Globe valves

Globe valve 2028 type

Body material: AISI 316 steel
Ball material: AISI 316 steel
Handle material: Aluminium
Stem seal: PTFE
Connection: BSP female thread
Working temp.: From -20°C up to +200°C

A general purpose globe valve intended for application in industrial installations. The valve can be used to control or throttle flow. Working pressure depends on working temperature.

code	DN [mm]	thread size [inch]	working pressure [bar]
HT-2028-08	8	1/4	10
HT-2028-10	10	3/8	10
HT-2028-15	15	1/2	10
HT-2028-20	20	3/4	10
HT-2028-25	25	1	10
HT-2028-32	32	1.1/4	10
HT-2028-40	40	1.1/2	10
HT-2028-50	50	2	10

Ball valves

Ball valve 5600 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminium
Ball seal: PTFE
Stem seal: NBR
Working temp.: From -20°C up to +110°C

A general purpose ball valve (tap) with hose tail, intended for application in industrial installations. Suitable for water, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	flow diameter [mm]	thread size [inch]	hose tail size [mm]	working pressure [bar]
RV-5600-10	10	3/8	15	16
RV-5600-13	10	1/2	15	16
RV-5600-19	12.5	3/4	20	16
RV-5600-25	15	1	26	16
RV-5600-32	25	1.1/4	26	16

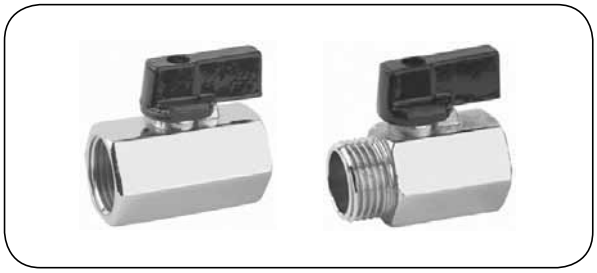
Ball valves

Mini ball valve 6400/6410 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Polyamide (PA 66)
Ball seal: PTFE
Stem seal: NBR
Working temp.: From -20°C up to +80°C

A general purpose mini ball valve designed for industrial installations. Used for air, gases, water, chemicals, petrochemical products, etc. Vacuum 0.9 bar.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
6400 type (2 x BSP female thread)				
AI-6400-02	5.5	35	1/8	20
AI-6400-04	5.5	37	1/4	20
AI-6400-06	8	42	3/8	20
AI-6400-08	10	49	1/2	20
AI-6400-12	14	58	3/4	20
6410 type (BSP male / female thread)				
AI-6410-02	5.5	34	1/8	20
AI-6410-04	5.5	35	1/4	20
AI-6410-06	8	39	3/8	20
AI-6410-08	10	45	1/2	20
AI-6410-12	14	52	3/4	20



Mini ball valve 4010/4011 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminium
Ball seal: PTFE
Stem seal: NBR
Working temp.: From -10°C up to +90°C

A general purpose mini ball valve designed for industrial installations. Used for air, gases, water, chemicals, petrochemical products, etc.

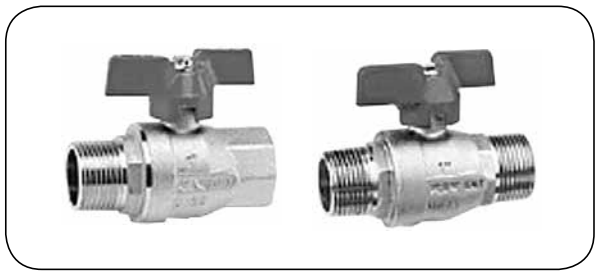
code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
4010 type (2 x BSP female thread)				
RV-4010-06	8	40	1/4	10
RV-4010-10	8	40	3/8	10
RV-4010-13	10	44	1/2	10
RV-4010-19	14	48	3/4	10
4011 type (BSP male / female thread)				
RV-4011-06	8	39	1/4	10
RV-4011-10	8	39	3/8	10
RV-4011-13	10	43	1/2	10
RV-4011-19	14	50	3/4	10

Ball valve 4174/4334 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminium
Ball seal: PTFE
Stem seal: NBR
Working temp.: From -20°C up to +110°C

A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
4174 type (2 x BSP female thread)				
RV-4174-06	8	38	1/4	40
RV-4174-10	10	42	3/8	40
RV-4174-13	14.5	48	1/2	40
RV-4174-19	19	57	3/4	32
RV-4174-25	24	69	1	32
4334 type (BSP male / female thread)				
RV-4334-06	8	45	1/4	40
RV-4334-10	10	48	3/8	40
RV-4334-13	14.5	55	1/2	40
RV-4334-19	19	65	3/4	32
RV-4334-25	24	77	1	32



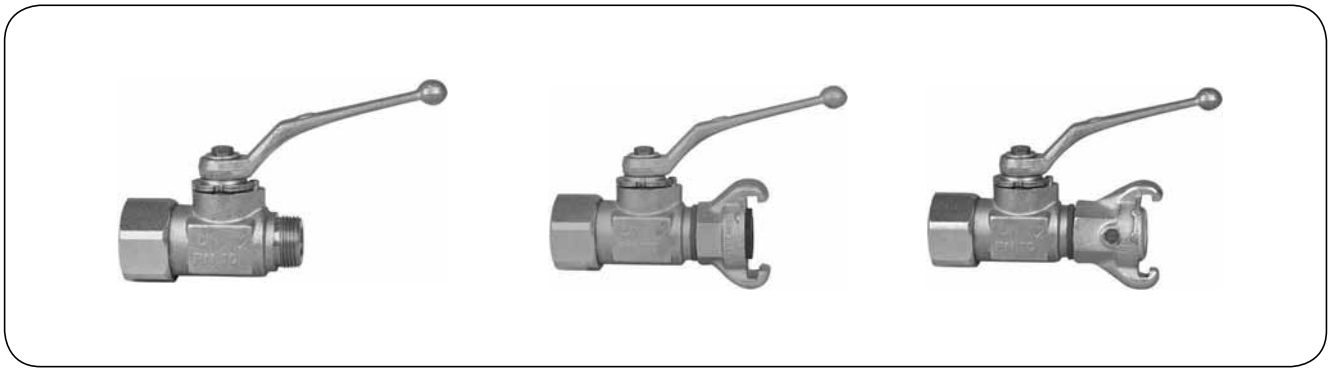
Ball valve 4194/4354/4424 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Ball seal: PTFE
Stem seal: FKM+NBR
Working temp.: From -20°C up to +150°C

A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

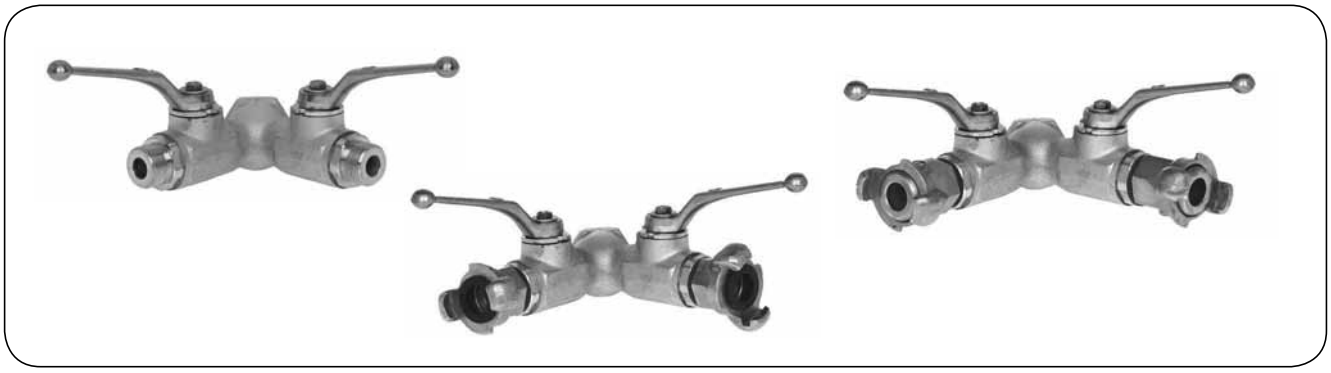
code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
4194 type (2 x BSP female thread)				
RV-4194-06	10	45	1/4	64
RV-4194-10	10	45	3/8	64
RV-4194-13	15	59	1/2	64
RV-4194-19	20	69	3/4	40
RV-4194-25	25	83	1	40
4354 type (BSPT male / BSP female thread)				
RV-4354-10	10	52	3/8	64
RV-4354-13	15	66	1/2	64
RV-4354-19	20	76	3/4	40
RV-4354-25	25	91	1	40
4424 type (2 x BSPT male thread)				
RV-4424-13	15	71	1/2	64
RV-4424-19	20	82	3/4	40
RV-4424-25	25	97.5	1	40

Ball valves



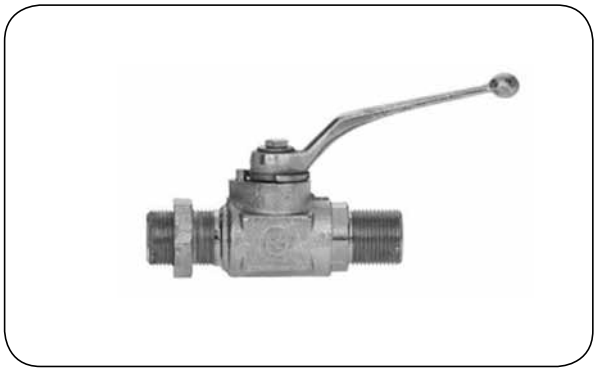
A ball valve designed for air and water. Made of zinc-plated steel (ball made of brass). Working pressure 10 bar. Working temp.: from -20°C up to +100°C. Connection: male thread, claw coupling (lug dimension 42 mm) with rubber (NBR) or brass seal.

code	MU-125	MU-124	MU-105	MU-104	MU-115	MU-114
inlet	3/4” female	1” female	3/4” female	1” female	3/4” female	1” female
outlet	3/4” male	3/4” male	MU-904	MU-904	MU-954	MU-954



A double ball valve designed for air and water. Made of zinc-plated steel (ball made of brass). Working pressure 10 bar. Working temp.: from -20°C up to +100°C. Connection: male thread, claw coupling (lug dimension 42 mm) with rubber (NBR) or brass seal.

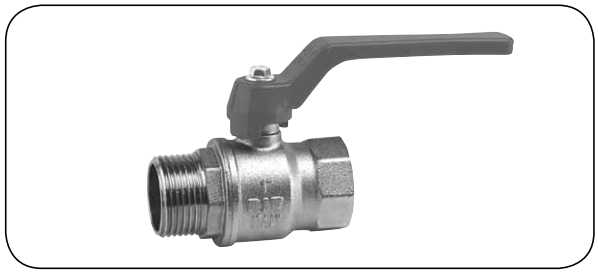
code	MU-224	MU-223	MU-204	MU-203	MU-214	MU-213
inlet	3/4” female	1” female	3/4” female	1” female	3/4” female	1” female
outlet	2 x 3/4” male	2 x 3/4” male	2 x MU-904	2 x MU-904	2 x MU-954	2 x MU-954



code	Inlet	outlet	cone
MU-301	3/4” male	3/4” male	1:4
MU-302	3/4” male	Rd32x1/8” male	1:3
MU-303	1” male	Rd32x1/8” male	1:3
MU-307	1” male	1” male	1:3
MU-304	1” male	Rd38x1/8” male	1:3
MU-305	2” male	Rd75x1/6” male	1:3

A ball valve designed for pneumatic hammers. Made of zinc-plated steel (ball made of brass). Working pressure 25 bar.

Ball valves



Ball valve 4170/4330 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminium
Ball seal: PTFE
Stem seal: NBR
Working temp.: From -20°C up to +110°C

A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
4170 type* (2 x BSP female thread)				
RV-4170-006	8	38	1/4	40
RV-4170-010	10	42	3/8	40
RV-4170-013	14.5	48	1/2	40
RV-4170-019	19	57	3/4	32
RV-4170-025	24	69	1	32
RV-4170-032	30.5	79	1.1/4	25
RV-4170-038	37	89	1.1/2	25
RV-4170-050	47	109	2	25
RV-4170-065	60	126	2.1/2	25
RV-4170-075	75	147	3	16
RV-4170-100	94	177	4	16
4330* type (BSP male / female thread)				
RV-4330-006	8	45	1/4	40
RV-4330-010	10	48	3/8	40
RV-4330-013	14.5	55	1/2	40
RV-4330-019	19	65	3/4	32
RV-4330-025	24	77	1	32
RV-4330-032	30.5	87	1.1/4	25
RV-4330-038	37	101	1.1/2	25
RV-4330-050	47	117	2	25
RV-4330-065	60	136	2.1/2	25
RV-4330-075	75	157	3	16
RV-4330-100	94	189	4	16

* available with steel handle - 4171, 4331 type.

Ball valves

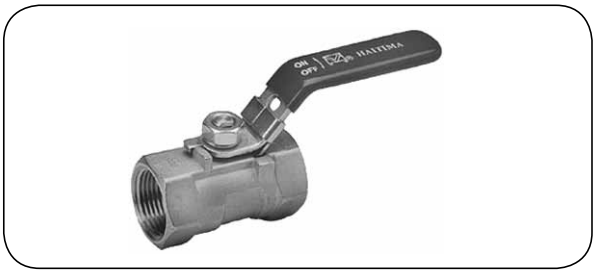
Ball valve 4190/4350/4420 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminium
Ball seal: PTFE
Stem seal: FKM + NBR
Working temp.: From -20°C up to +150°C

A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
4190 type (2 x BSP female thread)				
RV-4190-006	10	45	1/4	64
RV-4190-010	10	45	3/8	64
RV-4190-013	15	59	1/2	64
RV-4190-019	20	69	3/4	40
RV-4190-025	25	83	1	40
RV-4190-032	32	94	1.1/4	40
RV-4190-038	40	102	1.1/2	40
RV-4190-050	50	124	2	40
RV-4190-065	65	148	2.1/2	40
RV-4190-075	80	171	3	32
RV-4190-100	100	206	4	25
4350 type (BSPT male / BSP female thread)				
RV-4350-010	10	52	3/8	64
RV-4350-013	15	66	1/2	64
RV-4350-019	20	76	3/4	40
RV-4350-025	25	91	1	40
RV-4350-032	32	101	1.1/4	40
RV-4350-038	40	113	1.1/2	40
RV-4350-050	50	134	2	40
RV-4350-065	65	164	2.1/2	40
RV-4350-075	80	187	3	32
RV-4350-100	100	221	4	25
4420 type (2 x BSPT male thread)				
RV-4420-13	15	71	1/2	64
RV-4420-19	20	82	3/4	40
RV-4420-25	25	97.5	1	40
RV-4420-32	32	108	1.1/4	40
RV-4420-38	40	122	1.1/2	40
RV-4420-50	50	146	2	40

Ball valves



Ball valve 2017K type

Body material: AISI 316 steel
Ball material: AISI 316 steel
Handle material: AISI 304 steel
Ball seal: PTFE/RTFE
Stem seal: PTFE
Connection: BSP female thread
Working temp.: From -20°C up to +200°C

A general purpose ball valve designed for industrial applications. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	DN [mm]	length [mm]	thread size [inch]	working pressure [bar]
HT-2017K-08	8	39	1/4	63
HT-2017K-10	10	44	3/8	63
HT-2017K-15	15	55	1/2	63
HT-2017K-20	20	59	3/4	63
HT-2017K-25	25	69	1	63
HT-2017K-32	32	77	1.1/4	63
HT-2017K-40	40	81	1.1/2	63
HT-2017K-50	50	97	2	63

Ball valve 2006SC / SM3 type

Body material: AISI 316 steel
Ball material: AISI 316 steel
Handle material: AISI 304 steel
Ball seal: PTFE/RTFE
Stem seal: PTFE
Connection: BSP female thread
Working temp.: From -20°C up to +200°C

A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	DN [mm]	length [mm]	thread size [inch]	working pressure [bar]
HT-2006SC-08	8	50	1/4	63
HT-2006SC-10	10	50	3/8	63
HT-2006SC-15	15	59	1/2	63
HT-2006SC-20	20	66	3/4	63
HT-2006SC-25	25	75.5	1	63
HT-2006SC-32	32	88.7	1.1/4	63
HT-2006SC-40	40	98.5	1.1/2	63
HT-2006SC-50	50	120.6	2	63
HT-2006SC-65	65	146.5	2.1/2	63
HT-2006SC-80	80	167.5	3	63
HT-2006SM3-100	100	240	4	63

Ball valves

Ball valve 2013N type

Body material: AISI 316 steel
Ball material: AISI 316 steel
Handle material: AISI 304 steel
Ball seal: PTFE/RTFE
Stem seal: PTFE
Connection: BSP female thread
Working temp.: From -20°C up to +200°C

A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	DN [mm]	length [mm]	thread size [inch]	working pressure [bar]
HT-2013N-08	8	65	1/4	63
HT-2013N-10	10	65	3/8	63
HT-2013N-15	15	65	1/2	63
HT-2013N-20	20	75	3/4	63
HT-2013N-25	25	85	1	63
HT-2013N-32	32	101	1.1/4	63
HT-2013N-40	40	112	1.1/2	63
HT-2013N-50	50	130	2	63
HT-2013N-65	65	162	2.1/2	63

Ball valve 2057N type

Body material: AISI 316 steel
Ball material: AISI 316 steel
Handle material: AISI 304 steel
Ball seal: PTFE/RTFE
Stem seal: PTFE
Connection: BSP female thread
Working temp.: From -20°C up to +200°C

A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code 2057N type (L boring)	code 2057N type (T boring)	DN [mm]	length [mm]	thread size [inch]	working press. [bar]
HT-2057N-08L	HT-2057N-08T	8	76	1/4	63
HT-2057N-10L	HT-2057N-10T	10	76	3/8	63
HT-2057N-15L	HT-2057N-15T	15	76	1/2	63
HT-2057N-20L	HT-2057N-20T	20	86	3/4	63
HT-2057N-25L	HT-2057N-25T	25	99	1	63
HT-2057N-32L	HT-2057N-32T	32	117	1.1/4	63
HT-2057N-40L	HT-2057N-40T	40	124	1.1/2	63
HT-2057N-50L	HT-2057N-50T	50	148	2	63

Ball valves

Ball valve LS

Body material: AISI 316 steel
Ball material: AISI 316 steel
Handle material: AISI 316 steel
Seal: Body - Viton
Ball - nylon
Stem seal: TFE
Connection: NPT female thread
Working temp.: Up to +100°C

Ball valves, LS type, can be reliably used for the most demanding applications. They are intended for such media as: H_2S, CO_2 , salt water and other highly corrosive fluids. Maintenance free - does not require any lubrication during whole service life. Manufactured according to NACE standard (NACE - international organisation which provides corrosion prevention and control solutions for mining, petrochemical, gas and chemical industry).

code	thread size [inch]	flow diameter [mm]	working pressure [bar]	length [mm]	weight [kg]
BL-LS-02592	1/4	9.4	207	66.5	0.41
BL-LS-05561	1/2	9.4	138	63.5	0.34
BL-LS-05591	1/2	9.4	207	76.2	0.45
BL-LS-07592	3/4	19	207	95.3	1.14
BL-LS-10561	1	19	138	95.3	0.91
BL-LS-10591	1	19	207	104.6	1.14

Ball valve 4500 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Ball seal: PTFE
Stem seal: FKM
Connection: BSP female thread
Working temp.: From -20°C up to +95°C

A general purpose ball valve with a mounting pad for an actuator designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	DN	thread size [inch]	actuator type ISO 5211	length [mm]	working pressure [bar]
RV-4500-15	15	1/2	M1 (F03)	59	40
RV-4500-20	20	3/4	M1 (F03)	69	40
RV-4500-25	25	1	M1 (F03)	83	40
RV-4500-32	32	1.1/4	M4 (F05)	94	40
RV-4500-40	40	1.1/2	M4 (F05)	102	40
RV-4500-50	50	2	M4 (F05)	124	40

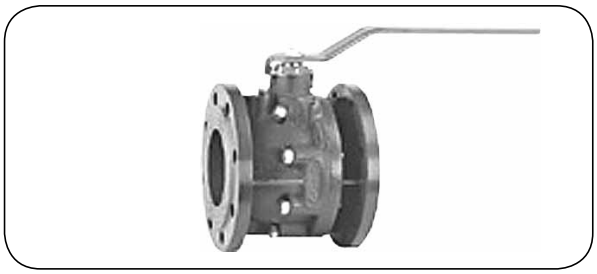
Ball valves

Ball valve 2019S type

Body material: AISI 316 steel
Ball material: AISI 316 steel
Handle material: AISI 304 steel
Ball seal: PTFE/RTFE
Stem seal: PTFE
Connection: PN16 flange (DIN 2501)
Working temp.: From -20°C up to +200°C

A general purpose flanged ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	DN [mm]	length [mm]	working pressure [bar]
HT-2019S-015	15	115	16
HT-2019S-020	20	120	16
HT-2019S-025	25	125	16
HT-2019S-032	32	130	16
HT-2019S-040	40	140	16
HT-2019S-050	50	150	16
HT-2019S-065	65	170	16
HT-2019S-080	80	180	16
HT-2019S-100	100	190	16



Ball valve 5550 type

Body material: Cast iron
Ball material: Chrome-plated brass
Handle material: Carbon steel
Ball seal: PTFE
Stem seal: NBR
Connection: PN16 flanges
Working temp.: From -10°C up to +100°C

A general purpose flanged ball valve adjusted to fit an actuator in compliance with ISO 5211. It is designed for application in industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	DN [mm]	length [mm]	flange O.D. [mm]	number of bolts x thread	ISO 5211	working pressure [bar]
RV-5550-020	20	120	105	4xM12	F04	16
RV-5550-025	25	125	115	4xM12	F04	16
RV-5550-032	32	130	140	4xM16	F04	16
RV-5550-040	40	140	150	4xM16	F05	16
RV-5550-050	50	150	165	4xM16	F05	16
RV-5550-065	65	170	185	4xM16	F05	16
RV-5550-080	80	180	200	8xM16	F07	16
RV-5550-100	100	190	220	8xM16	F07	16
RV-5550-125	125	200	250	8xM16	F10	16
RV-5550-150	150	210	285	8xM20	F10	16
RV-5550-200	200	400	340	12xM20	F10	16

Ball valves

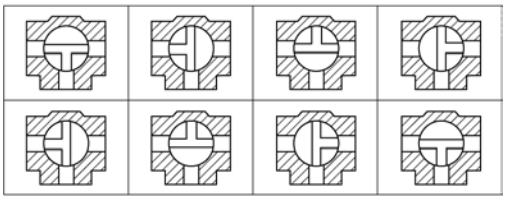
Ball valve 5310/5311 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminjum
Ball seal: PTFE
Stem seal: NBR
Connection: From -10°C up to +110°C
Working temp.: BSP female thread

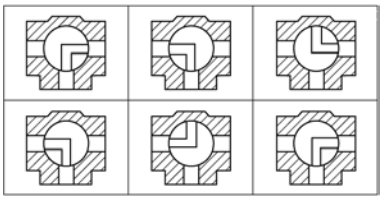
A general purpose ball valve designed for industrial installations. Used for air, gases, water, steam, chemicals, petrochemical products, etc. Working pressure depends on working temperature.

code	thread size [inch]	flow diameter [mm]	length [mm]	working pressure [bar]
5310 type (T boring)				
RV-5310-006	1/4	10	77	25
RV-5310-010	3/8	12	77	25
RV-5310-013	1/2	14	77	25
RV-5310-019	3/4	18	92	25
RV-5310-025	1	23	104	25
RV-5310-032	1.1/4	29	118	25
RV-5310-038	1.1/2	36	138	25
RV-5310-050	2	45	162	25
5311 type (L boring)				
RV-5311-006	1/4	10	77	25
RV-5311-010	3/8	12	77	25
RV-5311-013	1/2	14	77	25
RV-5311-019	3/4	18	92	25
RV-5311-025	1	23	104	25
RV-5311-032	1.1/4	29	118	25
RV-5311-038	1.1/2	36	138	25
RV-5311-050	2	45	162	25

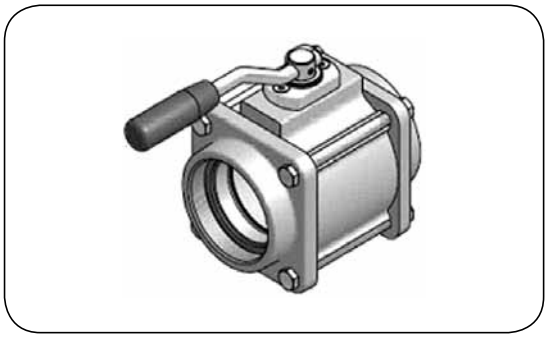
T boring



L boring



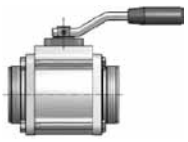
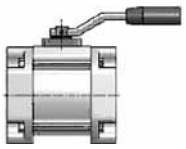
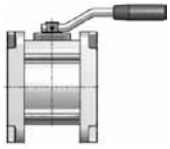
Ball valves



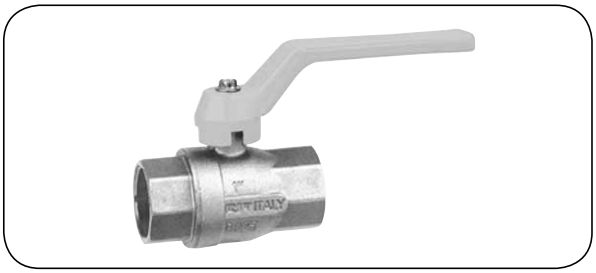
Ball valve Full Flow type

Material: Body, ball - aluminium
Spindle - stainless steel
Connections - Al, St, SS
Sealing: Viton / PTFE - valve PUR - connections
Connection: Thread: BSP, NPT
Flanges: DIN, ASA,TW
Working press.: 10 bar
Working temp.: From -20°C up to +80°C

Full flow ball valves are widely used in road, rail, air transport as well as in petrochemical industry. Meet all requirements regarding safety, environment protection and reliability during hazardous and valuable fluid transfer. A version with pneumatic actuator available.
Meets ATEX, ADR, RID, IMDG, TDT standards.

picture	code	connection	material	seal		weight [kg]
				valve	thread	
	MK-FFV-B210A1101	2” BSP female	aluminium	Viton / PTFE	PUR	2.20
	MK-FFV-B210A1301	2” BSP female	carbon steel			2.60
	MK-FFV-B211A1101	2” NPT female	aluminium			2.30
	MK-FFV-B414A1101	3” BSP female	aluminium			-
	MK-FFV-B414A1301	3” BSP female	carbon steel			4.70
	MK-FFV-B415A1101	3” NPT female	aluminium			4.00
	MK-FFV-B516A1101	4” BSP female	aluminium			7.10
	MK-FFV-B516A1301	4” BSP female	carbon steel			10.00
	MK-FFV-B517A1101	4” NPT female	aluminium			7.50
	MK-FFV-B278A1101	2” BSP male	aluminium		-	2.00
	MK-FFV-B482A1101	3” BSP male	aluminium			3.80
	MK-FFV-B482A1301	3” BSP male	carbon steel			4.70
	MK-FFV-B584A1101	4” BSP male	aluminium			7.50
	MK-FFV-B584A1301	4” BSP male	carbon steel			10.00
	MK-FFV-B287A1101	TW1 / 50	aluminium			3.30
	MK-FFV-B465A1101	TW1 / 80				5.50
	MK-FFV-B566A1101	TW3 / 100				8.00
	MK-FFV-B433A1101	DN 65 PN 10/16	aluminium			-
	MK-FFV-B436A1101	DN 80 PN 10/16				5.40
	MK-FFV-B459A1101	2.1/2” ASA 150				-
	MK-FFV-B461A1101	3” ASA 150				5.90
	MK-FFV-B539A1101	DN 100 PN 10/16				9.60
	MK-FFV-B563A1101	4” ASA 150				10.00
Repair kit Set of valve seals	MK-FFV-O-B2-01	2”	Viton / PTFE	-	-	
	MK-FFV-O-B4-01	3”				
	MK-FFV-O-B5-01	4”				
Repair kit Flat seal	MK-1052-09	2”	PUR	-	-	0.003
	MK-1110-09	3”				0.006
	MK-1295-09	4”				0.009
Set of spare parts	MK-FFV-S-B2-11	2”	aluminium	-	-	-
	MK-FFV-S-B2-13	2”	carbon steel			
	MK-FFV-S-B4-11	3”	aluminium			
	MK-FFV-S-B4-13	3”	carbon steel			
	MK-FFV-S-B5-11	4”	aluminium			
	MK-FFV-S-B5-13	4”	carbon steel			

Ball valves



Ball valve 7160 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminium
Ball seal: PTFE
Stem seal: FKM + NBR
Connection: BSP female thread
Working temp.: From -20°C up to +60°C

A general purpose ball valve designed for gas installations. Meets the requirements of Directive 97/23/CE (PED), 2009/142/ CE, compliant with EN 331 + A1 standard.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
RV-7160-006	10	45	1/4	5
RV-7160-010	10	45	3/8	5
RV-7160-013	15	59	1/2	5
RV-7160-019	20	69	3/4	5
RV-7160-025	25	83	1	5
RV-7160-032	32	94	1.1/4	5
RV-7160-038	40	102	1.1/2	5
RV-7160-050	50	124	2	5
RV-7160-065	65	148	2.1/2	5
RV-7160-075	80	171	3	5
RV-7160-100	100	206	4	5

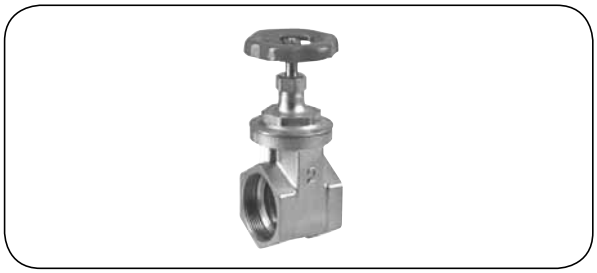
Ball valve 7164 type

Body material: Nickel-plated brass
Ball material: Chrome-plated brass
Handle material: Aluminium
Ball seal: PTFE
Stem seal: FKM + NBR
Connection: BSP female thread
Working temp.: From -20°C up to +60°C

A general purpose ball valve designed for gas installations. Meets the requirements of Directive 97/23/CE (PED), 2009/142/ CE, compliant with EN 331 + A1 standard.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
RV-7164-06	10	45	1/4	5
RV-7164-10	10	45	3/8	5
RV-7164-13	15	59	1/2	5
RV-7164-19	20	69	3/4	5
RV-7164-25	25	83	1	5

Gate valves



Gate valve 2000 type

Body material: Brass
Gate material: Brass
Knob material: Carbon steel
Stem seal: EPDM
Connection: BSP female thread
Working temp.: From -10°C up to +80°C

A general purpose gate valve designed for industry installations. The valve can be used to control or throttle flow. Working pressure depends on working temperature.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
RV-2000-06	13	33	1/4	10
RV-2000-10	13	33	3/8	10
RV-2000-13	14	35	1/2	10
RV-2000-19	15	40	3/4	10
RV-2000-25	19	43	1	10
RV-2000-32	27	48	1.1/4	10
RV-2000-38	33	53	1.1/2	10
RV-2000-50	45	58	2	10

Gate valve 2010 type

Body material: Brass
Gate material: Brass
Knob material: Carbon steel
Stem seal: EPDM
Connection: BSP female thread
Working temp.: From -10°C up to +90°C

A general purpose gate valve designed for industry installations. The valve is can be used to control or throttle flow. Working pressure depends on working temperature.

code	flow diameter [mm]	length [mm]	thread size [inch]	working pressure [bar]
RV-2010-013	15	38	1/2	16
RV-2010-019	19	44	3/4	16
RV-2010-025	24	48	1	16
RV-2010-032	32	51	1.1/4	16
RV-2010-038	37	58	1.1/2	16
RV-2010-050	47	60	2	16
RV-2010-065	60	64	2.1/2	16
RV-2010-075	69	74	3	16
RV-2010-090	83	82	3.1/2	16
RV-2010-100	89	86	4	16
RV-2010-125	117	95	5	10
RV-2010-150	143	105	6	10

Gate valves

Gate valve 2029 type

Body material: AISI 316 steel
Gate material: AISI 316 steel
Knob material: Aluminium
Stem seal: PTFE
Connection: BSP female thread
Working temp.: From -20°C up to +200°C

A general purpose gate valve designed for industrial installations. The valve can be used to control or throttle flow. Working pressure depends on working temperature.

code	DN [mm]	thread size [inch]	working pressure [bar]
HT-2029-15	15	1/2	10
HT-2029-20	20	3/4	10
HT-2029-25	25	1	10
HT-2029-32	32	1.1/4	10
HT-2029-40	40	1.1/2	10
HT-2029-50	50	2	10
HT-2029-65	65	2.1/2	10
HT-2029-80	80	3	10

Gate valve 560 type

Body material: Brass
Gate material: Brass
Handle material: Carbon steel
Connection: BSP female thread (NPT available)
Working temp.: From -20°C up to +90°C

A lever gate valve allows quick opening and closing of the fluid flow. Two horizontally pivoted discs design ensures perfect valve tightness. Widely used in agriculture, septic tank trucks, industry. Meets the requirements of Directive 97/23/CE (PED). Working pressure depends on working temperature.

code	thread size [inch]	flow diameter [mm]	build-in length [mm]	working pressure [bar]	weight [kg]
RV-0560-050	2	49	75	16	1.77
RV-0560-065	2.1/2	59	80	16	3.12
RV-0560-075	3	70	86	10	4.08
RV-0560-100	4	93	92	10	6.08

Gate valves

Piston gate valve

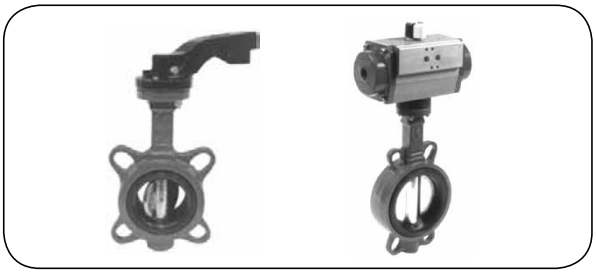
Body material: Brass
Gate material: Brass
Flange seal: NBR
Connection: Square flanges (O-ring sealing)
Power: Pneumatic actuator
- max. pressure 12 bar
- recommended pressure 6 bar

Working temp.: From -20°C up to +90°C

A piston gate valve allows quick opening and closing of the fluid flow. Available in several versions: with pneumatic, single or double acting hydraulic actuator, with flanged connections, BSP or NPT thread. Widely used in agriculture, septic tank trucks, industry. Meets the requirements of Directive 97/23/CE (PED). Working pressure depends on working temperature.

code	DN [inch]	connection bolt spacing [mm]	flow diameter [mm]	build-in length [mm]	working pressure [bar]	weight [kg]	version
RV-0010-100	4	150	91	97	3	5.97	without actuator
RV-0010-125	5	150	120	90	3	7.66	
RV-0010-150	6	150	143	90	2.5	8.20	
RV-0010-200	8	180	191	111	1.5	17.51	
RV-0013-100	4	150	91	97	3	9.64	with pneumatic actuator (two side operation)
RV-0013-125	5	150	120	90	3	11.32	
RV-0013-150	6	150	143	90	2.5	12.15	
RV-0013-200	8	180	191	111	1.5	22.90	

Butterfly valves

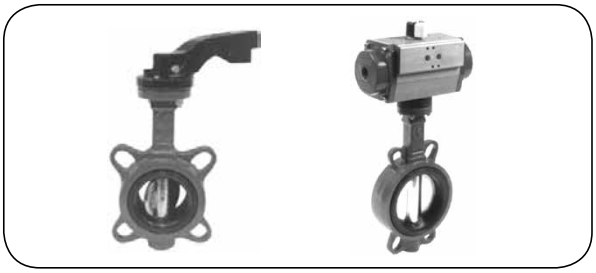


Butterfly valve 1125 type

Body material: Grey cast iron EN-GJL-250
Disc material: Nickel-plated ductile iron EN-GJS-400-15
Sealing: EPDM
Connection: PN10/PN16 flange
Working temp.: From -10°C up to +110°C

A general purpose butterfly valve designed for industrial installations. Opened and closed manually or with a pneumatic actuator. Equipped with 10-position locking handle - open, closed and intermediate positions.

code (manual operation)	code (pneumatic operation)	DN	actuator ISO 5211 type	build-in length [mm]	working pressure [bar]	weight [kg]
TD-1125-040H	TD-1125-040P	40	F05	33	16	2.00
TD-1125-050H	TD-1125-050P	50	F05	43	16	2.50
TD-1125-065H	TD-1125-065P	65	F05	46	16	3.10
TD-1125-080H	TD-1125-080P	80	F05	46	16	3.85
TD-1125-100H	TD-1125-100P	100	F05	52	16	4.75
TD-1125-125H	TD-1125-125P	125	F07	56	16	6.35
TD-1125-150H	TD-1125-150P	150	F07	56	16	8.50
TD-1125-200H	TD-1125-200P	200	F10	60	16	13.00
TD-1125-250H	TD-1125-250P	250	F12	68	16	29.75
TD-1125-300H	TD-1125-300P	300	F12	78	16	37.65



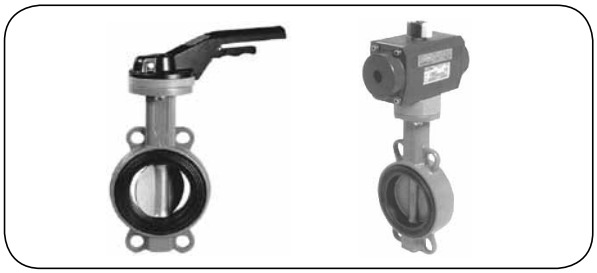
Butterfly valve 1123 type

Body material: Grey cast iron EN-GJL-250
Disc material: AISI 316 steel
Sealing: EPDM
Connection: PN10/PN16 flange
Working temp.: From -10°C up to +90°C

A general purpose butterfly valve designed for industrial installations. Opened and closed manually or with a pneumatic actuator. Equipped with 10-position locking handle - open, closed and intermediate positions.

code (manual operation)	code (pneumatic operation)	DN	actuator ISO 5211 |type	build-in length [mm]	working pressure [bar]	weight [kg]
TD-1123-040H	TD-1123-040P	40	F05	33	16	2.00
TD-1123-050H	TD-1123-050P	50	F05	43	16	2.50
TD-1123-065H	TD-1123-065P	65	F05	46	16	3.10
TD-1123-080H	TD-1123-080P	80	F05	46	16	3.85
TD-1123-100H	TD-1123-100P	100	F05	52	16	4.75
TD-1123-125H	TD-1123-125P	125	F07	56	16	6.35
TD-1123-150H	TD-1123-150P	150	F07	56	16	8.50
TD-1123-200H	TD-1123-200P	200	F10	60	16	13.00
TD-1123-250H	TD-1123-250P	250	F12	68	16	29.75
TD-1123-300H	TD-1123-300P	300	F12	78	16	37.65

Butterfly valves



Butterfly valve 1153 type

Body material: Ductile iron EN-GJS-500-7
Disc material: AISI 316 steel
Sealing: EPDM
Connection: PN10/PN16 flange
Working temp.: From -10°C up to +110°C

A general purpose butterfly valve designed for industrial application in potentially explosive atmospheres (Ex marking). Opened and closed manually or with a pneumatic actuator. Equipped with 9-position locking handle - open, closed and intermediate positions.

code (manual operation)	code (pneumatic operation)	DN	actuator ISO 5211 type	build-in length [mm]	working pressure [bar]	weight [kg]
TD-1153-032H	TD-1153-032P	32	F07	33	16	2.00
TD-1153-040H	TD-1153-040P	40	F07	33	16	2.00
TD-1153-050H	TD-1153-050P	50	F07	43	16	3.50
TD-1153-065H	TD-1153-065P	65	F07	46	16	4.50
TD-1153-080H	TD-1153-080P	80	F07	46	16	5.00
TD-1153-100H	TD-1153-100P	100	F07	52	16	6.50
TD-1153-125H	TD-1153-125P	125	F07	56	16	8.00
TD-1153-150H	TD-1153-150P	150	F07	56	16	9.00
TD-1153-200H	TD-1153-200P	200	F07	60	16	15.00
TD-1153-250H	TD-1153-250P	250	F10	68	16	21.50
TD-1153-300H	TD-1153-300P	300	F10	78	16	30.00
TD-1153-350H	TD-1153-350P	350	F14	78	10	39.00
TD-1153-400H	TD-1153-400P	400	F14	102	10	52.00

Butterfly valve 1141 type

Body material: Ductile iron EN-GJS-500-7
Disc material: AISI 316 (up to DN100)
Ductile iron EN-GJS-500-7 (from DN125)
Seal: NBR
Connection: PN16 flange
Working temp.: From -20°C up to +60°C

A general purpose butterfly valve designed for gas industrial installations. Opened and closed manually or with a pneumatic actuator. Equipped with 9-position locking handle - open, closed and intermediate positions. Compliant with EN 13774 and EN 549 standards.

code (manual operation)	code (pneumatic operation)	DN	actuator ISO 5211 type	working pressure [bar]	weight [kg]
TD-1141-040H	TD-1141-040P	40	F07	5	2.00
TD-1141-050H	TD-1141-050P	50	F07	5	3.50
TD-1141-065H	TD-1141-065P	65	F07	5	4.50
TD-1141-080H	TD-1141-080P	80	F07	5	5.00
TD-1141-100H	TD-1141-100P	100	F07	5	6.50
TD-1141-125H	TD-1141-125P	125	F07	5	8.00
TD-1141-150H	TD-1141-150P	150	F07	5	9.00
TD-1141-200H	TD-1141-200P	200	F07	5	15.00

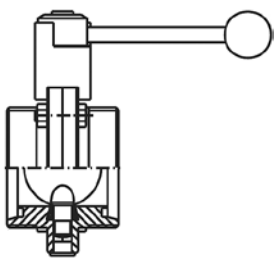
Stainless steel hygienic valves

Body material:: AISI 304 steel (standard)
Sealing: AISI 316L steel (option)
VMQ (standard)
FPM (option)
EPDM (option)
HNBR (option)
Tightness class: A according to DIN EN 12266-1
Working pressure: 10 bar (DN25 ÷ DN150)

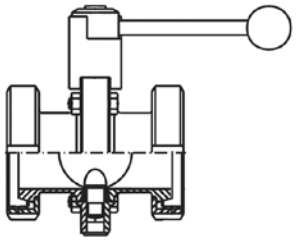
Stainless steel hygienic valves are intended for food, pharmaceutical, cosmetic, biotechnological and chemical industries. Inner layer porosity Ra < 0.8 µm. The valves equipped with EPDM and Viton seals meet the requirements of EHEDG (European Hygienic Engineering & Design Group) regarding the application for liquid media and are approved for CIP cleaning (EL-class I). They are compliant with ATEX Directive (94/0/WE). The seals are approved by BGA, FDA and PZH.
The valve is supplied with VMQ (silicone) seal and with the body made of AISI 304 stainless steel as a standard. If other body or seal material version is required, a suffix must be added to a code: 316 - AISI 316 steel, V - FPM, E - EPDM, N - HNBR, e.g. NM-DIN-GG-050-316-E.

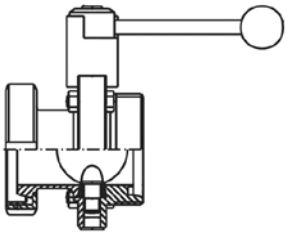
Permissible working temperature of seal materials:

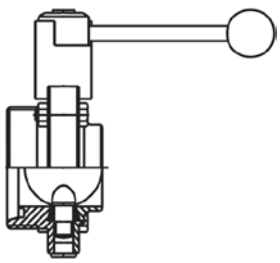
VMQ (silicone)	EPDM	FPM (Viton)	HNBR
from -20°C to +100°C short sterilization with steam up to +120°C cleaning with diluted acid or base solutions up to +70°C	from -40°C to +140°C sterilization with steam up to +130°C	from -20°C to +200°C short sterilization with steam up to +130°C	from -20°C to +140°C (with peaks up to +150°C) sterilization with steam up to +130°C

picture	code	DN	flow diameter [mm]	build-in length [mm]	thread size	weight [kg]
Valve acc. to DIN11851, male threads 	NM-DIN-GG-010	10	10	78	Rd 28x1/8”	0.80
	NM-DIN-GG-015	15	16	78	Rd 34x1/8”	0.80
	NM-DIN-GG-020	20	20	78	Rd 44x1/6”	0.80
	NM-DIN-GG-025	25	26	64	Rd 52x1/6”	1.70
	NM-DIN-GG-032	32	32	64	Rd 58x1/6”	1.80
	NM-DIN-GG-040	40	38	72	Rd 65x1/6”	2.00
	NM-DIN-GG-050	50	50	72	Rd 78x1/6”	2.40
	NM-DIN-GG-065	65	66	76	Rd 95x1/6”	3.10
	NM-DIN-GG-080	80	81	100	Rd 110x1/4”	5.20
	NM-DIN-GG-100	100	100	104	Rd 130x1/4”	6.50
	NM-DIN-GG-125	125	125	112	Rd 160x1/4”	10.20
	NM-DIN-GG-150	150	150	124	Rd 190x1/4”	13.90

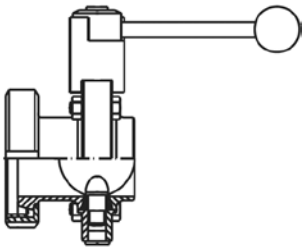
Stainless steel hygienic valves

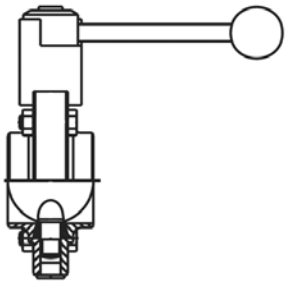
picture	code	DN	flow diameter [mm]	build-in length [mm]	thread size	weight [kg]
Valve acc. to DIN11851, female threads 	NM-DIN-KK-010	10	10	74	Rd 28x1/8”	0.60
	NM-DIN-KK-015	15	16	74	Rd 34x1/8”	0.60
	NM-DIN-KK-020	20	20	76	Rd 44x1/6”	0.60
	NM-DIN-KK-025	25	26	84	Rd 52x1/6”	2.00
	NM-DIN-KK-032	32	32	92	Rd 58x1/6”	2.20
	NM-DIN-KK-040	40	38	102	Rd 65x1/6”	2.60
	NM-DIN-KK-050	50	50	106	Rd 78x1/6”	3.50
	NM-DIN-KK-065	65	66	114	Rd 95x1/6”	4.30
	NM-DIN-KK-080	80	81	134	Rd 110x1/4”	7.30
	NM-DIN-KK-100	100	100	152	Rd 130x1/4”	9.90
	NM-DIN-KK-125	125	125	180	Rd 160x1/4”	11.80
	NM-DIN-KK-150	150	150	198	Rd 190x1/4”	15.20

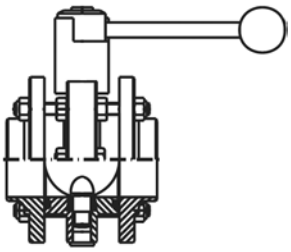
picture	code	DN	flow diameter [mm]	build-in length [mm]	thread size	weight [kg]
Valve acc. to DIN11851, female / male threads 	NM-DIN-GK-025	25	26	74	Rd 52x1/6”	1.80
	NM-DIN-GK-032	32	32	78	Rd 58x1/6”	1.90
	NM-DIN-GK-040	40	38	87	Rd 65x1/6”	2.20
	NM-DIN-GK-050	50	50	89	Rd 78x1/6”	2.70
	NM-DIN-GK-065	65	66	95	Rd 95x1/6”	3.40
	NM-DIN-GK-080	80	81	117	Rd 110x1/4”	5.60
	NM-DIN-GK-100	100	100	128	Rd 130x1/4”	7.10
	NM-DIN-GK-125	125	125	146	Rd 160x1/4”	11.40
	NM-DIN-GK-150	150	150	161	Rd 190x1/4”	15.60

picture	code	DN	flow diameter [mm]	build-in length [mm]	thread size	pipe O.D. [mm]	weight [kg]
Valve acc. to DIN 11851, male thread / welding end connection 	NM-DIN-GS-025	25	26	52	Rd 52x1/6”	31	1.50
	NM-DIN-GS-032	32	32	53	Rd 58x1/6”	37	1.60
	NM-DIN-GS-040	40	38	61	Rd 65x1/6”	43	1.80
	NM-DIN-GS-050	50	50	61	Rd 78x1/6”	55	2.10
	NM-DIN-GS-065	65	66	63	Rd 95x1/6”	70	2.60
	NM-DIN-GS-080	80	81	80	Rd 110x1/4”	85	4.60
	NM-DIN-GS-100	100	100	84	Rd 130x1/4”	104	5.60
	NM-DIN-GS-125	125	125	112	Rd 160x1/4”	129	9.20
	NM-DIN-GS-150	150	150	124	Rd 190x1/4”	154	12.20

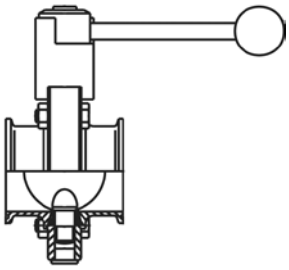
Stainless steel hygienic valves

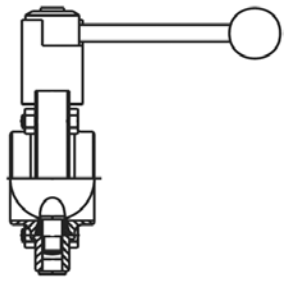
picture	code	DN	flow diameter [mm]	build-in length [mm]	thread size	pipe O.D. [mm]	weight [kg]
Valve acc. to DIN 11851, female thread / welding end connection 	NM-DIN-KS-025	25	26	62	Rd 52x1/6”	31	1.60
	NM-DIN-KS-032	32	32	67	Rd 58x1/6”	37	1.80
	NM-DIN-KS-040	40	38	76	Rd 65x1/6”	43	2.10
	NM-DIN-KS-050	50	50	78	Rd 78x1/6”	55	2.70
	NM-DIN-KS-065	65	66	82	Rd 95x1/6”	70	3.20
	NM-DIN-KS-080	80	81	97	Rd 110x1/4”	85	5.60
	NM-DIN-KS-100	100	100	108	Rd 130x1/4”	104	7.40
	NM-DIN-KS-125	125	125	146	Rd 160x1/4”	129	10.70
	NM-DIN-KS-150	150	150	161	Rd 190x1/4”	154	13.30

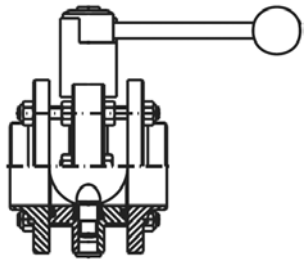
picture	code	DN	flow diameter [mm]	build-in length [mm]	pipe O.D. [mm]	weight [kg]
Valve acc. to DIN 11851, welding end connection 	NM-DIN-SS-010	10	10	40	13	0.60
	NM-DIN-SS-015	15	16	40	19	0.60
	NM-DIN-SS-020	20	20	40	23	0.60
	NM-DIN-SS-025	25	26	40	31	1.30
	NM-DIN-SS-032	32	32	42	37	1.40
	NM-DIN-SS-040	40	38	50	43	1.50
	NM-DIN-SS-050	50	50	50	55	1.80
	NM-DIN-SS-065	65	66	50	70	2.20
	NM-DIN-SS-080	80	81	60	85	4.00
	NM-DIN-SS-100	100	100	64	104	4.80
	NM-DIN-SS-125	125	125	112	129	8.10
	NM-DIN-SS-150	150	150	124	154	10.30

picture	code	DN	flow diameter [mm]	build-in length [mm]	pipe O.D. [mm]	weight [kg]
Valve acc. to DIN 11851, welding flanges 	NM-DIN-ZFA-010	10	10	80	13	0.60
	NM-DIN-ZFA-015	15	16	80	19	0.60
	NM-DIN-ZFA-020	20	20	80	23	0.60
	NM-DIN-ZFA-025	25	26	90	31	2.40
	NM-DIN-ZFA-032	32	32	90	37	2.60
	NM-DIN-ZFA-040	40	38	100	43	2.80
	NM-DIN-ZFA-050	50	50	100	55	3.40
	NM-DIN-ZFA-065	65	66	100	70	4.10
	NM-DIN-ZFA-080	80	81	136	85	7.40
	NM-DIN-ZFA-100	100	100	136	104	8.80
	NM-DIN-ZFA-125	125	125	168	129	15.10
	NM-DIN-ZFA-150	150	150	168	154	18.40
	NM-DIN-ZFA-200	200	200	112	204	26.20

Stainless steel hygienic valves

picture	code	DN	flow diameter [mm]	build-in length [mm]	plate diameter [mm]	weight [kg]
Valve acc. to. DIN 32676-A, TRICLOVER end connection 	NM-DIN-CC-010	10	10	76	34	0.60
	NM-DIN-CC-015	15	16	76	34	0.60
	NM-DIN-CC-020	20	20	76	34	0.60
	NM-DIN-CC-025	25	26	64	50.5	1.50
	NM-DIN-CC-032	32	32	72	50.5	1.50
	NM-DIN-CC-040	40	38	72	50.5	1.70
	NM-DIN-CC-050	50	50	72	64	1.90
	NM-DIN-CC-065	65	66	76	91	2.40
	NM-DIN-CC-080	80	81	100	106	4.40
	NM-DIN-CC-100	100	100	104	119	5.20

picture	code	DN	flow diameter [mm]	build-in length [mm]	pipe O.D. [mm]	weight [kg]
Valve according to ISO, welding end connection 	NM-ISO-SS-025	25	28.5	40	33.7	1.3
	NM-ISO-SS-032	32	37.2	42	42.4	1.4
	NM-ISO-SS-040	40	43.1	50	48.3	1.5
	NM-ISO-SS-050	50	55.1	50	60.3	1.8
	NM-ISO-SS-065	65	70.9	50	76.1	2.2
	NM-ISO-SS-080	80	83.7	60	88.9	4.0
	NM-ISO-SS-100	100	109.1	64	114.3	4.8

picture	code	DN	flow diameter [mm]	build-in length [mm]	pipe O.D. [mm]	weight [kg]
Valve according to ISO, welding flanges 	NM-ISO-ZFA-025	25	29.7	90	33.7	1.3
	NM-ISO-ZFA-032	32	38.4	90	42.4	1.4
	NM-ISO-ZFA-040	40	44.3	100	48.3	1.5
	NM-ISO-ZFA-050	50	56.3	100	60.3	1.8
	NM-ISO-ZFA-065	65	71.5	100	76.1	2.2
	NM-ISO-ZFA-080	80	84.3	136	88.9	4.0
	NM-ISO-ZFA-100	100	109.1	136	114.3	4.8

Check valves and filters

Foot valve 2350 type

Body material: Brass
Obturator: Brass
Sealing: NBR
Connection: BSP female thread
Working temp.: From -10°C up to +90°C

A general purpose foot valve designed for industrial installations. The valve must be mounted according to the flow direction marked on its body. Working pressure depends on working temperature.

code	thread size [inch]	length [mm]	working pressure [bar]
RV-2350-019	3/4	70	10
RV-2350-025	1	82	10
RV-2350-032	1.1/4	95	8
RV-2350-038	1.1/2	103	8
RV-2350-050	2	121	8
RV-2350-065	2.1/2	137	6
RV-2350-075	3	173	6
RV-2350-100	4	199	6
RV-2350-125	5	239	6
RV-2350-150	6	267	6

Swing check valve 2251 type

Body material: Brass (up to 4”), bronze (5” and 6”)
Obturator: Brass
Connection: BSP female thread
Working temp.: From -10°C up to +90°C

A general purpose swing check valve designed for industrial installations. The valve must be mounted according to the flow direction marked on its body. Working pressure depends on working temperature.

code	thread size [inch]	length [mm]	working pressure [bar]
RV-2251-013	1/2	47	16
RV-2251-019	3/4	54	16
RV-2251-025	1	64	16
RV-2251-032	1.1/4	76	16
RV-2251-038	1.1/2	83	16
RV-2251-050	2	98	16
RV-2251-065	2.1/2	116	16
RV-2251-075	3	135	16
RV-2251-100	4	164	10
RV-2251-125	5	206	10
RV-2251-150	6	235	10

Check valves and filters

Spring check valve 2280 type

Body material: Brass
Spring material: AISI 302 steel
Disc material: POM
Sealing: NBR
Connection: BSP female thread
Min. opening press: 0.02 bar - 3/8" ÷ 2.1/2"
0.1 bar - 3" ÷ 4"
Working temp.: From -10°C up to +90°C

A general purpose spring check valve designed for industrial installations. It can be mounted in any position. However, the valve must be mounted according to the flow direction marked on its body. Working pressure depends on working temperature.

code	thread size [inch]	length [mm]	working pressure [bar]
RV-2280-010	3/8	45	16
RV-2280-013	1/2	48	16
RV-2280-019	3/4	53	16
RV-2280-025	1	59	16
RV-2280-032	1.1/4	66	10
RV-2280-038	1.1/2	71	10
RV-2280-050	2	80	10
RV-2280-065	2.1/2	93	8
RV-2280-075	3	104	8
RV-2280-100	4	119	8

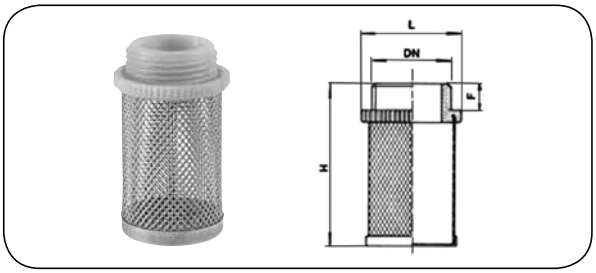
Spring check valve 2281 type

Body material: Brass
Spring material: AISI 302 steel
Disc material: Brass
Sealing: Viton
Connection: BSP female thread
Min. opening press: 0.02 bar - 3/8" ÷ 2.1/2"
0.1 bar - 3" ÷ 4"
Working temp.: From -10°C up to +90°C

A general purpose spring check valve designed for industrial installations. It can be mounted in any position. However, the valve must be mounted according to the flow direction marked on its body. Working pressure depends on working temperature.

code	thread size [inch]	length [mm]	working pressure [bar]
RV-2281-013	1/2	48	35
RV-2281-019	3/4	53	35
RV-2281-025	1	59	35
RV-2281-032	1.1/4	66	25
RV-2281-038	1.1/2	71	25
RV-2281-050	2	80	25
RV-2281-065	2.1/2	93	12
RV-2281-075	3	104	12
RV-2281-100	4	119	12

Check valves and filters

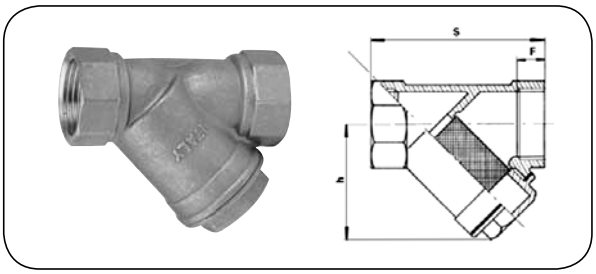


Filter 2310 type

Material: AISI 304 steel
Connection: BSP male thread
Working temp.: From -10°C up to +90°C

A filter used for spring check valves 2280 and 2281 type.

code	thread size [inch]	dimensions [mm]		
		F	H	L
RV-2310-010	3/8	7	51	23
RV-2310-013	1/2	8	50	26
RV-2310-019	3/4	9	57	32
RV-2310-025	1	9	57	41
RV-2310-032	1.1/4	11	68	48
RV-2310-038	1.1/2	11	78	55
RV-2310-050	2	12	95	68
RV-2310-065	2.1/2	13	98	86
RV-2310-075	3	14	113	99
RV-2310-100	4	14	131	122



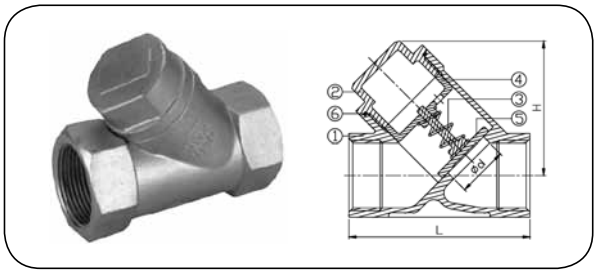
Y-strainer 2500 type

Body material: Brass
Sealing: NBR
Filter refill: AISI 304 steel
Connection: BSP female thread
Working temp.: From -10°C up to +90°C
Working press.: 16 bar

A general purpose Y-strainer used in water supply, sanitary, heating, irrigation and industrial systems. The Y-strainer must be mounted according to the flow direction marked on its body. Working pressure depends on working temperature.

code	thread size [inch]	dimensions [mm]		
		F	h	S
RV-2500-013	1/2	11	38	56
RV-2500-019	3/4	11	50	70
RV-2500-025	1	15	59	88
RV-2500-032	1.1/4	15	68	96
RV-2500-038	1.1/2	16	77	106
RV-2500-050	2	19	93	126
RV-2500-065	2.1/2	21	99	133
RV-2500-075	3	22	132	170
RV-2500-100	4	25	170	219

Check valves and filters

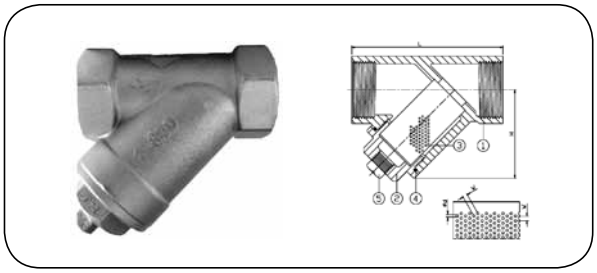


Check valve 2050 type

Body material: AISI 316 steel
Spring material: AISI 316 steel
Disc material: AISI 316 steel
Sealing: PTFE
Connection: BSP female thread
Working temp.: From -20°C up to +200°C
Working press.: 50 bar

A general purpose check valve designed for blocking the return flow of the medium. The valve must be mounted according to the flow direction marked on its body. Working pressure depends on working temperature.

code	DN [mm]	thread size [inch]	dimensions [mm]		
			d	L	H
HT-2050-08	8	1/4	15	65	46.5
HT-2050-10	10	3/8	15	65	46.5
HT-2050-15	15	1/2	15	65	46.5
HT-2050-20	20	3/4	20	80	68.5
HT-2050-25	25	1	25	90	71
HT-2050-32	32	1.1/4	32	105	74
HT-2050-40	40	1.1/2	38	120	82.5
HT-2050-50	50	2	50	140	95
HT-2050-65	65	2.1/2	65	180	121.3
HT-2050-80	80	3	80	200	138



Y-strainer 2049 type

Body material: AISI 316 steel
Sealing: PTFE
Filter refill: AISI 316 steel
Connection: BSP female thread
Working temp.: From -20°C up to +200°C
Working press.: 50 bar

Y-strainer designed for water, oil and gas installations. Used for capturing and removal of impurities from the system. The Y-strainer must be mounted according to the flow direction marked on its body. Working pressure depends on working temperature.

code	DN [mm]	thread size [inch]	dimensions [mm]		
			d	L	H
HT-2049-08	8	1/4	15	65	46.5
HT-2049-10	10	3/8	15	65	46.5
HT-2049-15	15	1/2	15	65	46.5
HT-2049-20	20	3/4	20	80	54
HT-2049-25	25	1	25	90	67
HT-2049-32	32	1.1/4	32	105	74
HT-2049-40	40	1.1/2	40	120	81.5
HT-2049-50	50	2	50	140	95
HT-2049-65	65	2.1/2	65	180	121.3
HT-2049-80	80	3	80	200	138

AIGNEP solenoid valves

General purpose valves controlled by an electric current intended for fluids and gases. Four valve series are available: 01F, 02F, 03F and 04F. The body of the valve is made of brass, stem and spring of stainless steel, ferrule of stainless steel (NO type - of brass).
The valves are supplied without solenoids and plugs and as a standard - they must be ordered separately. When selecting a valve, consider the following: medium, temperature and viscosity of the medium, ambient temperature, flow rate, maximum working pressure, differential pressure (pressure difference at closed valve). In the case of doubts or questions concerning valve selection, please contact Technical Department of TUBES INTERNATIONAL®.

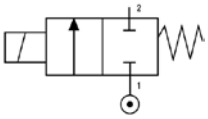
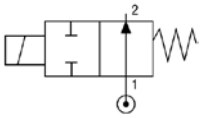
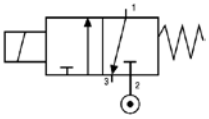
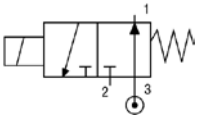
Application depends on seal material		
material	working temperature	application
NBR	from -10°C up to +90°C	pneumatic installations (air, inert gases), water (max. up to +75°C), mineral oils, diesel and heating oils
FKM (Viton)	from -10°C up to +140°C	mineral oils, petrol, diesel and heating oils
EPDM	from -10°C up to +140°C	hot water, steam (max. up to 2.5 bar)

01F series

Working press.: Up to 40 bar
Ferrule diameter: 10 mm
Flow factor Kv: DN 1.5 - 0.06 m³/h
DN 2 - 0.09 m³/h
DN 2.5 - 0.15 m³/h
DN 3 - 0.20 m³/h
DN 4 - 0.30 m³/h
Description: Direct acting solenoid valve

Valve code structure e.g.: AI-01F-02-1-15-N-0

01F **02** **1** **15** **N** **0**

series	connection size	no. of connect. and positions	symbol	DN	seal	stem regulation
01F	02 = 1/8" BSP 03 = 1/4" BSP	1 = 2/2NC		15 = 1.5 mm 02 = 2 mm 25 = 2.5 mm 03 = 3 mm 04 = 4 mm	N = NBR E = EPDM V = FKM	0 = no reg.
		2 = 2/2NO				
		3 = 3/2NC*				
		4 = 3/2NO**				

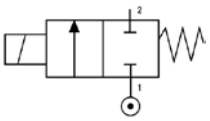
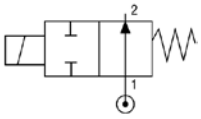
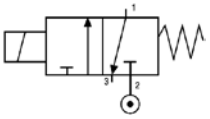
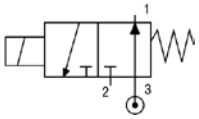
* - connection size no. 3 (stem): M5, Kv = 0.05 m³/h
** - connection size no. 3 (stem): M5, Kv = 0.05 m³/h; DN sizes available: 1.5 mm, 2 mm, 2.5 mm

AIGNEP solenoid valves

02F series

Working press.: Up to 40 bar
Ferrule diameter: 13 mm
Flow factor Kv: DN 4 - 0.35 m³/h
DN 5 - 0.51 m³/h
Description: Direct acting solenoid valve

Valve code structure e.g.: AI-02F-02-1-04-N-0

02F	03	1		04	N	0
series	connection size	no. of connect. and positions	symbol	DN	seal	stem regulation
02F	03 = 1/4" BSP	1 = 2/2NC		04 = 4 mm 05 = 5 mm	N = NBR E = EPDM V = FKM	0 = no reg.
		2 = 2/2NO				
		3 = 3/2NC*				
		4 = 3/2NO*				

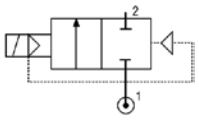
* - connection size no. 3 (stem): M5, Kv = 0.1 m³/h

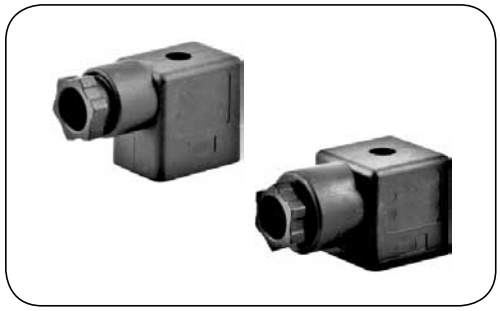
AIGNEP solenoid valves

03F series

Working press.: Up to 25 bar
Ferrule diameter: 13 mm
Description: Direct acting, membrane solenoid valve

Valve code structure e.g.: AI-03F-04-1-12-N-0

03F	04	1		12		N	0
series	connection size	no. of connect. and positions	symbol	DN	Kv [m^3/h]	seal	stem regulation
03F	03 = 1/4” BSP	1 = 2/2NC		10 = 10 mm	1.58	N = NBR E = EPDM V = FKM	0 = no reg.
	04 = 3/8” BSP			12 = 12 mm 14 = 14 mm	2.34 2.73		
	05 = 1/2” BSP			12 = 12 mm 14 = 14 mm	2.36 2.75		
	07 = 3/4” BSP			18 = 18 mm	4.08		
	09 = 1” BSP			25 = 25 mm	6.63		



Solenoid valve connectors

Degree of protection: IP67 IEC 60529

series	code	cable Ø [mm]	size [mm]	type	colour
01F / 04F	AI-CON01-000-01	6 ÷ 8	22	2-pin	black
01F / 02F / 03F / 04F	AI-CON31-000-01	6 ÷ 8 / 8 ÷11	30 ÷ 36	2-pin	black

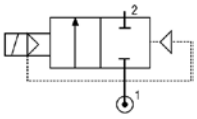
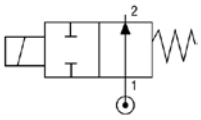
AIGNEP solenoid valves

04F series

Working press.: Up to 25 bar
Ferrule diameter: 10 mm
Description: Indirect acting, membrane solenoid valve

Valve code structure e.g.: AI-04F-04-1-12-N-0

04F	04	1		12		N	0

series	connection size	no. of connect. and positions	symbol	DN	Kv [m^3/h]	seal	stem regulation
04F	03 = 1/4” BSP	1 = 2/2NC		10 = 10 mm	1.88	N = NBR E = EPDM V = FKM	0 = no reg. 1 = with reg.*
	04 = 3/8” BSP			12 = 12 mm 14 = 14 mm	2.90 3.32		
	05 = 1/2” BSP			12 = 12 mm 14 = 14 mm	3.03 3.53		
	07 = 3/4” BSP			18 = 18 mm	5.56		
	09 = 1” BSP			25 = 25 mm	10.97		
	03 = 1/4” BSP	2 = 2/2NO		10 = 10 mm	1.88		
	04 = 3/8” BSP			12 = 12 mm 14 = 14 mm	2.90 3.32		
	05 = 1/2” BSP			12 = 12 mm 14 = 14 mm	3.03 3.53		
	07 = 3/4” BSP			18 = 18 mm	5.56		
	09 = 1” BSP			25 = 25 mm	10.97		

* - sizes available with stem regulation: 3/4” BSP, 1” BSP

AIGNEP solenoid valves

Solenoids for solenoid valves

Degree of protection: IP67 IEC 60529
Insulation class: H CEI EN 60085
Connection: AMP for 22 mm size
DIN 43650 for 30 ÷ 36 mm size
Voltage tolerance: ±10%
Working temp.: -10°C ÷ +80°C

series	code	assembly diameter [mm]	size [mm]	nominal voltage [V]	power
01F / 04F	AI-SOL10-012-C-4	10	22	12V DC	6.5 W
01F / 04F	AI-SOL10-024-C-4		22	24V DC	6.5 W
01F / 04F	AI-SOL11-012-C-5		30	12V DC	8 W
01F / 04F	AI-SOL11-024-C-5		30	24V DC	8 W
01F / 04F	AI-SOL10-024-A-8		22	24V AC	7.5 VA
01F / 04F	AI-SOL10-110-A-8		22	110V AC	7.5 VA
01F / 04F	AI-SOL10-220-A-8		22	220V AC	7.5 VA
01F / 04F	AI-SOL11-024-A-9		30	24V AC	11 VA
01F / 04F	AI-SOL11-110-A-9		30	110V AC	11 VA
01F / 04F	AI-SOL11-220-A-9		30	220V AC	11 VA
02F	AI-SOL20-012-C-5	13	30	12V DC	8 W
02F	AI-SOL20-024-C-5		30	24V DC	8 W
02F / 03F	AI-SOL20-012-C-6		30	12V DC	14 W
02F / 03F	AI-SOL20-024-C-6		30	24V DC	14 W
02F / 03F	AI-SOL21-012-C-7		36	12V DC	22 W
02F / 03F	AI-SOL21-024-C-7		36	24V DC	22 W
02F / 03F	AI-SOL20-024-A-A		30	24V AC	14 VA
02F / 03F	AI-SOL20-110-A-A		30	110V AC	14 VA
02F / 03F	AI-SOL20-220-A-A		30	220V AC	14 VA
02F / 03F	AI-SOL20-024-A-B		30	24V AC	21 VA
02F / 03F	AI-SOL20-110-A-B		30	110V AC	21 VA
02F / 03F	AI-SOL20-220-A-B		30	220V AC	21 VA
02F / 03F	AI-SOL21-024-A-C		36	24V AC	31 VA
02F / 03F	AI-SOL21-110-A-C		36	110V AC	31 VA
02F / 03F	AI-SOL21-220-A-C		36	220V AC	31 VA

Safety valves

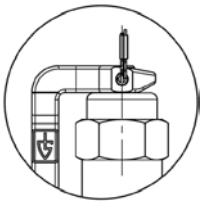
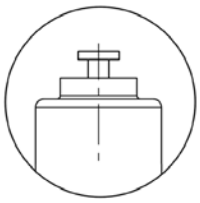
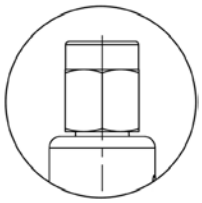
Safety valve automatically discharges a medium when the pressure exceeds a predetermined value (set pressure) thus securing a pressure tank or system from bursting out. Once the pressure is stabilized below its set value, the safety valve closes and the medium is not further released. According to Pressure Equipment Directive (PED) 2014/68/UE this type of safety valve is regarded as a protective device.
The safety valves offered by TUBES INTERNATIONAL® are suitable for inert and non-inert media, including air gases, steam, fluids (also cryogenic fluids).

Note!
The precise value of valve working pressure is set by the producer, then the valve is sealed. The set pressure value is imprinted as a marking on the valve body. Once the range of the valve working pressure is selected, the set pressure value must be determined. The diameter of a hose supplying the system equipped with the safety valve must not be smaller than the DN of the valve. Also, the pressure drop between the supplying hose and the valve must not exceed 3%. In order to check if the valve works properly, carry out a functional test either by turning a nut (twist-type mechanism) or by lifting either the lever or stem, depending on the lifting device. Any repairs can only be carried out by the manufacturer.

As the construction of discharge outlets varies, the safety valves are divided into the following types:

open construction (atmospheric discharge)	enclosed construction (angle)	enclosed construction - tight (angle) – gastight valves
When the valve opens, the medium is discharged directly to the atmosphere, vented through the discharge holes.	The valve with a discharge connection allows releasing the medium from the outlet chamber into the discharge piping.	Suitable for hazardous media and those harmful to the environment. The valves must be gastight so they do not have a test function.
		

Functional test types:

twist-type mechanism (turning the nut)	lever (lifting the lever)	stem (lifting the stem)	no test function
			

Note! Remember to carry out the functional test only when the system is under pressure - working pressure.

Safety valves

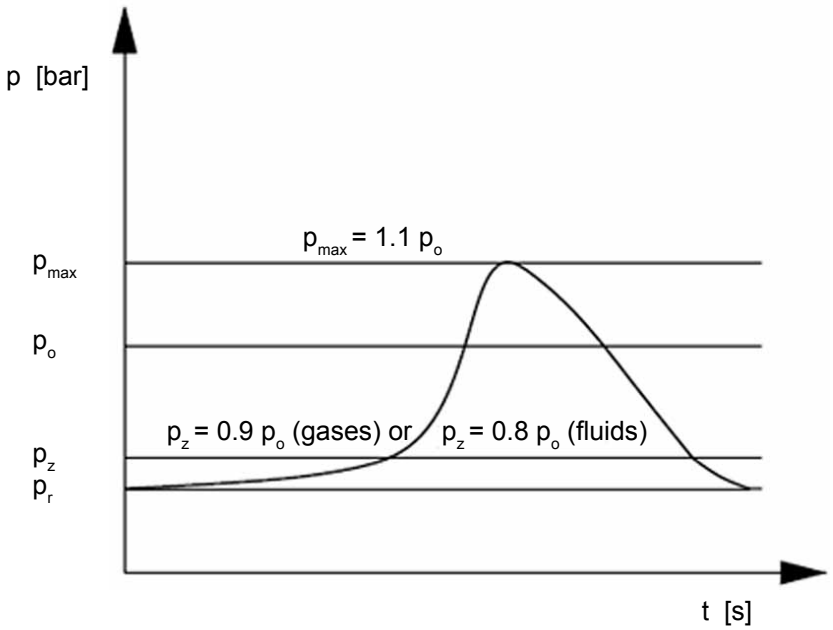
Marking of safety valves (example of GOETZE safety valve):

TÜV SV xx-xxx xx D xx x

- x — set pressure [bar]
- xx — coefficient of discharge or when used for H,SOL,W indicates kW
- D — application: **G** (for gases), **D** (for steam), **H** (boilers DIN 4751, DIN EN 12828), **D/G/H** (boilers DIN 4751, DIN EN 12828), **W** (water heaters DIN 4753), F (fluids), **F/K/S** (for air and inert gases in tanks for liquid, granular and powdery substances), **SOL** (for water and water mixtures in solar heating systems)
- xx — flow diameter (the smallest inlet diameter) [mm], when the letter **H** is used - no information, for **W** - connection size [mm]
- xxx — number of test type approval
- xx — year of type test approval
- SV — safety valve
- TÜV — notified body logo - TÜV (Technischer Überwachungsverein)

Example of EWO safety valve marking: **CE0685 SV 02 2 8 D/G 0.32 P** (CE0685 - DEKRA technical inspection, P - set pressure).

Valve operation - definitions:



p_r - working pressure of a system / safety device,
p_z - closing pressure - the pressure at which the valve closes tight - basically the valve is fully closed, when the pressure drops down to 10% below the set pressure for gases, and down to 20% for fluids,
p_o - set pressure - the pressure at which the safety valve commences to open (usually the tolerance value of up to ±3% is assumed at the start of opening),
p_{max} - max. opening pressure - the pressure at which the disc of the valve is fully lifted (discharge pressure) - the valve achieves the maximum flow capacity.

Example of the valve with 12 bar set pressure:
- set pressure - the start of opening - 12 bar ± 3%,
- pressure at which the valve is fully opened (up to +10% of set pressure) - max. 13.2 bar,
- closing pressure (down to -10% in the case of gases and down to -20% for fluids) - max. 10.8 bar, (gas) or max. 9.6bar (fluid).

Note!
The working pressure of a system must be always lower than the valve closing pressure.

Safety valves

EWO DN 6 safety valve

Body material: Brass
Sealing: Viton
Connection: BSP male thread
Max. opening press.: Up to +10% of set press.
Closing press.: Down to -10% of set press.
Working temp.: From -10°C up to +150°C
Test function: Lifting the stem
Medium: Air, inert, non-toxic and non-flammable gases

code*	flow DN [mm]	thread size [inch]	length [mm]	spanner size [mm]	setting range [bar]
EW-46923-...	6	1/4	65	17	4.5÷7.0
EW-46924-...					7.0÷10.0
EW-46925-...					10.0÷13.0
EW-46926-...					13.0÷18.0
EW-46927-...					18.0÷24.0
EW-46933-...		3/8		19	4.5÷7.0
EW-46934-...					7.0÷10.0
EW-46935-...					10.0÷13.0
EW-46936-...					13.0÷18.0
EW-46937-...					18.0÷24.0

discharge capacity (when valve is opened or pressure rises by 10% above set press.)		
set pressure [bar]	capacity [m^3/h]	capacity [l/min]
6	45.5	763
10	92	1540
11	100	1681
14	126	2104
16	143	2387
18	160	2696
20	177	2551
22	194	3234
24	211	3516

EWO DN 10 safety valve

Body material: Brass
Sealing: Viton
Connection: BSP male thread
Max. opening press.: Up to +10% of set press.
Closing press.: Down to -10% of set press. (below 3 bar ≤ 0.3 bar)
Working temp.: From -10°C up to +180°C
Test function: Twist - type
Medium: Air, inert, non-toxic and non-flammable gases

code*	flow DN [mm]	thread size [inch]	length [mm]	spanner size [mm]	setting range [bar]
EW-351261-...	10	1/2	120	27	2.0÷3.6
EW-351262-...					3.6÷5.0
EW-351263-...					5.0÷7.0
EW-351264-...					7.0÷8.5
EW-351265-...					8.5÷11.5
EW-351266-...					11.5÷16.0
EW-351267-...					16.0÷22.0
EW-351271-...		3/4		30	2.0÷3.6
EW-351272-...					3.6÷5.0
EW-351273-...					5.0÷7.0
EW-351274-...					7.0÷8.5
EW-351275-...					8.5÷11.5
EW-351276-...					11.5÷16.0
EW-351277-...					16.0÷22.0

discharge capacity (when valve is opened or pressure rises by 10% above set press.)		
set pressure [bar]	capacity [m^3/h]	capacity [l/min]
2	74.5	1242
4	124	2068
6	174	2895
8	223	3722
10	273	4548
12	323	5377
14	372	6203
16	422	7032
18	471	7858
20	521	8685
22	571	9513

* - when ordering your chosen safety valve, please write down the set pressure on the dotted line of the code.

Safety valves

EWO DN 8 safety valve

Body material: Brass
Sealing: Viton
Connection: BSP male thread
Max. opening press.: Up to +10% of set press.
Closing press.: Down to -10% of set press. (below 3 bar ≤ 0.3 bar)
Working temp.: From -10°C up to +180°C
Test function: Twist - type
Medium: Air, inert, non-toxic and non-flammable gases

code*	flow DN [mm]	thread size [inch]	length [mm]	spanner size [mm]	setting range [bar]
EW-351221-...	8	1/4	85	20	1.0÷1.5
EW-351222-...					1.5÷2.0
EW-351223-...					2.0÷3.0
EW-351224-...					3.0÷5.0
EW-351225-...					5.0÷7.0
EW-351226-...					7.0÷9.0
EW-351227-...					9.0÷15
EW-351421-...			90		15.0÷20.0
EW-351422-...					20.0÷27.0
EW-351423-...					27.0÷40.0
EW-351241-...		3/8	85		1.0÷1.5
EW-351242-...					1.5÷2.0
EW-351243-...					2.0÷3.0
EW-351244-...					3.0÷5.0
EW-351245-...					5.0÷7.0
EW-351246-...					7.0÷9.0
EW-351247-...					9.0÷15.0
EW-351441-...			90		15.0÷20.0
EW-351442-...					20.0÷27.0
EW-351443-...					27.0÷40.0
EW-351251-...		1/2	87	24	1.0÷1.5
EW-351252-...					1.5÷2.0
EW-351253-...					2.0÷3.0
EW-351254-...					3.0÷5.0
EW-351255-...					5.0÷7.0
EW-351256-...					7.0÷9.0
EW-351257-...					9.0÷15.0
EW-351451-...			92		15.0÷20.0
EW-351452-...					20.0÷27.0
EW-351453-...					27.0÷40.0

discharge capacity (when valve is opened or pressure rises by 10% above set press.)		
set pressure [bar]	capacity [m^3/h]	capacity [l/min]
1	23.5	394
2	35.5	592
4	59	985
6	63	1380
8	106	1773
10	130	2168
12	154	2562
14	177	2957
16	201	3350
18	225	3745
20	248	4138
22	272	4533
25	307	5124
30	367	6110
35	426	7095
40	485	8080

* - when ordering your chosen safety valve, please write down the set pressure on the dotted line of the code.

Safety valves

810 series safety valve

Body material:	Brass and stainless steel
Sealing:	FKM (set press. 0.2 ÷ 25 bar), PTFE (set press. 25.1 ÷ 50 bar) PTFE (set press. 0.2 ÷ 25 bar) - option
Connection:	BSP male thread (BSPT - option)
Connection size:	1/4”, 3/8”, 1/2”, 3/4”, 1”
Diameter DN:	DN8, DN10, DN15, DN20, DN25
Setting range:	0.2 ÷ 50 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press.
Working temp.:	From -20°C up to +200°C (FKM) From -60°C up to +225°C (PTFE)
Test function:	Twist - type
Medium:	Air, inert, non-toxic and non-flammable gases

810 series atmospheric discharge safety valves allow releasing air and other inert gases directly into the atmosphere. They are chiefly used in compressors, pressure boosters, pneumatic control units, railway applications, auto paint shops.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2.

812 series safety valve

Body material:	Brass and stainless steel
Sealing:	NBR (FKM - option) PTFE (option - from 1 bar set press)
Connection:	BSP male thread (BSPT, NPT - option)
Connection size:	1/2”, 3/4”, 1”, 1.1/4”, 1.1/2”, 2”
Diameter DN:	DN15, DN20, DN25, DN32, DN40, DN50
Setting range:	0.2 ÷ 50 bar (DN15 ÷ DN40) 0.2 ÷ 30 bar (DN50)
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press.
Working temp.:	From -30°C up to +130°C (NBR) From -20°C up to +200°C (FKM) From -60°C up to +225°C (PTFE)
Test function:	Twist - type
Opcja:	Deflektor
Medium:	Air, inert, non-toxic and non-flammable gases

812 series atmospheric discharge safety valves are intended for air and other inert gases which can be released directly into the atmosphere. Mainly used in pneumatic control units, pressure boosters, railway applications, auto paint shops, pneumatic braking systems. The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2.

Safety valves

813 series safety valve

Body material:	Brass and stainless steel
Sealing:	FKM, PTFE (option - from 1 bar set press.)
Connection:	BSP male thread (BSPT, NPT - option)
Connection size:	1/2”, 3/4”, 1”, 1.1/4”, 1.1/2”, 2”
Diameter DN:	DN15, DN20, DN25, DN32, DN40, DN50
Setting range:	0.2 ÷ 6 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press.
Working temp.:	From -20°C up to +200°C (FKM) From -60°C up to +225°C (PTFE)
Test function:	Twist - type
Medium:	Air and inert gases in tanks containing liquid, granular and powdery substances (F/K/S).

813 series atmospheric discharge safety valve fitted with a diaphragm intended for air and other inert gases. Mounted mainly in silos, stationary pressure tanks intended for dry loose media. But they are also used by the producers of dry bulk road tankers and companies providing service for the tankers. Besides, they are applied in auto paint shops and compressed air installations working in dusty environment. The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2, TRB 801 No. 22 and No.23.

851 series safety valve

Body material:	Bronze, brass and stainless steel
Sealing:	NBR, EPDM, FKM, PTFE (set press. up to 25 bar) PTFE + carbon (set press. above 25 bar) metal - metal (option)
Connection:	BSP female thread BSP female/male thread - option BSP female / BSPT male thread - option
Connection size:	1/2”, 3/4”, 1”, 1.1/4”, 1.1/2”, 2”
Diameter DN:	DN15, DN20, DN25, DN32
Setting range:	0.5 ÷ 50 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press. for gases Down to -20% of set press. for fluids
Working temp.:	From -30°C up to +130°C (NBR) From -40°C up to +170°C (EPDM) From -20°C up to +200°C (FKM) From -60°C up to +225°C (PTFE, PTFE + carbon, metal - metal)
Test function:	Twist - type, lever
Medium:	Air, vapour, gases, steam and fluids depending on version

851 series safety valves are of enclosed construction (angle type). Four versions are available: non-gastight, with a bellow, gastight and gastight with a bellow. The valves secure pressure tanks and pressure systems for inert and non-inert vapours, gases and fluids, steam boilers, steam systems, stationary silos and road tanker trucks conveying fluids, dry bulk and powdery media (concerns version with a bellow). They are used in mechanical engineering, pumps, medical devices and medical technology (sterilizers, autoclaves), shipbuilding industry (ship building/repair), pressure boosters.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2, TRD 421, TRB 801 No. 22 and No. 23.

Safety valves

413 series safety valve

Body material:	Stainless steel
Sealing:	FKM, PTFE (option - from 1 bar set press.)
Connection:	BSP male thread (BSPT, NPT - option)
Connection size:	1/2”, 3/4”, 1”, 1.1/4”, 1.1/2”, 2”
Diameter DN:	DN15, DN20, DN25, DN32, DN40, DN50
Setting range:	0.2 ÷ 6 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press. for gases
Working temp.:	From -20°C up to +200°C (FKM) From -60°C up to +225°C (PTFE)
Test function:	Twist - type
Medium:	Air and inert gases in tanks containing liquid, granular and powdery substances (F/K/S).

413 series atmospheric discharge safety valve fitted with a diaphragm intended for air and other inert gases. Mounted mainly in silos, stationary pressure tanks intended for dry loose media. The safety valves are also used by the producers of dry bulk road tankers and companies providing service for the tankers. Besides, they are suitable for the food industry, pharmaceutical industry and cosmetics industry application.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2, TRB 801 No. 22 and No. 23.

460 series safety valve

Body material:	Stainless steel
Sealing:	NBR, EPDM, FKM, PTFE (set press. from 0.5 bar)
Connection:	BSP male / female thread BSPT male / BSP female thread (option) NPT male / BSP female thread (option)
Connection size:	3/8”, 1/2”, 3/4”, 1”
Diameter DN:	DN10, DN15, DN20, DN25
Setting range:	0.2 ÷ 25 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press. for gases Down to -20% of set press. for fluids
Working temp.:	From -30°C up to +130°C (NBR) From -50°C up to +150°C (EPDM) From -20°C up to +200°C (FKM) From -60°C up to +225°C (PTFE)
Test function:	Lever
Medium:	Air, vapour, gases, steam and fluids depending on version

460 series safety valves are of enclosed construction. Optionally available as a gastight version. They are suitable for the protection of pressure tanks and systems for inert and non-inert vapours, gases and fluids, steam boilers, steam systems. Suitable for the application in chemical plants, biogas plants, in shipbuilding industry, offshore, desalination systems. After checking with Technical Department of TUBES INTERNATIONAL® the valves can be used in the food industry, pharmaceutical industry and cosmetics industry.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2, TRD 421.

Safety valves

451 series safety valve

Body material:	Stainless steel
Sealing:	NBR, EPDM, FKM, PTFE (set press. up to 25 bar) PTFE + carbon (set press. above 25 bar) metal - metal (option)
Connection:	BSP female thread BSP male / female thread (option) BSPT male / BSP female thread (option)
Connection size:	1/2”, 3/4”, 1”, 1.1/4”, 1.1/2”, 2”
Diameter DN:	DN15, DN20, DN25, DN32
Setting range:	0.5 ÷ 70 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press. for gases Down to -20% of set press. for fluids
Working temp.:	From -30°C up to +130°C (NBR) From -40°C up to +170°C (EPDM) From -20°C up to +200°C (FKM) From -60°C up to +225°C (PTFE) From -60°C up to +400°C (metal - metal)
Test function:	Twist - type
Medium:	Air, vapour, gases, steam and fluids depending on version

451 series safety valves are of enclosed construction. Four versions are available: non-gastight, with a bellow, gastight and gastight with a bellow. The valves secure pressure tanks and pressure systems for inert and non-inert vapours, gases and fluids, steam boilers, steam systems, road tankers conveying fluids and dry bulk media (concerns version with a bellow). They are used in chemical plants, biogas plants, medical devices and medical technology (sterilizers, autoclaves), After checking with Technical Department of TUBES INTERNATIONAL® , the valves can be used in the food industry, pharmaceutical industry and cosmetics industry.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2, TRD 421, TRB 801 No. 22 and No. 23.

492 series safety valve

Body material:	Stainless steel and VDSiCr spring steel
Sealing:	Metal-metal / PA
Connection:	BSP male thread (standard - atmospheric discharge valves), BSP male/ female thread (gastight version - angle valve)
Connection size:	1/4”, 3/8”, 1/2”, 3/4” (inlet) 1/2”, 3/4”, 1” (outlet)
Diameter DN:	DN10, DN15
Setting range:	50 ÷ 630 bar (DN10), 50 ÷ 250 bar (DN15)
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press.
Working temp.:	From -60°C up to +180°C
Test function:	Twist - type (for standard version only)
Medium:	Air, inert gases, non-toxic and non-flammable (standard version), inert and non-inert gases (angle valves)

492 series safety valves are available in a standard version (atmospheric discharge) and as a gastight version (enclosed construction valves). The gastight version valves are not suitable for counter pressure and do not have a test function lifting device. Suitable for high pressure compressors, pressure tanks, pressure cylinders. Not intended for steam.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet.

Safety valves

2400 series safety valve

Body material:	Stainless steel
Sealing:	PTFE (FDA approval), PTFE + carbon
Connection:	BSP male / female thread BSP female thread (option) NPT male / BSP female thread (option)
Connection size:	1/4”, 3/8”, 1/2”, 3/4”, 1” (inlet) 3/8”, 1/2”, 3/4”, 1” (outlet)
Diameter DN:	DN10, DN15, DN20, DN25
Setting range:	0.2 ÷ 70 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press. for gases Down to -20% of set press. for fluids
Working temp.:	From -200°C up to +200°C
Test function:	Only for non-gastight version, twist-type or lever
Medium:	Cryogenic gases, vapours, fluids

2400 series safety valves are of enclosed construction. Available in a non-gastight version for inert media and in a gastight version for inert and non-inert gases. Intended for the protection of tanks and pipelines for the storage and transport of such liquefied gases as liquid oxygen (LOX), liquid nitrogen (LIN), liquid argon (LAR), liquid carbon dioxide (CO), LNG. Suitable for dry ice production equipment, nitrogen dosing, cryogenic machining, in cryogenic systems, in food products freezing processing lines.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2, DIN EN 13648-1.

400 series safety valve

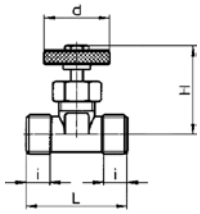
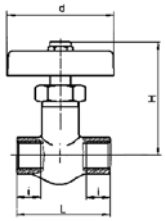
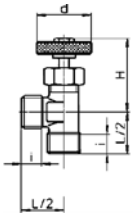
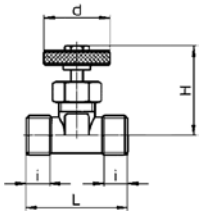
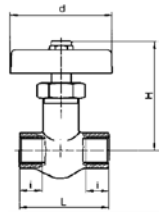
Body material:	Stainless steel and VDSiCr spring steel
Sealing:	FKM (FDA, USP 3-A, material free of components of animal origin), EPDM (FDA)
Connection:	Hygienic flanged connected by DIN11864-3 / DIN11853-3, DIN32676 (option) clamps Hygienic screwed with Rd thread DIN11864-1/DIN11853-1 (option), DIN 11851(option)
Connection size:	Dep. on version DN20, DN25, DN32 (inlet) Dep. on version DN25, DN32 (outlet)
Diameter DN:	DN20
Setting range:	0.4 ÷ 16 bar
Max. opening press.:	Up to +10% of set press.
Closing press.:	Down to -10% of set press. for gases Down to -20% of set press. for fluids
Working temp.:	From -20°C up to +200°C (FKM) From -40°C up to +170°C (EPDM)
Test function:	Twist - type
Medium:	Air, vapour, gases, fluids and depending on version - steam

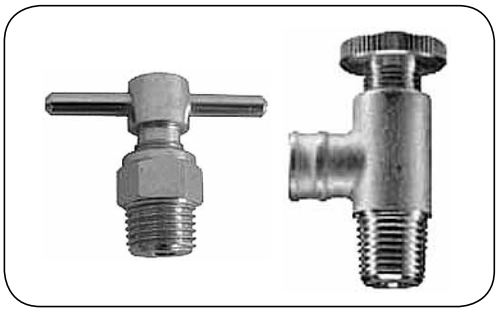
400 series safety valves are of enclosed construction. Optionally available with a bellow. Intended for the protection of processes, pressure systems, tanks used for inert and non-inert vapours, gases, fluids and steam in the food, pharmaceutical industry and cosmetics industry.
The safety valves meet the requirements of DIN EN ISO 4126-1, PED 2014/68/EU, AD 2000 data sheet A2, TRD 421.

EWO shut-off and regulating valve

Material: Brass
Working temp.: From -10°C up to +90°C
Working press.: 25 bar for DN 3.5 mm
40 bar for DN from 4 mm

Shut-off and regulating valves are used to control the flow rate of a medium in a system by changing the size of passage cross section in the valve until it is completely closed. Widely used for air applications. Suitable for non-flammable and non-toxic gases (nitrogen, carbon dioxide, helium, argon) as well.
The valve is manually closed by turning a knob which causes movement of a stainless steel ball until the passage is tight. NBR O-ring seals the spindle of the valve.
Regulating needle valve is equipped with a brass cone that controls the flow of a medium from a wide open position to closed position. Arrows on the body indicate flow direction.

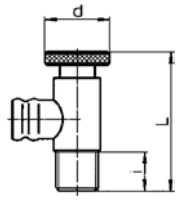
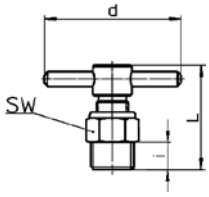
picture	code	thread size [inch]	DN [mm]	dimensions [mm]				description
				L	i	H	d	
	EW-29601	1/8	3.5	35	7	30	22	Straight shut-off valve with male thread.
	EW-29611	1/4	3.5	34	8	30	22	
	EW-55612	1/4	6	43	10	50	48	
	EW-55614	3/8	10	52	12	50	48	
	EW-55616	1/2	10	64	14	54	48	
	EW-55622	1/4	6	43	11	50	48	Straight shut-off valve with female thread.
	EW-55624	3/8	9	52	12	50	48	
	EW-55626	1/2	11	63	15	57	48	
	EW-29501	1/8	3.5	34	7	26	22	90º shut-off valve with male thread.
	EW-29511	1/4	3.5	34	8	26	22	
	EW-55812	1/4	4	42	11	52	50	Straight regulating needle valve with male thread.
	EW-55814	3/8	4	42	11	52	50	
	EW-55816	1/2	11	65	15	60	50	
	EW-55822	1/4	4	42	12	50	50	Straight regulating needle valve with female thread.
	EW-55824	3/8	4	51	13	50	50	
	EW-55826	1/2	11	64	15	50	50	



EWO drain valves

Material: Brass, nickel-plated brass
Working temp.: From 0°C up to +90°C
Working press.: 25 bar

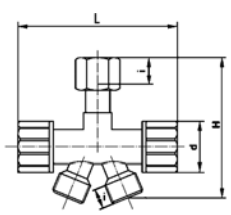
Drain valves are used for letting air out in order to balance the pressure in an installation. Also used to remove condensate. Compressed air can contain steam which upon condensation changes into a mixture of water and oil called condensate. If the condensate is not removed, the break-down of installation or compressed air units is possible.

picture	code	thread size [inch]	DN [mm]	dimensions [mm]				description
				L	i	d	SW	
	EW-16602	1/8	5	43	9	20	-	90º drain valve with soft seal made of NBR.
	EW-16612	1/4	5	43	12	20	-	
	EW-21201	1/8	5	35	7	40	12	Straight drain valve with metal-metal seal.
	EW-16811	1/4	5	35	10	42	14	

EWO air distributor

Material: Brass
Working temp.: From -10°C up to +90°C
Working press.: 40 bar

An air distributor allows to place two or three shut-off valves that can be closed individually whenever required. Equipped with two shut-off valves and two outlets either with two male threads or hose tails.

picture	code	thread size [inch]	DN [mm]	dimensions [mm]				description
				L	i	H	d	
	EW-559621	1/4	6	79	9	110	25	Air distributor with 6 mm hose tail.
	EW-559631	3/8	6	79	9	110	25	Air distributor with 9 mm hose tail.
	EW-559121	1/4	6	79	9	65	25	With male thread outlets
	EW-559131	3/8	6	79	9	65	25	