pipe joints must be provided, using two tees. This is labor intensive and thus expensive. In addition, the hazard of leaks rises with the number of joints.



Our solution for the problem:
Combining the three shut-off functions with a single block by incorporating three ball valve assemblies. Only four pipe connections need to be made. A certain sequence in operation is achieved by cam inter-locks on the ball valves:
1. block the rod end
2. open the bypass
3. block the piston end

- Advantages:**
- clear design and user-friendly arrangement
 - quick assembly with a reduced number of pipe connections
 - reduced hazard of leaks
 - mutual interlocks for the valves give a specific operating sequence and prevent any pressure intensification in the rod end of the cylinder
 - switches can be attached

Shut-off blocks · steel · DN 10 - DN 25



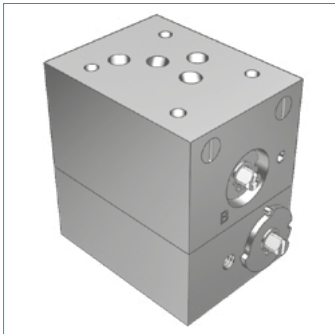
Handle included in delivery
For handles refer to "Attachments, accessories"
Please check pressure ratings of pipe fittings!
Also available with most other connections
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, black oxide
Ball:	steel, hard chrome plated
Stem:	steel, zinc nickel plated
Ball seals:	POM
Stem seals:	NBR

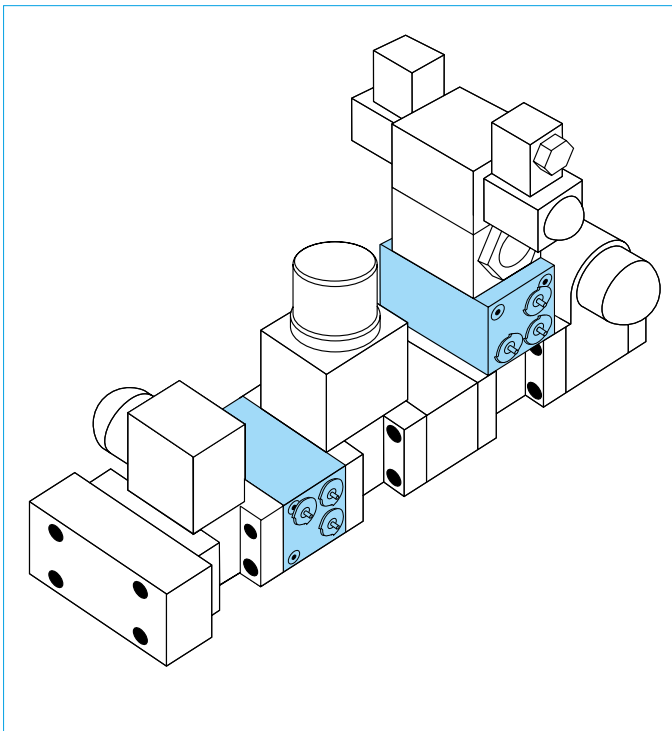
Connection	For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	BSP-female thread DIN EN ISO 228-1	NPT-female thread ANSI/ASME B1.20.1-1983	DN	Thread D	OD	L	L1	L2	L3	L4	L5	L6	B	B1	B2	B3	H	H1	H2	D1	D2	T	SW	SW1	Handle code	Weight	PN	Article no.
					10	M 18 x 1.5	12	120	11	90	51.0	22.8	60	6.5	90	20.7	45.7	70.7	40	19.5	43.5	8.4	15	9	24	8	13	1.9	500	250001
					12	M 22 x 1.5	15	132	12	100	53.0	23.5	80	9.5	100	17.0	46.5	76.0	46	23.0	49.5	10.5	17	11	30	10	14	3.2	500	250002
					20	M 30 x 2	22	149	14	110	66.5	29.0	90	12.0	125	23.0	60.0	97.0	62	31.0	68.5	10.5	17	11	41	14	15	5.5	400	250004
					25	M 36 x 2	28	173	14	135	76.6	32.6	115	6.5	147	27.8	71.8	115.8	68	34.0	74.5	10.5	17	11	50	14	15	8.3	400	250005
					10	M 22 x 1.5	14	126	14	90	51.0	22.8	60	6.5	90	20.7	45.7	70.7	40	19.5	43.5	8.4	15	9	24	8	13	1.9	500	250006
					12	M 24 x 1.5	16	136	14	100	53.0	23.5	80	9.5	100	17.0	46.5	76.0	46	23.0	49.5	10.5	17	11	30	10	14	3.2	500	250007
					20	M 36 x 2	25	157	18	110	66.5	29.0	90	12.0	125	23.0	60.0	97.0	62	31.0	68.5	10.5	17	11	41	14	15	5.5	400	250009
					25	M 42 x 2	30	185	20	135	76.6	32.6	115	6.5	147	27.8	71.8	115.8	68	34.0	74.5	10.5	17	11	50	14	15	8.3	400	250010
					10	G 3/8	-	118	14	90	51.0	22.8	60	6.5	90	20.7	45.7	70.7	40	19.5	43.5	8.4	15	9	24	8	13	1.9	500	250011
					12	G 1/2	-	131	15	100	53.0	23.5	80	9.5	100	17.0	46.5	76.0	46	23.0	49.5	10.5	17	11	30	10	14	3.2	500	250012
					20	G 3/4	-	143	18	110	66.5	29.0	90	12.0	125	23.0	60.0	97.0	62	31.0	68.5	10.5	17	11	41	14	15	5.5	400	250014
					25	G 1	-	178	18	135	76.6	32.6	115	6.5	147	27.8	71.8	115.8	68	34.0	74.5	10.5	17	11	50	14	15	8.3	400	250015
					10	3/8 - 18 NPT	-	118	10.3	90	51.0	22.8	60	6.5	90	20.7	45.7	70.7	40	19.5	43.5	8.4	15	9	24	8	13	1.9	500	250016
					12	1/2 - 14 NPT	-	131	13.6	100	53.0	23.5	80	9.5	100	17.0	46.5	76.0	46	23.0	49.5	10.5	17	11	30	10	14	3.2	500	250017
					20	3/4 - 14 NPT	-	143	14.1	110	66.5	29.0	90	12.0	125	23.0	60.0	97.0	62	31.0	68.5	10.5	17	11	41	14	15	5.5	400	250018
					25	1 - 11 1/2 NPT	-	178	16.8	135	76.6	32.6	115	6.5	147	27.8	71.8	115.8	68	34.0	74.5	10.5	17	11	50	14	15	8.3	400	250019

Ball valve function systems

Sandwich plates · technical information



Shut-off plates and sandwich elements for interconnected systems



The previous situation:
The large number of control elements means large systems susceptible to malfunctions. If, for example a solenoid valve at the central hydraulic system for an aluminum rolling mill failed, the controlled component would have to be operated manually or production would have to be suspended to change the valve.

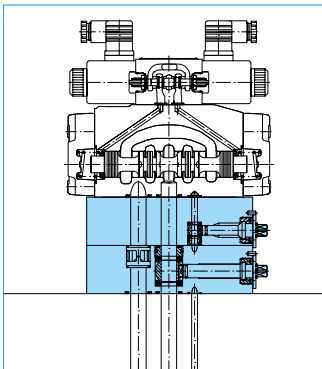
This replacement makes it necessary to depressurize the system, to prop up external loads which cylinders are supporting and to drain the fluid from the riser lines to the cylinder. Once the solenoid valve has been changed, the lines will have to be refilled and bled.

Our solution for the problem:
With the use of our sandwich-plate, which is bolted separately to the control block, all the channels through the plate can be blocked and the directional-control valve can be replaced without having to depressurize or drain lines and without affecting the other control units on the same block. All channels are open during normal operation. The operating handle can be removed to prevent unauthorized actuation.

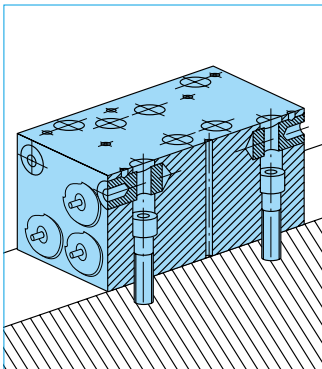
- Advantages:**
- full bore design causes no pressure drop
 - significant reduction in hydraulic system downtime
 - no need to drain fluid, bleed air or refill the system
 - simplified start-up and maintainance due to the ease of changing flushing plates and directional valves
 - pressure can be maintained in cylinders so that the support loads do not need to be shored up
 - standard mounting and porting patterns allow retrofit without rework
 - proprietary design increases safety by utilizing separate mechanically isolated bolts for mounting the sandwich-plate and directional valve; removing the directional valve cannot accidentally loosen the sandwich-plate

Applications:
For liquid media as per the compability table in the technical data appendix

On request:
Limit switch, proximity switch, locking devices; also available in other materials and combinations

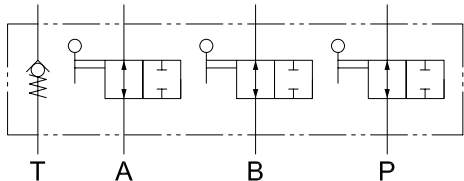


Operation setting:
Sandwich plate with the solenoid valve mounted valve on top

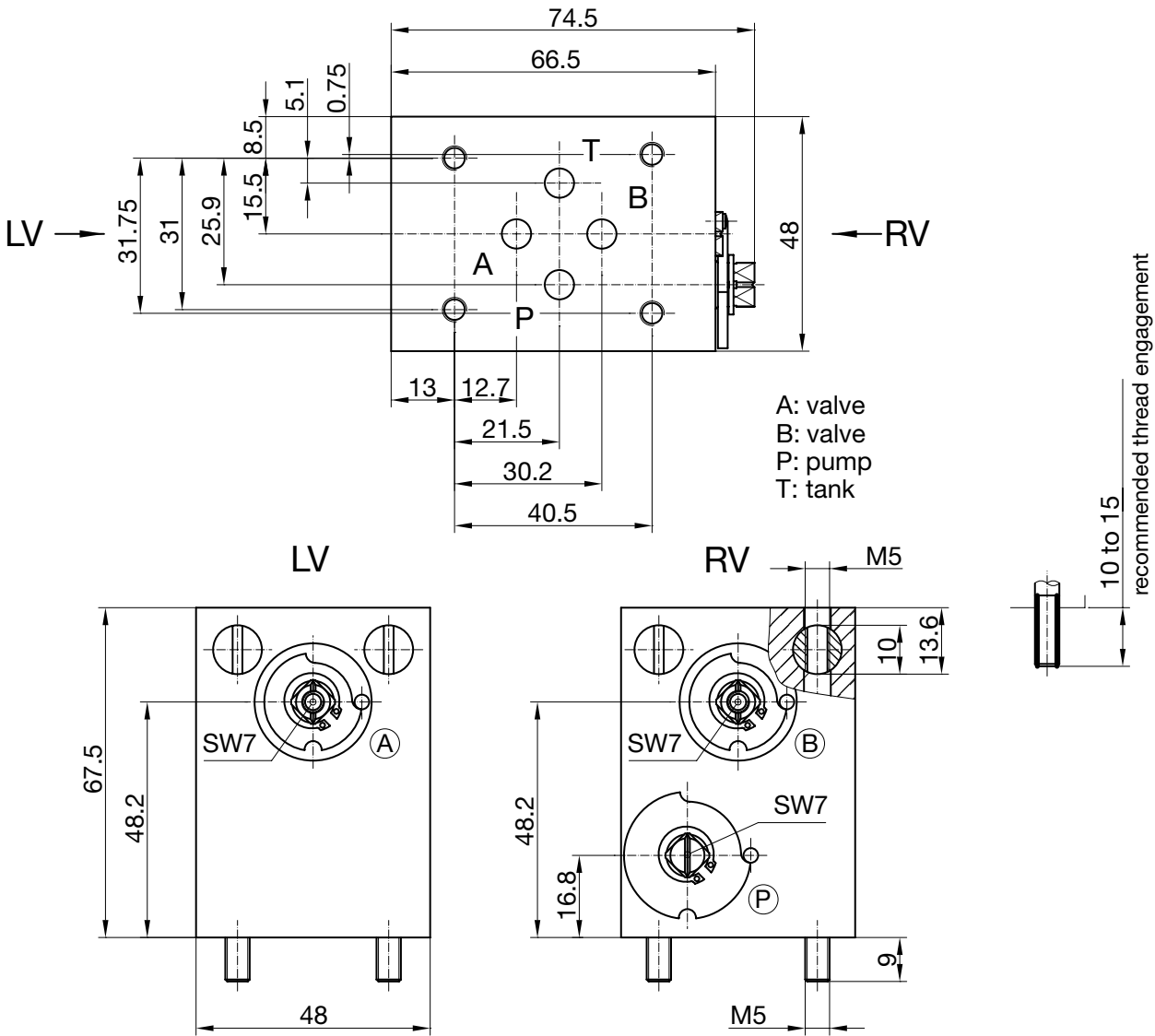
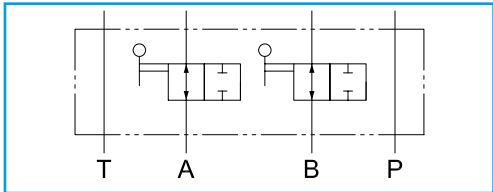


Repair setting:
Passages inside the sandwich plate shut-off; plate remains bolted to the hydraulic control block. Solenoid valve removed.

Sandwich plates · NG 6 · PN 315

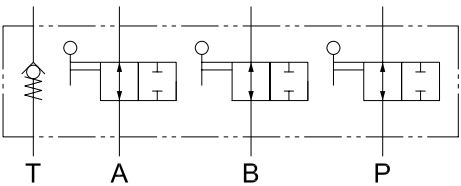


Article no. 208030
Steel/POM-NBR
Weight: 1.55 kg
Opening pressure of check valve: approx. 0.3 bar
Drilling pattern to DIN 24340-A6 and ISO 4401-03-02-0-05
Custom orders on request
All dimensions subject to change without notice
Also available with blocking in A and B only
Dimension sheet on request, locking device retrofittable

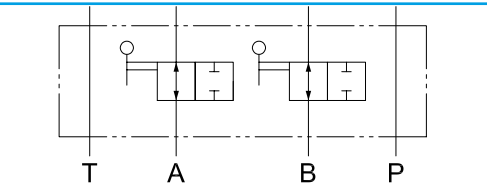


Ball valve function systems

Sandwich plates · NG 10 · PN 315



Article no. 208032
Steel/POM-NBR
Weight: 4.45 kg
Opening pressure of check valve: approx. 0.3 bar
Drilling pattern to DIN 24340-A10 and ISO 4401-05-04-0-05
Custom orders on request
All dimensions subject to change without notice
Also available with blocking in A and B only
Dimension sheet on request, locking device retrofittable

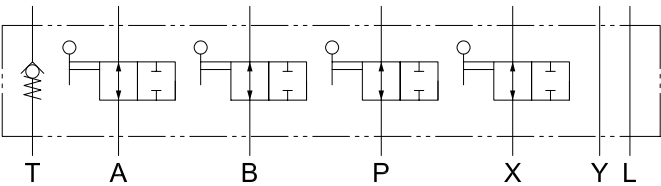


LV → RV

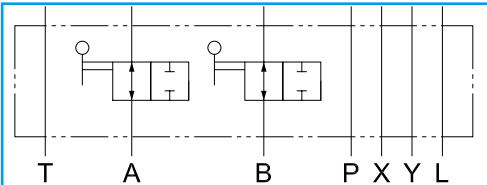
A: valve
B: valve
P: pump
T: tank
*): blind sealing for potential additional tank connection

12 to 15 recommended thread engagement

Sandwich plates · NG 16 · PN 315



Article no. 208034
Steel/POM-NBR
Weight: 11.7 kg
Opening pressure of check valve: approx. 0.3 bar
Drilling pattern to DIN 24340-A16 and ISO 4401-07-06-0-05
Custom orders on request
All dimensions subject to change without notice
Also available with blocking in A and B only
Dimension sheet on request, locking device retrofittable



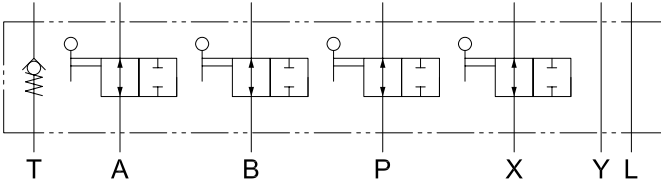
LV → RV

A: valve
B: valve
P: pump
T: tank
L: pilot tank
X: valve
Y: valve

20 to 25 recommended thread engagement

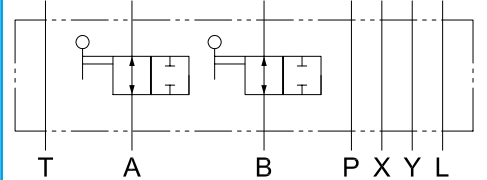
Ball valve function systems

Sandwich plates · NG 25 · PN 315



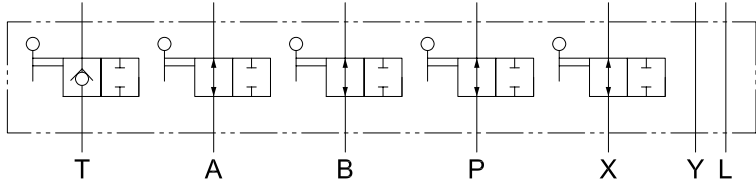
T A B P X Y L

Article no. 208036
Steel/POM-NBR
Weight: 25.4 kg
Opening pressure of check valve: approx. 0.3 bar
Drilling pattern to DIN 24340-A25 and ISO 4401-08-07-0-94
Custom orders on request
All dimensions subject to change without notice
Also available with blocking in A and B only
Dimension sheet on request, locking device retrofittable



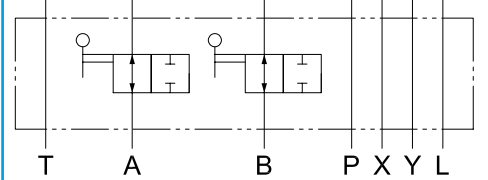
T A B P X Y L

Sandwich plates · NG 32 · PN 315

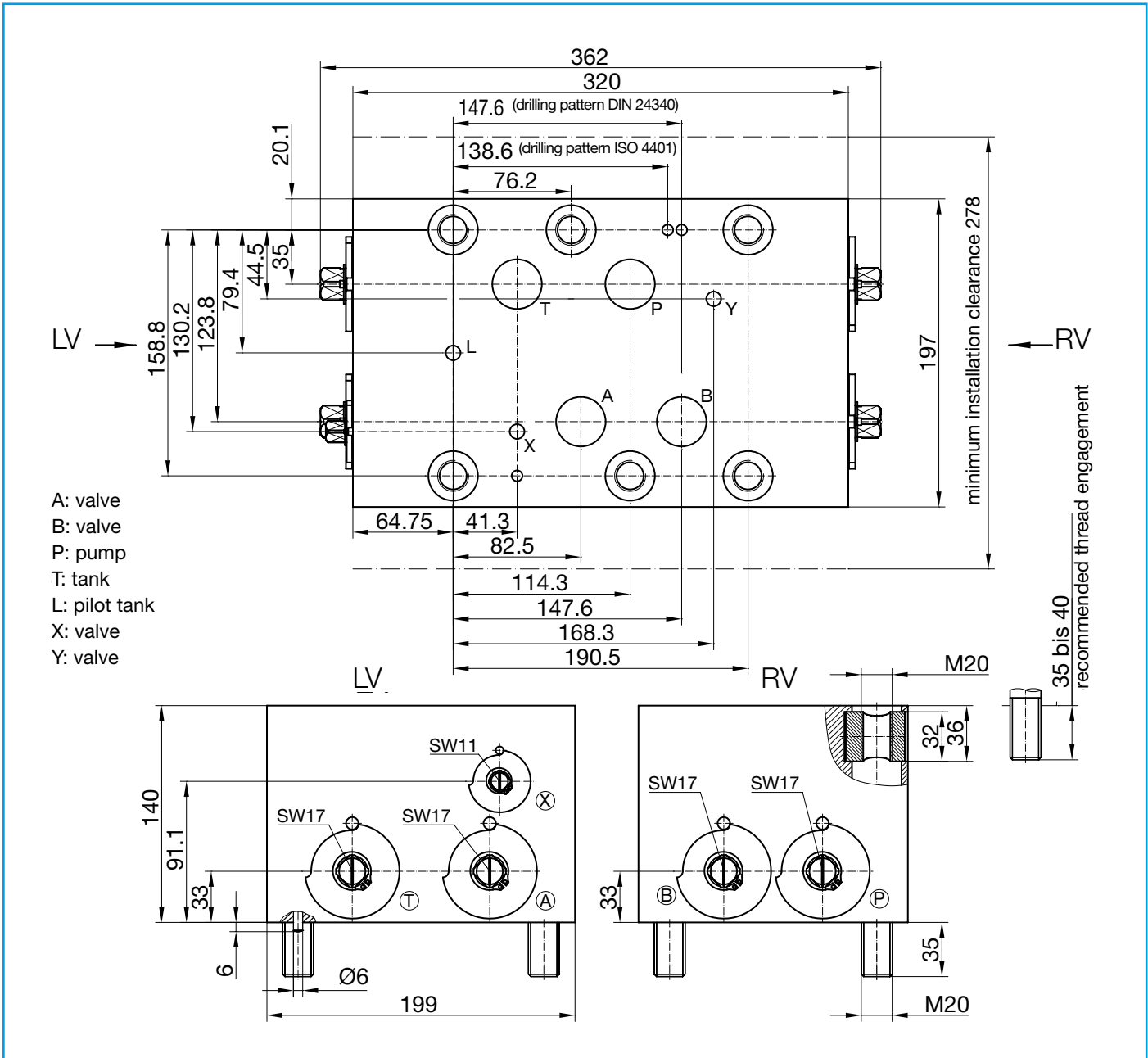
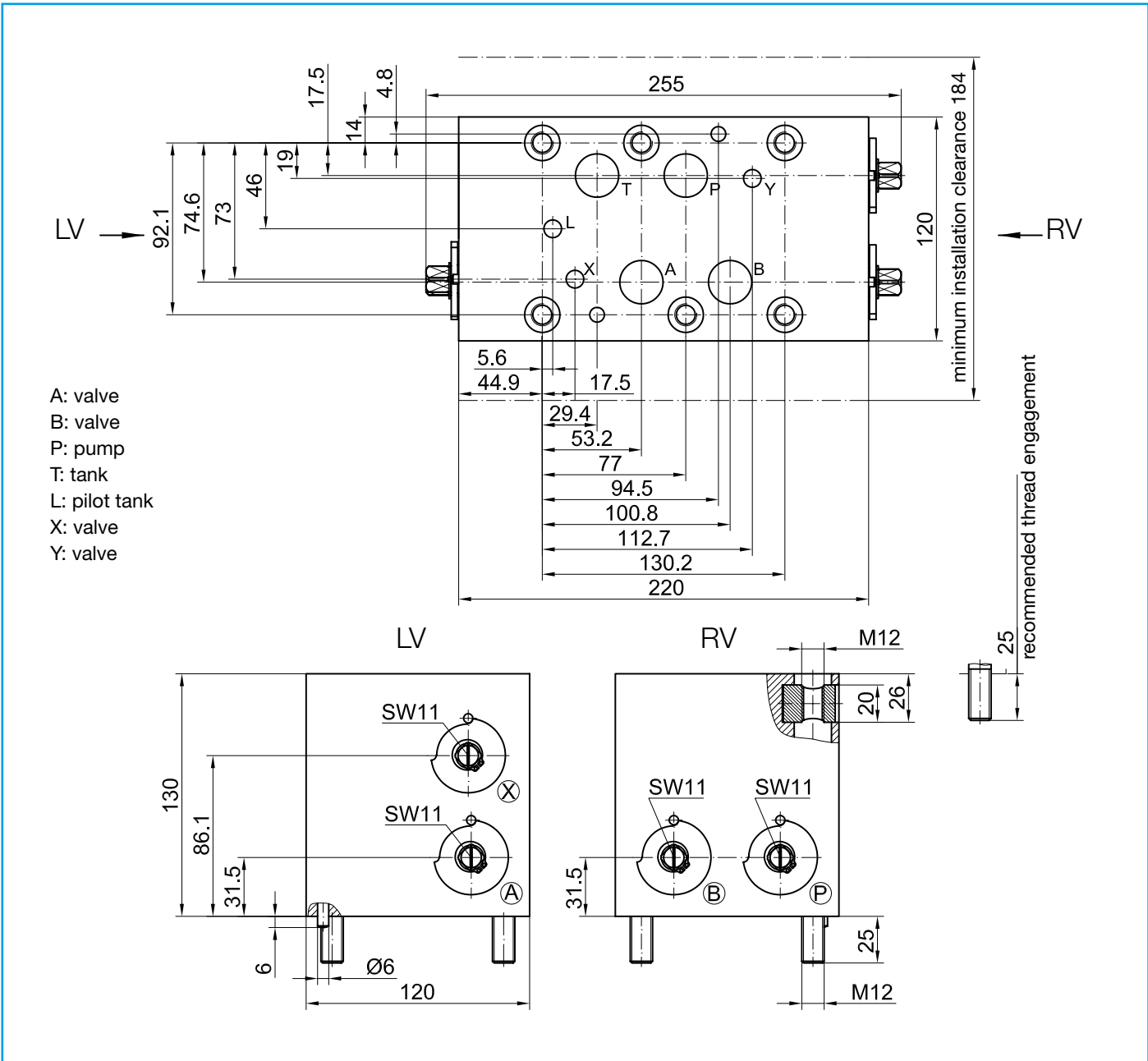


T A B P X Y L

Article no. 208038
Steel/POM-NBR
Weight: approx. 60 kg
Opening pressure of check valve: approx. 0.3 bar
Drilling pattern to DIN 24340-A32 and ISO 4401-10-08-0-94
Custom orders on request
All dimensions subject to change without notice
Also available with blocking in A and B only
Dimension sheet on request, locking device retrofittable



T A B P X Y L

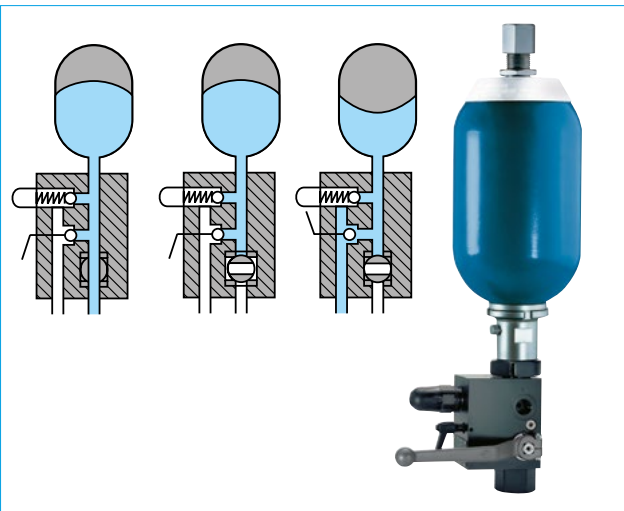


Ball valve function systems

Accumulator safety blocks · with integrated 2-way ball valve type RSA · technical information



Locking device available



Securing, isolating and depressuring hydraulic pressure accumulators:

Simple operation standards for absolute operational safety. Depending on the position of the handle, the passage from the system to the accumulator will be opened or closed. The accumulator block can be kept pressurised with the valve in the closed status (battery configuration). The accumulator can be relieved manually with the integrated valve. - Refer to "3-way accumulator safety blocks" if automatic relief is desired.

Flexibility thanks to a modular design:

The modular design concept makes the safety block particularly economical and flexible to meet customer requirements. The body is assembled at the factory with adapter fittings in accordance with your order.

Applications/functions:

For liquid media as per the compability table in the technical data appendix.

The accumulator safety blocks can be supplied with solenoid-operated relief valves as desired. Every block is equipped with the connections required for retrofitting.

Easy orde guide:

Nominal size (NG) ball valve

10= NG 10
20= NG 20
32= NG 32

Connection thread pump (P)

A = M22x1.5light series (ISO 8434-1)
B = M36x2 light series (ISO 8434-1)
C = M52x2 light series (ISO 8434-1)
D = M24x1.5heavy series (ISO 8434-1)
E = M42x2 heavy series (ISO 8434-1)
F = G1/2 (DIN EN ISO 228-1)
G = G1 (DIN EN ISO 228-1)
H = G1½ (DIN EN ISO 228-1)
J = 1/2 - 14 NPT (ANSI/ASME B1.20.1-1983)
K = 1 - 11½ NPT (ANSI/ASME B1.20.1-1983)
L = 1½ - 11½ NPT (ANSI/ASME B1.20.1-1983)
M = other threads

Connection thread tank (T)

A = M22x1.5light series (ISO 8434-1)
B = M36x2 light series (ISO 8434-1)
C = M52x2 light series (ISO 8434-1)
D = M24x1.5heavy series (ISO 8434-1)
E = M42x2 heavy series (ISO 8434-1)
F = G1/2 (DIN EN ISO 228-1)
G = G1 (DIN EN ISO 228-1)
H = G1½ (DIN EN ISO 228-1)
J = 1/2 - 14 NPT (ANSI/ASME B1.20.1-1983)
K = 1 - 11½ NPT (ANSI/ASME B1.20.1-1983)
L = 1½ - 11½ NPT (ANSI/ASME B1.20.1-1983)
M = other threads

Adapter fitting for accumulator (S)

e.g. S010 = G3/4A (DIN EN ISO 228-1) refer to Fig.1

Body material

1 = Steel
2 = Stainless steel
4 = other material

Sealing material (elastomer)

1 = NBR
2 = FKM
3 = EPDM
5 = other material

Pressure relief valve (DBV)

N = without approval
T = with TÜV-approval
X = Delivered without pressure limiter valve

opening pressure

300 = e.g. 300 bar
000 = Delivered without pressure limiter valve

Relief

M = manual
E = manual and electromagnetic
V = prepared for electromagnetical relief

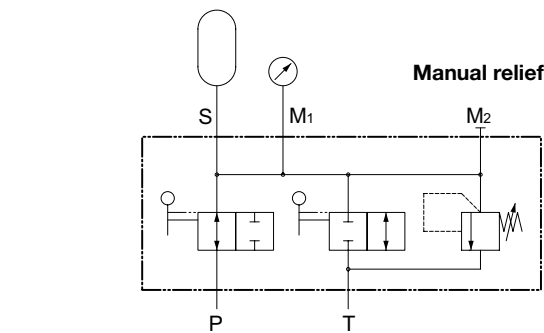
Solenoid valve design

X = Delivered without solenoid valve
Y = open when de-energized
Z = closed when de-energized

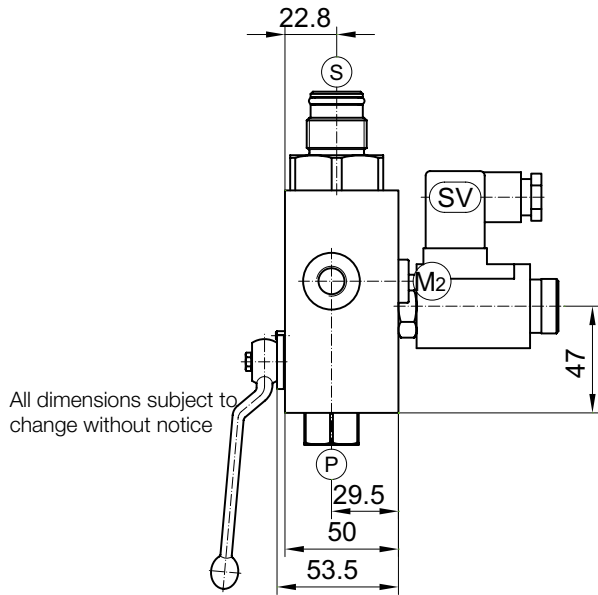
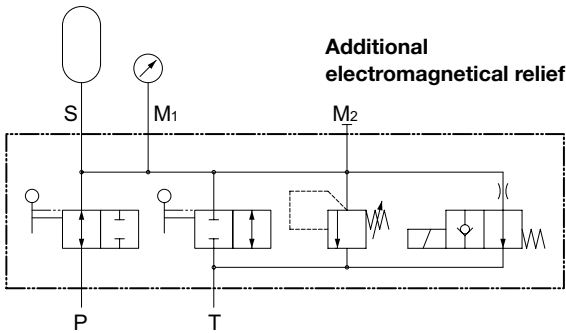
Solenoid valve voltage

0 = Delivered without solenoid valve
1 = 24 V DC
2 = 230 V DC
3 = other

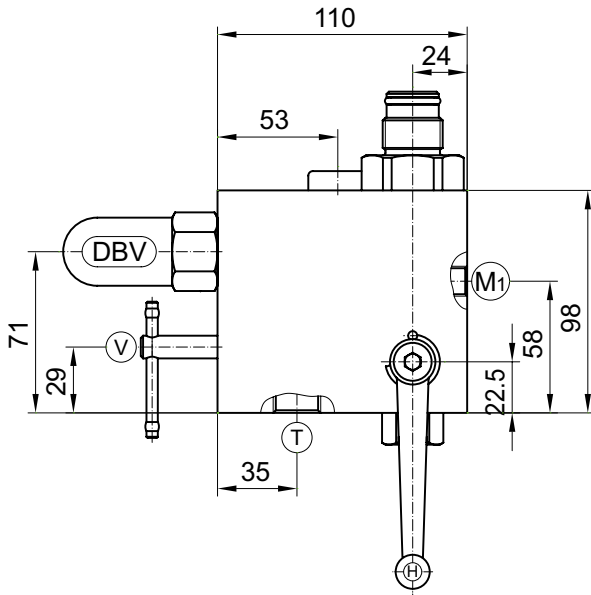
RSA 10 F S010 1 1 N 300 E Y 1



NG 10



All dimensions subject to change without notice



- P = Pump connection**
M-version 400 bar
E-version 350 bar
- T = Tank connection**
G1/2 (DIN EN ISO 228-1)
- S = Accumulator connection**
- M1 = Test gauge connection**
G1/4 (DIN EN ISO 228-1)
- M2 = Pressure gauge connection (closed)**
G1/4 (DIN EN ISO 228-1)
- DBV= Pressure relief valve**
cavity-thread M28x1.5
assembly torque 50⁺⁵ Nm
- SV = 2-way-solenoid valve**
cavity thread M20x1.5
assembly torque 25⁺⁵ Nm
(manual relief closed)
- V = Pressure relief**
- H = Handle code 13 (8kt8)**
refer to chapter "Attachments, accessories"

Adapter fittings for accumulator connection S

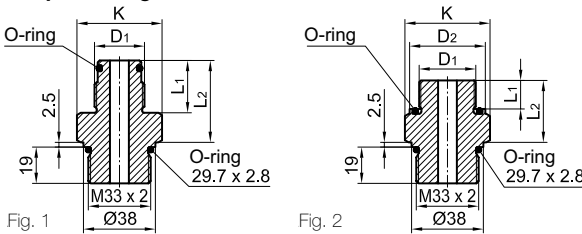
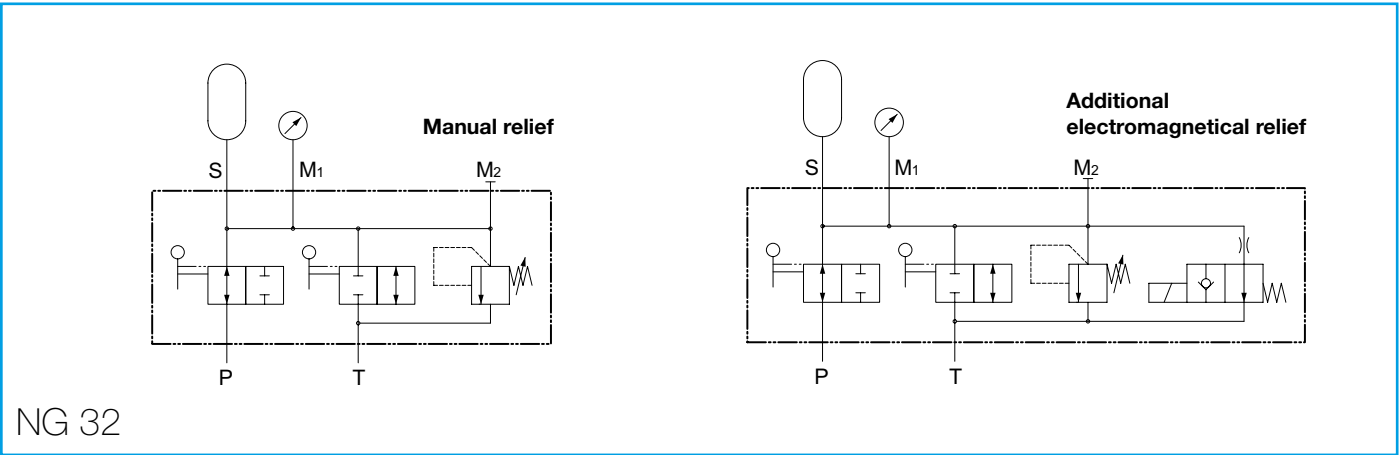
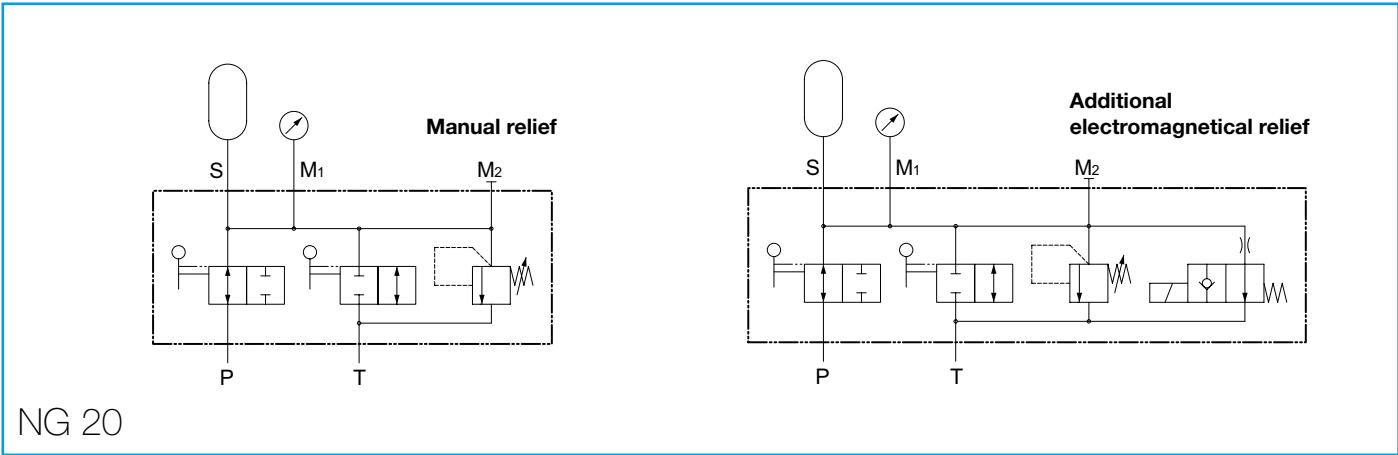


Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L1	L2	D2	O-ring
1	G 3/4 A	S010	41	28	43.5	-	17 x 3
	G 1 A	S011	46	34	50.5	-	22 x 3
	G 1½ A	S012	46	37	53.5	-	30 x 3
	G 2 A	S013	65	44	64.5	-	48 x 3
2	M 30 x 1.5	S020	41	15	32.5	40	32 x 2
	M 40 x 1.5	S021	55	20	40.5	54	43 x 3
	M 50 x 1.5	S022	65	20	40.5	64	53 x 3

Also available with most other connectors

Ball valve function systems

Accumulator safety blocks · with integrated 2-way ball valve type RSA



All dimensions subject to change without notice

P = Pump connection
M-version 420 bar
E-version 350 bar

T = Tank connection

S = Accumulator connection
G1/2 (DIN EN ISO 228-1)

M₂ = Pressure gauge connection (closed)
G1/4 (DIN EN ISO 228-1)

DBV= Pressure relief valve
cavity thread M35x1.5
assembly torque 80⁺⁵ Nm

SV = 2-way-solenoid valve
cavity thread M20x1.5
assembly torque 25⁺⁵ Nm
(manual relief closed)

V = Pressure relief

H = Handle code 15 (8kt14)
refer to chapter "Attachments, accessories"

Adapter fittings for accumulator connection S

Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L1	L2	D2	O-ring
1	G 3/4 A	S010	41	28	43.5	-	17 x 3
	G 1 A	S011	46	34	50.5	-	22 x 3
	G 1 1/4 A	S012	46	37	53.5	-	30 x 3
	G 2 A	S013	65	44	64.5	-	48 x 3
2	M 30 x 1.5	S020	41	15	32.5	40	32 x 2
	M 40 x 1.5	S021	55	20	40.5	54	43 x 3
	M 50 x 1.5	S022	65	20	40.5	64	53 x 3

Also available with most other connections

All dimensions subject to change without notice

P = Pump connection
M-version 420 bar
E-version 350 bar

T = Tank connection

S = Accumulator connection
G1/2 (DIN EN ISO 228-1)

M₁ = Test gauge connection
G1/2 (DIN EN ISO 228-1)

M₂ = Pressure gauge connection (closed)
G1/4 (DIN EN ISO 228-1)

DBV= Pressure relief valve
cavity thread M35x1.5
assembly torque 80⁺⁵ Nm

SV = 2-way-solenoid valve
cavity thread M20x1.5
assembly torque 25⁺⁵ Nm
(manual relief closed)

V = Pressure relief

H = Handle code 21 (8kt17)
refer to chapter "Attachments, accessories"

Adapter fittings for accumulator connection S

Fig.	D1 Connection thread	Adapter-fitting	L1	L2	D2	O-ring
1	G 3/4 A	S305	28	58	-	17 x 3
	G 1 A	S306	34	64	-	22 x 3
	G 1 1/4 A	S307	37	67	-	30 x 3
	G 2 A	S309	44	74	-	48 x 3
2	M 30 x 1.5	S330	15	47	45	32 x 2
	M 40 x 1.5	S340	20	51	60	43 x 3
	M 50 x 1.5	S350	20	51	75	53 x 3

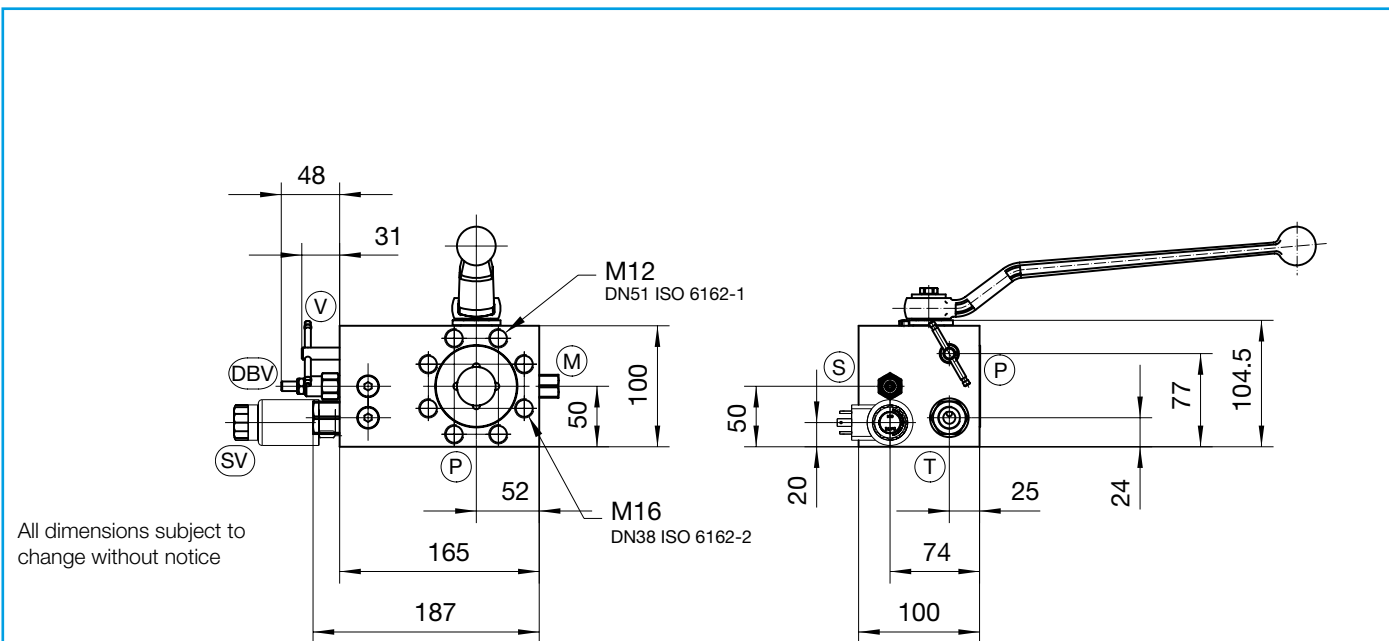
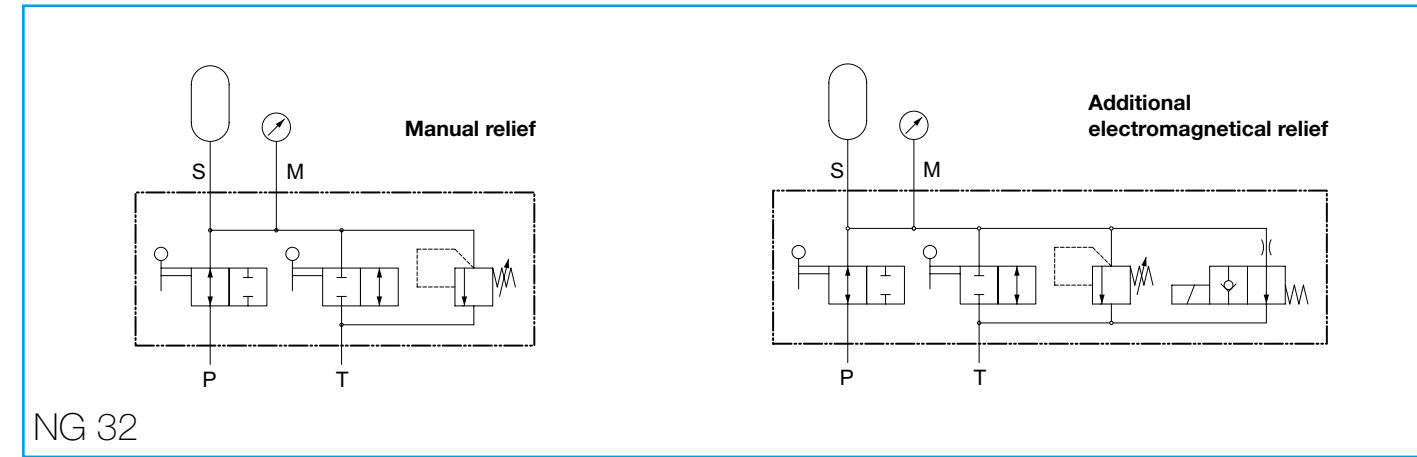
Also available with most other connections

RÖTELMANN

Manual relief

Additional electromagnetic relief

NG 32



P = Pump connector
 DN 38 ISO 6162-2 (metric)
 DN 51 ISO 6162-1 (metric)
 M-version 350 bar
 E-version 350 bar

T = Tank connector
 3/4 - 16 UNF-2B

S = Accumulator connector
 DN 38 ISO 6162-2 (metric)
 DN 51 ISO 6162-1 (metric)

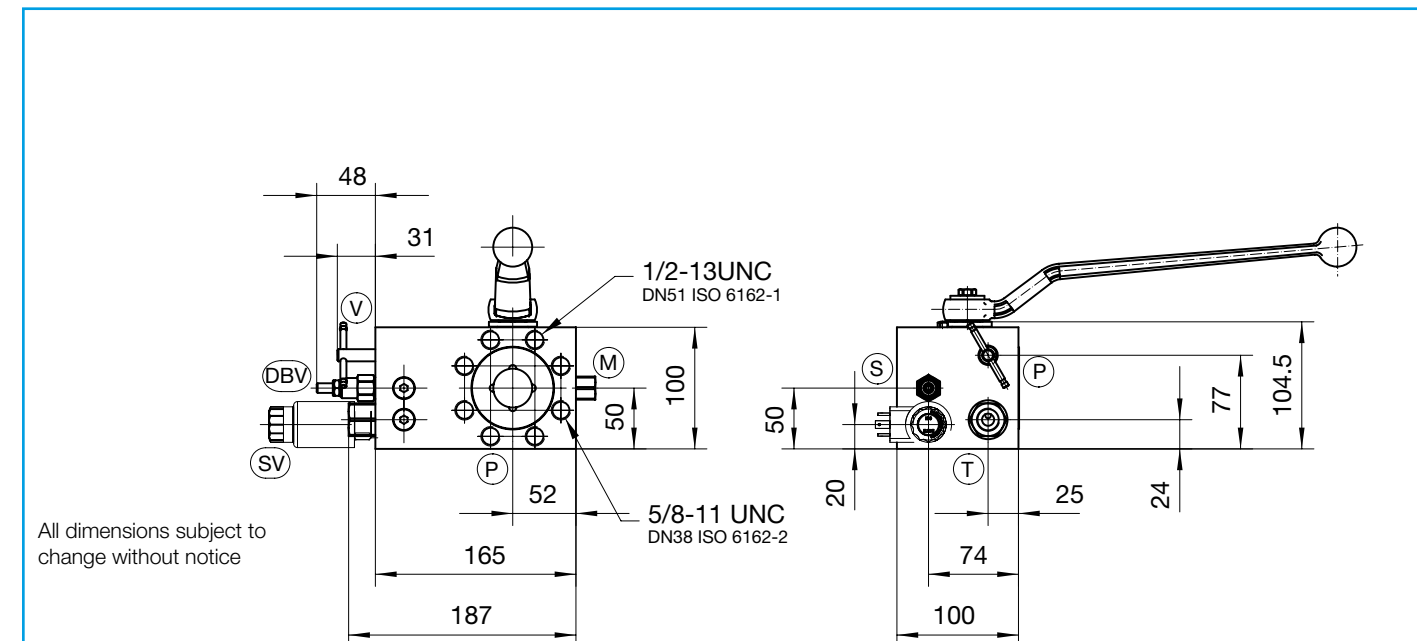
M = Test gauge connection
 1/4 - 18 NPT

DBV= Pressure relief valve
 cavity thread M16x1.5
 assembly torque 35⁺⁵ Nm

SV = 2-way Solenoid
 cavity thread M20x1.5
 assembly torque 45⁺⁵ Nm
 (manual relief closed)

V = Pressure relief

H = Handle code 21 (8kt17)
 refer to chapter "Attachments, accessories"



P = Pump connection
DN 38 ISO 6162-2 (metric)
DN 51 ISO 6162-1 (metric)
M-version 350 bar
E-version 350 bar

T = Tank connection
3/4 - 16 UNF-2B

S = Accumulator connection
DN 38 ISO 6162-2 (UNC)
DN 51 ISO 6162-1 (UNC)

M = Test gauge connection
1/4 - 18 NPT

DBV= Pressure relief valve
cavity thread M16x1.5
assembly torque 35⁺⁵ Nm

SV = 2-way-solenoid valve
cavity thread M20x1.5
assembly torque 45⁺⁵ Nm
(manual relief closed)

V = Pressure relief

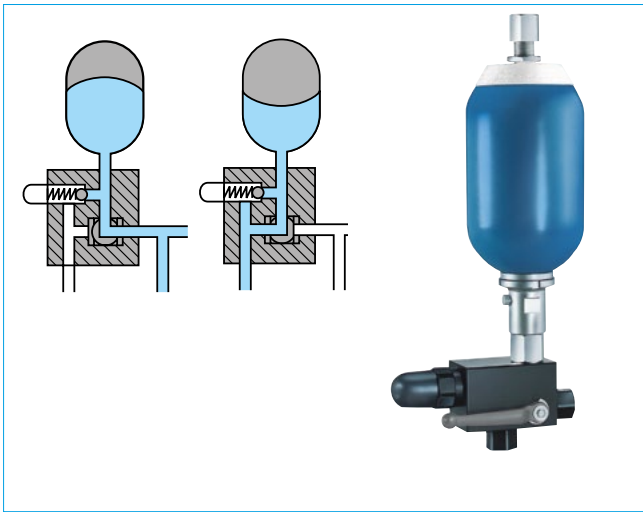
H = Handle code 21 (8kt17)
refer to chapter "Attachments, accessories"

Ball valve function systems

Accumulator safety blocks · with integrated 3-way ball valve type RSK · technical information



Locking device available



Securing, isolating and depressuring hydraulic pressure accumulators:

Simple operation standards for absolute operational safety. Depending on the position of the handle, the passage from the system to the accumulator will be opened or - with simultaneous relief of the accumulator - closed. The integrated 3-way ball valve ensures the system will be blocked off and the accumulator pressure relieved with just a single motion; this eliminates the need for an additional relief valve. If separate isolation of the accumulator is desired, refer to the "Accumulator 2-way safety block" information.

Flexibility thanks to a modular design:

The modular design concept makes the connection block particularly economical and flexible to meet customer requirements. The body is assembled at the factory with adapter fittings in accordance with your order.

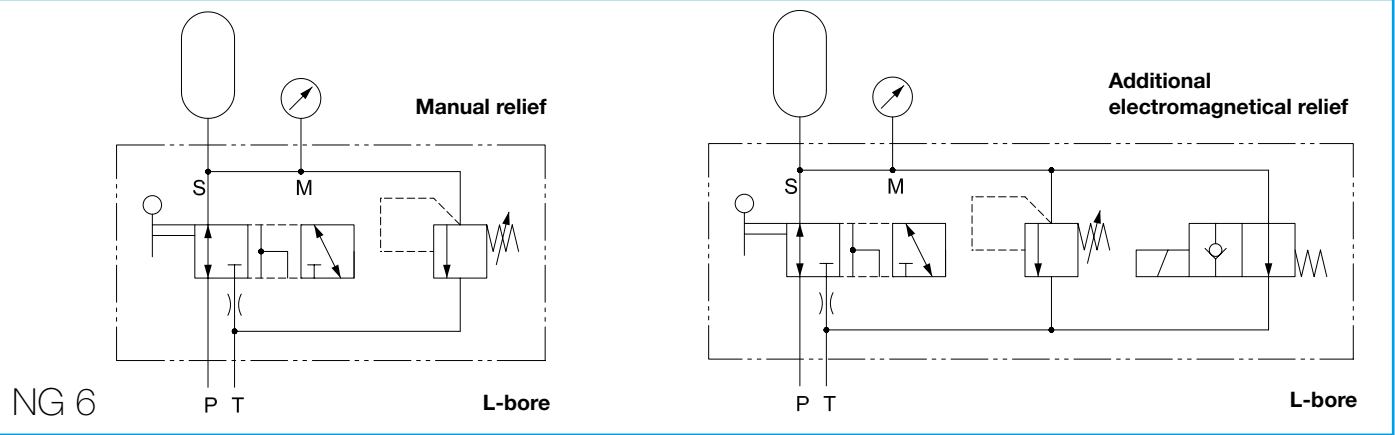
Applications/functions:

For liquid media as per the compability table in the technical data appendix.

The accumulator safety blocks can be supplied with solenoid-operated relief valves as desired. Every block is equipped with the fittings required for retrofitting. When connected to large-volume accumulators the safety block can be ordered with a choke integrated into the bypass line.

Easy order guide:
Nominal size (NG) ball valve
6 = NG 6
10 = NG 10
20 = NG 20
Connection thread pump (P)
A = M18x1.5light series (ISO 8434-1)
B = M30x2 light series (ISO 8434-1)
C = M22x1.5heavy series (ISO 8434-1)
D = M36x2 heavy series (ISO 8434-1)
E = G 3/8 (DIN EN ISO 228-1)
F = G 3/4 (DIN EN ISO 228-1)
G = 3/8 - 18 NPT (ANSI/ASME B1.20.1-1983)
H = 3/4 - 14 NPT (ANSI/ASME B1.20.1-1983)
J = other thread
Connection thread tank (T)
A = M18x1.5light series (ISO 8434-1)
B = M30x2 light series (ISO 8434-1)
C = M22x1.5heavy series (ISO 8434-1)
D = M36x2 heavy series (ISO 8434-1)
E = G 3/8 (DIN EN ISO 228-1)
F = G 3/4 (DIN EN ISO 228-1)
G = 3/8 - 18 NPT (ANSI/ASME B1.20.1-1983)
H = 3/4 - 14 NPT (ANSI/ASME B1.20.1-1983)
J = other thread
Adapter fitting for accumulator (S)
e.g. S500 = G 3/4A (DIN EN ISO 228-1) refer to Fig.1
Body material
1 = Steel
2 = Stainless steel
4 = other material
Sealing material (elastomer)
1 = NBR
2 = FKM
3 = EPDM
5 = other material
Ball-bore
L = L-shaped bore
T = T-shaped bore
Pressure relief valve (DBV)
N = without approval
T = with TÜV-approval
X = Delivered without pressure limiter valve
opening pressure
300 = e.g. 300 bar
000 = Delivered without pressure limiter valve
Relief
M = manual
E = manual and electromagnetic
V = prepared for electromagnetic relief
Solenoid valve design
X = Delivered without solenoid valve
Y = open when de-energized
Z = closed when de-energized
Solenoid valve voltage
0 = Delivered without solenoid valve
1 = 24 V DC
2 = 230 V DC
3 = other

RSK 10 E E S500 1 1 L N 300 E Y 1



60

16.5

15

34.5

55

41

22.5

90

58.5

60

16.5

15

34.5

55

41

22.5

90

58.5

All dimensions subject to change without notice

P = Pump connection
M-version 420 bar
E-version 350 bar
T = Tank connection
S = Accumulator connection
M = Pressure gauge connection (closed)
G1/4 (DIN EN ISO 228-1)
DBV= Pressure relief valve
cavity thread M28x1.5
assembly torque 50⁺⁵ Nm
SV = 2-way-solenoid valve
manifold mounting
drilling pattern ISO 4401-03-02-0-94
(DIN 24340-A6)
H = Handle code 13 (8kt8)
refer to chapter "Attachments, accessories"

Adapter fittings for accumulator connection S

Fig. 1

Fig. 2

Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L	L1	D2	O-ring
1	G 3/4 A	S500	36	38	28	-	17 x 3
	G 1 A	S501	41	44	34	-	22 x 3
	G 1 1/4 A	S502	46	47	37	-	30 x 3
	G 2 A	S503	65	54	44	-	48 x 3
2	M 30 x 1.5	S550	41	25	15	40	32 x 2
	M 40 x 1.5	S551	55	30	20	54	43 x 3
	M 50 x 1.5	S552	65	30	20	64	53 x 3

Also available with most other connections

Ball valve function systems

Accumulator safety blocks · with integrated 3-way ball valve type RSK

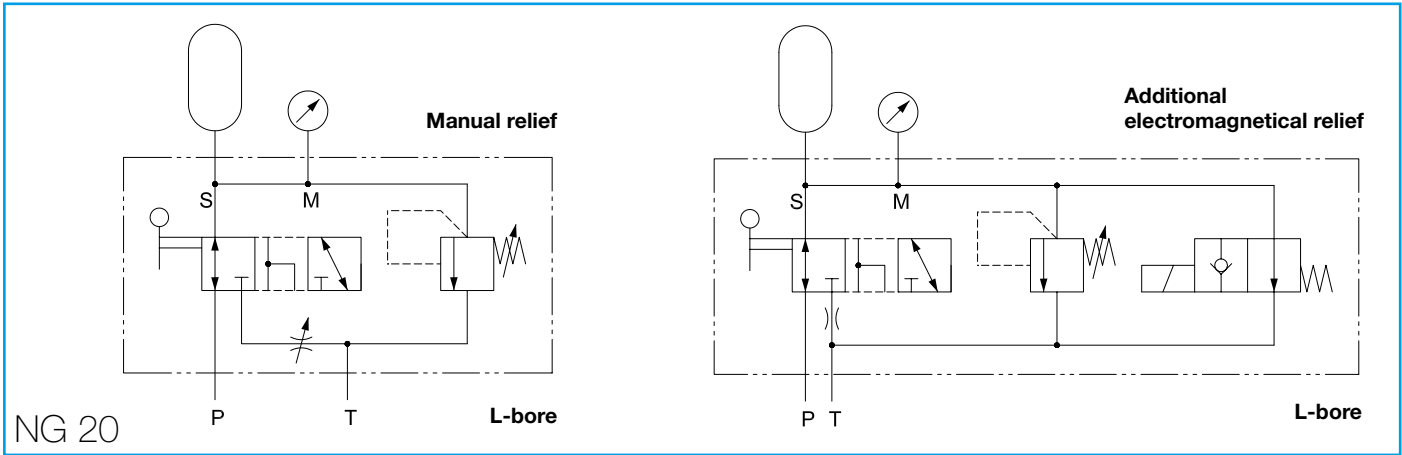
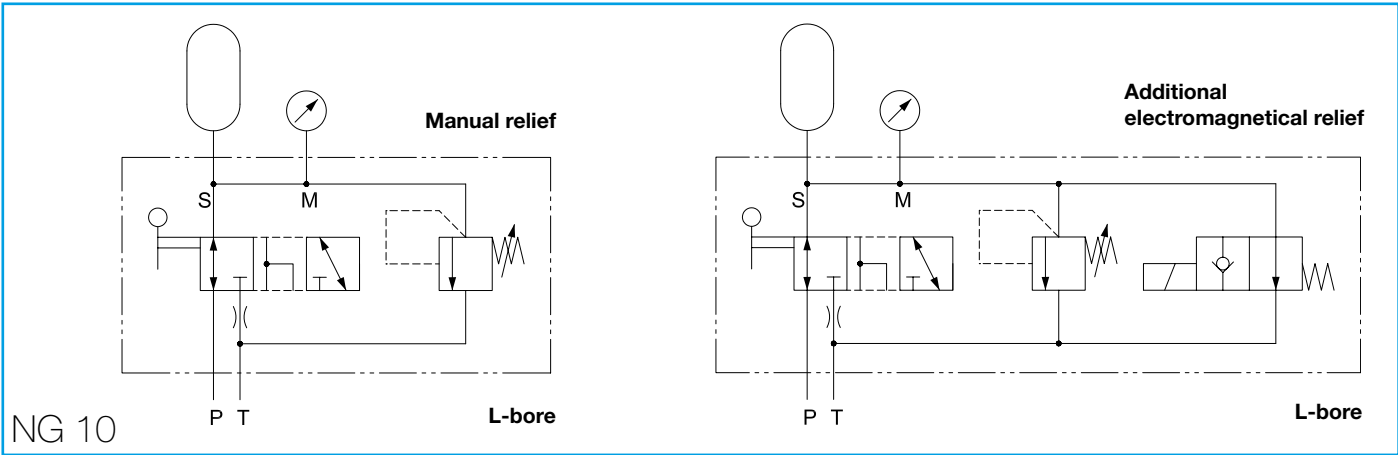


Fig. 1

Fig. 2

Adapter fittings for accumulator connection S

Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L	L1	D2	O-ring
1	G 3/4 A	S500	36	38	28	-	17 x 3
	G 1 A	S501	41	44	34	-	22 x 3
	G 1 1/4 A	S502	46	47	37	-	30 x 3
	G 2 A	S503	65	54	44	-	48 x 3
2	M 30 x 1.5	S550	41	25	15	40	32 x 2
	M 40 x 1.5	S551	55	30	20	54	43 x 3
	M 50 x 1.5	S552	65	30	20	64	53 x 3

Also available with most other connections

All dimensions subject to change without notice

P = Pump connection
M-version 500 bar
E-version 350 bar

T = Tank connection

S = Accumulator connection

M = Pressure gauge connection (closed)
G1/4 (DIN EN ISO 228-1)

DBV= Pressure relief valve
cavity thread M35x1.5
assembly torque 80+5 Nm

SV = 2-way-solenoid valve
manifold mounting
drilling pattern ISO 4401-03-02-0-94
(DIN 24340-A6)

V = Pressure relief

H = Handle code 13 (8kt8)
refer to chapter "Attachments, accessories"

Fig. 1

Fig. 2

Adapter fittings for accumulator connection S

Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L	L1	D2	O-ring
1	G 3/4 A	S600	36	38	28	-	17 x 3
	G 1 A	S601	41	44	34	-	22 x 3
	G 1 1/4 A	S602	46	47	37	-	30 x 3
	G 2 A	S603	65	54	44	-	48 x 3
2	M 30 x 1.5	S650	41	25	15	40	32 x 2
	M 40 x 1.5	S651	55	30	20	54	43 x 3
	M 50 x 1.5	S652	65	30	20	64	53 x 3

Also available with most other connections

All dimensions subject to change without notice

P = Pump connection
M-version 420 bar
E-version 315 bar

T = Tank connection

S = Accumulator connection

M = Pressure gauge connection (closed)
G1/4 (DIN EN ISO 228-1)

DBV= Pressure relief valve
cavity thread M35x1.5
assembly torque 80+5 Nm

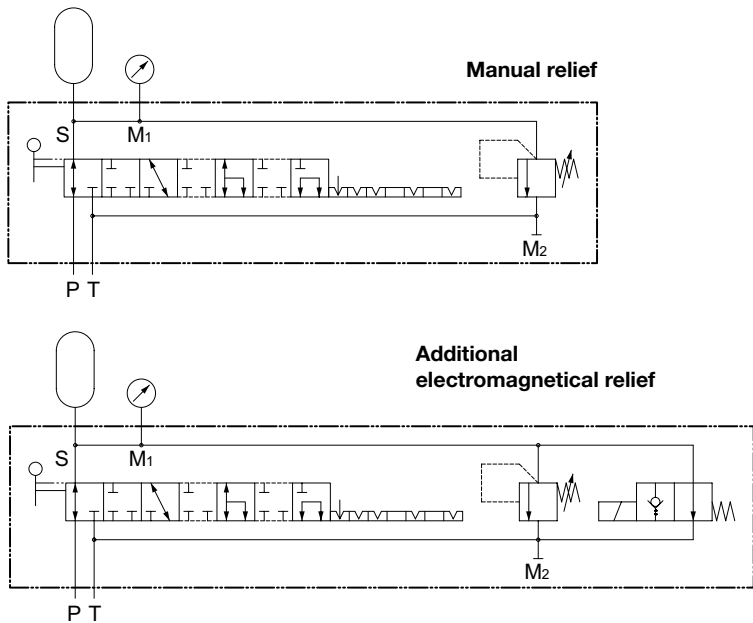
SV = 2-way-solenoid valve
manifold mounting
drilling pattern ISO 4401-03-02-0-94
(DIN 24340-A6)

V = Pressure relief

H = Handle code 15 (8kt14)
refer to chapter "Attachments, accessories"

Ball valve function systems

Accumulator safety blocks · with integrated 3-way ball valve type RSM · technical information



The multifunctional accumulator safety block RSM from Roetelmann unites all advantages of the already known 2- and 3-way pressure accumulator blocks and does provide additional functions, as well.

The operation of the RSM accumulator safety block now is extraordinary simple, but still safe, as it is effected by just one handle and a respective detent. The T-bore avoids any pressure drop during the working position.

The following functions are provided:

- working position with a direct passage to the accumulator
- total closing of all ports, the pressure is kept in the accumulator
- relief of the accumulator to the tank
- total connection of all ports for filling the system
- depressurised circulation from the pump to the tank

Resulting from this great variety of functions, additional valves and ball valves are not necessary and therefore can be saved. As this principle was not known until now, the multifunctional accumulator safety block has been patented respectively.

Custom orders on request.

Locking device available

Easy order guide:

Nominal size (NG) ball valve

10 = NG 10

20 = NG 20

32 = NG 32

Connection thread pump (P)

A = M18x1.5light series (ISO 8434-1)

B = M22x1.5heavy series (ISO 8434-1)

C = G3/8 (DIN EN ISO 228-1)

D = 3/8 - 18 NPT (ANSI/ASME B1.20.1-1983)

E = other thread

Connection thread tank (T)

A = M18x1.5light series (ISO 8434-1)

B = M22x1.5heavy series (ISO 8434-1)

C = G3/8 (DIN EN ISO 228-1)

D = 3/8 - 18 NPT (ANSI/ASME B1.20.1-1983)

H = other thread

Adapter fitting for accumulator (S)

e.g. S500 = G 3/8A (DIN EN ISO 228 - 1) refer to Fig.1

Body material

1 = Steel

2 = Stainless steel

4 = other material

Sealing material (elastomer)

1 = NBR

2 = FKM

3 = EPDM

5 = other material

Pressure relief valve (DBV)

N = without approval

T = with TÜV-approval

X = Delivered without pressure limiter valve

opening pressure

250 = e.g. 250 bar

000 = Delivered without pressure limiter valve

Relief

M = manual

E = manual and electromagnetic

V = prepared for electromagnetical relief

Solenoid valve design

X = Delivered without solenoid valve

Y = open when de-energized

Z = closed when de-energized

Solenoid valve voltage

0 = Delivered without solenoid valve

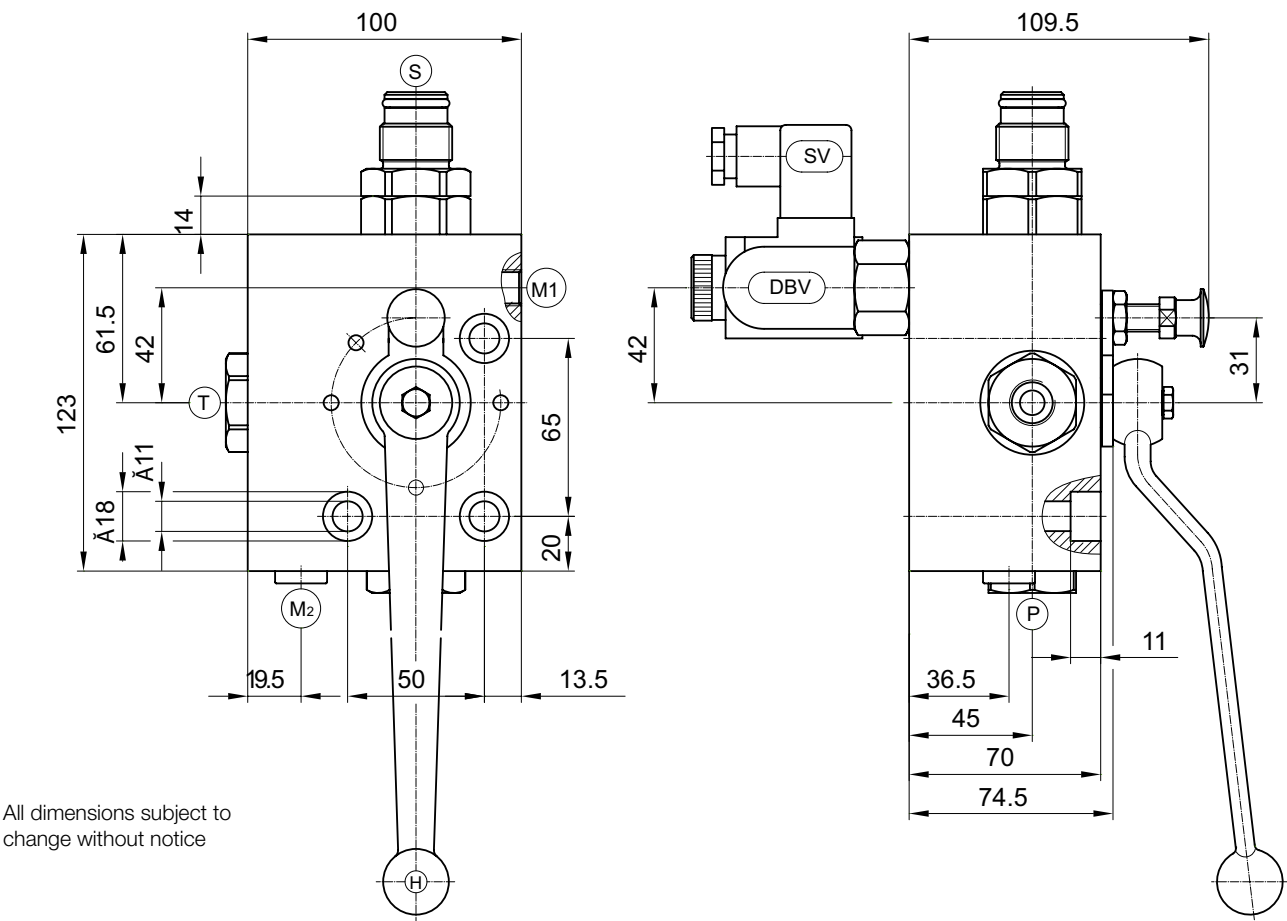
1 = 24 V DC

2 = 230 V DC

3 = other

RSM 10 C C S500 1 1 N 250 E Y 1

NG 10



All dimensions subject to change without notice

- P** = Pump connection
M-version 420 bar
E-version 350 bar
- T** = Tank connection
- S** = Accumulator connection
- M₁** = Test gauge connection
G1/4 (DIN EN ISO 228-1)
- M₂** = Pressure gauge connection (closed)
G1/4 (DIN EN ISO 228-1)
- DBV** = Pressure relief valve
cavity thread M28x1.5
assembly torque 50⁺⁵ Nm
- SV** = 2-way-solenoid valve
cavity thread M20x1.5
assembly torque 25⁺⁵ Nm
- H** = Handle code 15 (8kt14)
refer to chapter "Attachments, accessories"

Adapter fittings for accumulator connection S

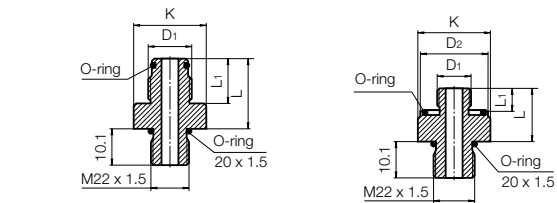


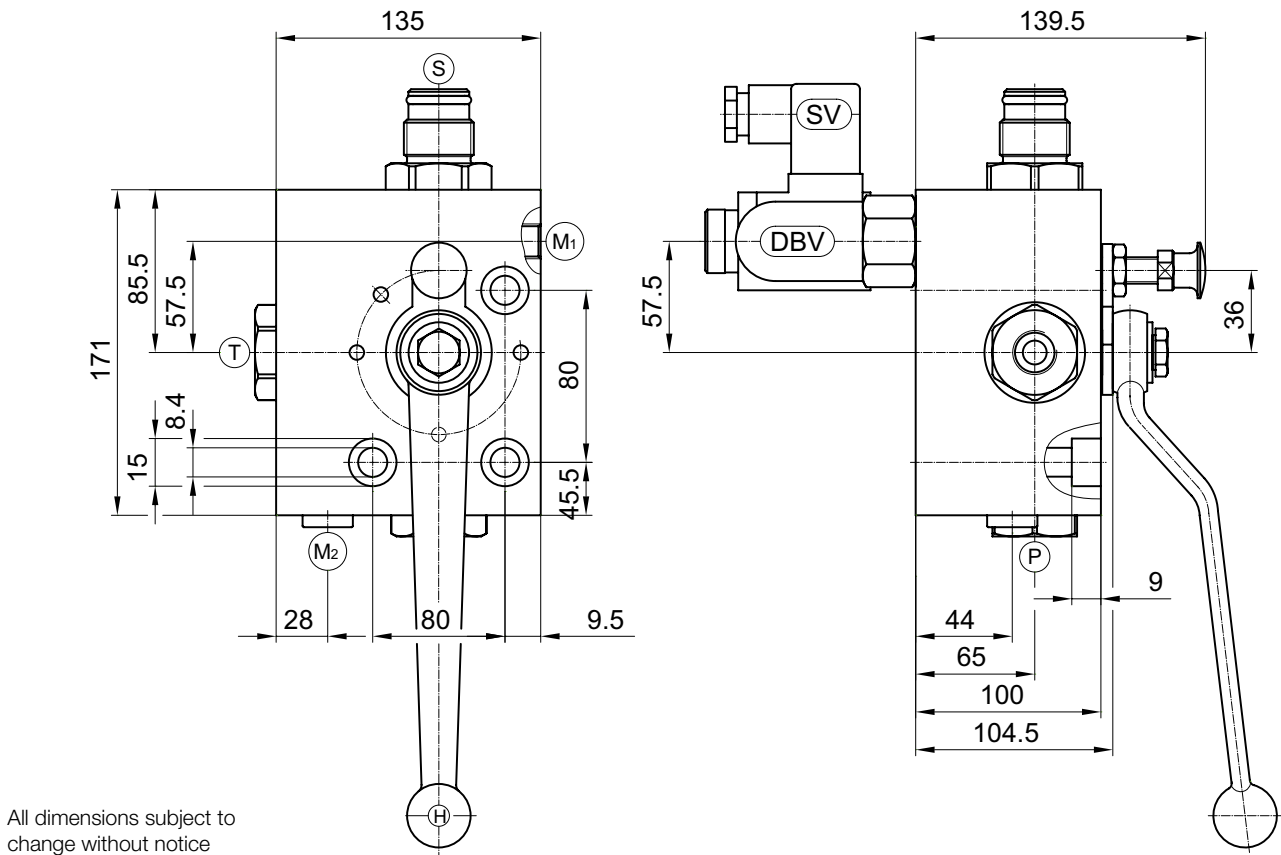
Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L	L1	D2	O-ring
1	G 3/4 A	S500	36	38	28	-	17 x 3
	G 1 A	S501	41	44	34	-	22 x 3
	G 1 1/4 A	S502	46	47	37	-	30 x 3
	G 2 A	S503	65	54	44	-	48 x 3
2	M 30 x 1.5	S550	41	25	15	40	32 x 2
	M 40 x 1.5	S551	55	30	20	54	43 x 3
	M 50 x 1.5	S552	65	30	20	64	53 x 3

Also available with most other connections

Ball valve function systems

Accumulator safety blocks · with integrated 3-way ball valve type RSM

NG 20



All dimensions subject to change without notice

- P = Pump connection**
M-version 420 bar
E-version 350 bar
- T = Tank connection**
- S = Accumulator connection**
- M₁ = Test gauge connection**
G1/4 (DIN EN ISO 228-1)
- M₂ = Pressure gauge connection (closed)**
G1/4 (DIN EN ISO 228-1)
- DBV= Pressure relief valve**
cavity thread M35x1.5
assembly torque 50⁺⁵ Nm
- SV = 2-way-solenoid valve**
cavity thread M20x1.5
assembly torque 25⁺⁵ Nm
- H = Handle code 23 (8kt19)**
refer to chapter "Attachments, accessories"

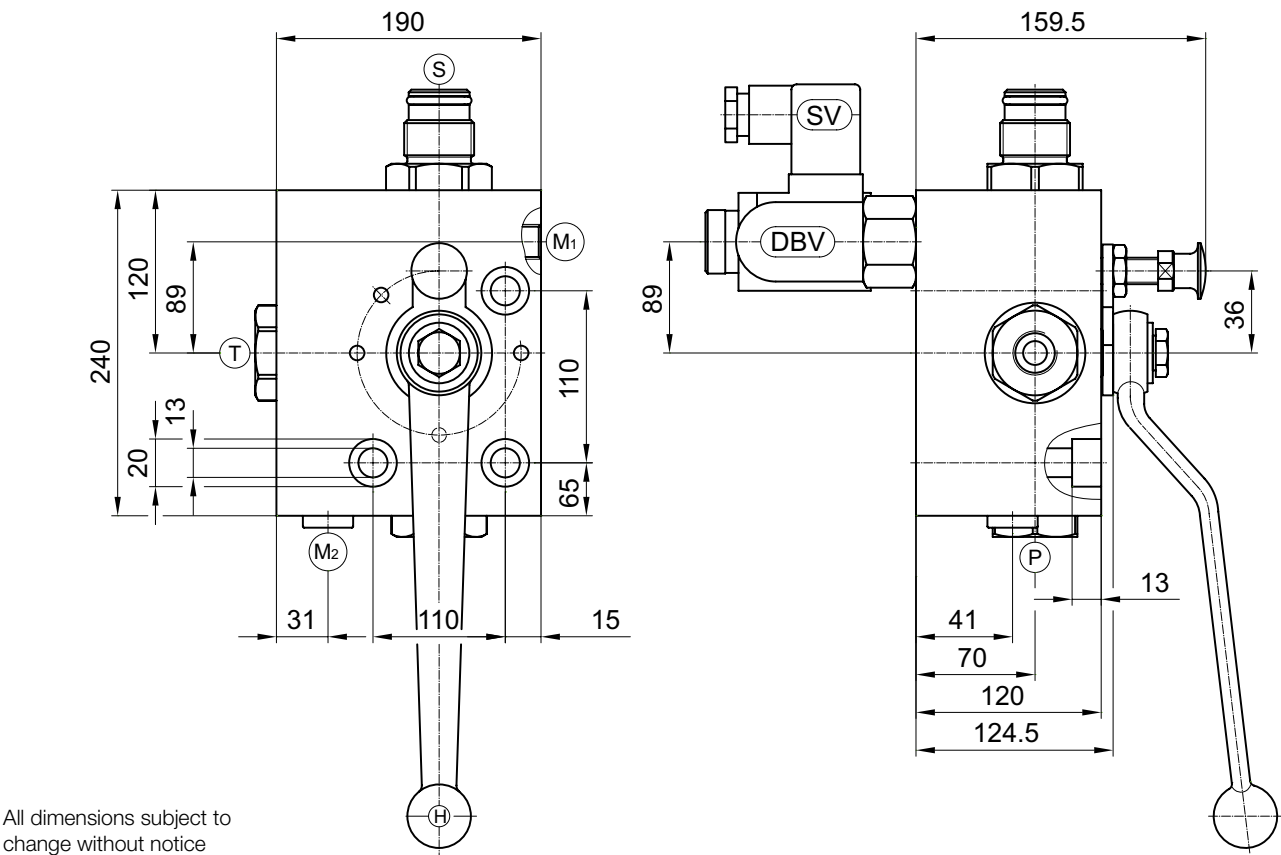
Adapter fittings for accumulator connection S



Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L	L1	D2	O-ring
1	G 1 1/4 A	S701	50	47	37	-	30 x 3
	G 2 A	S702	65	54	44	-	48 x 3
2	M 40 x 1.5	S751	60	30	20	54	43 x 3
	M 50 x 1.5	S752	70	30	20	64	53 x 3

Also available with most other connections

NG 32



All dimensions subject to change without notice

- P = Pump connection**
M-version 420 bar
E-version 350 bar
- T = Tank connection**
- S = Accumulator connection**
- M₁ = Test gauge connection**
G1/4 (DIN EN ISO 228-1)
- M₂ = Pressure gauge connection (closed)**
G1/4 (DIN EN ISO 228-1)
- DBV= Pressure relief valve**
cavity thread M35x1.5
assembly torque 50⁺⁵ Nm
- SV = 2-way-solenoid valve**
cavity thread M20x1.5
assembly torque 25⁺⁵ Nm
- H = Handle code 23 (8kt19)**
refer to chapter "Attachments, accessories"

Adapter fittings for accumulator connection S

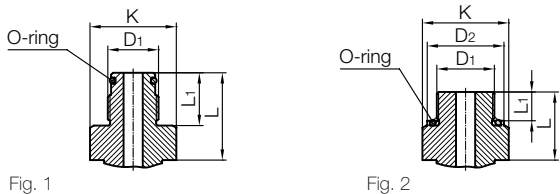


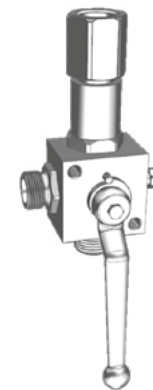
Fig.	D1 Connection thread	Adapter-fitting	K (SW)	L	L1	D2	O-ring
1	G 2 A	S803	70	54	44	-	48 x 3
2	M 50 x 1.5	S852	70	30	20	64	53 x 3

Also available with most other connections

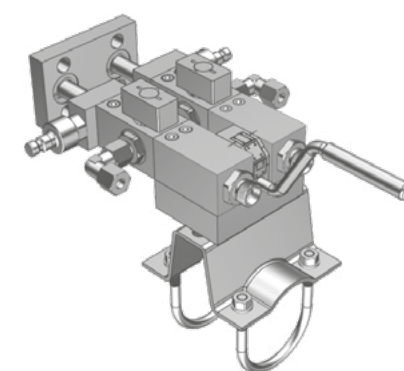
Ball valves for instrumentation technology

Product overview

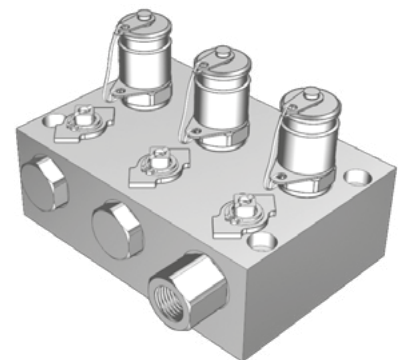
Multi-way ball valves with floating ball for pressure gauges (TK4)



Directional ball valves for differential pressure transducers (TK5-TK7)



Test valves MBV 5000



Ball valves for instrumentation technology

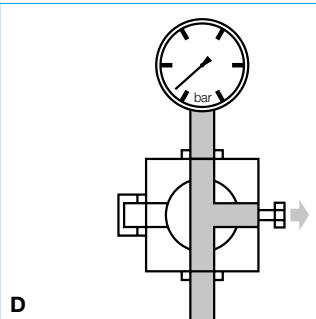
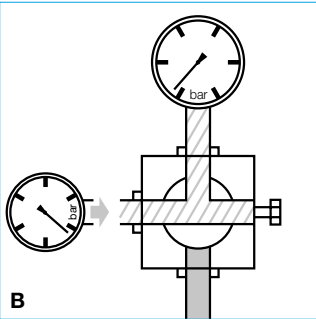
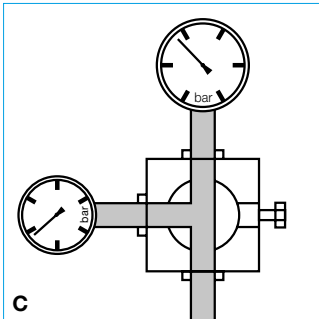
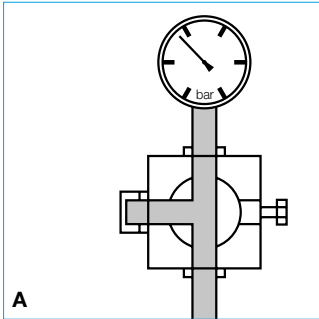
Multi-way ball valves with floating ball for pressure gauges (TK4) · technical information



3-way ball valve for connecting both a manometer and verification gauge

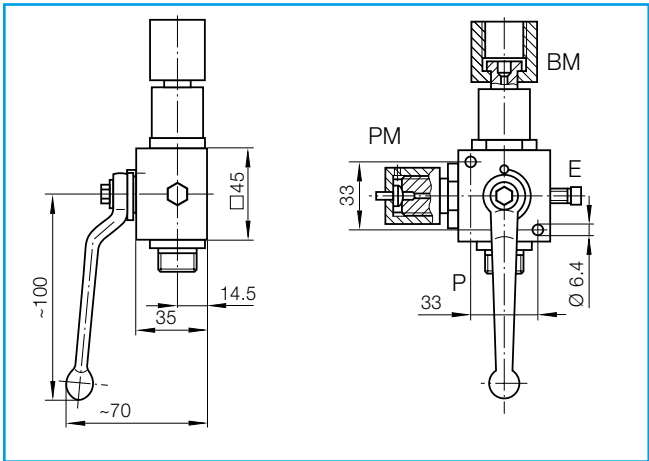


- Advantages of the ball valve for the pressure gauge:**
- highly visible operational position
 - short cycle paths
 - seats resistant to leakage over extended periods of time
 - vibration-proof with DIN 16284 union nut (instead of coupling sleeve) used to mount the gauge
 - no leakage in the normal operating position if the bleed screw is opened erroneously



- Operating functions:**
- A Normal setting; system gauge is connected to the system
 - B Bleeder position; system manometer can be checked for proper zeroing. A test gauge may be connected in addition.
 - C Normal setting with test gauge connected.
 - D Setting to vent the system and the pressure gauge to the atmosphere.

Multi-way ball valves with floating ball for pressure gauges (TK4) · stainless steel



Stainless steel (1.4571 - or similar)
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Pressure in bar

P = Pressure inlet port
E = Bleeder screw
PM = Test gauge port
BM = System gauge port

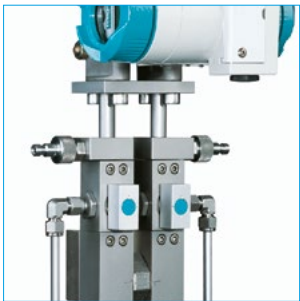
Body:	stainless steel
Ball:	stainless steel
Stem:	stainless steel
Ball seals:	PTFE
Stem seals:	FKM

Connection	BM	PM	P	PN	Article no.
	G 1/2	G 1/2	M 18 x 1.5	100	101072
	G 1/2	M 20 x 1.5	M 18 x 1.5	100	101074
	G 1/2	G 1/2	G 1/2	100	101076
	G 1/2	M 20 x 1.5	G 1/2	100	101078

Connection	Thread D	OD	L1	L2	SW
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	M 18 x 1.5	12	11	15	24
P or PM BSP-female thread DIN EN ISO 228-1	G 1/2	-	15	21	27
PM Thread connection nipple with coupling sleeve meeting, DIN 16287-C	M 20 x 1.5	-	22	35	24
BM Adapter with DIN 16284 swivel nut connector nipple and spindle, for pressure gauge mounting bracket as per DIN 16271-B meter bracket DIN 16281	G 1/2	-	19	66	27

Ball valves for instrumentation technology

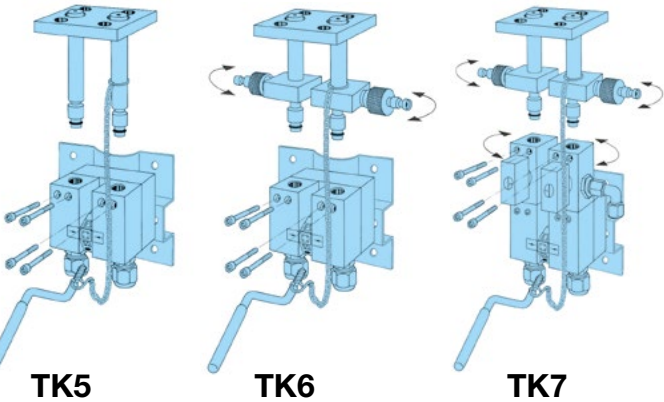
Directional ball valves for differential pressure transducers (TK5-TK7) · technical information



Directional ball valve for pressure differential measurement transducer with staple-lock connectors

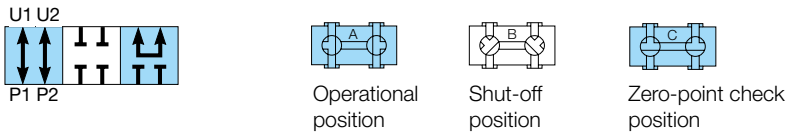
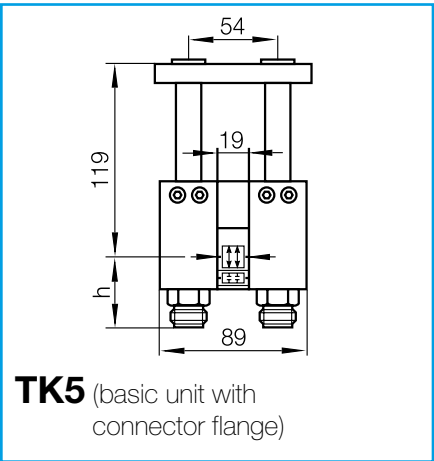


Modular design:
Directional ball valves with their modular system and staple-lock fittings offer great flexibility and trouble-free assembly. The advantages of these devices are tight seating, short acutation arcs, long service life and simple operation. All the ball valve switching functions - operational position, blocked position and zero-point test - are set with just a single operating lever.
Logical and clear schematic diagram symbols make it easy to identify the switching positions.
The TK5 basic unit comprises the divert unit and the connection flange to accept the mesurement transducer. The TK6 features additional test connections and the TK7 has not only the test connections but additional blow-out ball valves.



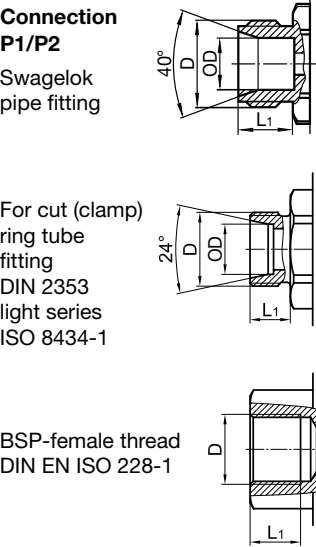
Installation is completed
The pressure gauge is first attached to the connector flange with just four screws. Then this preassembled unit slips into the ball valve body. This staple-lock joint not only saves time but is a real boon in tight spaces.
The connection flange and test connection form a unit in the TK6 and TK7 versions. The test connections are swivel-mounted, simple to use and de-signed for easy access. The TK7 ball valve features in addition a swivel-mounted blowout line for each of the process pressure lines.
The sturdy bracket is used to mount the directional ball valve - either on a wall or on a pipe. This makes it possible to detach the gauge itself with the fitting remaining in the pipe circuit.
The valve unit is put in the "operational" position to prepare for cleaning; here the bores are alignedm giving clear passage all the way through the unit.

Directional ball valves for differential pressure transducers (TK5-TK7) · stainless steel

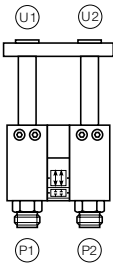


Stainless steel (1.4571 - or similar)
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Pressure in bar

Body:	stainless steel	stainless steel
Ball:	stainless steel	stainless steel
Stem:	stainless steel	stainless steel
Ball seals:	PTFE	PTFE
Stem seals:	FKM	FKM



						For oxygen	
Connection P1/P2	Thread D	OD	L1	h	PN Article no.	PN	Article no.
Swagelok pipe fitting	3/4 - 20 UNEF	12	12	58	100 101234	40 101235	
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	M 18 x 1.5	12	11	37	100 101236	40 101237	
BSP-female thread DIN EN ISO 228-1	G 1/4		12	37	100 101242	40 101243	



U1/U2 = Pressure gauge connections (Flange DIN EN 61518 - A)
P1/P2 = Process pressure connections (clamp ring and union nuts are included as standard equipment)

Ball valves for instrumentation technology

Directional ball valves for differential pressure transducers (TK5-TK7) · stainless steel

M+U1U2M-
P1P2

Operating position

Shut-off position

Zero-point check position

Check characteristic curve

Stainless steel (1.4571 - or similar)
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Pressure in bar

Body:	stainless steel	stainless steel
Ball:	stainless steel	stainless steel
Stem:	stainless steel	stainless steel
Ball seals:	PTFE	PTFE
Stem seals:	FKM	FKM

TK6 (with additional test connections)

		For oxygen									
Connection P1/P2		Thread D	OD	L1	h	PN	Article no.	PN	Article no.		
Swagelok pipe fitting		3/4 - 20 UNEF	12	12	58	100	101228	40	101229		
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1		M 18 x 1.5	12	11	37	100	101238	40	101239		
BSP-female thread DIN EN ISO 228-1		G 1/4	-	12	37	100	101244	40	101245		

U1/U2 = Pressure gauge connections
(Flange DIN EN 61518 - A)
P1/P2 = Process pressure connections
(clamp ring and union nuts are included
as standard equipment)
M+/M- = Test connections
(closure nipple quick connection coupling)

Directional ball valves for differential pressure transducers (TK5-TK7) · stainless steel

M+U1U2M-
E1P1P2E2

Operating position

Shut-off position

Zero-point check position

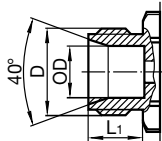
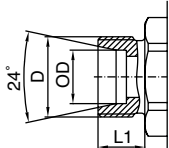
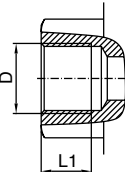
Check characteristic curve

Blowing out the pressure lines

Stainless steel (1.4571 - or similar)
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Pressure in bar

Body:	stainless steel	stainless steel
Ball:	stainless steel	stainless steel
Stem:	stainless steel	stainless steel
Ball seals:	PTFE	PTFE
Stem seals:	FKM	FKM

TK7 (with test connections and line blow-out facilities)

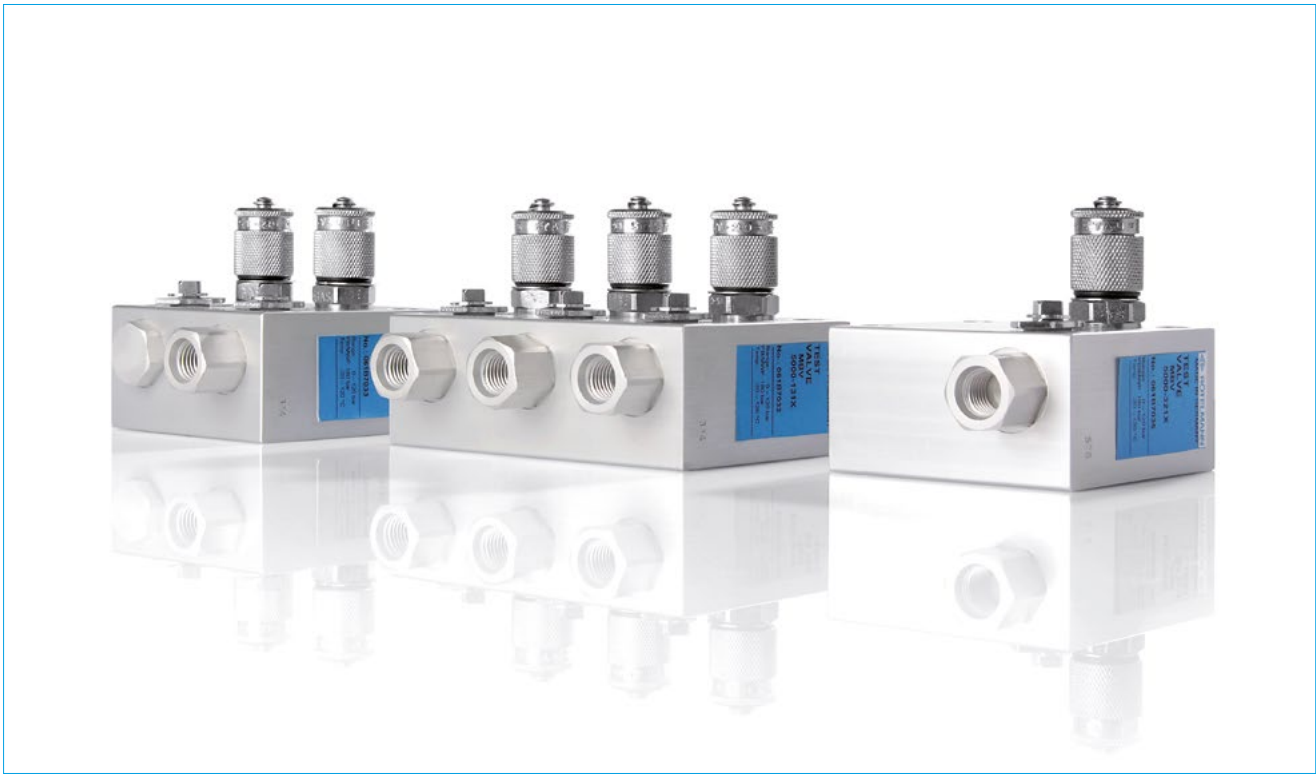
									For oxygen			
Connection P1/P2		Thread D	OD P1/P3	OD E1/E3	L1	h	h1	B	PN	Article no.	PN	Article no.
Swagelok pipe fitting		3/4 - 20 UNEF	12	8	12	8	12	58	100	101232	40	101235
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1		M 18 x 1.5	12	8	12	8	11	37	100	101240	40	101241
BSP-female thread DIN EN ISO 228-1		G 1/4	-	-	-	-	12	37	100	101246	40	101247

U1/U2 = Pressure gauge connections
(Flange DIN EN 61518 - A)
P1/P2 = Process pressure connections
(clamp ring and union nuts are included as standard equipment)
M+/M- = Test connections (closure nipple quick connection coupling)
E1/E2 = Blow-out connections
(clamp ring and union nuts are included as standard equipment)

Design with BSP-female thread
DIN EN ISO 228-1 at connections
P1/P2 and E1/E2
Elbows not available for
connections E1/E2

Ball valves for instrumentation technology

Test valves MBV 5000 · technical information

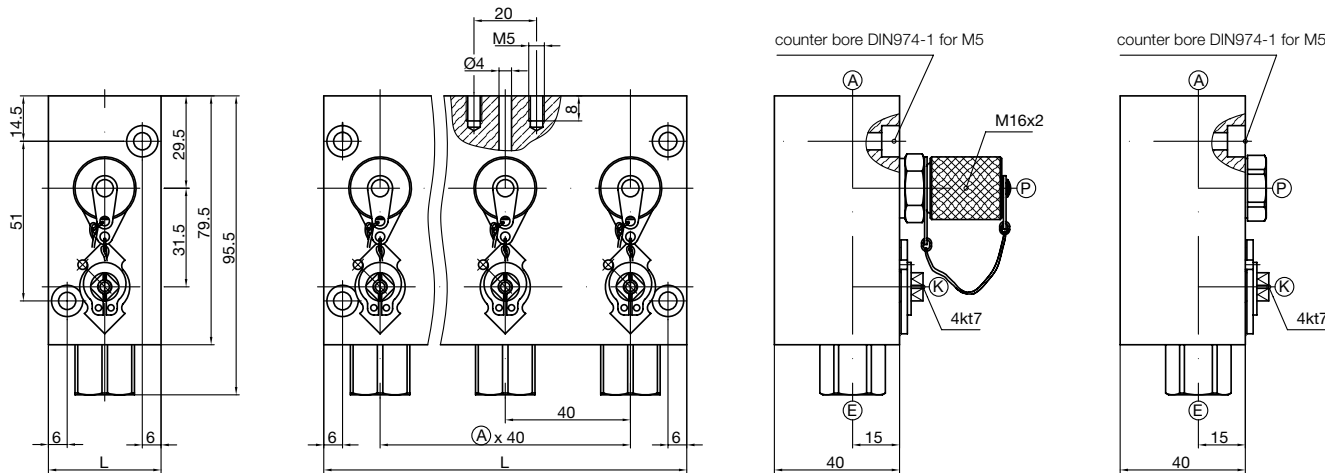


MBV 5000 is a block valve for applications mainly in maritime industry, that has been designed in many different configurations.

The valve meets the demand of fast installation, simple operation, easy connection to the test pressure as well as time-saving assembly. The block concept was developed to save space and weight and to reduce costs at the same time. The products are used in supervision, shut-down and diagnosis of engines, gear boxes, control elements, pumps, filters, compressors, and so on.

The concept is meeting the strict demands to maritime products and is designed according to EU-directives.

- Advantages:**
- compact design
 - light materials
 - many configuration possibilities
 - low installation costs
 - fast and easy to operate



All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Burst pressure:	250 bar	375 bar	375 bar
Operating pressure:	up tp 120 bar	up tp 250 bar	up tp 250 bar
Operating temperature:	-20°C to 120°C	-20°C to 120°C	-20°C to 120°C
Ambient temperature:	-20°C to 120°C	-20°C to 120°C	-20°C to 120°C
Medium temperature:	-20°C to 120°C	-20°C to 120°C	-20°C to 120°C
Body:	aluminum	stainless steel	steel, zinc nickel plated
Connector:	aluminum	stainless steel	steel, zinc nickel plated
Ball:	stainless	stainless steel	steel, hard chrome plated
Sealing:	PEEK-FKM	PEEK-FKM	PEEK-FKM
Pressure connection:	inlet: G1/4 outlet: flange-M5/8	inlet/outlet: G1/4	inlet/outlet: G1/4

	Type	No. of outlets	Weight	L	Type-No.	Article no.	Article no.	Article no.
	1	1x	0.4	36	MBV5000-1111MK	206201	206230	206258
					MBV5000-1101VS	206202	206231	206259
	1	2x	0.8	76	MBV5000-1211MK	206203	206232	206260
					MBV5000-1201VS	206204	206233	206261
	1	3x	1.2	116	MBV5000-1311MK	206205	206234	206262
					MBV5000-1301VS	206206	206235	206263
	1	4x	1.6	156	MBV5000-1411MK	206207	206236	206264
					MBV5000-1401VS	206208	206237	206265
	1	5x	2.0	196	MBV5000-1511MK	206209	206238	206266
					MBV5000-1501VS	206210	206239	206267
	2	2x	0.8	76	MBV5000-2211MK	206211	206240	206268
					MBV5000-2201VS	206212	206241	206269
	2	3x	1.2	116	MBV5000-2311MK	206213	206242	206270
					MBV5000-2301VS	206214	206243	206271
	2	4x	1.6	156	MBV5000-2411MK	206215	206244	206272
					MBV5000-2401VS	206216	206245	206273
	2	5x	2.0	196	MBV5000-2511MK	206217	206246	206274
					MBV5000-2501VS	206218	206247	206275
	3	2x	0.7	76	MBV5000-3211MK	206219	206248	206276
					MBV5000-3201VS	206220	206249	206277
	3	3x	1.0	116	MBV5000-3311MK	206221	206250	206278
					MBV5000-2301VS	206222	206251	206279
	3	4x	1.3	156	MBV5000-3411MK	206223	206252	206280
					MBV5000-3401VS	206224	206253	206281
	3	5x	1.6	196	MBV5000-3511MK	206225	206254	206282
					MBV5000-3501VS	206226	206255	206283

MK= with test point, VS= with screw plug

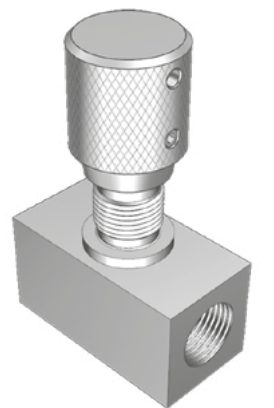
Valves

Product overview

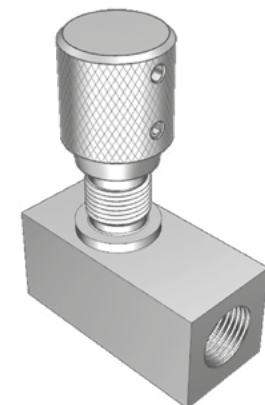
**Check valves
with threaded connector**



Needle valves



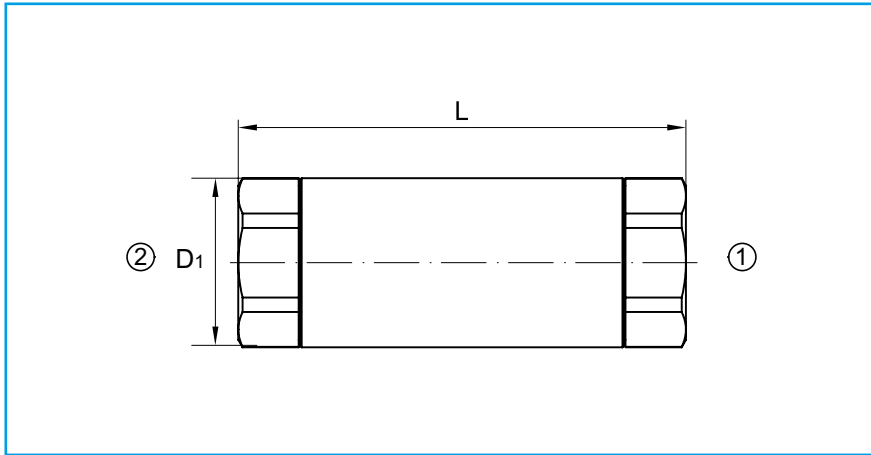
Flow control valves



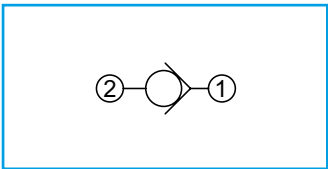
**Check valves with flange
connection ISO 6162**



Check valves with threaded connector · steel · DN 4 - DN 50



Full flow,
no reduction!



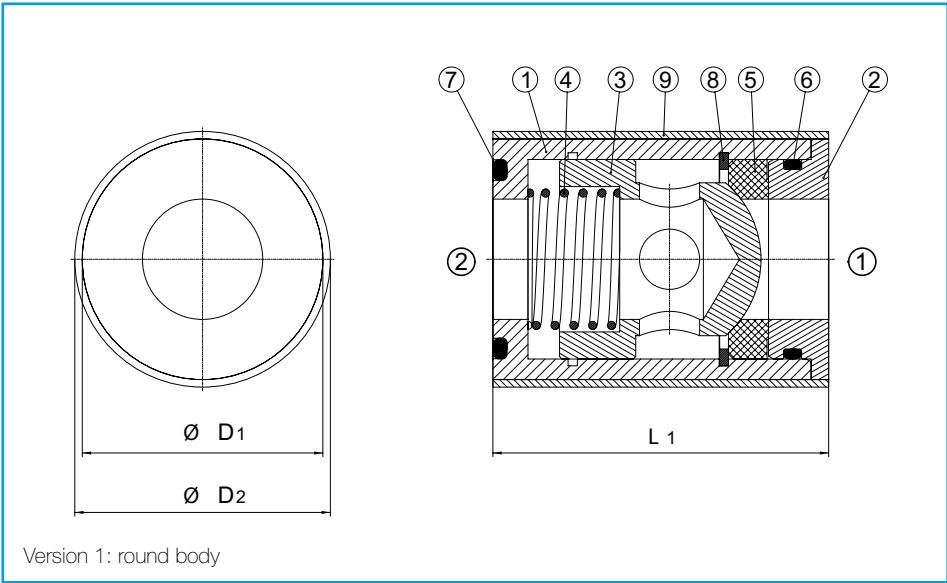
Please check pressure rating of the pipe fittings!
Custom orders on request
Also available with most other connections
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, zinc nickel plated	steel, zinc nickel plated
Seat:	POM	POM
O-rings:	FKM	NBR

Connection	DN	Thread D	OD	L	L ₁	D	SW	Opening- pressure	Weight
For cut (clamp) ring tube fitting DIN 2353 light series ISO 8434-1	4	M 12 x 1.5	6	88.0	10	21.0	19	1.0	0.2
	6	M 14 x 1.5	8	88.0	10	21.0	19	1.0	0.2
	8	M 16 x 1.5	10	85.0	11	27.0	24	0.5	0.3
	10	M 18 x 1.5	12	87.0	11	27.0	24	0.5	0.3
	12	M 22 x 1.5	15	105.0	12	33.5	30	0.5	0.5
	16	M 26 x 1.5	18	100.0	12	45.0	36	0.5	0.8
	20	M 30 x 2	22	126.0	14	45.0	41	0.5	1.0
	25	M 36 x 2	28	137.0	14	55.0	50	0.5	1.8
	32	M 45 x 2	35	174.5	16	70.0	60	0.5	3.0
	40	M 52 x 2	42	196.5	16	86.0	75	0.5	5.4
For cut (clamp) ring tube fitting DIN 2353 heavy series ISO 8434-1	4	M 16 x 1.5	8	94.0	12	21.0	19	1.0	0.2
	6	M 18 x 1.5	10	94.0	12	21.0	19	1.0	0.2
	8	M 20 x 1.5	12	89.0	12	27.0	24	0.5	0.3
	10	M 22 x 1.5	14	93.0	14	27.0	24	0.5	0.3
	12	M 24 x 1.5	16	109.0	14	33.5	30	0.5	0.5
	16	M 30 x 2	20	108.0	16	45.0	36	0.5	0.8
	20	M 36 x 2	25	134.0	18	45.0	41	0.5	1.0
	25	M 42 x 2	30	149.0	20	55.0	50	0.5	1.8
	32	M 52 x 2	38	185.5	22	70.0	60	0.5	3.2
BSP-female thread DIN EN ISO 228-1	4	G 1/8	-	90.0	12	21.0	19	1.0	0.2
	6	G 1/4	-	90.0	12	21.0	19	1.0	0.2
	10	G 3/8	-	85.0	14	27.0	24	0.5	0.3
	12	G 1/2	-	104.0	15	33.5	30	0.5	0.5
	16	G 5/8	-	106.0	18	45.0	36	0.5	0.9
	20	G 3/4	-	120.0	18	45.0	41	0.5	1.0
	25	G 1	-	142.0	18	55.0	50	0.5	1.8
	32	G 1¼	-	151.5	20	70.0	60	0.5	2.9
	40	G 1½	-	184.5	22	86.0	75	0.5	5.6
NPT-female thread ANSI/ASME B1.20.1-1983	50	G 2	-	225.0	24	106.0	95	0.5	10.0
	4	1/8 - 27 NPT	-	90.0	6.9	21.0	19	1.0	0.2
	6	1/4 - 18 NPT	-	90.0	10.0	21.0	19	1.0	0.2
	10	3/8 - 18 NPT	-	85.0	10.3	27.0	24	0.5	0.3
	12	1/2 - 14 NPT	-	104.0	13.6	33.5	30	0.5	0.5
	20	3/4 - 14 NPT	-	120.0	14.1	45.0	41	0.5	1.0
	25	1 - 11½ NPT	-	142.0	16.8	55.0	50	0.5	1.8
	32	1¼ - 11½ NPT	-	151.5	17.3	70.0	60	0.5	2.9
	40	1½ - 11½ NPT	-	184.5	17.3	86.0	75	0.5	5.6
	50	2 - 11½ NPT	-	225.0	17.7	106.0	95	0.5	10.0

DN	PN	Article no.	PN	Article no.
4	420	233033	420	233141
6	420	233034	420	233142
8	420	233036	420	233143
10	420	233037	420	233144
12	420	233038	420	233145
16	420	233040	420	233146
20	420	233041	420	233147
25	420	233042	420	233148
32	420	233044	420	233149
40	420	233045	420	233150
4	420	233031	420	233151
6	420	233054	420	233152
8	420	233032	420	233153
10	420	233055	420	233154
12	420	233056	420	233155
16	420	233035	420	233156
20	420	233057	420	233157
25	420	233058	420	233158
32	420	233053	420	233159
4	420	233039	420	233160
6	420	233059	420	233161
10	420	233060	420	233162
12	420	233061	420	233163
16	420	233043	420	233164
20	420	233062	420	233165
25	420	233063	420	233166
32	420	233046	420	233167
40	420	233047	420	233168
50	420	233048	420	233169
4	420	233049	420	233170
6	420	233064	420	233171
10	420	233065	420	233172
12	420	233066	420	233173
20	420	233067	420	233174
25	420	233068	420	233175
32	420	233050	420	233176
40	420	233051	420	233177
50	420	233052	420	233178

Check valves with flange connection ISO 6162 · steel · DN 13 - DN 51

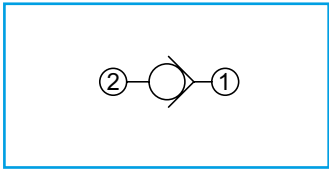
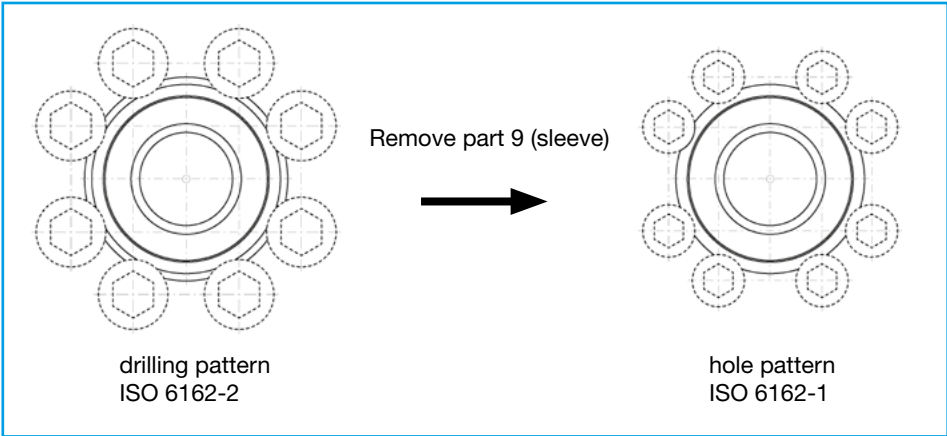
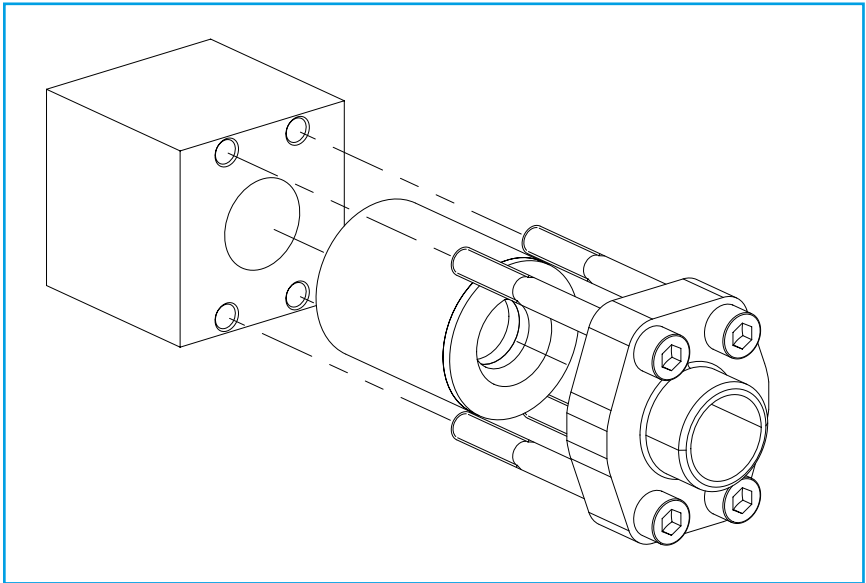


Please check pressure rating acc. to ISO 6162
Custom orders on request
All dimensions subject to change without notice

**To turn the direction of the flow switch
part 3, 4, 5 and 8**

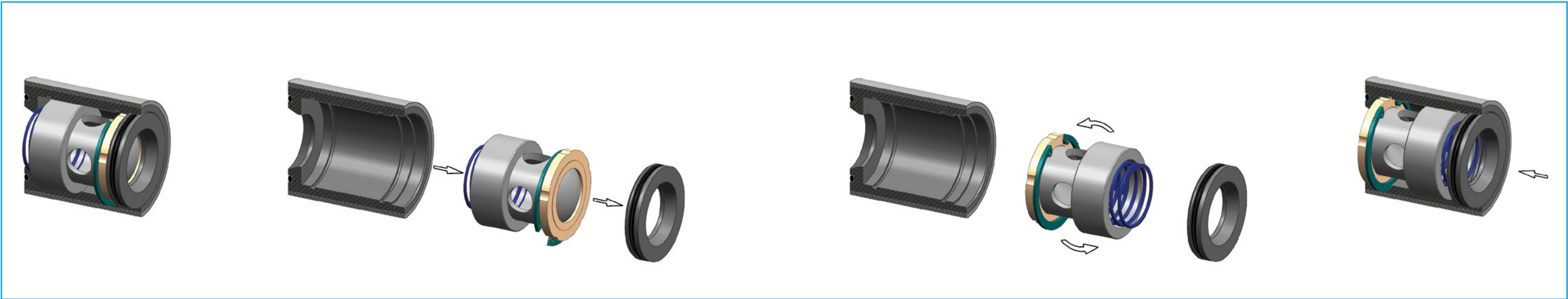
Remove part 9 for ISO 6162-1
Dimensions in mm | Weight in kg |
Pressure in bar

- ① Body
- ② Cap
- ③ Piston
- ④ Spring
- ⑤ Seat
- ⑥ O-ring
- ⑦ O-ring
- ⑧ Inverted ring
- ⑨ Sleeve

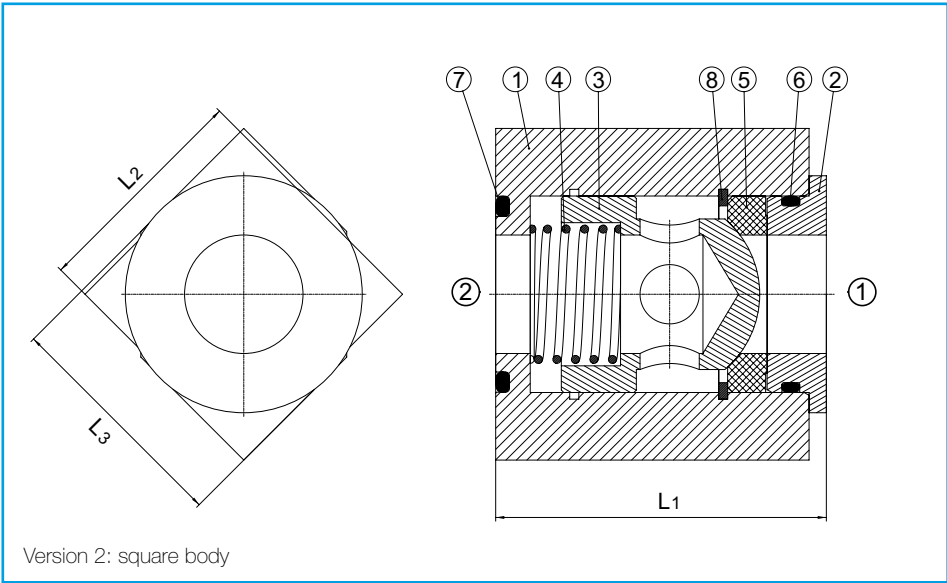


Body:	steel, zinc nickel plated
Seat:	POM
O-rings:	FKM

Connection	DN	L1	D1	D2	Opening- pressure	Weight	PN	Article no.
ISO 6162-1/-2	13	47.0	33.5	36.0	1	0.2	420	233091
	19	59.0	42.0	46.0	1	0.4	420	233092
	25	67.0	48.0	51.0	1	0.6	420	233093
	32/25	70.0	55.0	61.0	1	0.9	420	233094
	38/32	80.0	65.0	70.0	1	1.3	420	233095
	51/32	82.0	76.0	86.0	1	2.1	420	233096

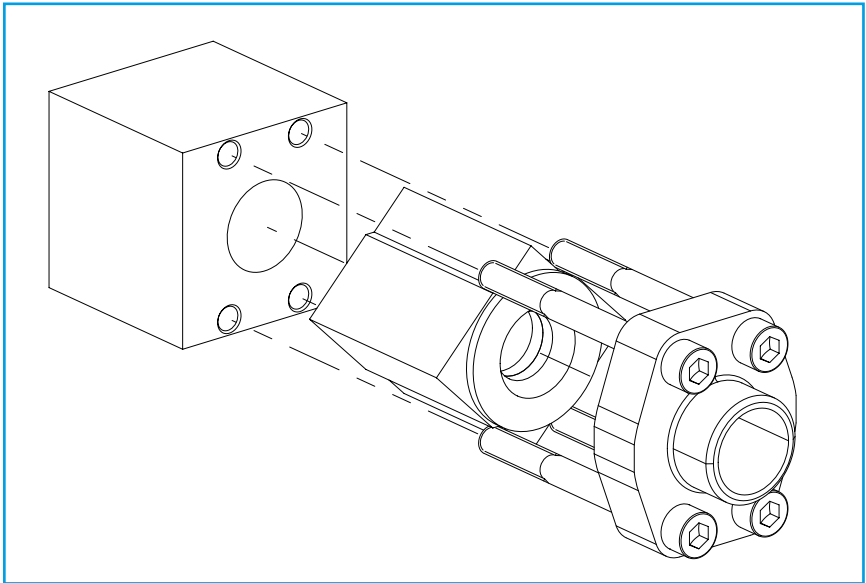
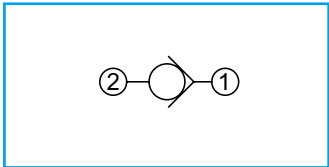


Check valves with flange connection ISO 6162 · steel · DN 13 - DN 51



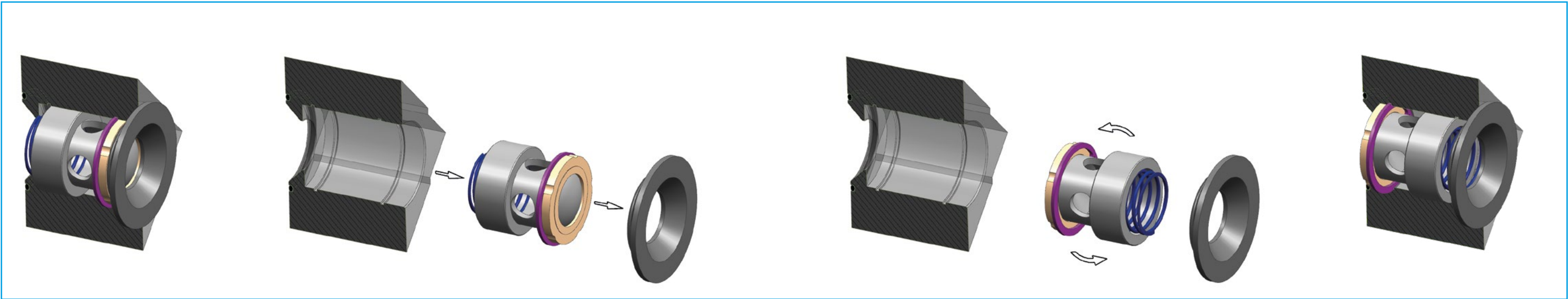
Please check pressure rating acc. to ISO 6162
Custom orders on request
All dimensions subject to change without notice
**To turn the direction of the flow switch
part 3, 4, 5 and 8**
Dimensions in mm | Weight in kg |
Pressure in bar

- ① Body
- ② Cap
- ③ Piston
- ④ Spring
- ⑤ Seat
- ⑥ O-ring
- ⑦ O-ring
- ⑧ Inverted ring

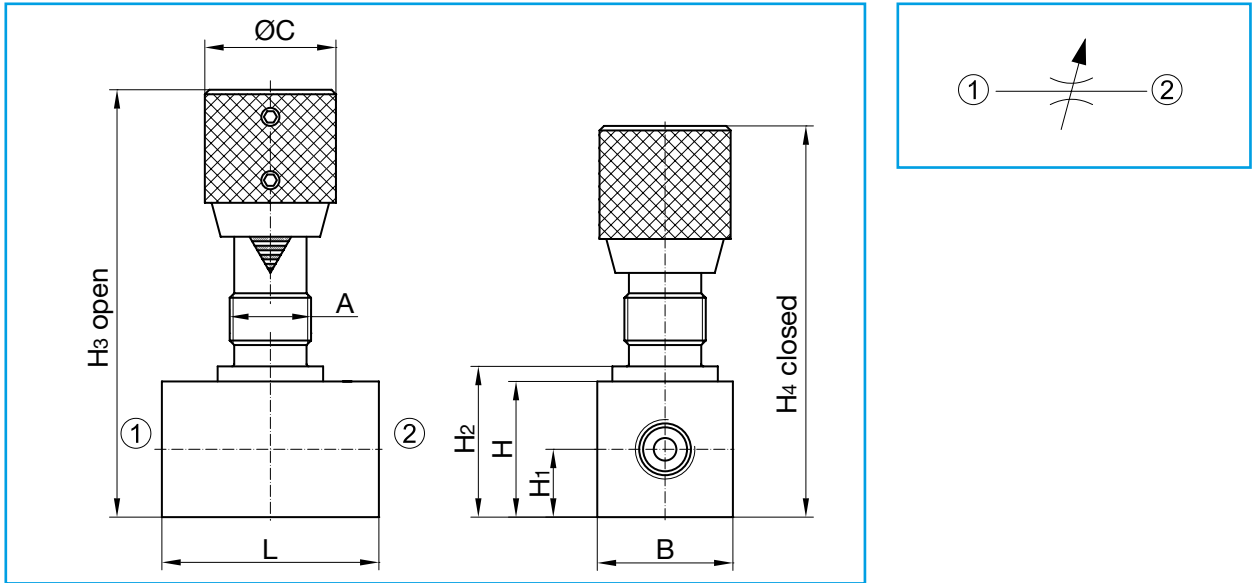


Body:	steel, zinc nickel plated
Seat:	POM
O-rings:	FKM

Connection	DN	L1	L2	L3	Opening- pressure	Weight	PN	Article no.
ISO 6162-1/-2	13	47.0	31.0	33.4	1	0.3	420	233097
	19	59.0	39.0	41.5	1	0.5	420	233098
	25	67.0	45.5	47.5	1	0.7	420	233099
	32/25	70.0	52.0	57.0	1	1.2	420	233100
	38/32	80.0	62.0	65.0	1	1.7	420	233101
	51/32	82.0	73.0	79.0	1	2.9	420	233102



Needle valves with threaded connector · DN 4 - DN 50



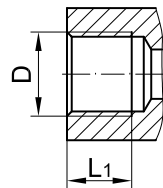
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, zinc nickel plated	stainless steel
Spindle:	steel	stainless steel
Rotary knob:	aluminum	aluminum
O-rings:	NBR	FKM

Connection

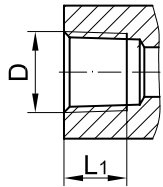
DN Thread L L1 A B øC H H1 H2 H3 H4 Weight

BSP-female thread
DIN EN ISO 228-1



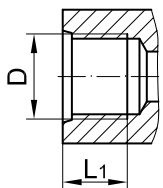
4	G 1/8	38	10.0	M 18 x 1.5	20	29	20	10.0	23	87	78	0.2
6	G 1/4	48	12.0	M 18 x 1.5	25	29	25	12.5	28	92	83	0.3
10	G 3/8	58	14.0	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
12	G 1/2	68	15.0	M 18 x 1.5	35	29	35	17.5	38	103	93	0.7
16	G 5/8	78	16.0	M 22 x 1.5	45	38	45	22.5	49	123	111	1.3
20	G 3/4	78	16.0	M 22 x 1.5	45	38	45	22.5	49	123	111	1.3
25	G 1	108	20.0	M 22 x 1.5	50	38	50	25.0	54	128	116	2.0
32	G 1¼	108	20.0	M 36 x 1.5	60	50	60	30.0	66	183	164	3.3
40	G 1½	108	23.0	M 36 x 1.5	70	50	70	35.0	76	193	174	4.2
50	G 2	130	24.5	M 36 x 1.5	90	50	90	45.0	96	213	194	7.7

NPT-female thread
ANSI/ASME
B1.20.1-1983



4	1/8 - 27	NPT	38	6.9	M 18 x 1.5	20	29	20	10.0	23	87	78	0.2
6	1/4 - 18	NPT	48	10.0	M 18 x 1.5	25	29	25	12.5	28	92	83	0.3
10	3/8 - 18	NPT	58	10.3	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
12	1/2 - 14	NPT	68	13.6	M 18 x 1.5	35	29	35	17.5	38	103	93	0.7
20	3/4 - 14	NPT	78	14.1	M 22 x 1.5	45	38	45	22.5	49	123	111	1.3
25	1 - 11½	NPT	108	16.8	M 22 x 1.5	50	38	50	25.0	54	128	116	2.0
32	1¼ - 11½	NPT	108	17.3	M 36 x 1.5	60	50	60	30.0	66	183	164	3.3
40	1½ - 11½	NPT	108	17.3	M 36 x 1.5	70	50	70	35.0	76	193	174	4.2
50	2 - 11½	NPT	130	17.7	M 36 x 1.5	90	50	90	45.0	96	213	194	7.7

Female thread
ISO 11926-1

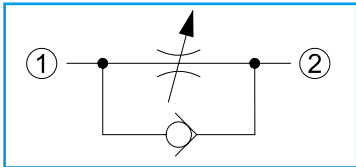
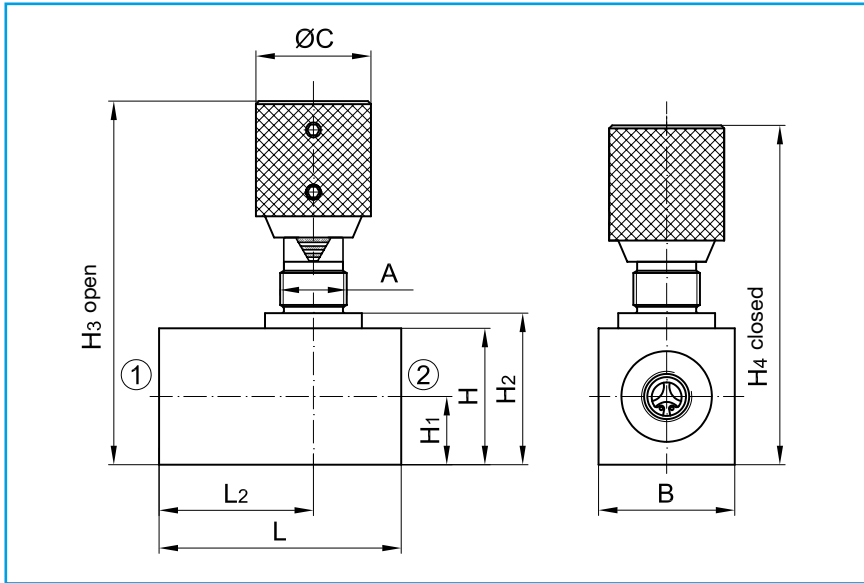


4	7/16 - 20	UNF - 2B	42	6.9	M 18 x 1.5	20	29	20	10.0	23	87	78	0.2
6	1/2 - 20	UNF - 2B	48	10.0	M 18 x 1.5	25	29	25	12.5	28	92	83	0.3
8	9/16 - 18	UNF - 2B	58	12.7	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
10	3/4 - 16	UNF - 2B	60	14.3	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
12	7/8 - 14	UNF - 2B	72	16.7	M 18 x 1.5	35	29	35	17.5	38	103	93	0.7
16	11/16 - 12	UN - 2B	84	19.0	M 22 x 1.5	45	38	45	22.5	49	123	111	1.3
20	15/16 - 12	UN - 2B	108	19.0	M 22 x 1.5	50	38	50	25.0	54	128	116	2.0
25	15/8 - 12	UN - 2B	108	16.8	M 22 x 1.5	60	50	60	30.0	66	183	164	3.3
32	17/8 - 12	UNF - 2B	108	19.0	M 36 x 1.5	70	50	70	35.0	76	193	174	4.2
40	2½ - 12	UNF - 2B	130	19.0	M 36 x 1.5	90	50	90	45.0	96	213	194	7.7

DN PN Article no. PN Article no.

4	350	219001	350	219076
6	350	219002	350	219077
10	350	219003	350	219078
12	350	219004	350	219079
16	350	219055	350	219080
20	350	219005	350	219081
25	350	219006	350	219082
32	350	219007	350	219083
40	350	219008	350	219084
50	350	219009	350	219085
4	350	219010	350	219086
6	350	219011	350	219087
10	350	219012	350	219088
12	350	219013	350	219089
20	350	219014	350	219090
25	350	219015	350	219091
32	350	219016	350	219092
40	350	219017	350	219093
50	350	219018	350	219094
4	350	219020	350	219095
6	350	219056	350	219096
8	350	219021	350	219097
10	350	219022	350	219098
12	350	219057	350	219099
16	350	219023	350	219100
20	350	219024	350	219101
25	350	219025	350	219102
32	350	219026	350	219103
40	350	219027	350	219104

Flow control valves with threaded connector · DN 4 - DN 50



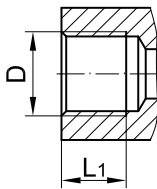
Opening pressure: 0.5
Custom orders on request
All dimensions subject to change without notice
Dimensions in mm | Weight in kg | Pressure in bar

Body:	steel, zinc nickel plated	stainless steel
Spindle:	steel	stainless steel
Rotary knob:	aluminum	aluminum
O-rings:	NBR	FKM

Connection

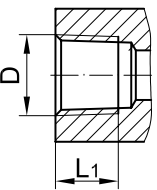
DN	Thread D	L	L ₁	L ₂	A	B	øC	H	H ₁	H ₂	H ₃	H ₄	Weight
4	G 1/8	45	10.0	28	M 18 x 1.5	20	29	20	10.0	23	87	78	0.3
6	G 1/4	55	12.0	35	M 18 x 1.5	25	29	25	12.5	28	92	83	0.4
10	G 3/8	65	14.0	41	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
12	G 1/2	73	15.0	48	M 18 x 1.5	35	29	35	17.5	38	103	93	0.7
20	G 3/4	88	16.0	57	M 22 x 1.5	45	38	45	22.5	49	123	111	1.4
25	G 1	127	20.0	77	M 22 x 1.5	50	38	50	25.0	54	128	116	2.2
32	G 1¼	143	20.0	93	M 36 x 1.5	60	50	60	30.0	66	183	164	4.0
40	G 1½	143	23.0	98	M 36 x 1.5	70	50	70	35.0	76	193	174	5.0
50	G 2	165	24.5	111	M 36 x 1.5	90	50	90	45.0	96	213	194	9.1

BSP-female thread
DIN EN ISO 228-1



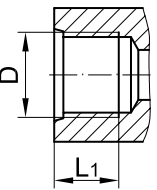
4	1/8 - 27	NPT	45	6.9	28	M 18 x 1.5	20	29	20	10.0	23	87	78	0.3
6	1/4 - 18	NPT	55	10.0	35	M 18 x 1.5	25	29	25	12.5	28	92	83	0.4
10	3/8 - 18	NPT	65	10.3	41	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
12	1/2 - 14	NPT	73	13.6	48	M 18 x 1.5	35	29	35	17.5	38	103	93	0.7
20	3/4 - 14	NPT	88	14.1	57	M 22 x 1.5	45	38	45	22.5	49	123	111	1.4
25	1 - 11½	NPT	127	16.8	77	M 22 x 1.5	50	38	50	25.0	54	128	116	2.2
32	1¼ - 11½	NPT	143	17.3	93	M 36 x 1.5	60	50	60	30.0	66	183	164	3.9
40	1½ - 11½	NPT	143	17.3	98	M 36 x 1.5	70	50	70	35.0	76	193	174	5.0
50	2 - 11½	NPT	165	17.7	111	M 36 x 1.5	90	50	90	45.0	96	213	194	9.1

NPT-female thread
ANSI/ASME
B1.20.1-1983



4	7/16 - 20	UNF - 2B	49	11.5	28.0	M 18 x 1.5	20	29	20	10.0	23	87	78	0.3
6	1/2 - 20	UNF - 2B	55	11.5	33.5	M 18 x 1.5	25	29	25	12.5	28	92	83	0.4
8	9/16 - 18	UNF - 2B	67	12.7	42.0	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
10	3/4 - 16	UNF - 2B	67	14.3	42.0	M 18 x 1.5	30	29	30	15.0	33	98	88	0.5
12	7/8 - 14	UNF - 2B	77	16.7	50.0	M 18 x 1.5	35	29	35	17.5	38	103	93	0.7
16	11/16 - 12	UN - 2B	94	19.0	60.0	M 22 x 1.5	45	38	45	22.5	49	123	111	1.4
20	15/16 - 12	UN - 2B	127	19.0	77.0	M 22 x 1.5	50	38	50	25.0	54	128	116	2.2
25	15/8 - 12	UN - 2B	143	19.0	93.0	M 22 x 1.5	60	50	60	30.0	66	183	164	4.0
32	17/8 - 12	UNF - 2B	143	19.0	98.0	M 36 x 1.5	70	50	70	35.0	76	193	174	5.0
40	2½ - 12	UNF - 2B	165	19.0	111.0	M 36 x 1.5	90	50	90	45.0	96	213	194	9.1

Female thread
ISO 11926-1



DN	PN	Article no.	PN	Article no.
4	350	218001	350	218071
6	350	218002	350	218072
10	350	218003	350	218073
12	350	218004	350	218074
20	350	218005	350	218075
25	350	218006	350	218076
32	350	218007	350	218077
40	350	218008	350	218078
50	350	218009	350	218079
4	350	218010	350	218080
6	350	218011	350	218081
10	350	218012	350	218082
12	350	218013	350	218083
20	350	218014	350	218084
25	350	218015	350	218085
32	350	218016	350	218086
40	350	218017	350	218087
50	350	218018	350	218088
4	350	218020	350	218089
6	350	218055	350	218090
8	350	218021	350	218091
10	350	218022	350	218092
12	350	218056	350	218093
16	350	218023	350	218094
20	350	218024	350	218095
25	350	218025	350	218096
32	350	218026	350	218097
40	350	218027	350	218098

Attachments, accessories

Product overview

Mounting kits for limit switches

Mounting kits for proximity switches

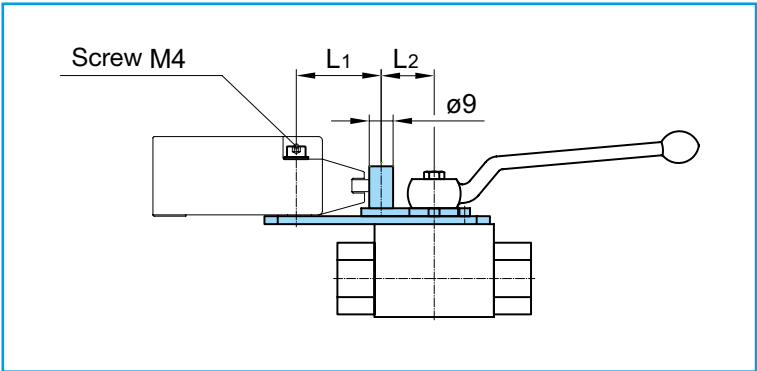
Locking devices

Actuators

Detents

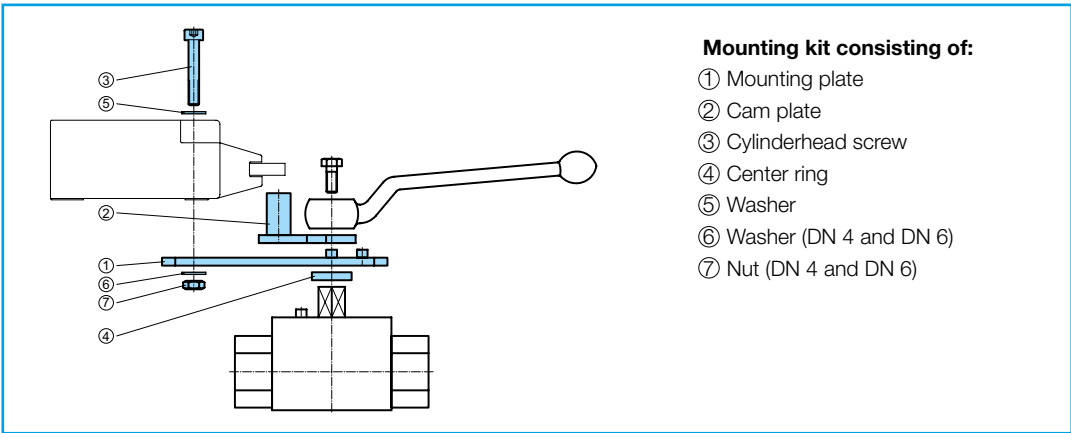
Handle sets

Mounting kits for limit switches

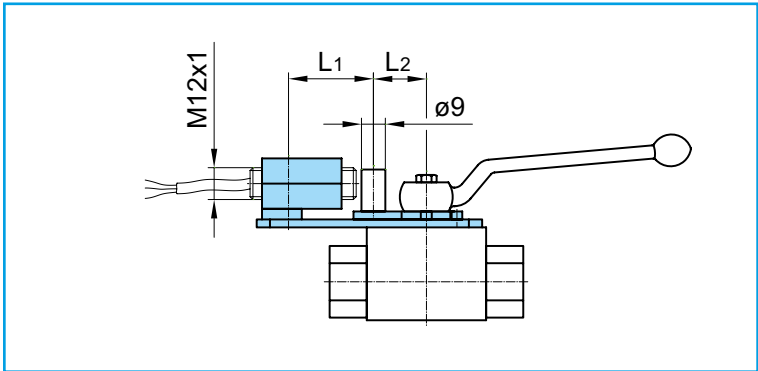


For dimensions and article-numbers for ball valve bodies refer to the respective chapter
Mounting kits for other types of ball valves on request
All dimensions subject to change without notice
Also available completely assembled

		Steel				Steel			
		2-way- and multi-way ball valves with floating ball				Multi-way ball valves with trunnion ball			
Switching positions	DN	Article no.	L1	L2		Article no.	L1	L2	
open	4/6*	204001	50.5	20.0		204031	58.0	27.5	
	8/10	204002	50.5	20.0		204032	61.5	31.0	
	12	204003	61.5	31.0		204032	61.5	31.0	
	16	204003	61.5	31.0		204032	61.5	31.0	
	20/25	204005	61.5	31.0		204033	64.5	34.0	
	32	204006	64.5	34.0		204033	64.5	34.0	
	40	204006	64.5	34.0		204034	69.5	39.0	
closed	50	204006	64.5	34.0		-	-	-	
	4/6	204011	50.5	20.0		204041	58.0	27.5	
	8/10	204012	50.5	20.0		204042	61.5	31.0	
	12	204013	61.5	31.0		204042	61.5	31.0	
	16	204013	61.5	31.0		204042	61.5	31.0	
	20/25	204015	61.5	31.0		204043	64.5	34.0	
	32	204016	64.5	34.0		204043	64.5	34.0	
open and closed	40	204016	64.5	34.0		204044	64.5	34.0	
	50	204016	64.5	34.0		-	-	-	
	4/6	204021	50.5	20.0		204051	58.0	27.5	
	8/10	204022	50.5	20.0		204052	61.5	31.0	
	12	204023	61.5	31.0		204052	61.5	31.0	
	16	204023	61.5	31.0		204052	61.5	31.0	
	20/25	204025	61.5	31.0		204053	64.5	34.0	
	32	204026	64.5	34.0		204053	64.5	34.0	
	40	204026	64.5	34.0		204054	64.5	34.0	
	50	204026	64.5	34.0		-	-	-	

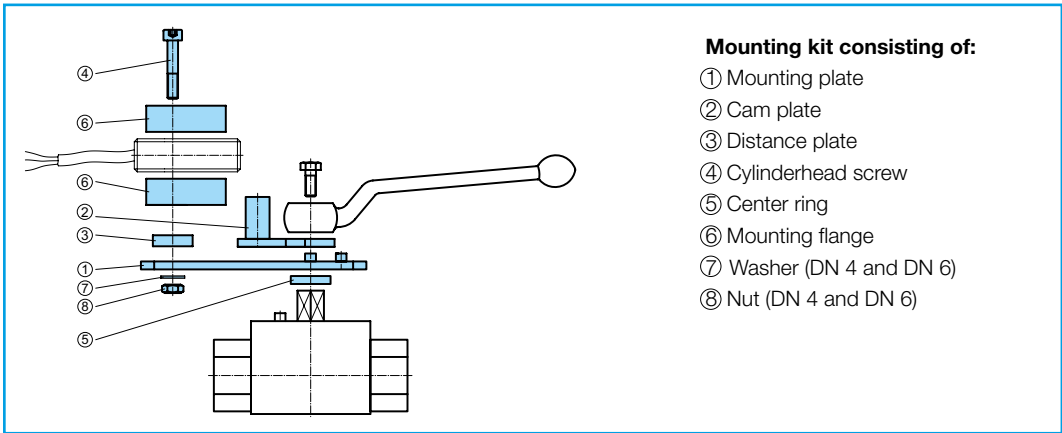


Mounting kits for proximity switches



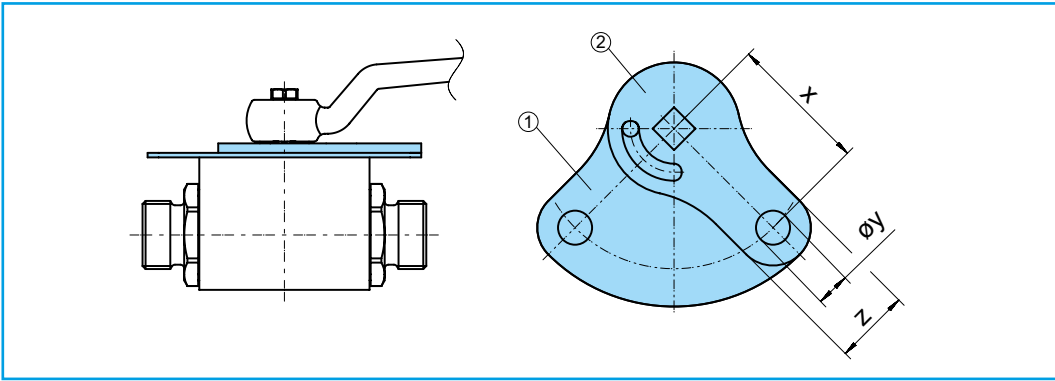
For dimensions and article-numbers for ball valve bodies refer to the respective chapter
Mounting kits for other types of ball valves on request
All dimensions subject to change without notice
Also available completely assembled

		Steel				Steel			
		2-way- and multi-way ball valves with floating ball				Multi-way ball valves with trunnion ball			
Switching positions	DN	Article no.	L1	L2		Article no.	L1	L2	
open	4/6	204061	46.5	20.0		204091	54.0	27.5	
	8/10	204062	46.5	20.0		204092	57.5	31.0	
	12	204063	57.5	31.0		204092	57.5	31.0	
	16	204063	57.5	31.0		204092	57.5	31.0	
	20/25	204065	57.5	31.0		204093	60.5	34.0	
	32	204066	60.5	34.0		204093	60.5	34.0	
	40	204066	60.5	34.0		204094	65.5	39.0	
closed	50	204066	60.5	34.0		-	-	-	
	4/6	204071	46.5	20.0		204101	54.0	28.0	
	8/10	204072	46.5	20.0		204102	57.5	31.0	
	12	204073	57.5	31.0		204102	57.5	31.0	
	16	204073	57.5	31.0		204102	57.5	31.0	
	20/25	204075	57.5	31.0		204103	60.5	34.0	
	32	204076	60.5	34.0		204103	60.5	34.0	
open and closed	40	204076	60.5	34.0		204104	65.5	34.0	
	50	204076	60.5	34.0		-	-	-	
	4/6	204081	46.5	20.0		204111	54.0	27.5	
	8/10	204082	46.5	20.0		204112	57.5	31.0	
	12	204083	57.5	31.0		204112	57.5	31.0	
	16	204083	57.5	31.0		204112	57.5	31.0	
	20/25	204085	57.5	31.0		204113	60.5	34.0	
	32	204086	60.5	34.0		204113	60.5	34.0	
	40	204086	60.5	34.0		204114	65.5	34.0	
	50	204086	60.5	34.0		-	-	-	



Attachments, accessories

Locking devices for 2- and multi-way ball valves with floating ball · steel and stainless steel



LD1

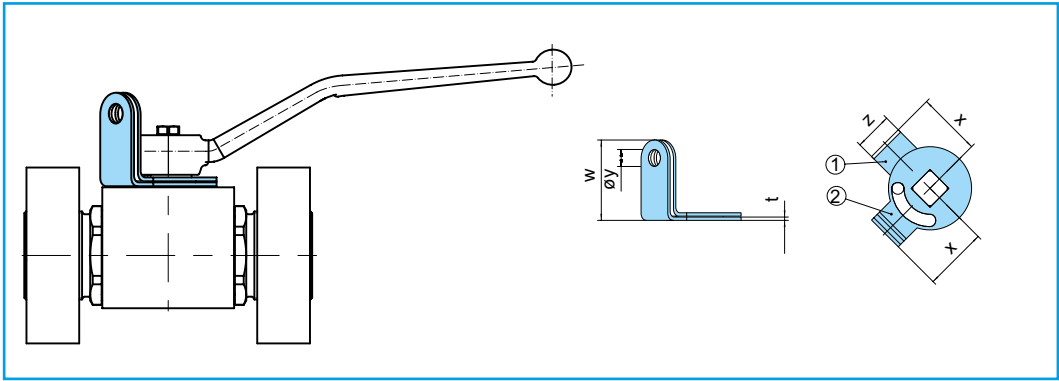
For dimensions and article-numbers of ball valve bodies refer to the respective chapter.
Locking devices for other types of ball valves on request
All dimensions subject to change without notice

Also available completely assembled

Material: stainless steel

Switching positions	DN	t ₁	t ₂	x	y	z	Article no.
	4/6	1,2	1,5	30	9	20	101470
	8/10	1,2	2,5	37	9	20	101471
	12	1,5	2,5	41	9	20	101472
	16	1,5	2,5	41	9	20	101472*
	20/25	1,5	2,5	55	9	20	101473
	32/40/50	1,5	2,5	54	9	20	101474

* DN 16 stainless steel 100840



LD2

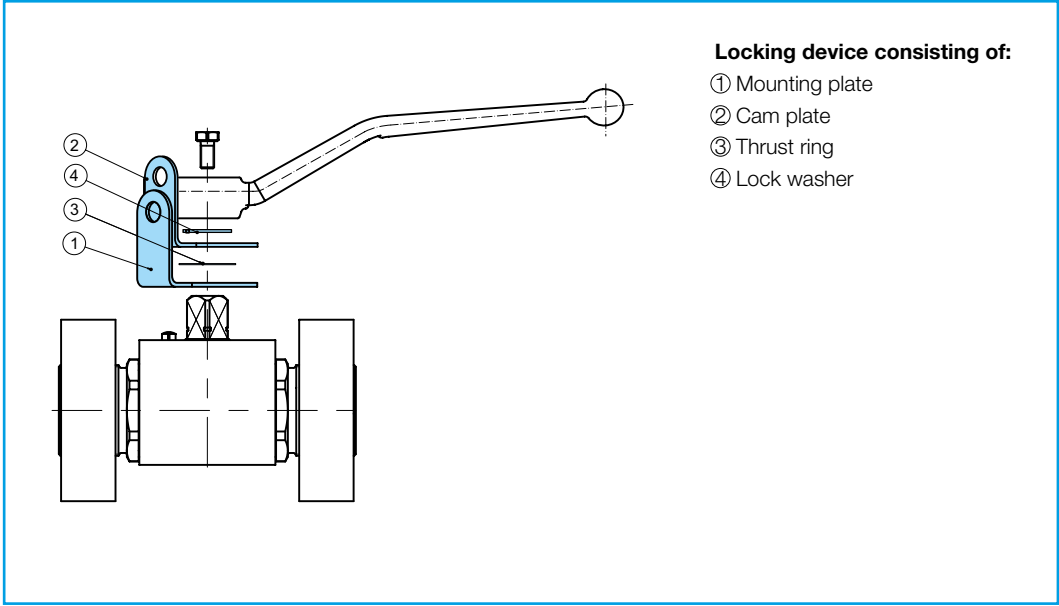
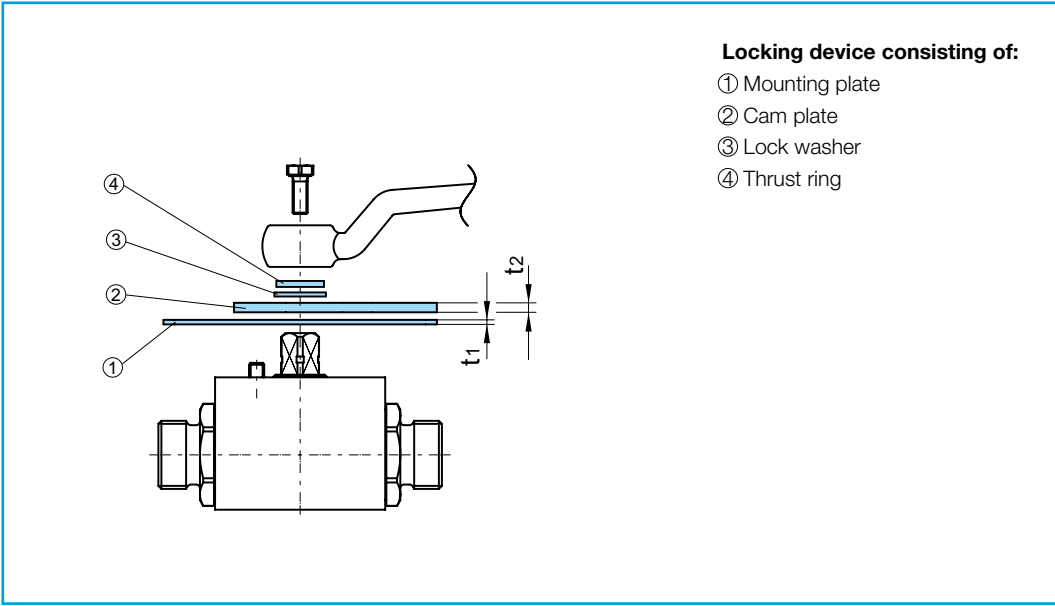
For dimensions and article-numbers of ball valve bodies refer to the respective chapter.
Locking devices for other types of ball valves on request
All dimensions subject to change without notice

Also available completely assembled

Material: stainless steel

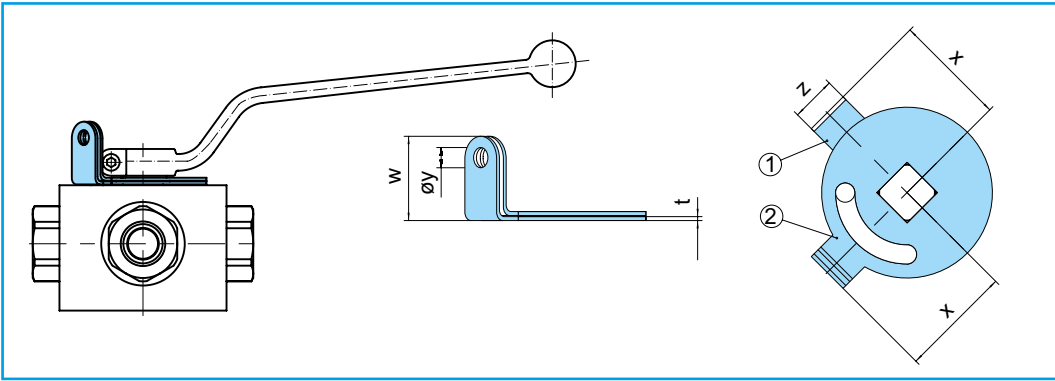
Switching positions	DN	t	x	y	z	Article no.
	4/6	0.80	18	9	20	100980
	8/10	1.20	21	9	15	100981
	12/16	1.20	28	9	15	100982
	20/25	1.50	34	9	15	100983
	32/40/50	1.75	42	9	20	100984

* DN 16 stainless steel 100983



Attachments, accessories

Locking devices for 2- and multi-way ball valves with trunnion ball · steel and stainless steel



LD2

For dimensions and article-numbers of ball valve bodies refer to the respective chapter.

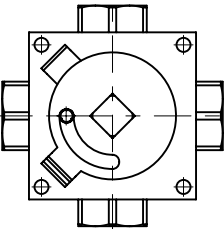
Locking devices for other types of ball valves on request

All dimensions subject to change without notice

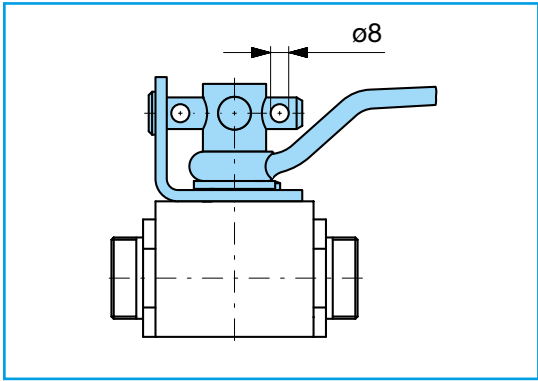
Also available completely assembled

Material: stainless steel

Switching positions



DN	t	w	x	y	z	Article no.
4/6	1.75	37.5	35.00	9	20	203905
8/10/12	1.75	37.5	37.00	9	20	203906
20/25/32/40	1.75	37.5	50.25	9	20	203907



LD3

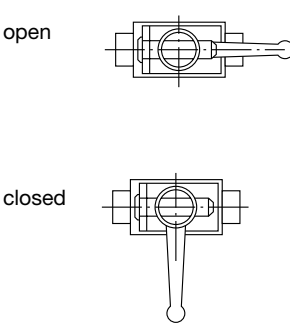
For dimensions and article-numbers of ball valve bodies refer to the respective chapter.

Locking devices for other types of ball valves on request

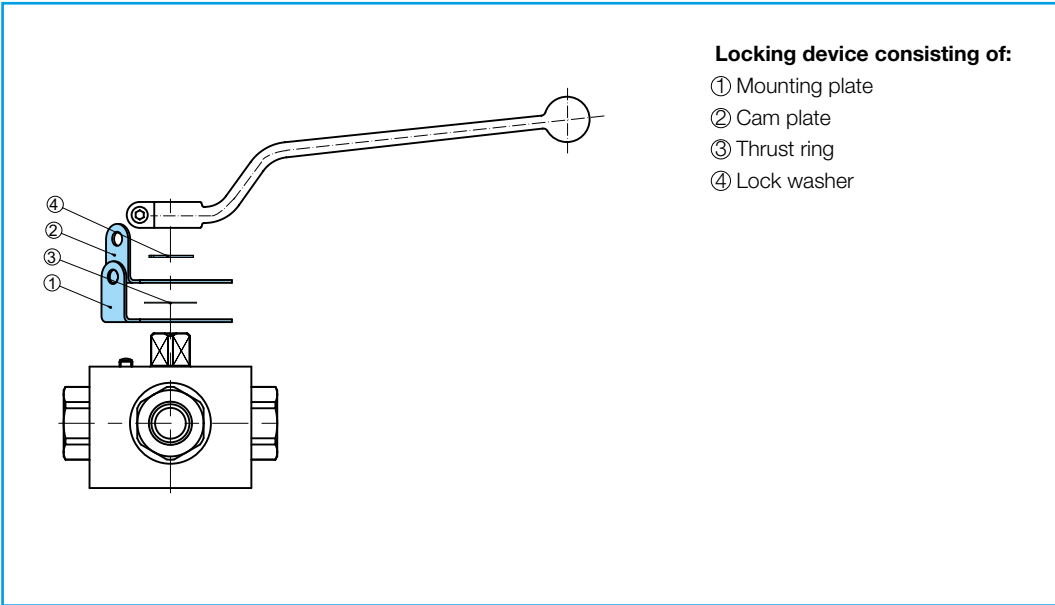
All dimensions subject to change without notice

Also available completely assembled

Switching positions

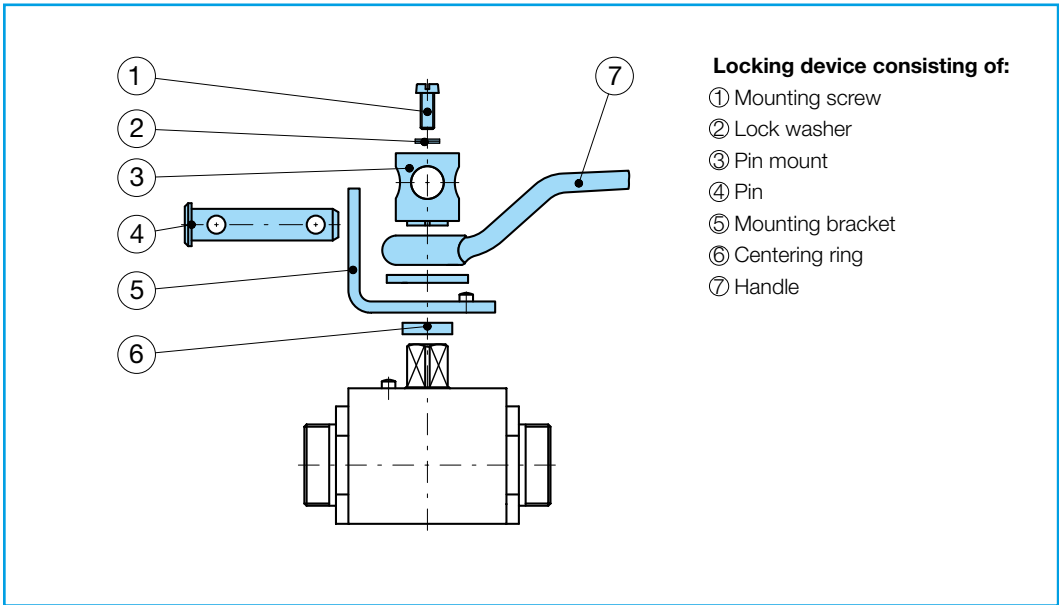


DN	Steel		Stainless steel	
	Article no.		Article no.	
4/6	100821		100831	
8/10	100822		100832	
12	100823		100833	
16	100823		100834	
20	100825		100834	
25	100825		100834	
32	100826		100835	
40	100826		100835	
50	100826		100835	



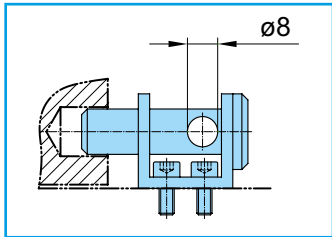
Locking device consisting of:

- ① Mounting plate
- ② Cam plate
- ③ Thrust ring
- ④ Lock washer



Locking device consisting of:

- ① Mounting screw
- ② Lock washer
- ③ Pin mount
- ④ Pin
- ⑤ Mounting bracket
- ⑥ Centering ring
- ⑦ Handle



LD4

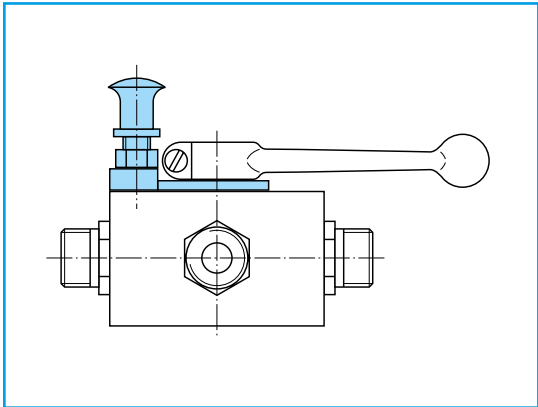
DN	Article no.
76/102/127	100830

Actuators

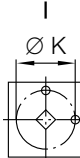
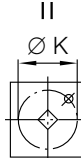
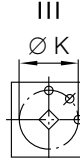


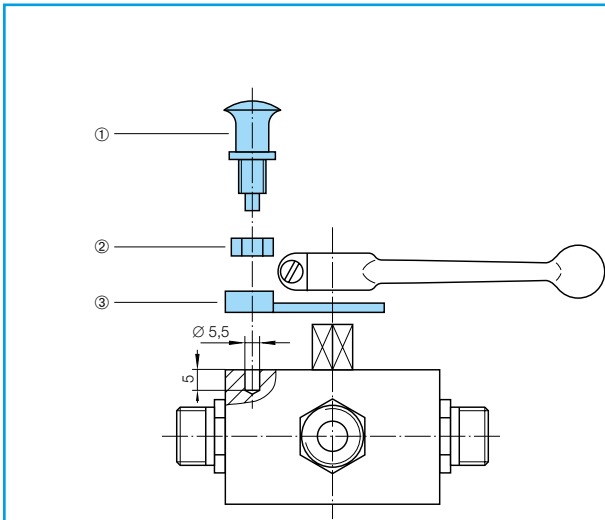
Most available pneumatic, hydraulic and electrical actuators can be attached, here only an example is given. Solenoid valves can be mounted as well or the system can be integrated into bus technology.

Detents for multi-way ball valves with trunnion ball · steel and stainless steel



For dimensions and article-numbers of ball valve bodies refer to the respective chapter.
Locking devices for other types of ball valves on request
All dimensions subject to change without notice
Also available completely assembled

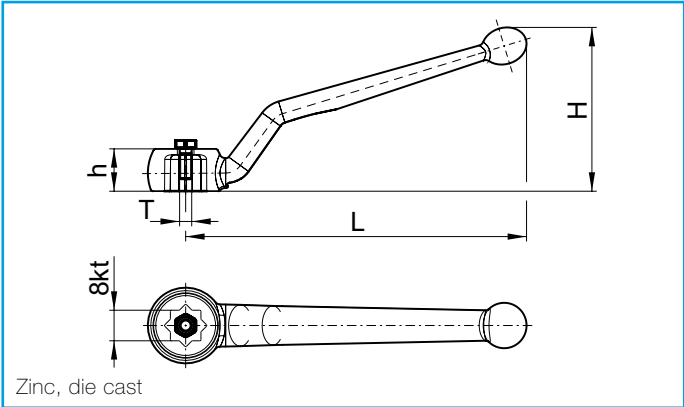
			Steel	Stainless steel
Common detent position at:			Article no.	Article no.
	I	Ø K	203897	203901
			203898	203902
			203898	203902
	II	Ø K	203898	203902
			203899	203903
			203899	203903
	III	Ø K	203899	203903
			203899	203903
			203900	-



Detent consisting of:
① Bolt
② Lock nut
③ Special cam plate

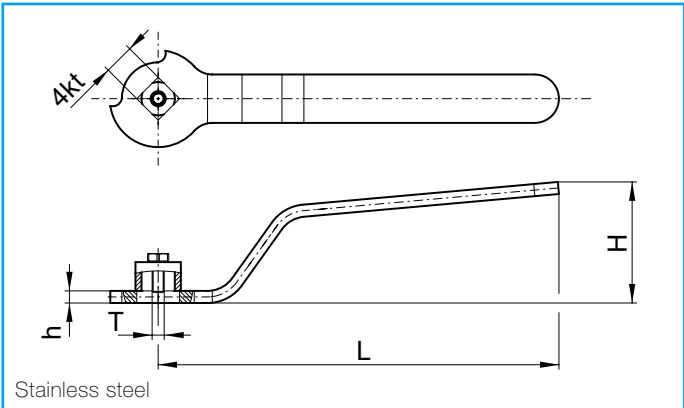
Attachments, accessories

Handle sets

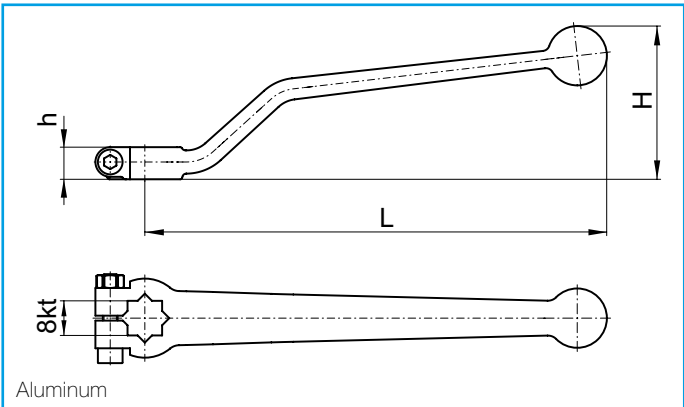


All dimensions subject to change without notice
Dimensions in mm

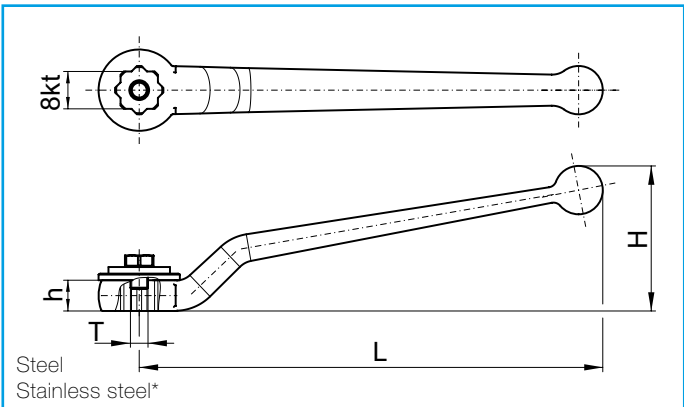
zinc, die cast						
8kt	Code	L	H	h	T	Article no.
7	12	76	27	8.5	M 4	102000
8	13	100	29	11.0	M 4	102001
10	14	113	54	14.0	M 5	102002
14	15	184	57	18.0	M 6	102003



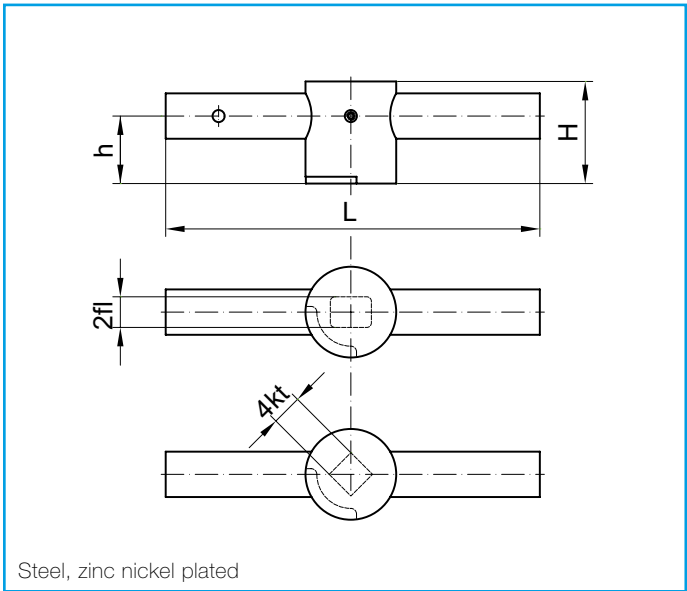
stainless steel						
8kt	Code	L	H	h	T	Article no.
7	32	76	23	4	M 4	102004
8	33	130	40	4	M 4	102005
10	34	130	40	4	M 5	102006
14	35	185	45	5	M 6	102007



aluminum						Article no.
8kt	Code	L	H	h		
8	4	91	24	9.0		102008
9	54	130	47	11.0		102009
12	7	187	54	13.0		102010
14	8	187	62	13.0		102011
17	9	227	70	14.0		102012
19	10	259	81	16.5		102013
22	11	361	68	18.0		102014

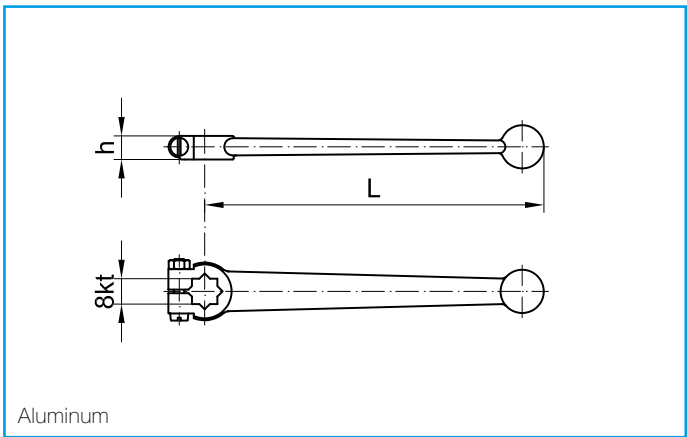


steel, stainless steel						
8kt	Code	L	H	h	T	Article no.
7	16	96	30	6.0	M 4	102015
8	17	96	46	8.5	M 4	102016
10	19	116	48	12.5	M 5	102017
14	20	187	54	13.0	M 6	102018
17	21	211	66	14.0	M 8	102019
17*	37	211	66	14.0	M 8	102020
17	22	320	76	17.0	M 8	102021
17*	38	320	76	17.0	M 8	102022
19	23	320	76	17.0	M 8	102023



All dimensions subject to change without notice
Dimensions in mm

steel						Article no.
2fl	Code	L	H	h		
27	57	1000	90	59.5		102024



steel						Article no.
4kt	Code	L	H	h		
19	58	600	80	53.0		102025

aluminum						Article no.
8kt	Code	L	H	h		
11	41	176	-	12		102026
12	42	200	-	14		102027
14	43	200	-	13		102028
17	44	240	-	14		102029
19	45	279	-	16		102030
22	46	321	-	19		102031
24	47	321	-	19		102032

Technical information

Overview

Mounting holes

Design principle of ball valves

Seals in ball valves

Sealing materials

Compatibility table

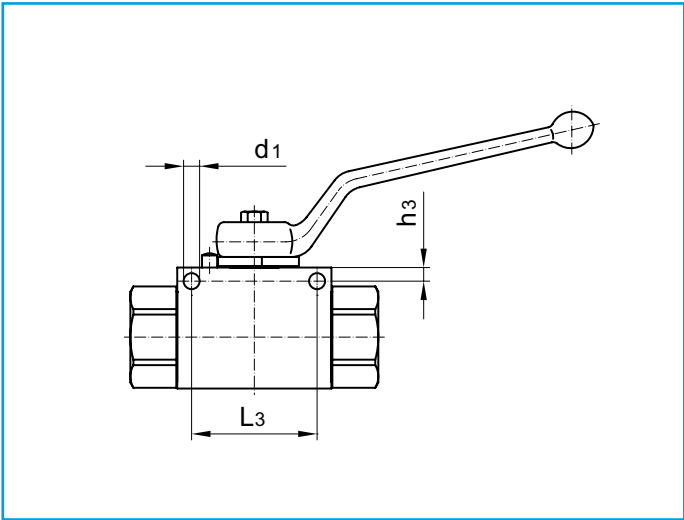
Ball valve size selection

Pressure/temperature-diagrams

Δp -characteristics

Technical information

Mounting holes for 2-way and multi-way ball valves with floating ball ·
steel and stainless steel · DN 4 - DN 25

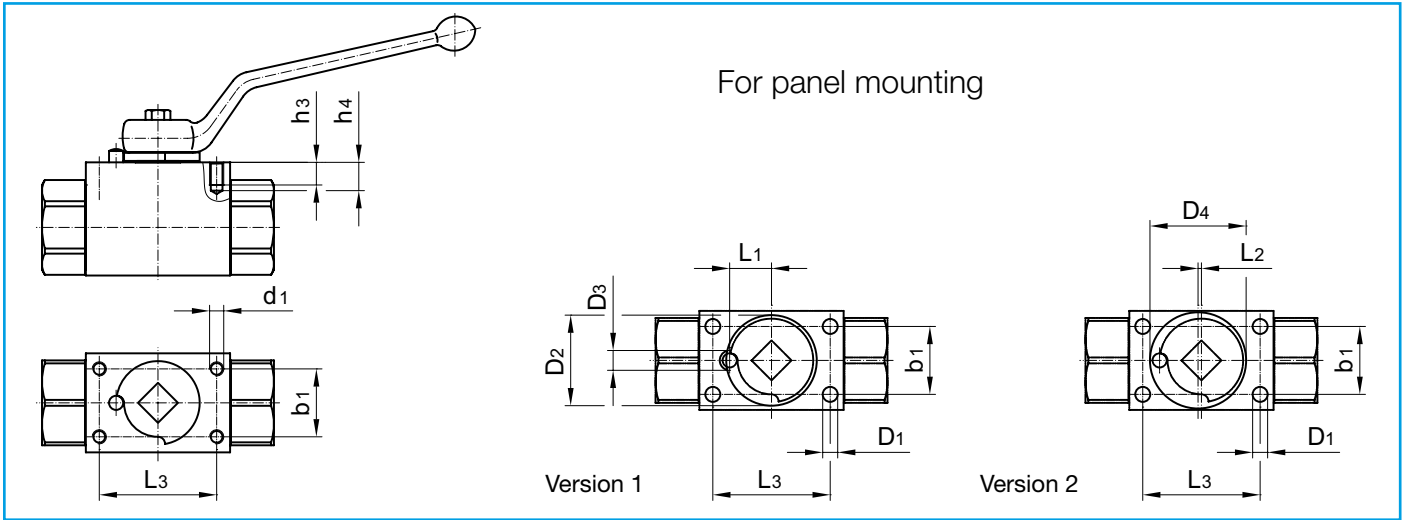


For wall mounting and stack design

For dimensions and article-numbers for ball valve bodies refer to the respective chapter.
All dimensions subject to change without notice

DN	L3	h3	d1
4	27.5	3.5	4.5
6	27.5	3.5	4.5
8	35.0	4.5	5.3
10	35.0	4.5	5.3
12	41.5	4.5	5.3
16*	41.5	4.5	5.3
20	46.5	6.0	5.3
25	46.5	6.0	5.3

* Body stainless steel DN 16 similar DN 20



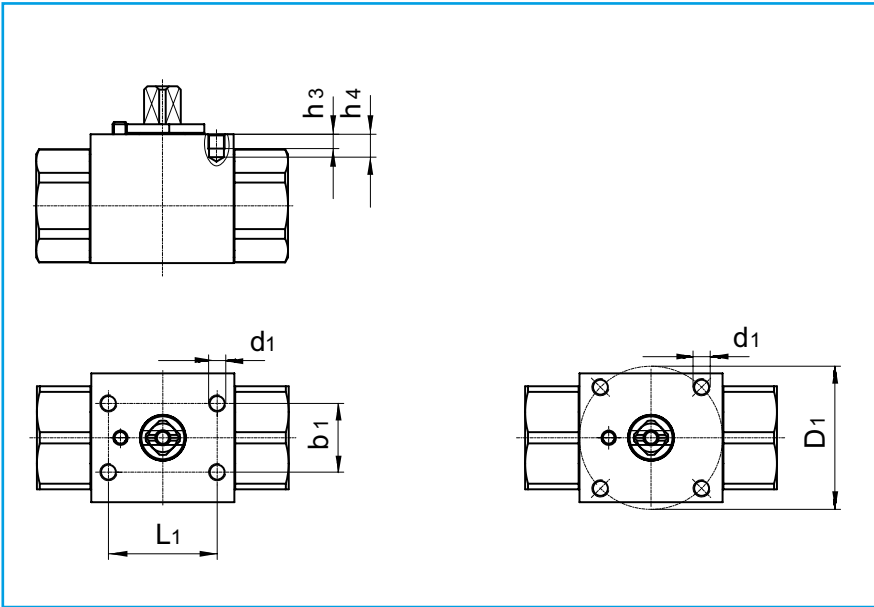
For panel mounting

For dimensions and article-numbers for ball valve bodies refer to the respective chapter. All dimensions subject to change without notice

DN	L3	b1	d1	h3	h4	D1	D2	D3	D4	L1	L2
4	27.5	12.0	M4	5	6	4.3	21.5	5	22.5	10.0	0.7
6	27.5	12.0	M4	5	6	4.3	21.5	5	22.5	10.0	0.7
8	35.0	22.0	M5	6	8	5.3	26.0	6	27.0	11.5	0.8
10	35.0	22.0	M5	6	8	5.3	26.0	6	27.0	11.5	0.8
12	41.5	24.0	M5	8	10	5.3	32.0	7	34.0	14.8	1.2
16*	39.0	28.0	M5	8	10	5.3	32.0	7	34.0	14.8	1.2
20	48.0	33.0	M6	9	12	6.4	38.0	8	40.0	17.0	1.0
25	54.0	40.0	M6	9	12	6.4	38.0	8	40.0	17.0	1.0

* Body stainless steel DN 16 similar DN 20

Mounting holes for 2-way and multi-way ball valves with floating ball ·
steel and stainless steel · DN 4 - DN 25



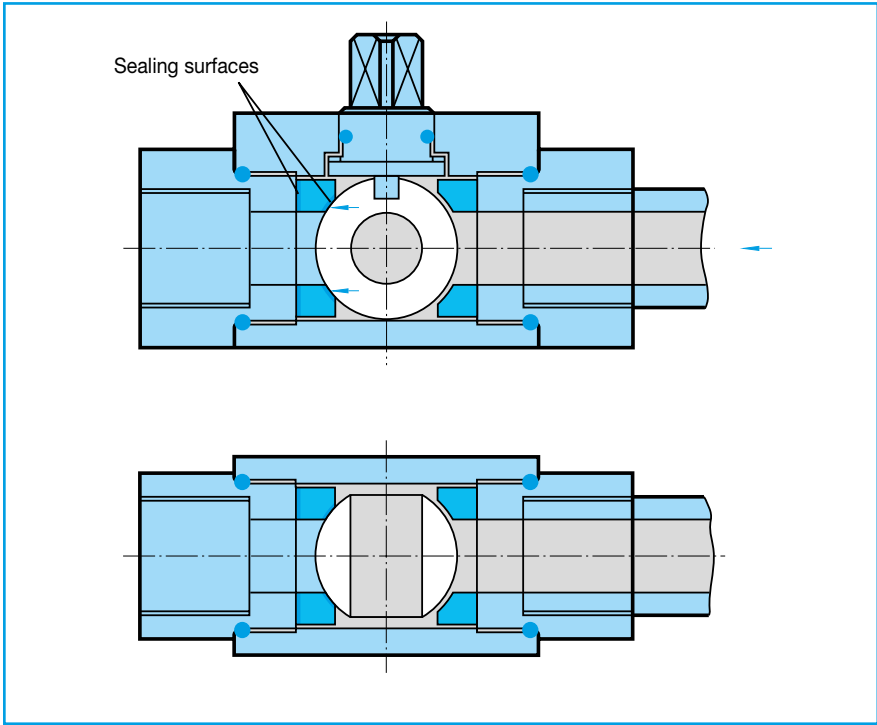
For installation of actuators

For dimensions and article-numbers for ball valve
bodies refer to the respective chapter.
All dimensions subject to change without notice

DN	D1	L1	b1	d1	h3	h4
4	-	27.5	11	M4	5	6
6	-	27.5	11	M4	5	6
8	-	27.5	11	M4	5	6
10	-	27.5	11	M4	5	6
12	Ø36	-	-	M5	6	8
16*	Ø50	-	-	M6	6	8
20	Ø50	-	-	M6	6	8
25	Ø50	-	-	M6	6	8

* Body stainless steel DN 16 like DN 20

Design principle of 2-way ball valves with floating ball

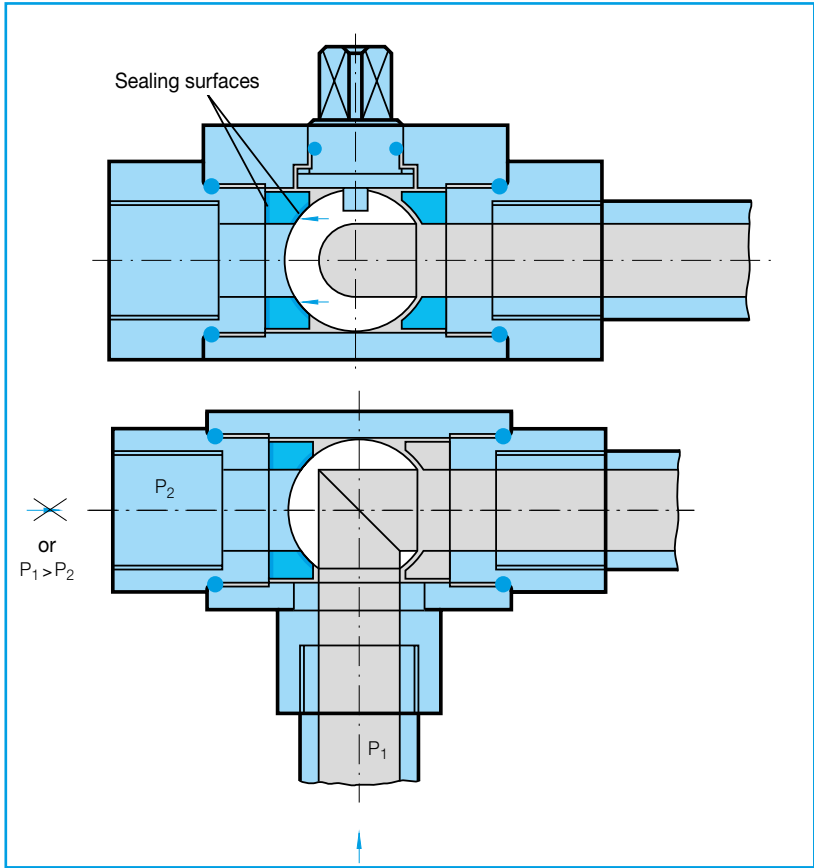


Bearing:
The seats also serve as the bearings for the floating ball.

Sealing:
Medium pressure will force the ball into the seat on the downstream side, forming a tight seal.

Leakage rate:
A- DIN EN 12266-1

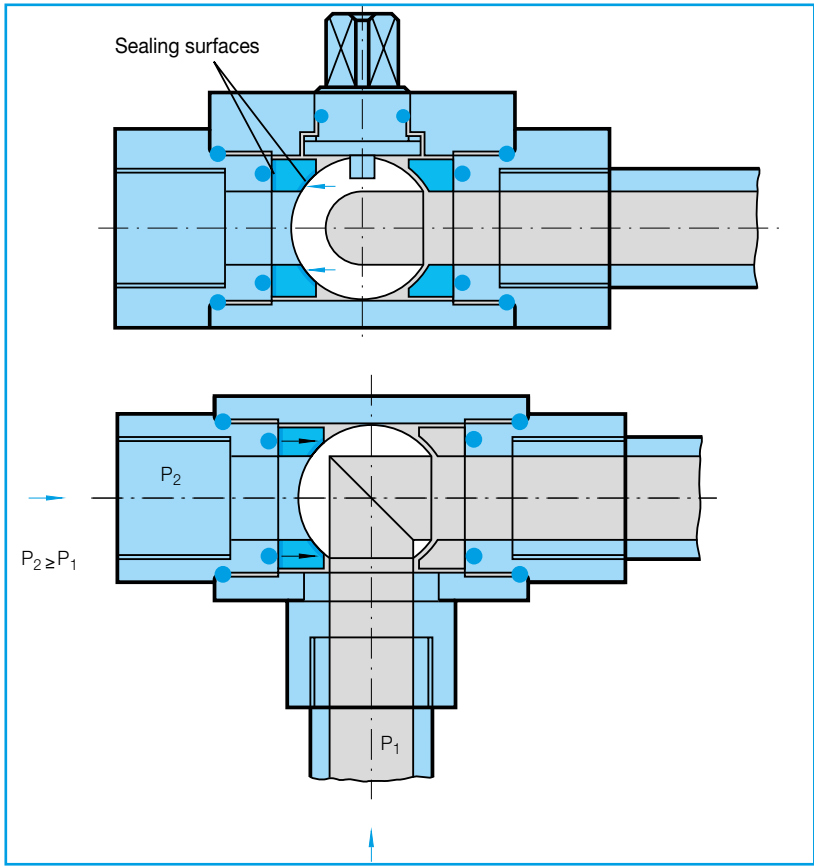
Design principle of multi-way ball valves with floating ball



Bearing:
The seats also serve as the bearings for the floating ball.

Sealing:
Medium pressure will force the ball into the seat on the downstream side, forming a tight seal, provided the pressure in the lines which are joined is greater than the pressure in the line which is closed off. Leakage will be encountered if the pressure in the closed line is equal to or greater than that in the other lines.

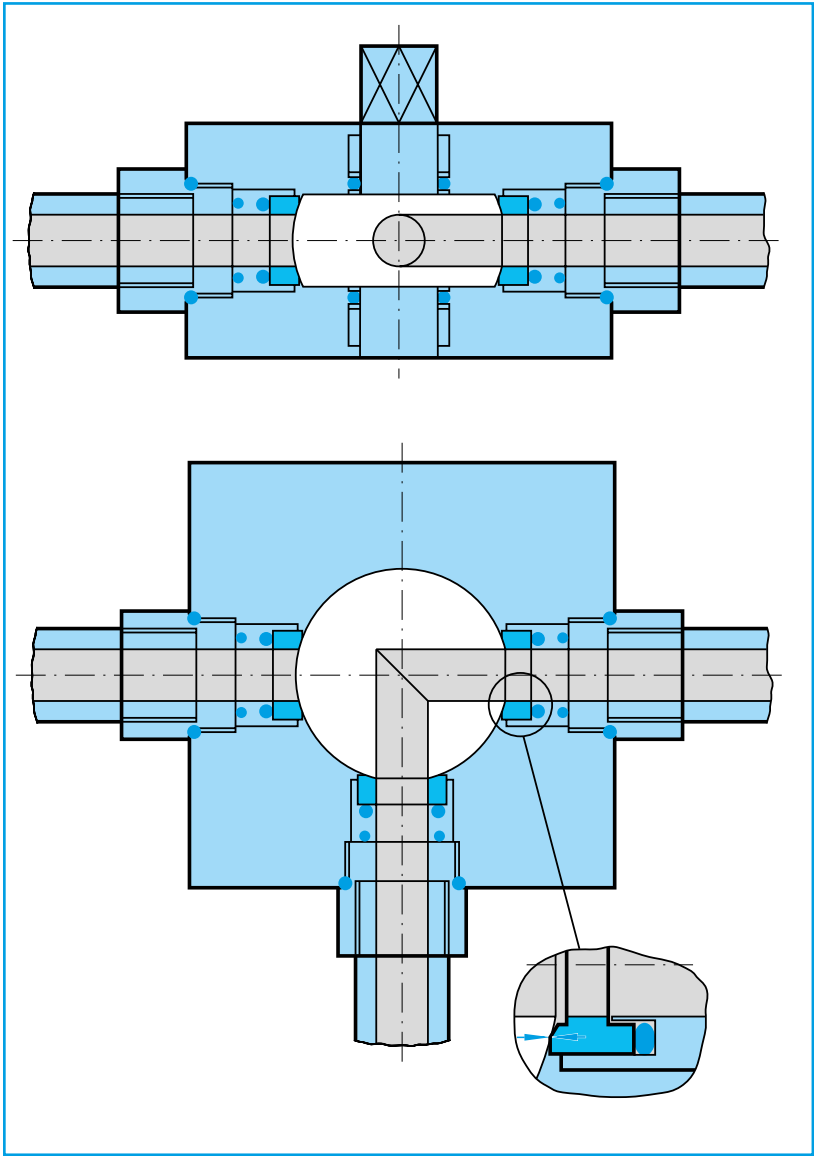
Leakage rate:
A- DIN EN 12266-1



A.D.-VERSION (true 3-way)
If the pressure from the closed port is higher or equal, the seat at the closed port is pressed against the ball and is sealing tightly.

Leakage rate:
A- DIN EN 12266-1

Design principle of multi-way ball valves with trunnion ball



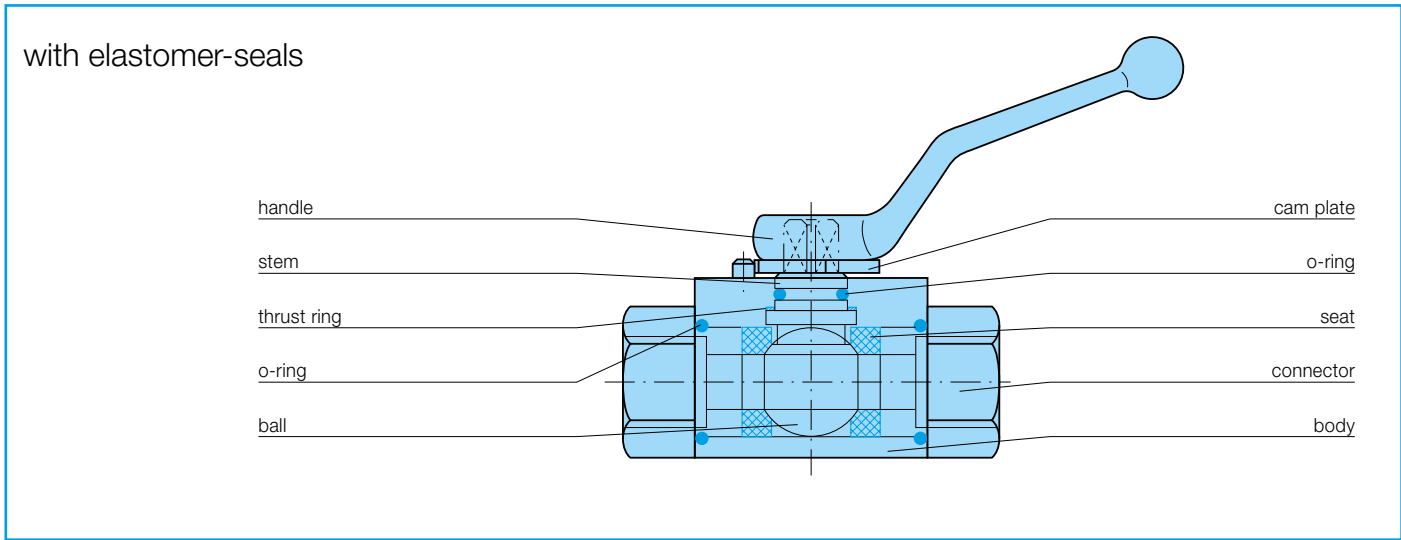
Bearing:
The seats also serve as the bearings for the floating ball.

Sealing:
Tight seal at the trunnion ball due to pressure equalized Rötelmann telescopic seal.

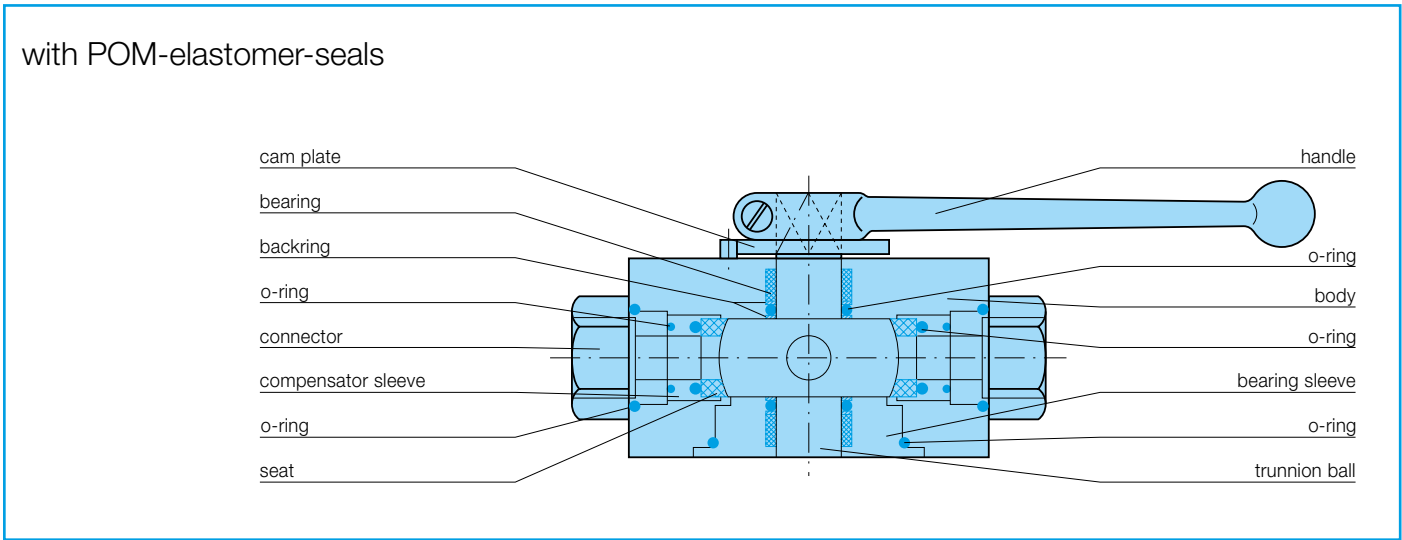
Leakage rate:
A- DIN EN 12266-1

Steel, stainless steel

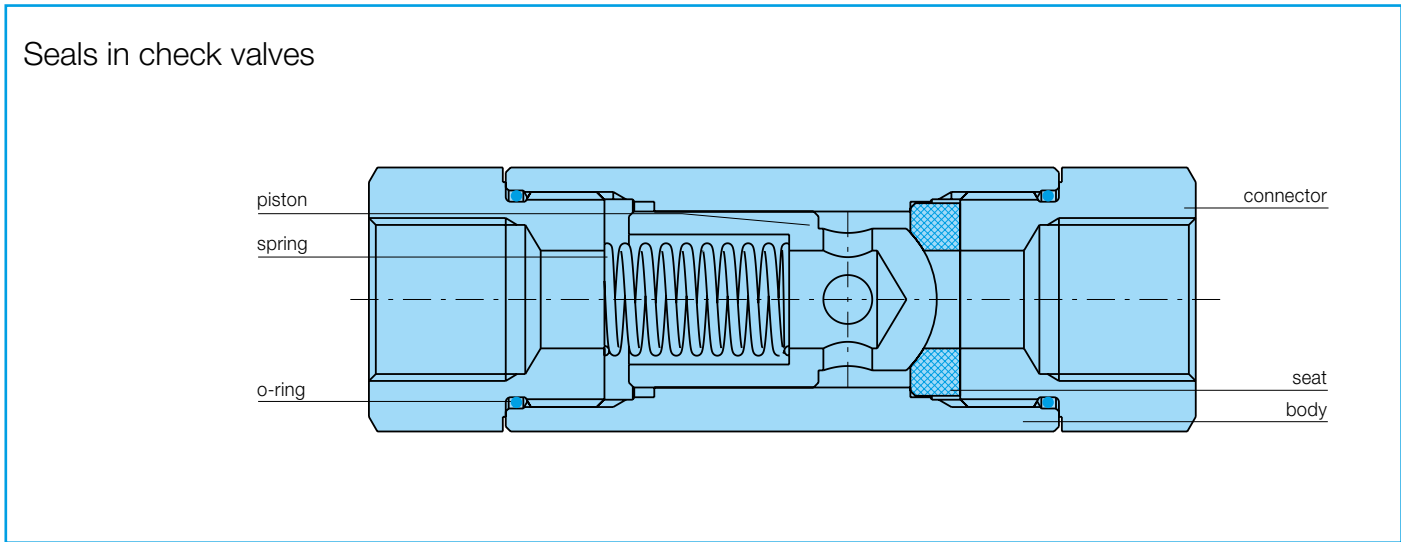
Seals in ball valves with floating ball



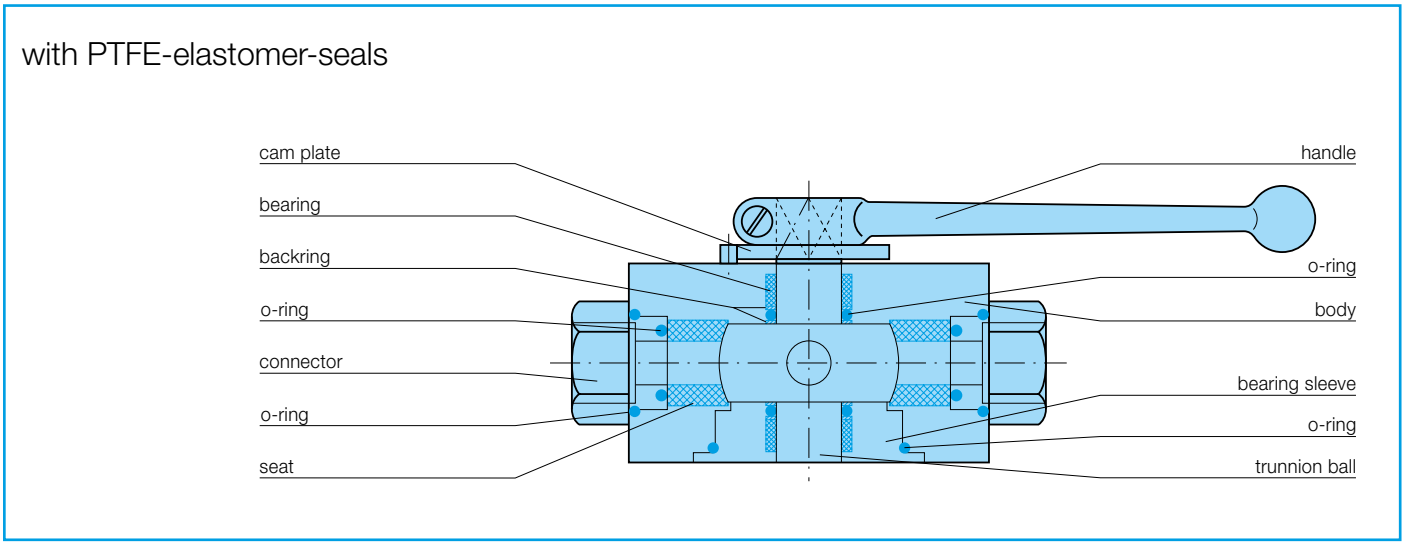
Seals in multi-way ball valves with trunnion ball



Seals in check valves



with PTFE-elastomer-seals



Technical information

Sealing materials

Abbreviation (DIN ISO 1629)	Generic designation	Trade name (registered Trademarks)	Plastic properties	Abbreviation (DIN ISO 1629)	Applications	Temperature range (check pressure/temperature diagram)	Special properties
PTFE	Polytetrafluorethylene	Teflon Hostaflon Fluon	Thermoplastic	PTFE	Ball seal	-200°C to +260°C	High chemical and temperature resistance; good slip properties. Modifying the crosskage can extend the application range to 250°C or 315 bar.
PVDF	Polyvinylidene fluoride	Solef Dyflor	Thermoplastic	PVDF	Ball seal	-40°C to +150°C	Mechanical properties similar to PTFE; greater stiffness than PTFE. Thermal loading capabilities lower than PTFE
PCTFE	Polychlorotrifluorethylene	Kel-F Neoflon Aclar	Thermoplastic	PCTFE	Ball seal	-240°C to +150°C	Mechanical properties similar to PTFE; greater stiffness than PTFE. Thermal loading capabilities lower than PTFE
POM	Polyoxymethylene/Polyacetal	Delrin Hostaform C Ultraform	Thermoplastic	POM	Ball seal	-40°C to +100°C	High strength and stiffness, good creep strength, low humidity absorption, hydrolytic resistance (up to 60°C)
PEEK	Polyether-ether-ketone	Victrex Hostatec	Thermoplastic	PEEK	Ball seal	-60°C to +260°C	Excellent chemical and hydrolytic resistance, good creep strength even at higher temperature, very good resistance to wear under varying operating conditions
PAI	Polyamide	Torlon	Thermoplastic	PAI	Ball seal	-190°C to +260°C	Excellent retention of mechanical stability, stiffness and creep strength at broad temperature range, excellent friction and abrasion performance, excellent UV-resistance
PI	Polyimide	Vespel Kapton	Thermoplastic	PI	Ball seal	-273°C to +255°C	High mechanical strength, stiffness and creep strength even at higher temperature, good abrasion performance
NBR	Nitrile rubber	Perbunan Chemigum Hycar Elaprim Krynac JSR-N	Elastomer	NBR	Body- and stem-seal	-30°C to +100°C *	High density, low deformation under pressure
HNBR	Hydrogenated nitrile rubber	Therban Zetpol	Elastomer	HNBR	Body- and stem-seal	-35°C to +150°C	Excellent physical properties and good abrasion resistance even at higher temperature, low deformation under pressure, good resistance against steam, oxygen and ozone
EPDM	Ethylene propylene diene rubber	Buna AP Vistalon Dutral Keltan	Elastomer	EPDM	Body- and stem-seal	-40°C to +140°C *	Excellent swelling resistance with heating-circuit water and steam, very good ozone-, aging- and atmospheric condition resistance
FKM	Fluor rubber	Viton Tecnoflon Fluorel	Elastomer	FKM	Body- and stem-seal	-15°C to +200°C *	Good chemical stability and high temperature resistance, excellent tightness and low deformation under pressure
FFKM	Perfluor rubber	Kalrez Chemraz Parofluor Isolast Simriz	Elastomer	FFKM	Body- and stem-seal	-15°C to +300°C	Elasticity and sealing properties aligned with chemical inertness and thermal stability, high temperature stress- and chemical resistance
VMQ	Silicone rubber	Silopren Silastic Blensil	Elastomer	VMQ	Body- and stem-seal	-60°C to +180°C	Stable mechanical properties throughout the entire temperature, good resistance against heat, ozone and aging

* Temperature range: DIN 3771-3
More significant compounds on request

Compatibility table

This compatibility table is for information only and without responsibility. The data presented are guidelines and recommendations based on common practice. The resistance of the materials might be affected through specific. on the location prevailing operating conditions as pressure. temperature. static or dynamic strain. but also through modified concentrations of the media exposed to the material. All information referring to room temperature (23°C)

CAS number: unique numeral identifier to every chemical substance
+ = resistant - = not resistant o = not specified

Medium	Chem. formula	CAS no.	Steel	1.4571	Has-telloy	Br	Al	POM	PCTFE	PEEK	PTFE	PVDF	HNBR	NBR	EPDM	FKM	FFKM	VMQ
A																		
acetic acid	C ₂ H ₄ O ₂	000064-19-7	-	+	+	-	-	-	+	+	+	+	-	-	-	-	+	-
acetone	C ₃ H ₆ O	000067-64-1	+	+	+	+	+	+	+	+	+	-	-	-	+	-	+	o
acetylene	C ₂ H ₂	000074-86-2	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	o
acrylonitrile	C ₃ H ₃ N	000107-13-1	+	+	+	+	+	-	o	+	+	-	-	-	-	-	+	o
air	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
aluminum chloride	AlCl ₃	007446-70-0	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	o
ammonia	NH ₃	007664-41-7	+	+	+	-	-	+	+	+	+	+	-	-	+	-	+	o
argon	Ar	007440-37-1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
B																		
blast furnace gas	-	-	-	+	+	+	-	-	-	+	+	+	-	-	-	+	+	+
boric acid	H ₃ BO ₃	010043-35-3	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
bromine	Br ₂	007726-95-6	-	-	+	-	-	-	+	-	+	+	-	-	-	-	+	-
butadiene	C ₄ H ₆	000106-99-0	-	+	+	+	-	+	+	+	+	+	-	-	-	-	+	-
butane	C ₄ H ₁₀	000106-97-8	+	+	+	+	-	+	+	+	+	+	-	-	-	+	+	-
butylene	C ₄ H ₈	000106-98-9	+	+	+	+	+	-	o	o	+	+	+	+	-	+	+	-
C																		
calcium chloride	CaCl ₂	010043-52-4	-	+	+	-	-	-	+	+	+	+	+	+	+	+	+	+
calcium hydroxide	CaH ₂ O ₂	001305-62-0	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
carbon dioxide	CO ₂	000124-38-9	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	-
carbon disulfide	CS ₂	000075-15-0	+	+	+	-	+	+	+	+	+	+	-	-	-	+	+	-
chlorine	Cl ₂	007782-50-5	-	o	o	-	-	-	-	-	+	+	-	-	-	-	+	-
chloroforme	CHCl ₃	000067-66-3	-	+	+	+	-	-	-	+	+	+	-	-	-	+	+	-
citric acid	C ₆ H ₈ O ₇	000077-92-9	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
copper(II) chloride	CuCl ₂	007447-39-4	-	-	+	-	-	-	+	+	+	+	+	+	+	+	+	+
copper(II) nitrate	CuN ₂ O ₆	003251-23-8	-	+	+	-	-	+	-	+	+	+	-	-	+	+	+	-
copper(II) sulfate	CuSO ₄	007758-98-7	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
chromic acid	CrO ₃	001333-82-0	-	+	+	-	+	-	+	-	+	+	-	-	-	+	+	-
D																		
diesel fuel	-	068476-36-6	+	+	+	+	+	-	+	+	+	+	+	+	-	+	+	-
E																		
ethane	C ₂ H ₆	000074-84-0	+	+	+	+	+	-	o	+	+	-	+	-	-	+	+	o
ethanol	C ₂ H ₆ O	000064-17-5	+	+	+	+	-	+	o	+	+	+	+	+	+	-	+	o
ethylene	C ₂ H ₄	000074-85-1	+	+	+	+	-	-	o	+	+	+	+	-	-	+	+	-
ethyleneglycol	C ₂ H ₆ O ₂	000107-21-1	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
ethylenetrichloride	C ₂ HCl ₃	000079-01-6	-	+	+	-	-	-	-	+	+	+	-	+	+	+	+	-
F																		
fluorine	F ₂	007782-41-4	-	-	+	-	-	-	+	-	+	-	-	-	-	-	+	-
formaldehyde	CH ₂ O	000050-00-0	-	+	+	-	+	-	-	+	+	+	-	-	+	-	+	o
formic acid	CH ₂ O ₂	000064-18-6	-	+	+	-	+	-	-	+	+	+	-	-	+	-	+	o
fuel	-	008006-61-9	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-
fuel oil. light	-	068476-30-2	+	+	+	o	+	-	+	+	+	+	+	+	-	+	+	-
fuel oil. heavy	-	068476-33-5	+	+	+	o	o	-	+	+	+	+	-	-	-	+	+	-
G																		
glucose	C ₆ H ₁₂ O ₆	000050-99-7	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
glycerine	C ₃ H ₈ O ₃	000058-81-5	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
glycol	C ₂ H ₆ O ₂	000107-21-1	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+

Medium	Chem. formula	CAS no.	Steel	1.4571	Has-telloy	Br	Al	POM	PCTFE	PEEK	PTFE	PVDF	HNBR	NBR	EPDM	FKM	FFKM	VMQ
H																		
HEES hydraulic fluid	-	-	0	+	+	0	-	+	+	+	+	+	+	+	-	+	+	0
helium	He	007440-59-7	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
HEPG hydraulic fluid	-	-	0	+	+	0	-	+	+	+	+	+	+	+	-	+	+	0
HEPR hydraulic fluid	-	-	0	+	+	0	-	+	+	+	+	+	0	+	-	+	+	0
heptane	C ₇ H ₁₆	000142-82-5	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-
HETG hydraulic fluid	-	-	0	+	+	0	-	+	+	+	+	+	+	+	-	+	+	0
hexane	C ₆ H ₁₄	000110-54-3	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-
HFA hydraulic fluid	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	0
HFB hydraulic fluid	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	0
HFC hydraulic fluid	-	-	0	+	+	0	+	+	+	+	+	+	+	+	+	0	+	0
HFD-R hydraulic fluid	-	-	+	+	+	-	-	0	0	0	+	-	-	-	-	+	+	-
HFD-S hydraulic fluid	-	-	0	+	+	0	-	+	+	+	+	+	-	-	+	+	+	0
HFD-U hydraulic fluid	-	-	+	+	+	0	-	+	0	+	+	+	+	+	-	+	+	-
hydraulic oils	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	0
hydrochloric acid	HCl	007647-01-0	-	-	+	-	-	-	+	-	+	+	-	-	-	+	+	-
hydrogen	H ₂	001333-74-0	0	+	+	+	+	+	0	+	+	+	+	+	+	+	+	-
hydrogen peroxide	H ₂ O ₂	007722-84-1	-	+	+	-	-	-	0	+	+	+	-	-	-	-	-	-
hydrogen sulfide	H ₂ S	007783-06-4	-	+	+	-	-	-	+	+	+	+	-	-	-	-	-	-
I																		
ink	-	-	-	+	+	-	-	+	0	+	+	+	+	+	+	+	+	+
isobutyl alcohol	C ₄ H ₁₀ O	000078-83-1	+	+	+	+	+	+	0	+	+	+	-	-	+	-	+	+
isocyanate	C ₁₅ H ₁₀ N ₂ O ₂	009016-87-9	+	+	+	-	-	-	0	0	+	-	-	-	+	-	+	-
isooctane	C ₈ H ₁₈	026635-64-3	+	+	+	+	+	+	0	+	+	+	+	+	-	+	+	-
isopropylalcohol	C ₃ H ₈ O	000067-63-0	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
iron(II)-chloride	FeCl ₂	007758-94-3	-	+	+	0	-	-	+	0	+	+	+	+	+	+	+	0
iron(II)-sulfate	FeSO ₄	007720-78-7	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
K																		
kerosene	-	008008-20-6	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-
L																		
lacquers	-	-	0	+	+	-	+	+	+	+	+	+	0	0	-	0	+	0
lactose	C ₁₂ H ₂₂ O ₁₁	000063-42-3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
M																		
magn. chloride	MgCl ₂	007786-30-3	-	+	+	-	-	+	0	+	+	+	+	+	+	+	+	+
magn. hydroxide	MgO ₂ H ₂	001309-42-8	+	+	+	-	-	+	0	+	+	+	-	-	+	-	+	-
magn. nitrate	MgN ₂ O ₆	010377-60-3	-	+	+	-	-	+	0	+	+	+	-	-	+	+	+	-
magn. sulphate	MgSO ₄	007487-88-9	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
mercury	Hg	007439-97-6	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
mercury(II) chloride	HgCl ₂	007487-94-7	-	+	+	-	-	+	-	+	+	+	+	+	+	+	+	+
mercury(II) cyanide	C ₂ HgN ₂	000592-04-1	+	+	+	-	-	0	0	0	+	+	-	-	+	+	+	-
mercury(II) nitrate	HgN ₂ O ₆	010045-94-0	+	+	+	-	-	0	0	0	+	+	-	-	+	+	+	-
methane	CH ₄	000074-82-8	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-
methanol	CH ₄ O	000067-56-1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
methyl acetate	C ₃ H ₆ O ₂	000079-20-9	+	+	+	+	+	+	+	+	+	+	-	-	+	-	+	-
methyl alcohol	CH ₄ O	000067-56-1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
methyl chloride	CH ₃ Cl	000074-87-3	-	+	+	+	0	-	0	+	+	+	-	-	+	+	+	-
metoxyethanol	C ₃ H ₈ O ₂	000109-86-4	+	+	+	+	+	-	+	0	+	+	-	-	-	-	+	-
mineral oil	-	008012-95-1	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-

Compatibility table

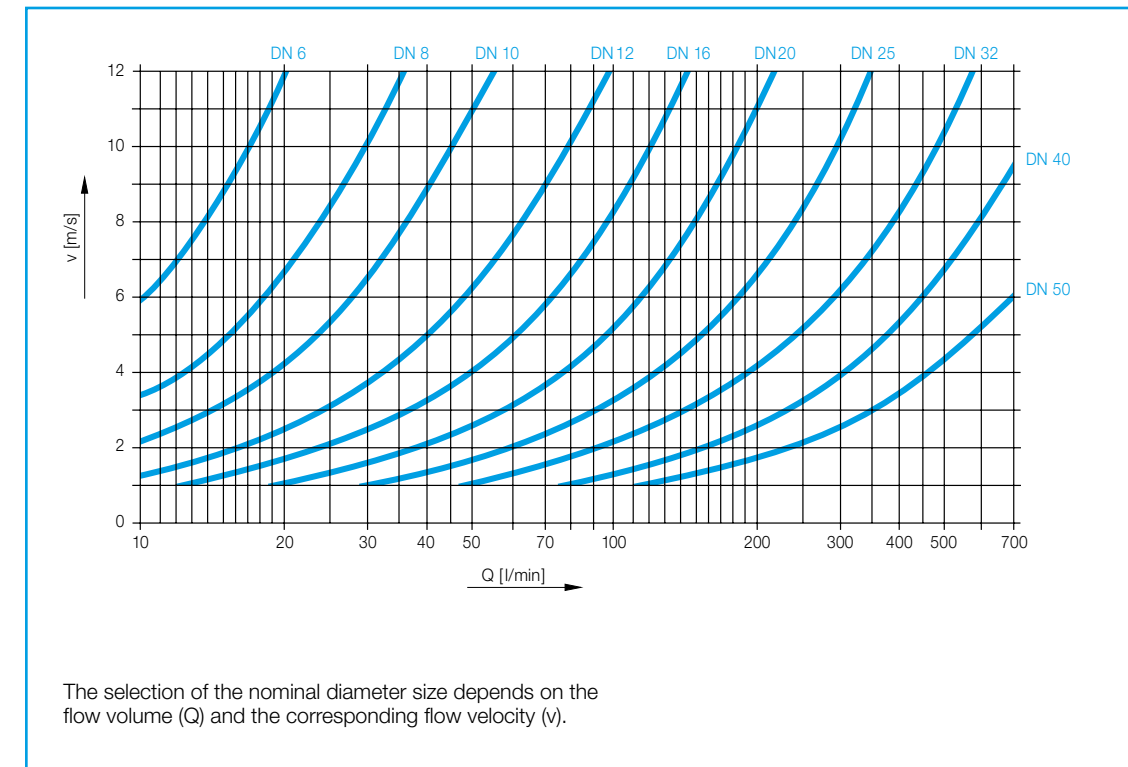
This compatibility table is for information only and without responsibility. The data presented are guidelines and recommendations based on common practice. The resistance of the materials might be affected through specific. on the location prevailing operating conditions as pressure. temperature. static or dynamic strain. but also through modified concentrations of the media exposed to the material.
All information referring to room temperature (23°C)

CAS number: unique numeral identifier to every chemical substance
+ = resistant - = not resistant o = not specified

Medium	Chem. formula	CAS no.	Steel	1.4571	Has-telloy	Br	Al	POM	PCTFE	PEEK	PTFE	PVDF	HNBR	NBR	EPDM	FKM	FFKM	VMQ
N																		
naphtalene	C ₁₀ H ₈	000091-20-3	+	+	+	+	o	+	+	+	+	+	-	-	-	+	+	-
natural gas	-	008006-14-2	+	+	+	+	-	+	+	+	+	+	+	+	-	+	+	+
neon	Ne	007440-01-9	+	+	+	+	+	+	o	+	+	+	+	+	+	+	+	+
nickel(II)-chloride	NiCl ₂	007718-54-9	-	+	+	-	-	+	o	+	+	+	+	+	+	+	+	+
nickel(II)-nitrate	NiN ₂ O ₆	013138-45-9	-	+	+	-	-	+	o	+	+	+	+	+	+	+	+	+
nickel(II)-sulfate	NiSO ₄	007786-81-4	-	+	+	-	-	+	o	+	+	+	+	+	-	+	+	+
nitrogen	N ₂	007727-37-9	+	+	+	+	+	-	o	+	+	+	-	+	+	+	+	+
nitric acid	HNO ₃	007697-37-2	-	+	+	-	-	-	+	o	+	+	-	-	-	-	+	-
nitrobenzene	C ₆ H ₅ NO ₂	000098-95-3	+	+	+	+	+	-	+	o	+	+	-	-	-	-	+	-
nitrous oxide	N ₂ O	010024-97-2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
O																		
octane	C ₈ H ₁₈	000111-65-9	-	+	+	o	o	o	o	o	+	+	-	-	-	+	+	-
oxalic acid	C ₂ H ₂ O ₄	000144-62-7	-	+	+	-	-	-	+	+	+	+	-	-	+	+	+	-
oxygen	O ₂	007782-44-7	-	+	+	+	+	+	+	+	+	+	o	o	o	o	+	-
ozone	O ₃	010028-15-6	+	+	+	-	-	-	+	o	+	+	-	-	+	+	+	+
P																		
palmitic acid	C ₁₆ H ₃₂ O ₂	000057-10-3	+	+	+	-	+	-	o	o	+	+	+	+	-	+	+	-
paraffin	-	008012-95-1	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-
pentane	C ₅ H ₁₂	000109-66-0	o	+	+	o	+	+	o	+	+	+	+	+	-	+	+	-
pentanol. 2-	C ₅ H ₁₂ O	006032-29-7	+	+	+	+	+	+	o	+	+	+	-	-	+	-	+	-
petroleum	-	008002-05-9	+	+	+	o	+	+	+	+	+	+	+	+	-	+	+	-
phenol	C ₆ H ₆ O	000108-95-2	-	+	+	-	+	-	+	o	+	+	-	-	+	+	+	-
phosphonic acid	H ₃ PO ₄	007664-38-2	-	+	+	-	-	-	+	+	+	+	-	-	-	+	+	-
picric acid	C ₆ H ₃ N ₃ O ₇	000088-89-1	+	+	+	+	o	-	o	+	+	+	-	-	-	+	+	-
potassium carbonate	K ₂ CO ₃	000584-08-7	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+
potassium hydroxide	KOH	001310-58-3	-	+	+	-	-	-	+	+	+	+	-	-	+	-	+	-
potassium nitrate	KNO ₃	007757-79-1	+	+	+	+	+	+	o	+	+	+	+	+	+	+	+	+
potassium sulphate	K ₂ SO ₄	007778-80-5	+	+	+	-	+	o	o	+	+	+	+	+	+	+	+	-
propane	C ₃ H ₈	000074-98-6	+	+	+	+	o	+	o	+	+	+	+	+	-	+	+	-
propionic acid	C ₃ H ₆ O ₂	000079-09-4	-	+	+	-	-	-	+	o	+	+	+	+	-	+	+	-
propylene	C ₃ H ₆	000115-07-1	+	+	+	o	+	o	o	o	+	+	-	-	-	+	+	-
propylen glycol. 1.2-	C ₃ H ₈ O ₂	000057-55-6	+	+	+	+	+	+	o	+	+	+	+	+	+	+	+	-

Medium	Chem. formula	CAS no.	Steel	1.4571	Has-telloy	Br	Al	POM	PCTFE	PEEK	PTFE	PVDF	HNBR	NBR	EPDM	FKM	FFKM	VMQ
S																		
salicylic acid	C ₇ H ₆ O ₃	000069-72-7	+	+	+	-	+	-	+	o	+	+	-	-	+	+	+	-
sea water	-	-	-	+	+	-	-	+	+	+	+	+	+	+	+	+	+	o
silicone oil	-	063148-62-9	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-
silver nitrate	AgNO ₃	007761-88-8	-	+	+	-	-	-	o	+	+	+	-	-	+	+	+	+
skydrol	-	-	+	+	+	o	+	+	o	+	+	o	+	-	+	-	+	-
sodium silicate	Na ₂ Si ₃ O ₇	001344-09-8	+	+	+	o	+	o	o	o	+	+	+	+	+	+	+	-
solvents	-	-	o	+	+	-	+	o	+	+	+	+	o	+	-	+	+	o
sulfur	S ₈	007704-34-9	+	+	+	o	+	+	+	+	+	+	-	-	+	+	+	-
sulfur dioxide	SO ₂	007446-09-5	-	+	+	-	-	-	+	+	+	+	-	-	+	-	+	-
sulfur trioxide	SO ₃	007446-11-9	-	+	+	-	-	-	o	-	+	-	-	-	-	+	+	-
sulfuric acid	H ₂ SO ₄	007664-93-9	-	+	+	-	-	-	+	-	+	+	-	-	-	+	+	-
T																		
tannic acid	C ₇₆ H ₅₂ O ₄₆	001401-55-4	-	+	+	-	-	-	+	o	+	+	-	-	-	+	+	-
tetrachloro-methane	CCl ₄	000056-23-5	-	+	+	-	-	+	-	+	+	+	-	-	-	+	+	-
thermo oil	-	-	+	+	+	-	-	-	-	+	+	-	-	-	-	+	+	-
tin(II) chloride	SnCl ₂	007772-99-8	-	o	+	-	-	o	+	+	+	+	o	+	+	+	+	-
transformer oil	-	-	+	+	+	+	+	+	o	+	+	+	o	o	-	+	+	o
transmission lubricant	-	-	+	+	+	+	+	+	o	+	+	+	+	+	-	+	+	-
trichloroethylene	C ₂ HCl ₃	000079-01-6	-	+	+	-	-	-	-	+	+	+	-	-	+	+	+	-
triethylene glycol	C ₆ H ₁₄ O ₄	000112-27-6	-	+	+	o	+	+	o	o	+	+	-	-	+	+	+	o
U																		
urea	CH ₄ N ₂ O	000057-13-6	-	+	+	-	-	+	o	+	+	+	+	+	+	+	+	+
V																		
vaseline	-	-	o	+	+	o	+	+	o	+	+	+	+	+	-	+	+	-
vinyl chloride	C ₂ H ₃ Cl	000075-01-4	-	+	+	-	-	-	o	o	+	+	-	-	-	+	+	-
W																		
water	H ₂ O	007732-18-5	o	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
X																		
xenon	Xe	007440-63-3	+	+	+	+	o	o	o	+	+	+	+	+	+	+	+	+
xylene	C ₈ H ₁₀	001330-20-7	+	+	+	+	+	+	-	+	+	+	-	-	-	+	+	-
Z																		
zinc chloride	ZnCl ₂	007646-85-7	-	+	+	-	-	-	o	+	+	+	+	+	+	+	+	+
zinc nitrate	ZnN ₂ O ₆	007779-88-6	o	+	+	o	-	o	o	o	+	+	o	o	+	+	+	-
zinc sulphate	ZnSO ₄	007733-02-0	-	+	+	-	-	o	+	+	+	+	+	+	+	+	+	+

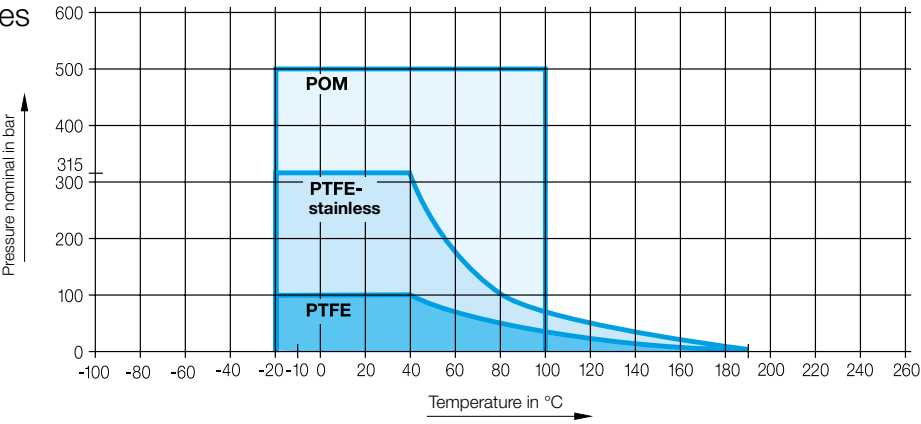
Ball valves size selection



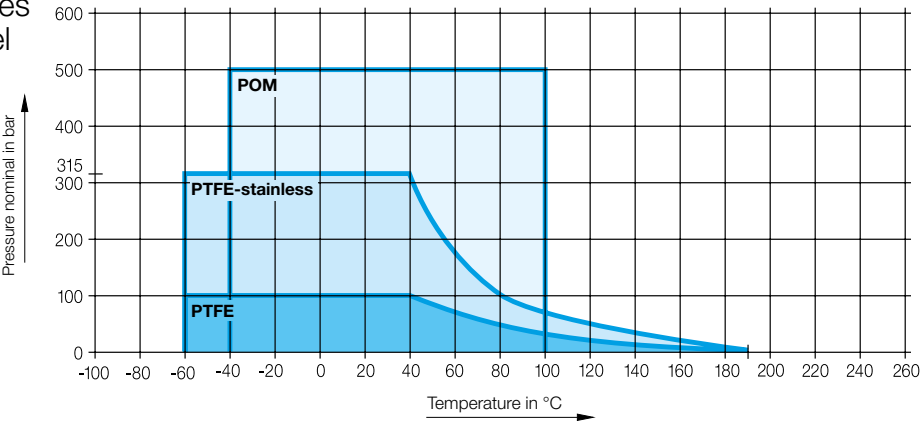
Pressure/temperature diagrams

Please observe max. pressure of ball valves!

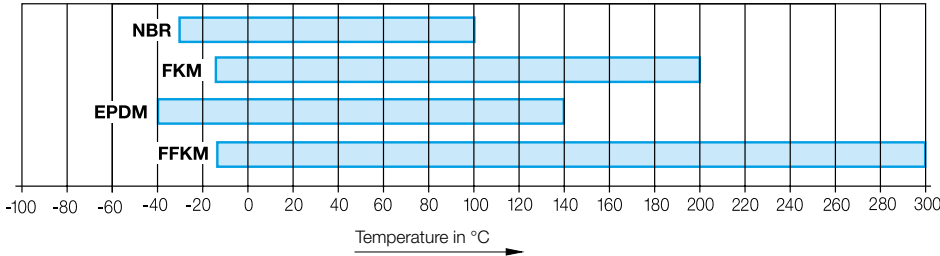
Pressure/temperature diagram 1 for ball valves made of steel



Pressure/temperature diagram 2 for ball valves made of stainless steel

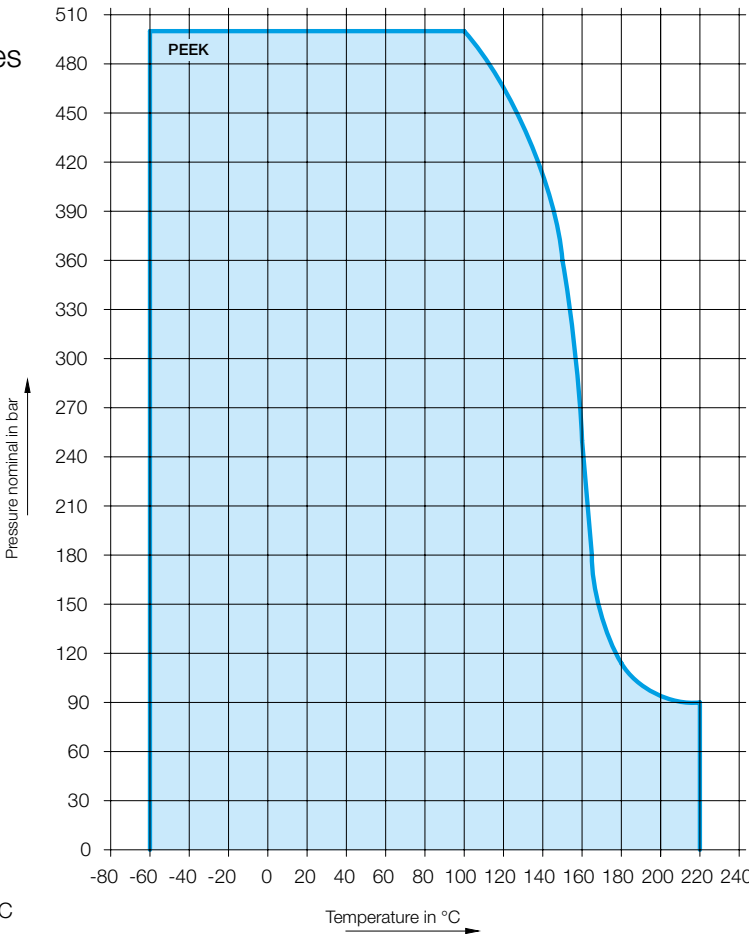


Temperature range for elastomers



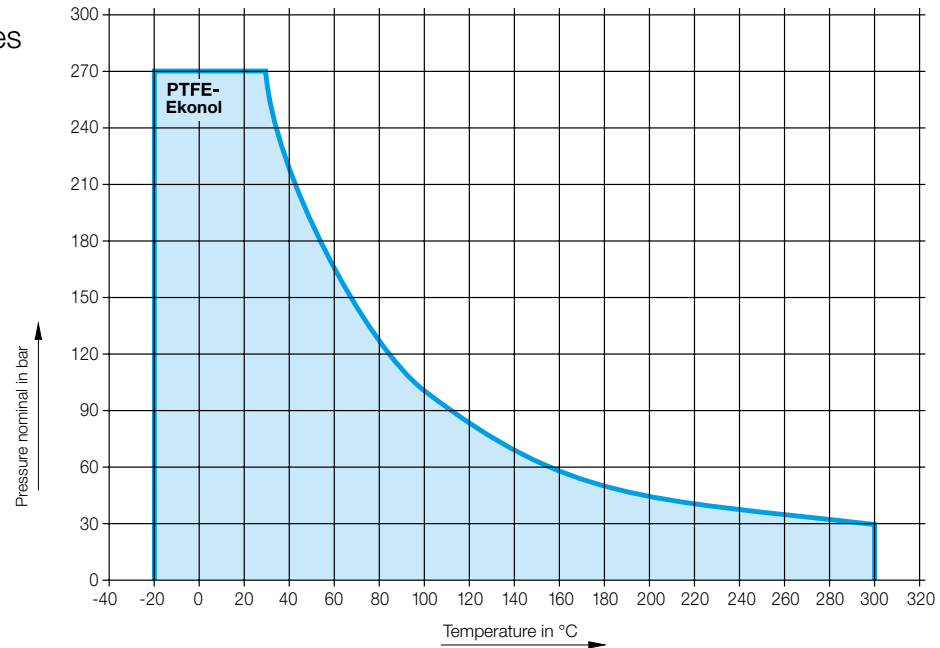
Please observe max. pressure of ball valves!

Pressure/temperature diagram 3 for ball valves made of steel* and stainless steel



*) Free-cutting steel down to -10° C

Pressure/temperature diagram 4 for ball valves made of steel* and stainless steel

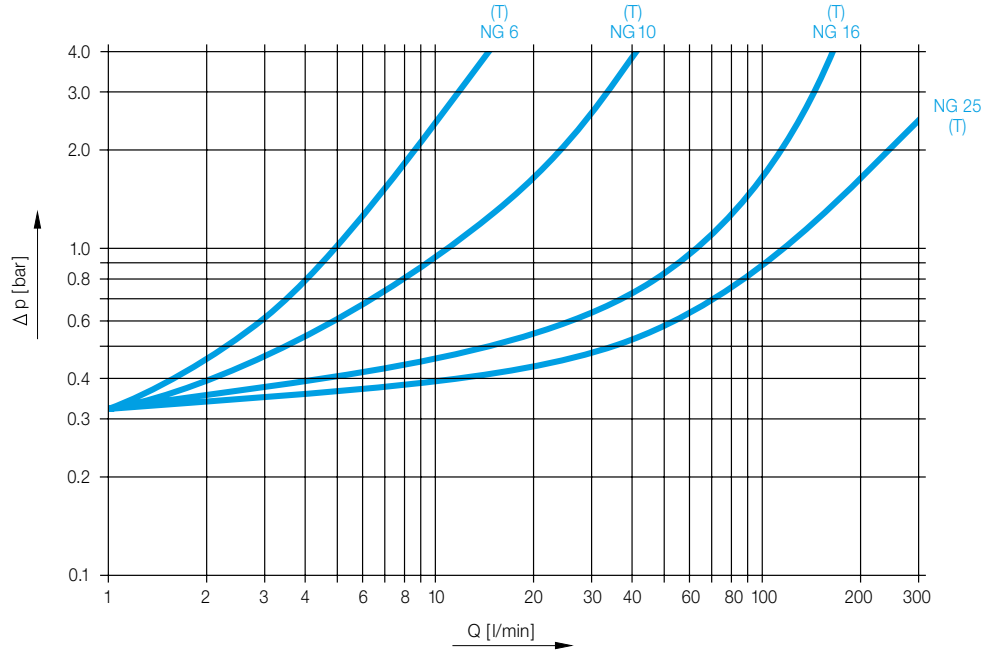


*) Free-cutting steel down to -20° C

Δp -characteristics

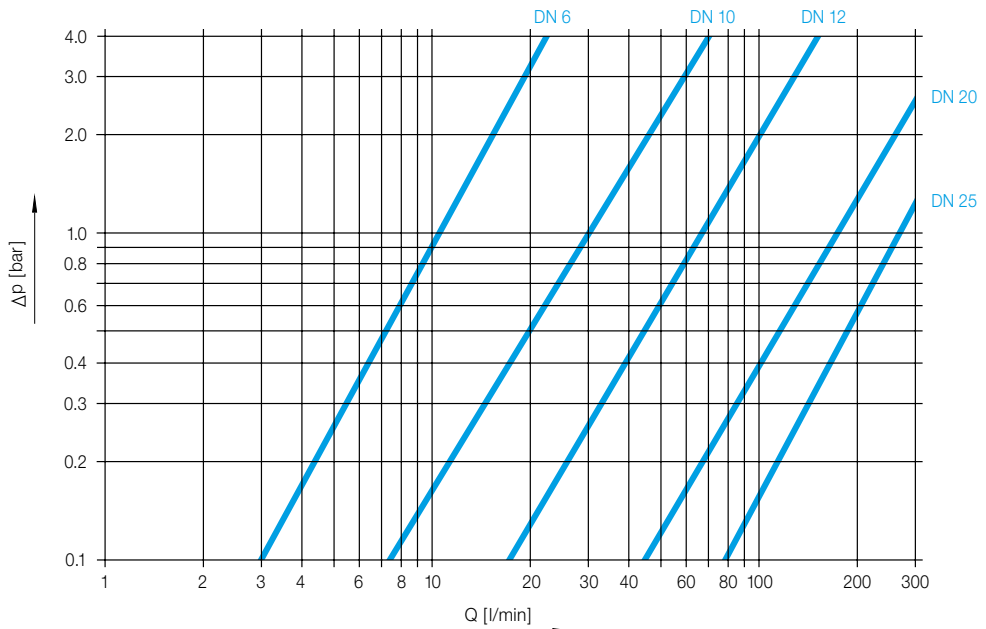
Test medium : hydraulic oil
Viscosity : 33 mm²/s (cSt)

Sandwich plates

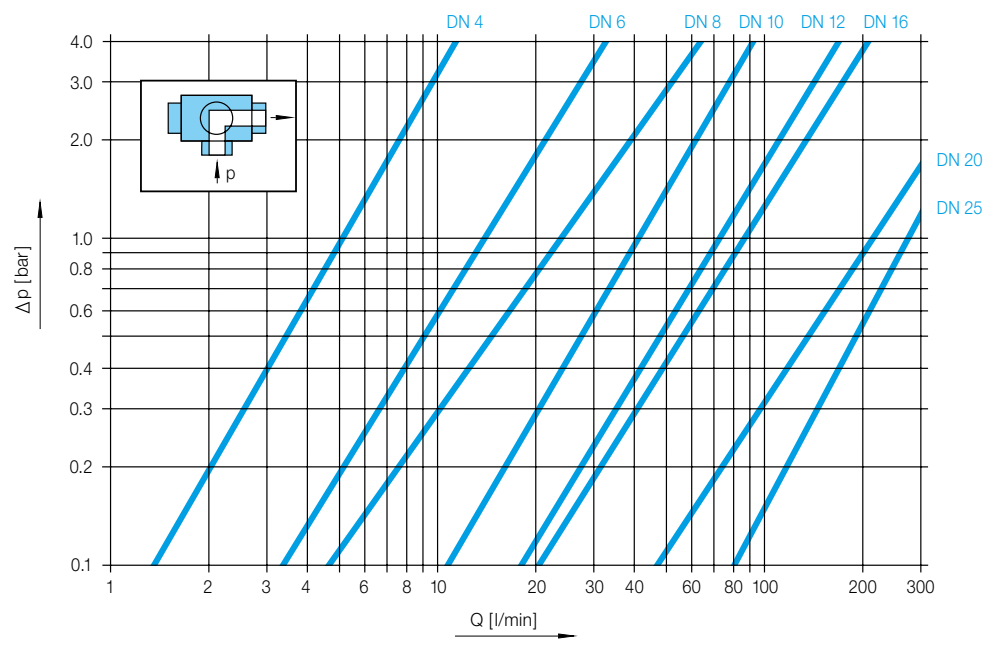


Test medium : hydraulic oil
Viscosity : 33 mm²/s (cSt)

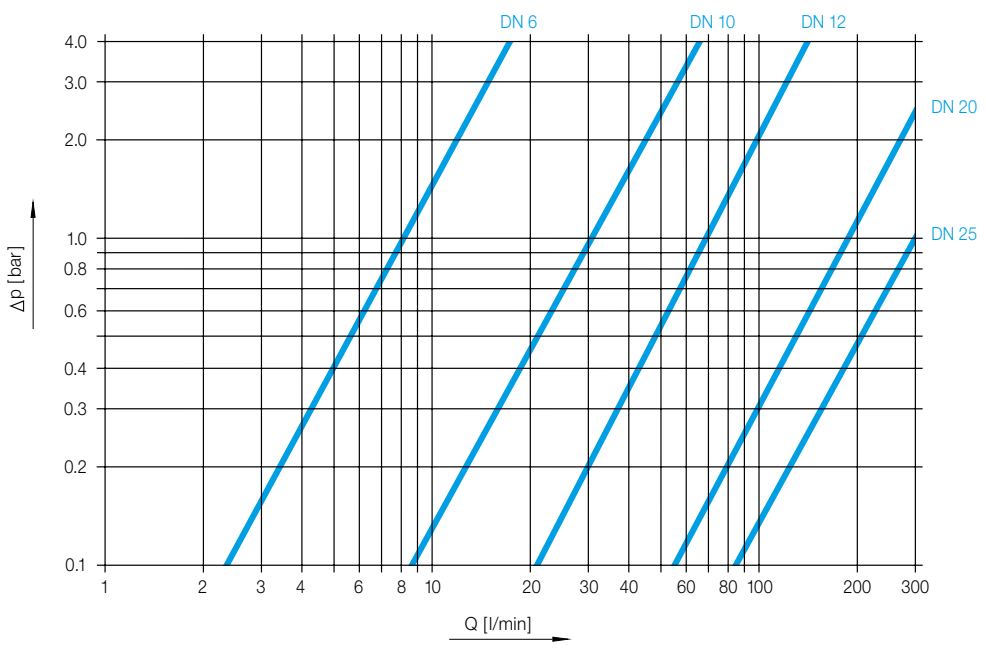
Multi-way ball valves with trunnion ball with L-bore



Multi-way ball valves with floating ball with L-bore



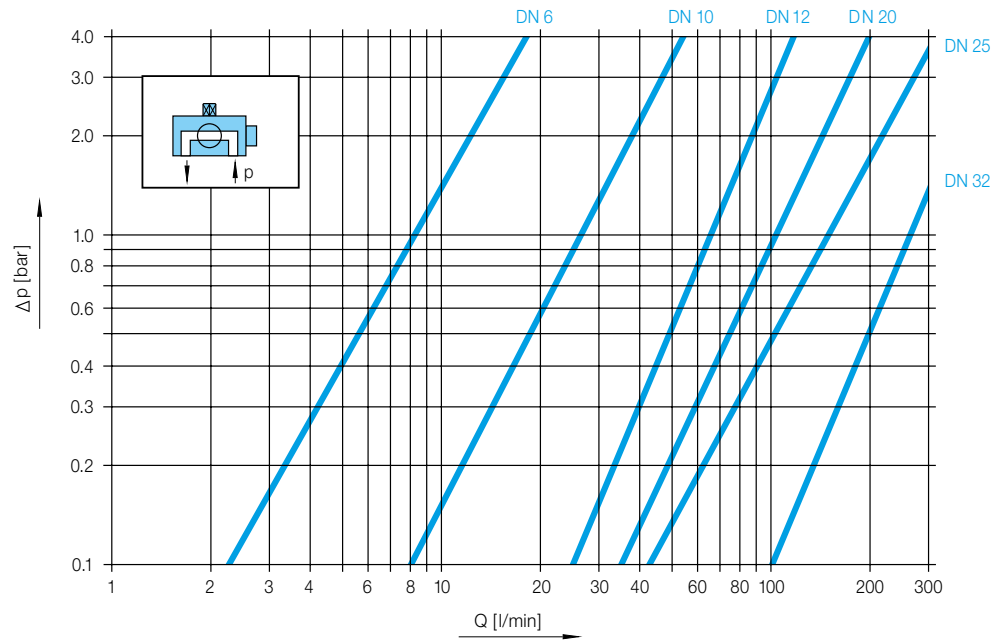
Multi-way ball valves with trunnion ball with double L-bore



Δp-characteristics

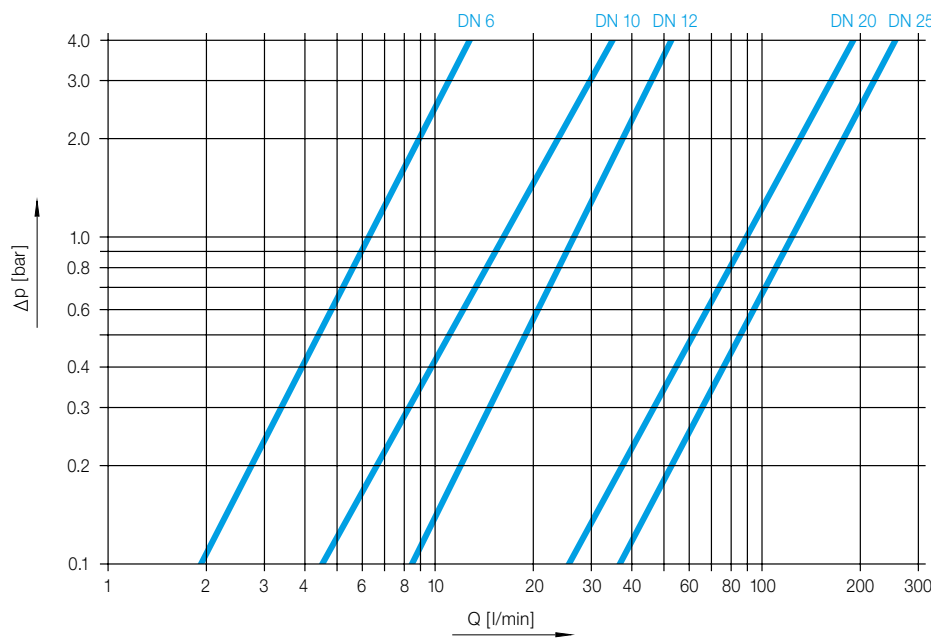
Test medium : hydraulic oil
Viscosity : 33 mm²/s (cSt)

2-way ball valves for manifold mounting

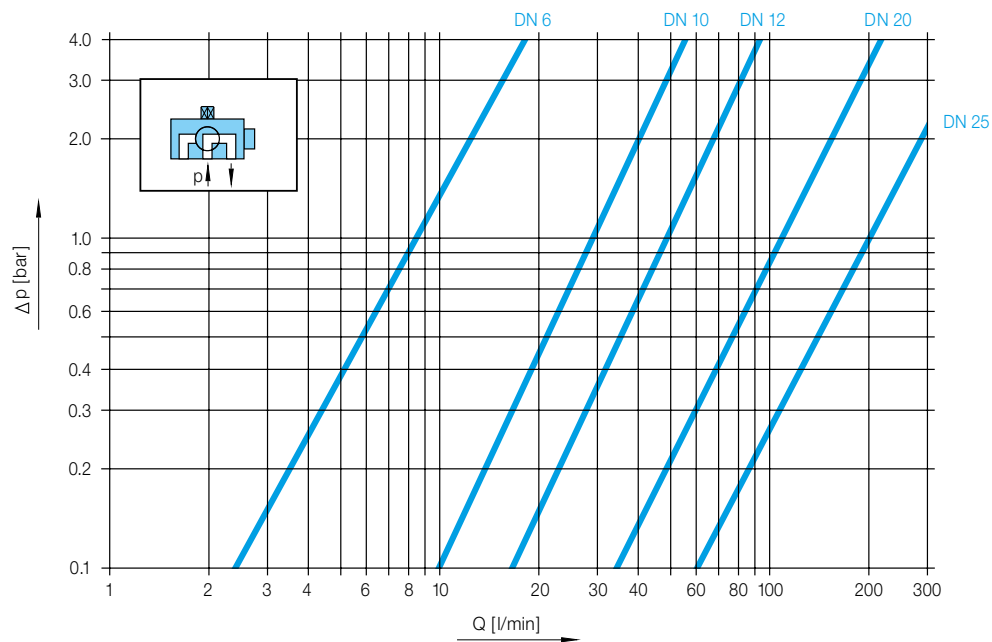


Test medium : hydraulic oil
Viscosity : 33 mm²/s (cSt)

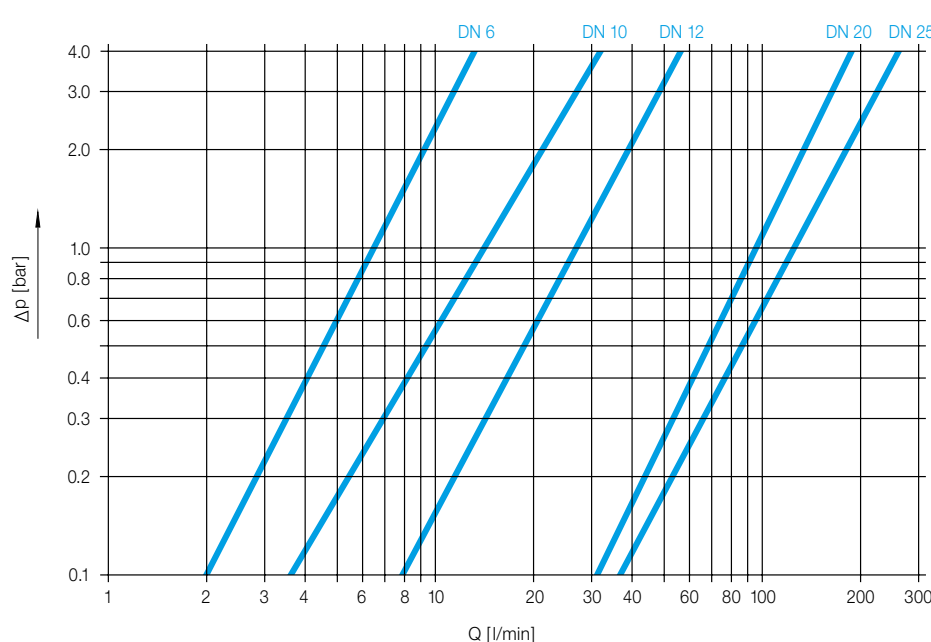
Multi-way ball valves with trunnion ball for manifold mounting with L-bore



Multi-way ball valves with floating ball for manifold mounting with L-bore

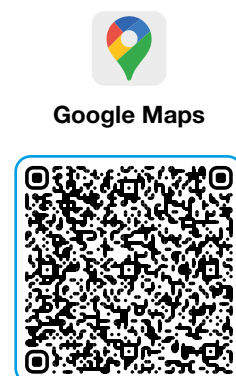
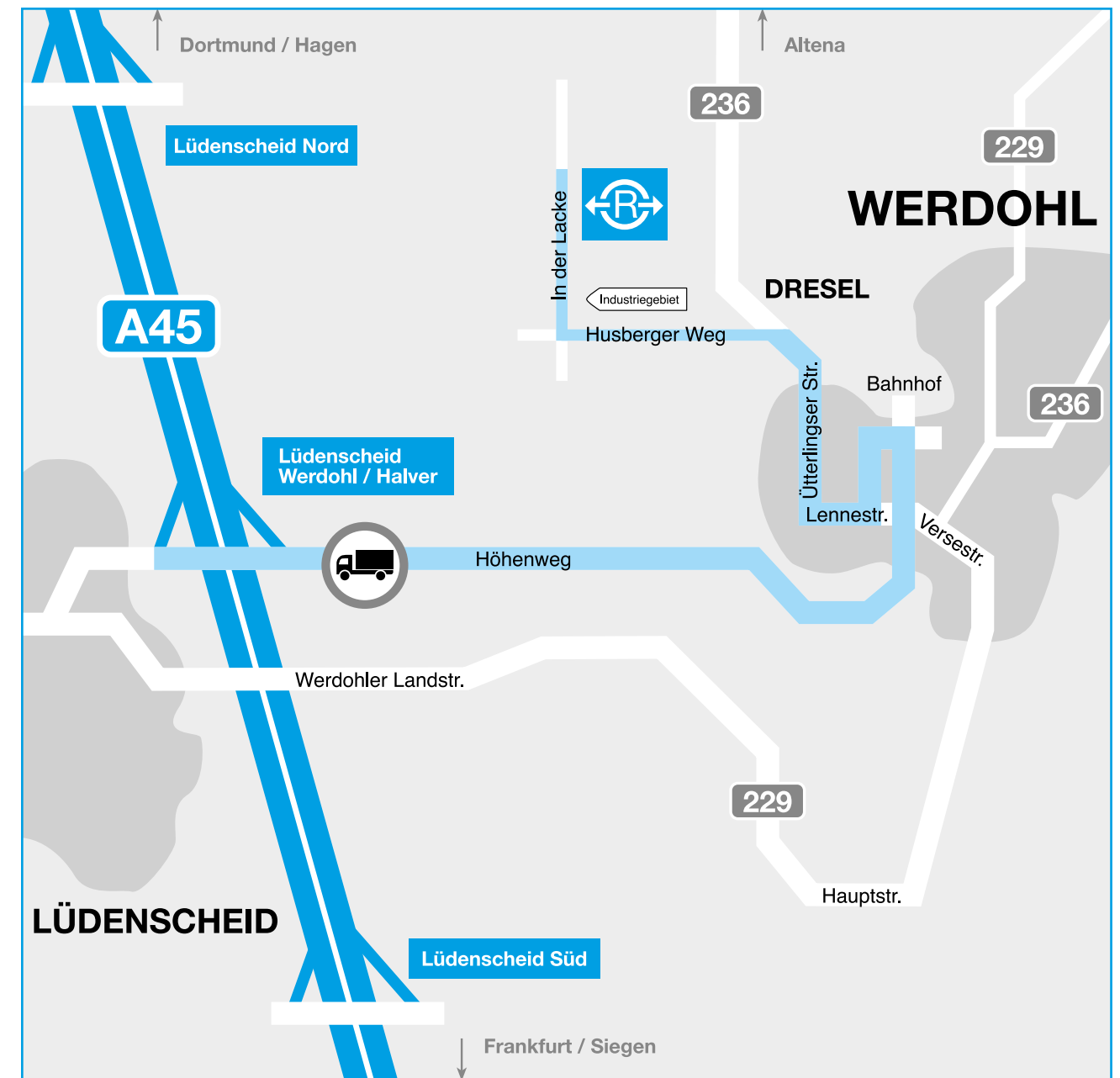


Multi-way ball valves with trunnion ball for manifold mounting with double L-bore



How to find us

Highway A 45, exit Lüdenscheid Werdohl Halver, turn left into direction Werdohl, after approximately 10 km you reach Werdohl. At the traffic light turn left, at the second traffic light turn right on the federal road B 236 into direction Altena. After approximately 5 km turn left into the industrial area Werdohl-Dresel, at the first crossing turn right and then it's only 500 m to go.





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