

**TEESING**



# BALL VALVES

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# ABOUT TEESING

Teesing B.V. has built a sound international reputation as a technical supplier and engineering company, since 1952. An organization that learns from the past, lives in the present and looks into the future. A stimulating approach for any forward-looking enterprise! Teesing maintains harmonious working partnerships with a wide range of manufacturers and business partners worldwide. Principal markets are in Europe, Asia and the U.S.A. The company has permanent offices in Beijing (China), New Jersey (U.S.A.) and Zhubei City (China-Taiwan). The head office is located in Rijswijk, The Netherlands.

The more harmonious the connections, the better a system works. This goes for both technical processes and people-to-people relationships! Thinking and working together – manufacturer, supplier and customer – to fully satisfy present demands while anticipating on future needs. This is “the right connection”, the Teesing approach, fully shared by our partners on a national and international level, in a rapidly expanding global market. A vision that is fast becoming a reality!

## OUR BUSINESS UNITS

 <b>TEESING</b> INDUSTRIAL APPLICATIONS	 <b>TEESING</b> SUBMICRON TECHNOLOGIES	 <b>TEESING</b> ALTERNATIVE ENERGY
International supplier of fittings, valves, tubing, systems and assemblies.	International supplier of HP/UHP components and assemblies from source to process.	International supplier of components, systems and assemblies for CNG/H2 projects.

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All technical and other data contained in this catalogue may be subject to change without notice.

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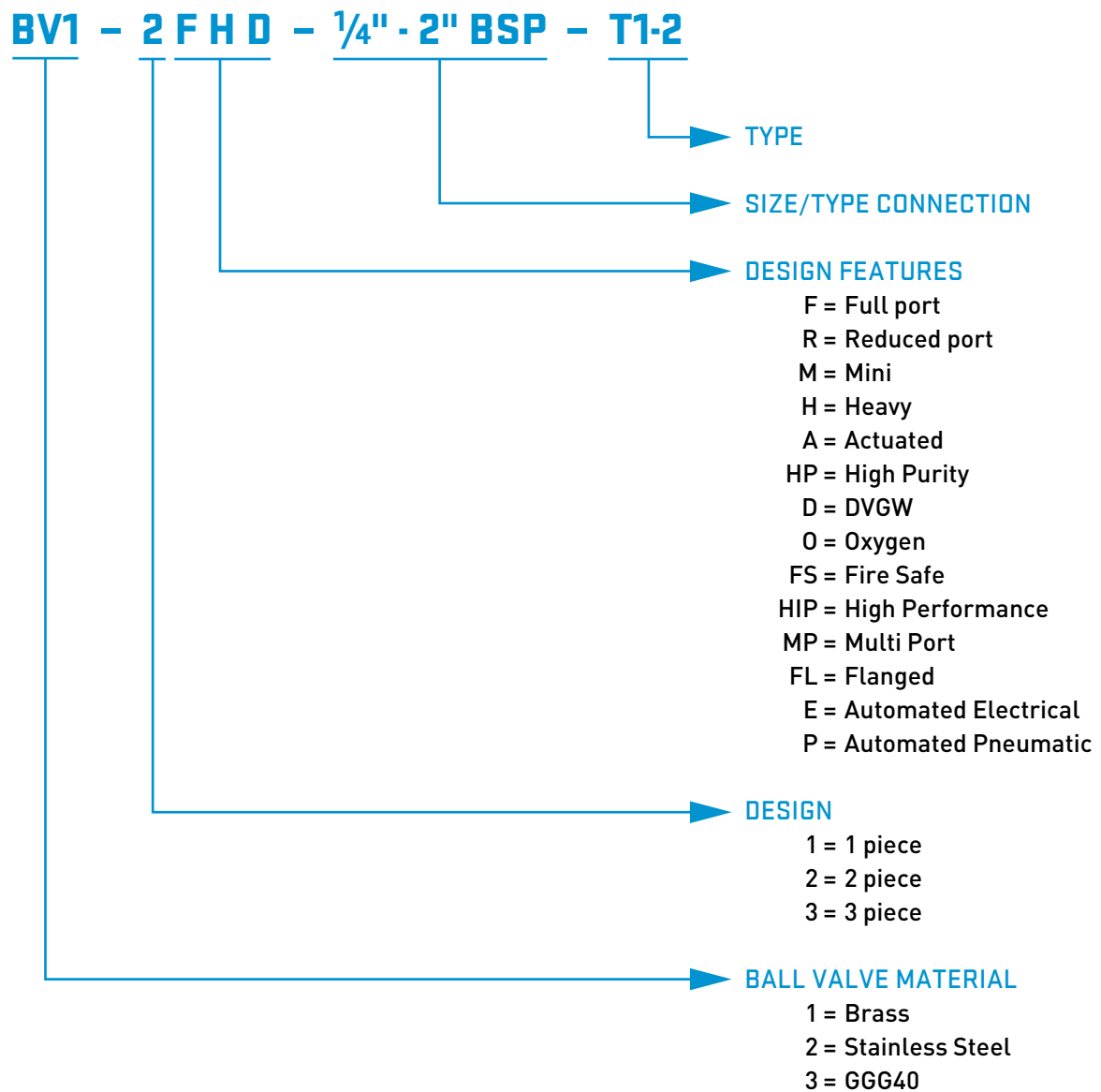
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# PRODUCT DESCRIPTION

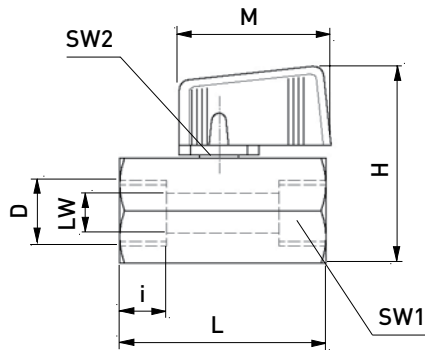
Teesing uses a product description which is structured as follows:



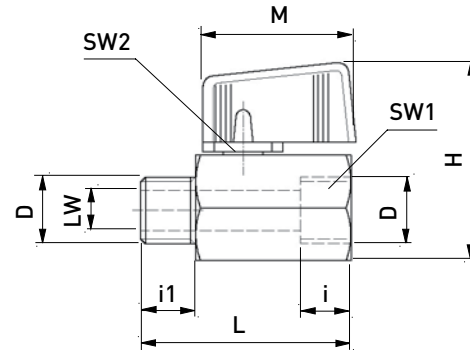
# BRASS MINI BALL VALVE

**BV1 - 1 M - 1/8" - 3/4" BSP - T1-2**

TYPE 1



TYPE 2



## FEATURES

- Body from hexagon extruded brass profile, sandplasted
- Female thread/male thread acc. To DIN ISO 228
- Blow out proof stem design with O-ring
- Maintenance free
- Operation with handle or fork wrench

## WORKING TEMPERATURE

-20°C to +90°C (depending on working pressure)

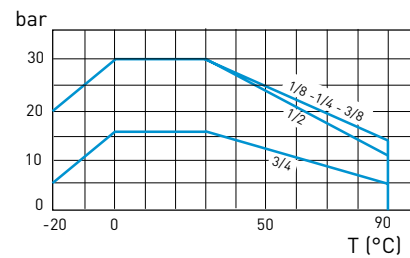
## SUITABLE FOR

Compressed air, water, fuels acc.

## MATERIALS

- Body: brass chrome plated  
 Ball: brass chrome plated  
 Ball seal: PTFE  
 Stem: brass  
 Stem seal: O-ring from:  
     - 1/8 - 1/2 = Viton  
     - 3/4 = NBR  
 Handle: nylon, black

## PRESSURE TEMPERATURE DIAGRAM



## DIMENSIONS (MM)

DN	LW	PN bar	D DIN ISO 228	i	i1	L	SW 1 Hexagon	SW 2 2-flat	M	H	Weight (g)	
											Type 1	Type 2
4	8	30	G 1/8	10	10	41.5	21	5	30	39	112	90
6	8	30	G 1/4	10.5	11	41.5	21	5	30	39	100	82
10	8	30	G 3/8	10.5	11	41.5	21	5	30	39	88	80
15	10	30	G 1/2	12	13	49	25	5	30	43	136	126
20	12	16	G 3/4	14	13.5	54	30	5	30	47.5	194	178

i = useable length of thread

# BRASS

## TWO-PIECE, FULL PORT (HEAVY DESIGN)

**BV1 - 2 F H - 1/4" - 4" BSP - T1-4**



### FEATURES

- Full port design
- Female thread/male thread
- Female thread according to DIN ISO 228
- Male threads according to ISO 7/1
- Free of silicone 1/4"-2"
- Blow out proof nickel plated brass stem
- DN6-DN50 adjustable stem packing
- DN65-DN100 with O-ring 1xViton 1xPerbunan
- T-handle up to size 1" (DN 25)  
standard handle for all types

### MATERIALS

Body: brass nickel plated  
 Ball: brass chrome plated  
 Ball seal: PTFE  
 Packing: PTFE  
 Handle: steel zinc coated  
 with black plastic cover

### TYPES

Type 1 & 2

Type 3 & 4



Standard handle



T-handle

### WORKING TEMPERATURE

-20°C to +170°C (depending  
on working pressure)

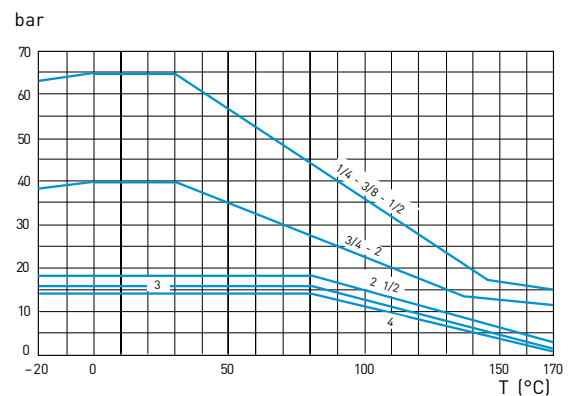
### SUITABLE FOR

Oils, compressed air, water, solvents,  
fuels steam DN6 - DN50

### REMARK

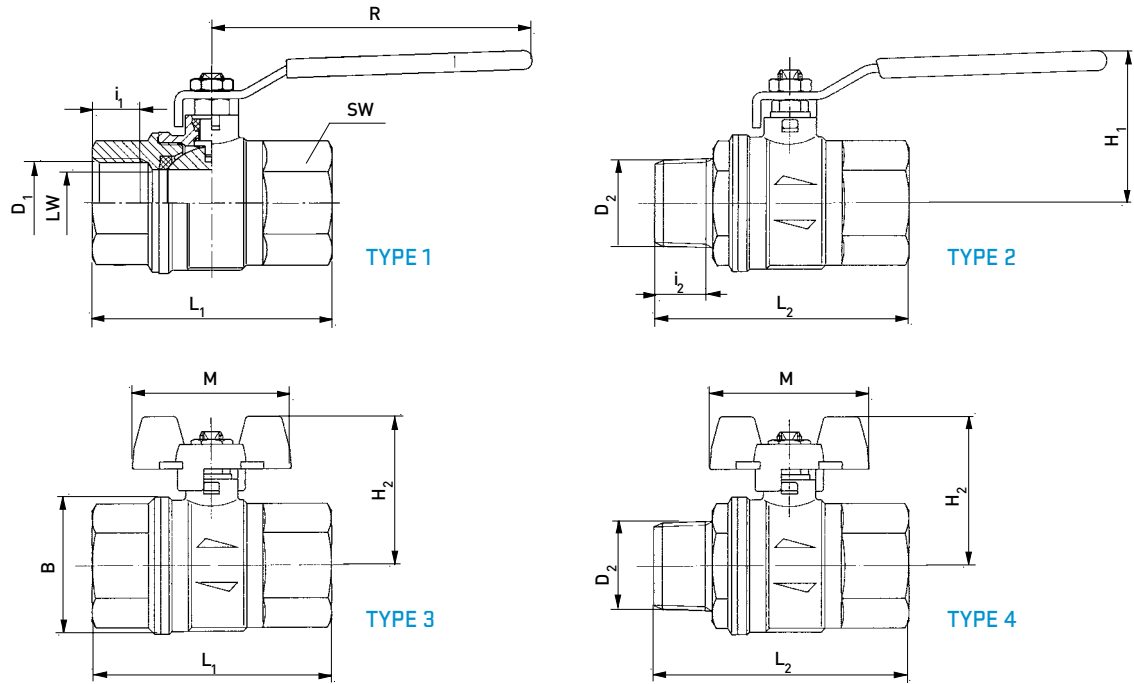
- Gland nut must be adjusted in intervals.

### PRESSURE TEMPERATURE DIAGRAM



# BRASS

## TWO-PIECE, FULL PORT (HEAVY DESIGN)



### WEIGHT (KG)

Type	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
1	0.190	0.170	0.260	0.450	0.795	1.105	1.545	2.505	5.250	7.400	11.100
2	0.190	0.190	0.270	0.450	0.790	1.110	1.605	2.440	5.100	7.600	11.500
3	0.170	0.150	0.240	0.405	0.755	-	-	-	-	-	-
4	0.170	0.170	0.250	0.410	0.745	-	-	-	-	-	-

### DIMENSIONS (MM)

DN	LW	PN bar	D1 DIN ISO 228/1	D2 ISO 7/1	L1 ±2	L2 ±2	i1	i2	B	H1	H2	R	M	SW
6	8	65	G 1/4	R 1/4	51	61	12,5	13	28	39,5	40	82	50	22
10	10	65	G 3/8	R 3/8	51	62	12,5	13	28	39,5	42	82	50	22
15	15	65	G 1/2	R 1/2	61	70	15,5	16,5	34	43	45	100	50	27
20	20	40	G 3/4	R 3/4	74,5	83	18	18	44	52,5	53	120	60	32
25	25	40	G 1	R 1	90,5	96	21	22	52	57	54	120	60	41
32	32	40	G 1 1/4	R 1 1/4	104	110	23	24	65	78	-	158	-	50
40	40	40	G 1 1/2	R 1 1/2	117	127	24,5	24	80	85	-	158	-	55
50	50	40	G 2	R 2	135	140	26,5	27,5	96	92	-	158	-	70
65	65	18	G 2 1/2	G 2 1/2	147	156	24	24	122	122	-	247	-	85
80	80	16	G 3	G 3	168	177	26	26	142	134	-	247	-	99
100	100	14	G 4	G 4	202	208	30	30	180	151	-	247	-	125

# BRASS

## TWO-PIECE, FULL PORT, FOR GAS, DVGW (HEAVY DESIGN)

**BV1 - 2 F H D - 1/4" - 2" BSP - T1-2**



Certification-gas acc. to DIN 3537  
DIN DVGW NG-4312BM0284  
CE 0085AQ1219

### FEATURES

- Full port design
- Female thread acc. to ISO 7-1
- Length of complete valve acc. to DIN 3202-M3
- Free of silicone
- Blow out proof stem design with double O-ring sealing
- T-handle up to size 1" (DN 25)
- Standard handle for all types

### MATERIALS

Body: brass nickel plated  
Ball: brass chrome plated  
Ball seal: PTFE  
Stem seal: 2 Viton O-rings  
Handle: steel zinc coated  
with yellow plastic cover

### TYPES

Type 1



Standard handle

Type 2



T-handle

### WORKING TEMPERATURE

Generally -20 °C to + 170 °C  
gas -20 °C to + 60 °C  
(depending on working pressure)

### SUITABLE FOR

Oils, compressed air, water, fuels, gas\*

\* for gas only MOP 5

### PRESSURE EQUIPMENT DIRECTIVE:

Registered acc. to PED ( 97/23/EC )  
up to max. cat. 3 ( B+D )

### OPTIONAL ACCESSORIES

Lockable handle



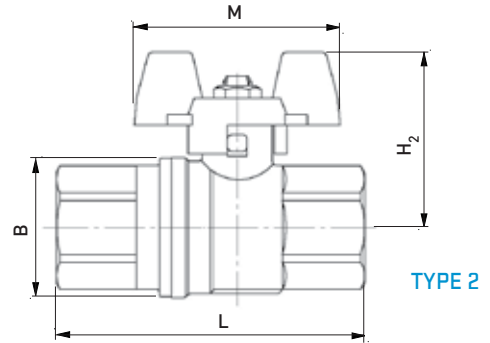
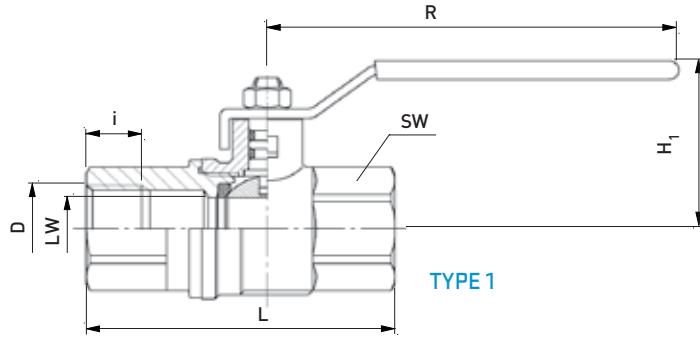
Stem extension





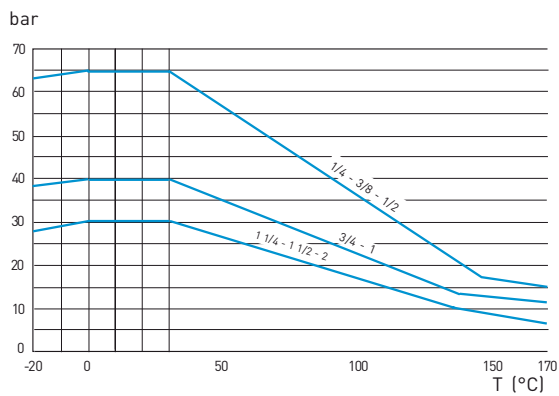
# BRASS

## TWO-PIECE, FULL PORT, FOR GAS, DVGW (HEAVY DESIGN)



i = length of thread

### PRESSURE TEMPERATURE DIAGRAM



### DIMENSIONS (MM)

DN	LW	PN bar	D1 ISO 7-1	L ±2	i	B	H1	H2	R	M	SW	Weight (kg)
6	8	65	Rp 1/4	50	12	28	40	40	82	50	22	0.200
10	10	65	Rp 3/8	60	12	28	40	40	82	50	22	0.200
15	15	65	Rp 1/2	75	15	34	43	42.5	100	50	27	0.310
20	20	40	Rp 3/4	80	17	44	51.5	50.5	120	60	32	0.470
25	25	40	Rp 1	90	19.5	53	55.5	54.5	120	60	41	0.740
32	32	30	Rp 1 1/4	110	22.5	65	75	-	158	-	50	1.150
40	40	30	Rp 1 1/2	120	24.5	80	81	-	158	-	55	1.550
50	50	30	Rp 2	140	24.5	96	88.5	-	158	-	70	2.500

# BRASS

## TWO-PIECE, REDUCED PORT

**BV1 - 2 R - 1/2" - 4" BSP**



### FEATURES

- Reduced port design
- Female threads according to DIN ISO 228
- Free of silicone
- Blow out proof nickel plated brass stem
- Standard handle for all types

### WORKING TEMPERATURE

-20°C to +170°C (depending on working pressure)

### SUITABLE FOR

Oils, compressed air, water, solvents, fuels

### MATERIALS

Body: brass nickel plated  
Ball: brass chrome plated  
1¼ - 2½ hollow ball  
Ball seal: PTFE  
Stem seal: 2 O-rings (Viton)  
Handle: steel zinc coated  
with red plastic cover

### OPTIONAL ACCESSORIES

Lockable handle

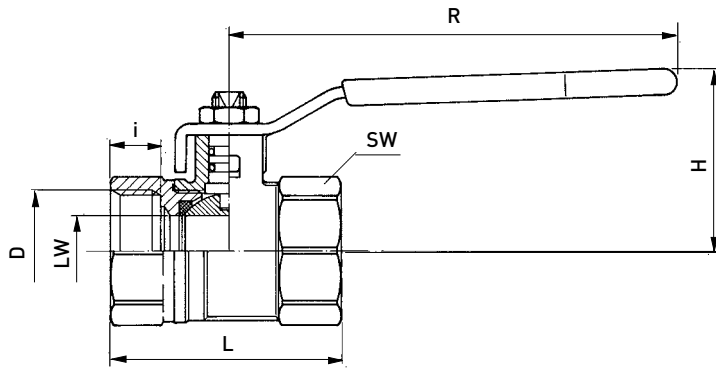


Stem extension



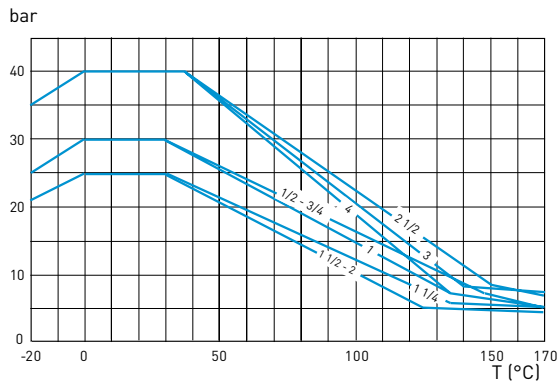
# BRASS

## TWO-PIECE, REDUCED PORT



40 bar from 2½" to 4" pressure cold water

### PRESSURE TEMPERATURE DIAGRAM



### DIMENSIONS (MM)

DN	LW	PN bar	D DIN ISO 228	L ±2	i*	H	R	SW		Weight (kg)
15	9	30	G ½	47	9.5	38.5	100	25	Octagon	0.150
20	15	30	G ¾	55	10.5	43	100	31		0.233
25	19	30	G 1	61.5	12.5	50	120	38		0.400
32	24	25	G 1¼	72	12.0	54	120	49		0.560
40	30	25	G 1½	84	15.3	73	158	54		0.865
50	38	25	G 2	97	16.8	79	158	68		1.270
65	48	40	G 2½	114	20.0	112	158	85		2.050
80	64	40	G 3	142	23.0	117	255	99		4.600
100	76	40	G 4	165	24.0	131	255	125		8.000

\*i = useable length of thread

# BRASS

## TWO-PIECE, FULL PORT, DVGW

**BV1 - 2 F D - 1/4" - 2" BSP - T1-4**



DN32 - DN50



Certification - gas acc. to DIN EN331 DIN DVGW NG-4312AU0246  
 EC - Certification acc. to (90/396/EWG) CE-0085AU0270

### FEATURES

- Full port design
- Female thread/male thread
- Female thread according to ISO 7/1
- Male threads according to ISO 7/1
- Length of complete valve according to DIN 3202-M3 only type 1 and type 3
- Free of silicone
- Blow out proof stem design with double O-ring sealing
- T-handle up to size 1" (DN 25) standard handle for all types

### MATERIALS

- Body: brass nickel plated
- Ball: brass chrome plated
- Ball seal: PTFE
- Stem seal: 2 Viton O-rings
- Handle: steel zinc coated with yellow plastic cover

### WORKING TEMPERATURE

Generally -20°C to +170°C gas -20°C to +60°C (depending on working pressure)

### SUITABLE FOR

- Gas, oils, water, compressed air, fuels
- For gas only MOP 5

### PRESSURE EQUIPMENT DIRECTIVE

Registered according PED (97/23EC) to max. cat. 3 (B+D)

### TYPES

Type 1 & 2

Type 3 & 4



Standard handle



T-handle

### OPTIONAL ACCESSORIES

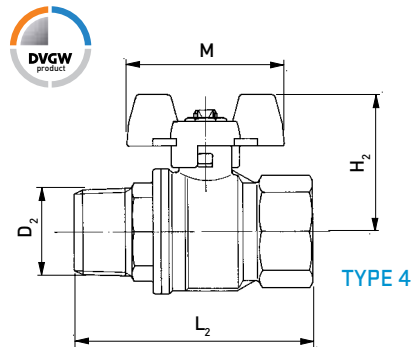
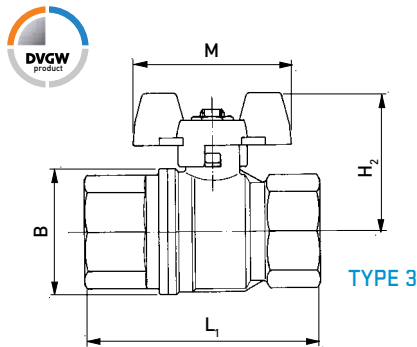
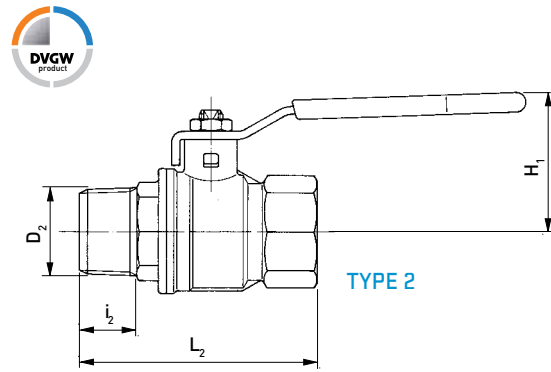
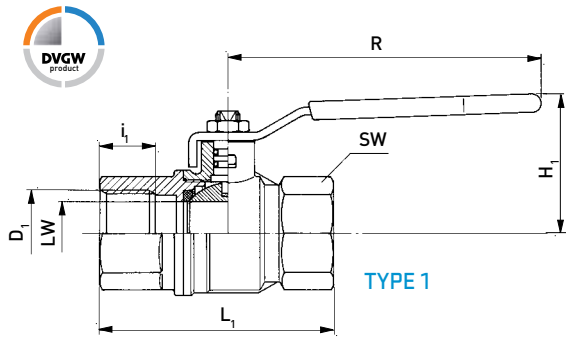
Lockable handle

Stem extension

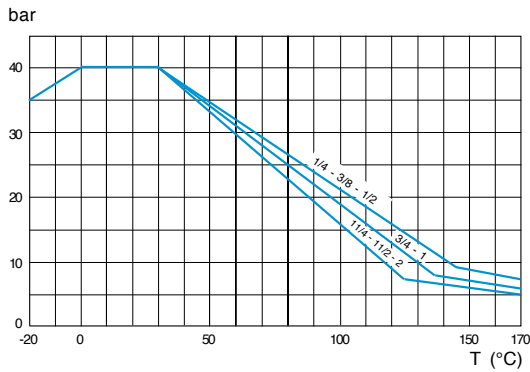


# BRASS

## TWO-PIECE, FULL PORT, DVGW



### PRESSURE TEMPERATURE DIAGRAM



### DIMENSIONS [MM]

DN	LW	PN bar	D1 ISO 7/1	D2 ISO 7/1	L1 ±2	L2 ±2	i1*	i2	B	H1	H2	R	M	SW	Weight (kg)	
6	8	40	Rp 1/4	R 1/4	50	56.5	12	13.5	25	38	38	82	50	20	Hexa- gon	0.158
10	9.5	40	Rp 3/8	R 3/8	60	56.5	12	13.5	25	38	38	82	50	20		0.154
15	15	40	Rp 1/2	R 1/2	75	70	15.5	16.5	32	43	43	100	50	25	Octagon	0.246
20	19	40	Rp 3/4	R 3/4	80	76	17	18	39	50	50	120	60	32		0.386
25	24	40	Rp 1	R 1	90	92.5	21	22	49	54	54	120	60	41		0.624
32	30	40	Rp 1 1/4	R 1 1/4	110	106	23	24	59	73	73	160	-	50		0.976
40	38	40	Rp 1 1/2	R 1 1/2	120	113	23	24	72	79	79	160	-	55		1.202
50	48	40	Rp 2	R 2	140	133	26.5	27.5	86	86	86	160	-	70		1.990

i<sub>1</sub> = useable length of thread

# BRASS

## TWO-PIECE, FULL PORT, 40 BAR

**BV1 - 2 F - 1/4" - 4" BSP - T1-4**



### FEATURES

- Full port design
- Female thread/male thread
- Female threads according to DIN ISO 228
- Male threads according to DIN ISO 228
- Free of silicone
- Blow out proof nickel plated brass stem
- T-handle up to size 1" (DN 25)  
standard handle for all types

### MATERIALS

- Body: brass nickel plated  
Ball: brass chrome plated  
Ball seal: PTFE  
Stem seal: O-rings (Viton)  
Handle: steel zinc coated  
with red plastic cover

### WORKING TEMPERATURE

-20°C to +170°C (depending on working pressure)

### SUITABLE FOR

Water, oils, compressed air, fuels, solvents etc.

### TYPES

Type 1 & 2

Type 3 & 4



Standard handle



T-handle

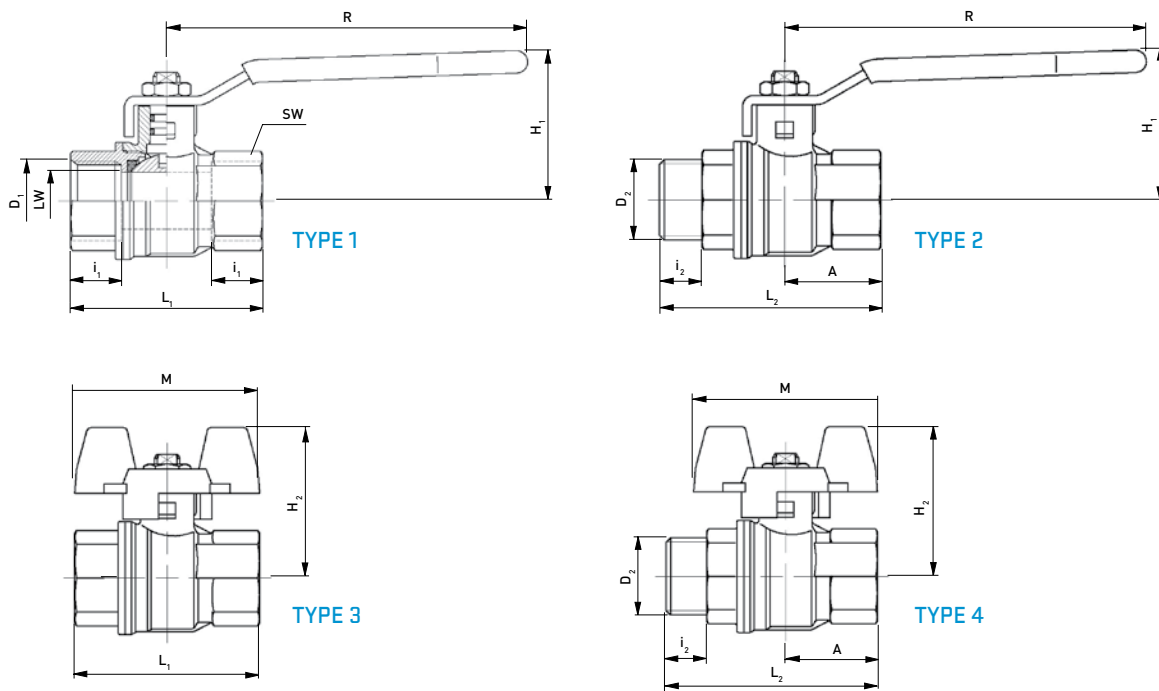
### OPTIONAL ACCESSORIES

Lockable handle

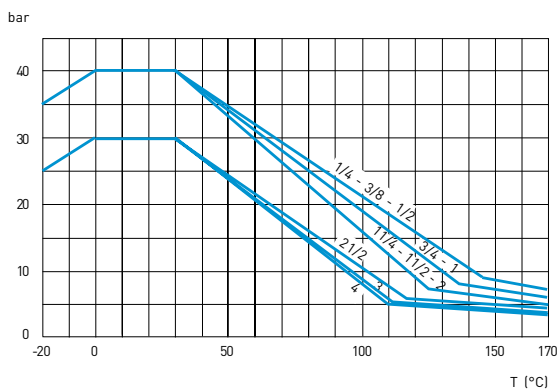
Stem extension



# BRASS TWO-PIECE, FULL PORT



## PRESSURE TEMPERATURE DIAGRAM



## DIMENSIONS (MM)

DN	LW	PN bar	D1 DIN ISO 228	D2 DIN ISO 228	L1 ±2	L2 ±2	i1*	i2	A	H1	H2	R	M	SW	Weight (kg)	
6	8	40	G 1/4	G 1/4	39	47.5	8.5	9	19.5	38	40	82	50	20	Hexagon	0.120
10	9.5	40	G 3/8	G 3/8	39	47.5	8.5	9	19.5	38	40	82	50	20		0.110
15	15	40	G 1/2	G 1/2	50	57.5	10	11	25	43	44	100	50	25	Octagon	0.180
20	19	40	G 3/4	G 3/4	54	63	11	12	27	50	49	120	60	31		0.280
25	24	40	G 1	G 1	67	75.5	13	14	33.5	54	53	120	60	38		0.400
32	30	40	G 1 1/4	G 1 1/4	77	86	14	15	38.5	73	-	158	-	48		0.700
40	38	40	G 1 1/2	G 1 1/2	90	97.5	16	17	45	79	-	158	-	54		0.950
50	48	40	G 2	G 2	106	114.5	17	19	53	86	-	158	-	66		1.470
65	64	30	G 2 1/2	G 2 1/2	136	-	19	-	68	132	-	255	-	85		3.200
80	76	30	G 3	G 3	157	-	23	-	78.5	140	-	255	-	99		5.200
100	95	30	G 4	G 4	191	-	27	-	95.5	154	-	255	-	125	8.000	

\* i1 = useable length of thread

# BRASS

## TWO-PIECE, FULL PORT, FOR OXYGEN

**BV1 - 2 F O - 1/4" - 2" BSP - T1-3**



### FEATURES

- Full port design
- Blow out proof stem design with double O-ring sealing
- Floating ball

### MATERIALS

Body: brass nickel plated  
 Ball: brass chrome plated  
 Ball seal: PTFE  
 O-rings: Perbunan (NBR)  
 Handle: steel, zinc coated with yellow plastic cover

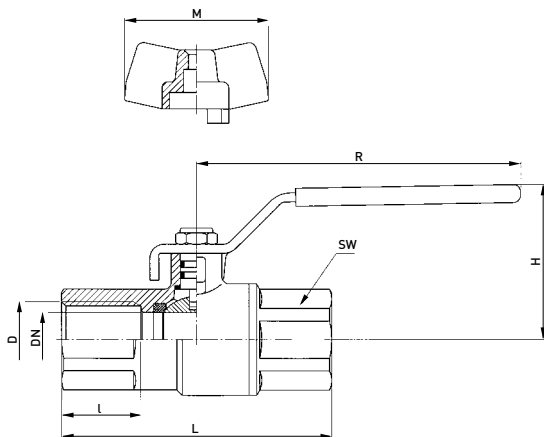
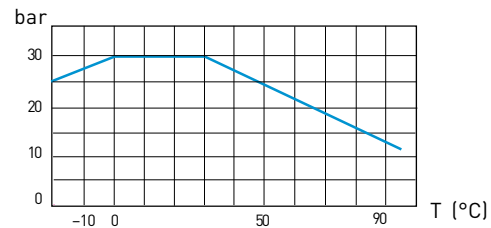
### WORKING TEMPERATURE

-10°C to max. +95°C  
 (depending on working pressure)

### SUITABLE FOR

Water, oils, compressed air, fuels, solvents etc.  
 Oxygen up to 30 bar, argon.

### PRESSURE TEMPERATURE DIAGRAM



### TYPES

#### Type 1



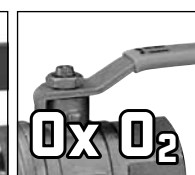
Standard handle yellow

#### Type 2



T-handle yellow

#### Type 3



Oil & Grease free (standard handle white)

### DIMENSIONS (MM)

DN	PN (bar)	ISO 7/1	D	I	L	H	R	M	SW	Weight (kg)		
										type 1	type 2	type 3
6	63	Rp 1/4	12.5	50	41	70	40	17	0.145	0.125	0.145	
10	63	Rp 3/8	17.5	60	41	70	40	21	0.180	0.155	0.180	
15	40	Rp 1/2	23	75	43	90	40	26	0.275	0.250	0.275	
20	40	Rp 3/4	23	80	47	90	55	32	0.395	0.375	0.395	
25	40	Rp 1	24	90	72	135	64	41	0.725	0.675	0.725	
32	40	Rp 1 1/4	29	110	75	135	-	50	1.175	-	1.175	
40	40	Rp 1 1/2	29	120	82	180	-	55	1.830	-	1.830	
50	40	Rp 2	33	140	89	180	-	70	3.000	-	3.000	



# BRASS

## TWO-PIECE, FULL PORT, 25 BAR

**BV1 - 2 F - 1/4" - 2" BSP - T1-4**



### DESIGN FEATURES

- Full port design
- Marking according to EN 19
- Blow out proof stem design with double O-ring sealing
- Strong stem design with steel handle
- Strength of valve body and cap according to EN 331

### WORKING TEMPERATURE

-20°C to +170°C  
(depending on working pressure)

### SUITABLE FOR

Water, oils, compressed air, fuels, solvents etc.

### MATERIALS

Body: hot pressed brass, nickel plated  
Ball: brass chrome plated  
Ball seal: PTFE  
Stem seal: Viton  
Handle: steel, zinc coated  
with red plastic cover

### TYPES

Type 1 & 2

Type 3 & 4



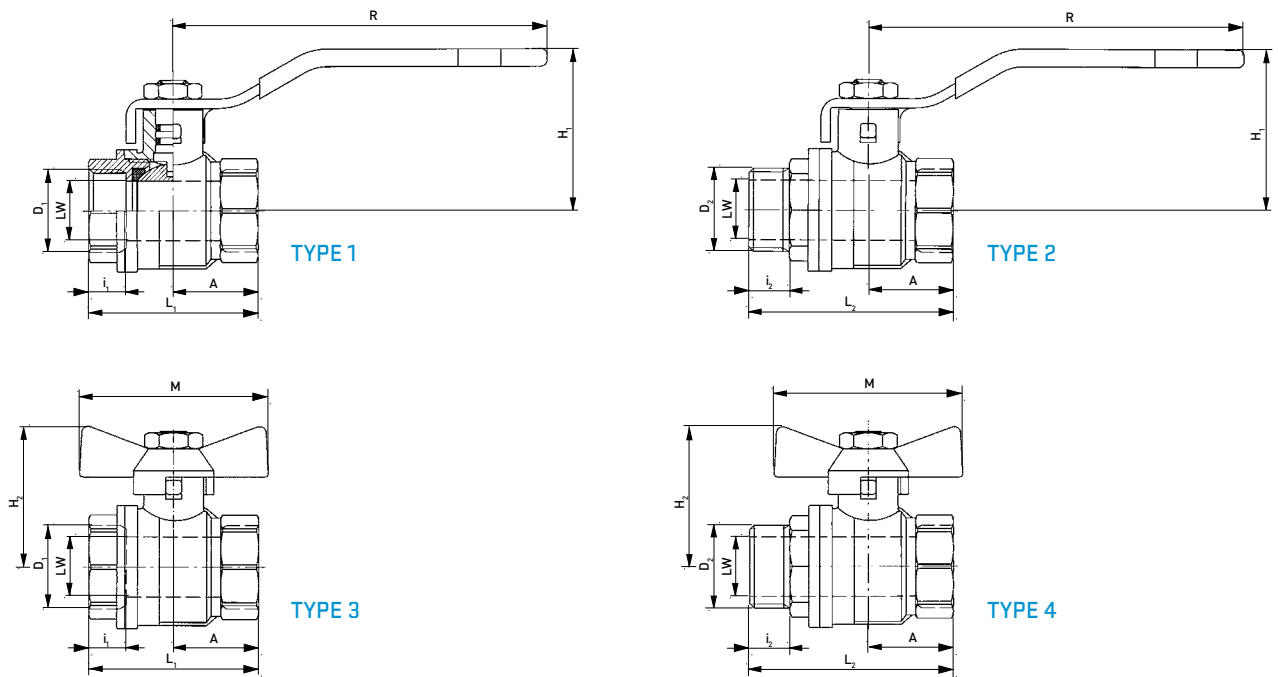
Standard handle



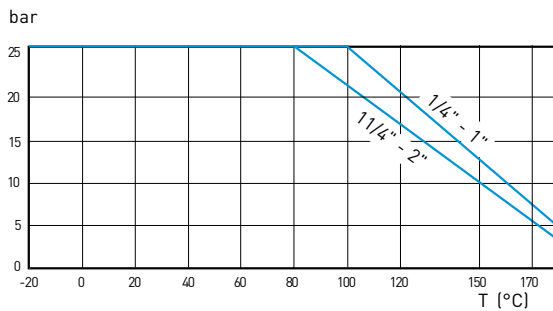
T-handle

# BRASS

## TWO-PIECE, FULL PORT



### PRESSURE TEMPERATURE DIAGRAM



### DIMENSIONS (MM)

DN	LW	PN bar	D1 DIN ISO 228	D2 ISO 7/1	L1 ±2	L2 ±2	i1	i2	A	H1	H2	R	M	SW	Weight (kg)			
															type 1	type 2	type 3	type 4
6	9	25	G 1/4	R 1/4	41.5	50	9	10	20.3	37.5	33.5	82	50	20	0.140	0.145	0.120	0.130
10	10	25	G 3/8	R 3/8	41.5	50	9	10	20.3	37.5	33.5	82	50	20	0.120	0.135	0.104	0.120
15	14	25	G 1/2	R 1/2	51	59	11.5	12	24.5	43.5	39.5	100	50	25	0.220	0.235	0.192	0.210
20	19	25	G 3/4	R 3/4	54	65	12	13	27.0	50.0	44.5	120	60	31	0.320	0.345	0.275	0.308
25	24	25	G 1	R 1	67	78	13	16	33.5	53.5	48.0	120	60	38	0.495	0.550	0.366	0.485
32	30	25	G 1 1/4	R 1 1/4	77	87	13	16.5	38.5	70.0	-	165	-	48	0.775	0.830	-	-
40	38	25	G 1 1/2	R 1 1/2	90	97	15.5	16.5	46.5	75.0	-	165	-	54	1.035	1.125	-	-
50	48	25	G 2	R 2	106	114	17	18	53.0	82.0	-	165	-	66	1.570	1.680	-	-

# STAINLESS STEEL ONE-PIECE, REDUCED PORT

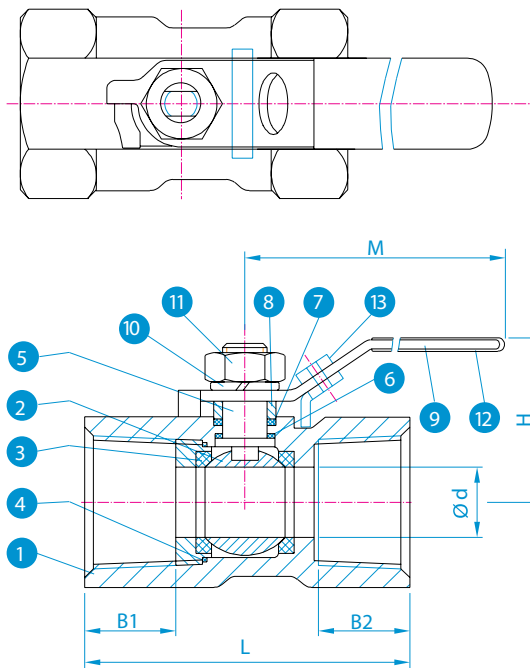
## BV2 - 1 R - 1/4" - 2" BSP/NPT

### FEATURES

- For general purpose industrial application
- Investment cast stainless steel unibody
- Various thread standards available:  
BSP / NPT
- Blow-out proof stem
- Double reduced port
- Cost competitive
- Sizes available from 1/4" to 2" (64 bar)



### TOP & SIDE VIEW



### MATERIAL LIST

NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M/1.4408	1
2	Ball	ASTM A351 Gr CF8M	1
3	Seat	PTFE	2
4	Insert	ASTM A351 Gr CF8M	1
5	Stem	316SS	1
6	Thrust washer	PTFE	1
7	Stem packing	PTFE	1
8	Gland ring	304SS	1
9	Handle	304SS	1
10	Stem washer	304SS	1
11	Stem nut	304SS	1
12	Handle sleeve	VINYL	1
13*	Locking device	304SS	1

\* Optional

### DIMENSIONS (MM)

SIZE	DN	Ød	B1	B2	L	H	M	WT (kg)
1/4"	8	5.0	10.0	9	39.0	38.0	62.5	0.072
3/8"	10	7.0	10.0	8	44.0	40.0	73.0	0.114
1/2"	15	9.2	14.0	13	56.5	51.0	85.0	0.193
3/4"	20	12.5	13.5	14	59.0	53.5	87.0	0.274
1"	25	16.0	16.5	16	71.0	56.0	107.0	0.430
1 1/4"	32	20.0	17.5	17	78.0	61.5	107.0	0.717
1 1/2"	40	25.0	18.5	17	83.0	68.0	130.0	0.870
2"	50	32.0	21.5	18	100.0	73.0	130.0	1.364

# STAINLESS STEEL TWO-PIECE, REDUCED PORT

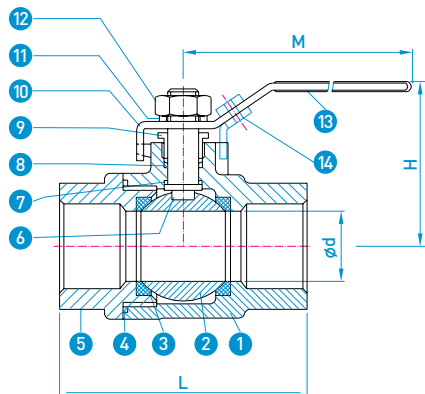
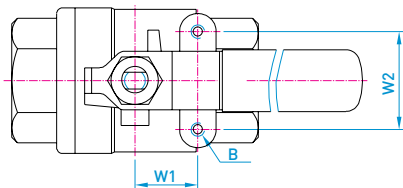
## BV2 - 2 R - 1/4" - 2" BSP/NPT

### FEATURES

- For general purpose industrial chemical applications
- High pressure
- Available in stainless steel
- Adjustable stem packing
- Various thread standard available
- Investment cast body
- Blow-out proof stem
- Low operational torque
- Size available from 1/4" to 1" (128 bar)  
& 1 1/4" to 2" (96 bar)



### TOP & SIDE VIEW



### MATERIAL LIST

NO.	PART NAME	MATERIAL	Q'TY
1	Body	ASTM A351 Gr CF8M	1
2	Ball	ASTM A351 Gr CF8M	1
3	Seat	RPTFE	2
4	Body seal	PTFE	1
5	Cap	ASTM A351 Gr CF8M	1
6	Stem	316SS	1
7	Thrust washer	PTFE	1
8	Stem packing	PTFE	1
9	Gland nut	304SS	1
10	Handle	304SS	1
11	Stem washer	304SS	1
12	Stem nut	304SS	1
13	Handle sleeve	VINYL	1
14*	Locking device	304SS	1

\* Optional

### DIMENSIONS (MM)

SIZE	Ød	B	L	H	M	W1	W2	W (kg)
1/4"	9.5	3/16-24	52	55	100	12.7	28.5	0.24
3/8"	9.5	3/16-24	52	55	100	12.7	28.5	0.22
1/2"	12.7	3/16-24	64	58	100	12.7	28.5	0.28
3/4"	15.0	3/16-24	71	60	130	22.4	36.0	0.48
1"	20.0	3/16-24	86	64	130	22.4	36.0	0.72
1 1/4"	25.0	3/16-24	94	66	165	22.4	36.0	1.12
1 1/2"	32.0	1/4-20	102	79	165	25.4	38.1	1.48
2"	38.1	1/4-20	117	83	190	25.4	38.1	2.22

# STAINLESS STEEL TWO-PIECE, FULL PORT

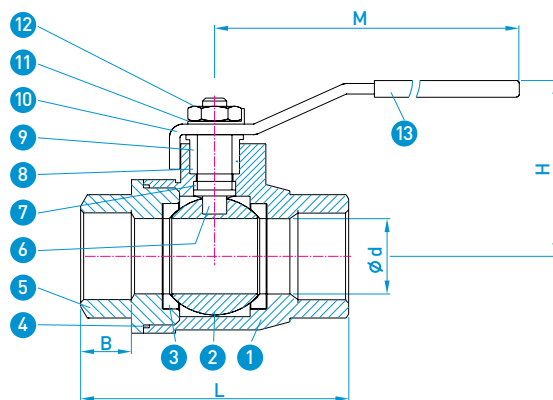
**BV2 - 2 F - 1/4" - 2" BSP/NPT**

## FEATURES

- Face to face according to DIN 3202-M3
- Heavy duty construction
- 100% Bubble tight testing per BS5351
- Silicone free guaranteed
- Double stem sealing (option)
- Belleville washers for self-adjust (option)
- Size available from 1/4" to 2" (64 bar)



## SIDE VIEW



## MATERIAL LIST

NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M/1.4408	1
2	Ball	ASTM A351 Gr CF8M	1
3	Seat	PTFE	2
4	Body seal	PTFE	1
5	Cap	CF8M/1.4408	1
6	Stem	316SS	1
7	Thrust washer	PTFE	1
8	Stem packing	PTFE	1
9	Gland nut	304SS	1
10	Handle	304SS	1
11	Stem washer	304SS	1
12	Stem nut	304SS	1
13	Handle sleeve	VINYL	1
14	Locking device	304SS	1

## DIMENSIONS (MM)

SIZE	Ød	B	L	H	M	W (kg)
1/4"	11.2	10.0	50	52	108	0.24
3/8"	11.2	10.0	60	54	108	0.28
1/2"	15.0	13.0	75	62	136	0.44
3/4"	20.0	16.0	80	65	150	0.56
1"	25.0	17.0	90	80	168	0.88
1 1/4"	32.0	20.0	110	85	168	1.44
1 1/2"	40.0	22.0	120	95	195	1.93
2"	50.0	25.0	140	110	195	3.36

# STAINLESS STEEL TWO-PIECE, FULL PORT

(WITH MOUNTING LOCATION)

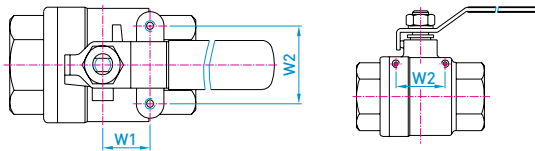
## BV2 - 2 F - 1/4" - 3" BSP/NPT

### FEATURES

- Full port for max Cv
- Adjustable stem packing
- Investment casting body & cap
- Blow-out proof stem
- Full sizes range 1/4"-3"
- Size Available from 1/4" to 3" (64 bar)

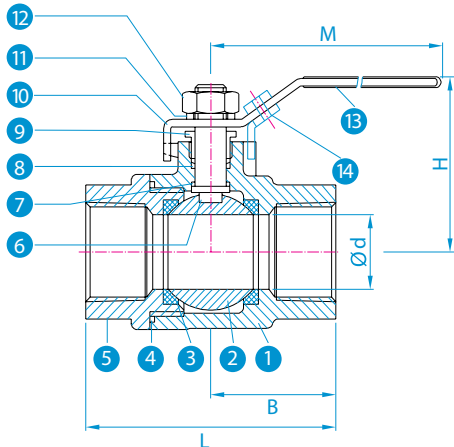


### TOP & SIDE VIEWS



Top view  
mounting location  
for 1/4"-2"

Side view  
mounting location  
for 2 1/2"-3"



### MATERIAL LIST

NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M/1.4408	1
2	Ball	316SS	1
3	Seat	PTFE	2
4	Body seal	PTFE	1
5	Cap	CF8M/1.4408	1
6	Stem	316SS	1
7	Thrust washer	PTFE	1
8	Stem packing	PTFE	1
9	Gland nut	304SS	1
10	Handle	304SS	1
11	Stem washer	304SS	1
12	Stem nut	304SS	1
13	Handle sleeve	VINYL	1
14*	Locking device	304SS	1

\* Optional

### DIMENSIONS (MM)

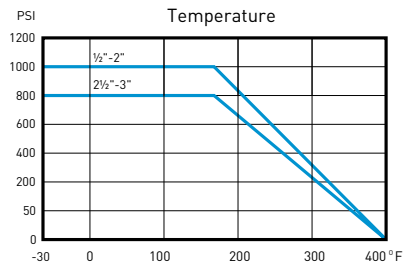
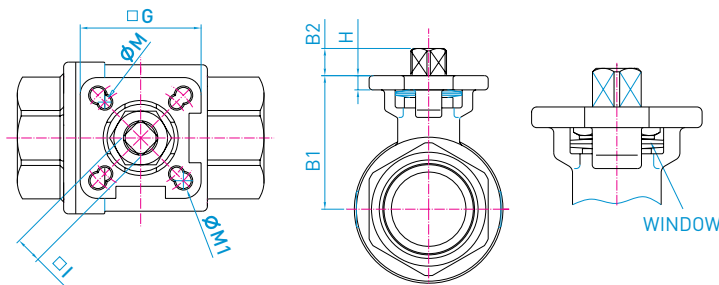
SIZE	Ød	B	L	H	M	W1	W2	W (kg)	W (kg) locking device
1/4"	11.4	27.5	55	50	103	12.7	28.0	0.25	0.26
3/8"	12.5	27.5	55	50	103	12.7	28.0	0.25	0.26
1/2"	15.0	32.5	65	56	133	12.7	28.0	0.39	0.41
3/4"	20.0	37.0	75	59	133	22.4	35.0	0.53	0.54
1"	25.0	44.0	88	69	153	22.4	35.0	0.86	0.90
1 1/4"	32.0	51.0	101	75	153	25.4	38.1	1.32	1.34
1 1/2"	38.0	55.0	110	83	191	25.4	38.1	1.89	1.94
2"	50.0	62.5	124	92	191	25.4	38.1	2.98	3.00
2 1/2"	65.0	81.5	160	128	247	35.1	55.0	6.28	6.70
3"	80.0	89.0	175	137	247	35.1	55.0	8.90	9.00

# STAINLESS STEEL TWO-PIECE, FULL PORT ACTUATED BALL VALVES

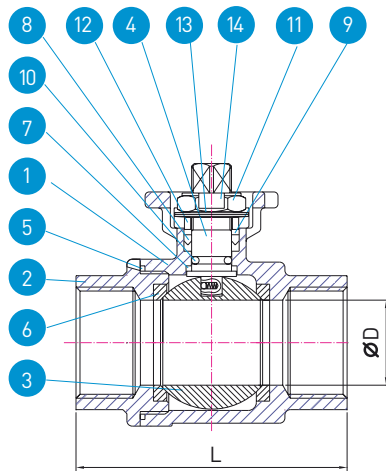
## BV2 - 2 F A - 1/2" - 3" BSP/NPT

### FEATURES

- Full port
- Investment casting body & cap
- Blow-out Proof Stem
- Full sizes range 1/2" - 3"
- ISO 5211 direct mount pad



### MATERIAL LIST



NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M/1.4408	1
2	End cap	CF8M/1.4408	1
3	Ball	316SS	1
4	Stem	316SS	1
5	Body seal	PTFE	1
6	Seat	TFM1600	2
7	Stem seal	R.PTFE	1
8	V-ring packing	PTFE	1 SET
9	Bushing	50% S.S. Powder filled PTFE	1
10	O-ring	VITON	1
11	Stem nut	304SS	1
12	Gland	304SS	1
13	Belleville washer	301SS	2
14	Lock saddle	304SS	1

### DIMENSIONS (MM)

SIZE	B1	B2	ØD	G	H	L	□	ØM	ØM1	ISO5211
1/2"	35.6	9.0	15	42	5.0	65	9	5.5	5.5	F03/F04
3/4"	38.8	9.0	20	42	5.0	75	9	5.5	5.5	F03/F04
1"	52.0	10.7	25	50	6.0	88	11	5.5	6.5	F04/F05
1 1/4"	56.8	10.7	32	50	6.0	100	11	5.5	6.5	F04/F05
1 1/2"	65.7	15.5	38	70	7.0	110	14	6.5	8.5	F05/F07
2"	73.9	15.5	50	70	7.0	123	14	6.5	8.5	F05/F07
2 1/2"	93.0	16.5	65	100	10.5	160	17	9.0	11.0	F07/F10
3"	102.0	16.5	80	100	10.5	175	17	9.0	11.0	F07/F10

# STAINLESS STEEL TWO-PIECE, FULL PORT, DVGW

**BV2 - 2 F D - 1/4" - 2" BSP - T1-2**



Drinking water  
NW-6102B00271



## FEATURES

- Two-piece ball valve "screwed design"
- Full port design
- Blow out proof stem design
- Adjustable stem packing
- Female thread according to ISO 228-1
- Vent bore from DN25-DN50

## MATERIALS

Body:	stainless steel 1.4408
Ball:	stainless steel 1.4408
Ball seal:	PTFE
Stem:	stainless steel 1.4401
Stem packing:	PTFE
Handle:	stainless steel with green plastic cover

## TYPES

Type 1



Standard handle

Type 2



T-handle

## WORKING TEMPERATURE

-20°C to max. +180°C (depending on working pressure) cold and hot water

## SUITABLE FOR

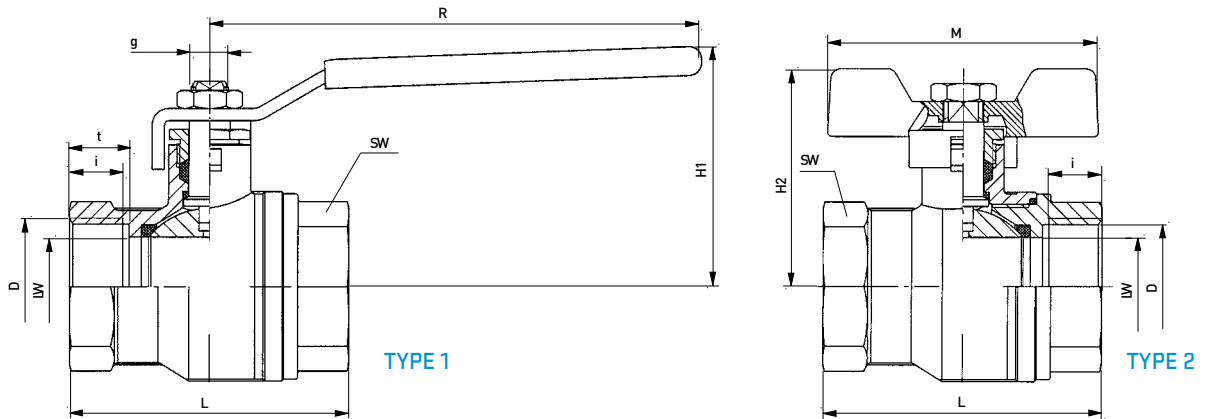
Water, oil, compressed air, fuels, solvents, steam, aggressive mediums, food, beverages  
Tube system for drinking water PN10

## REMARKS

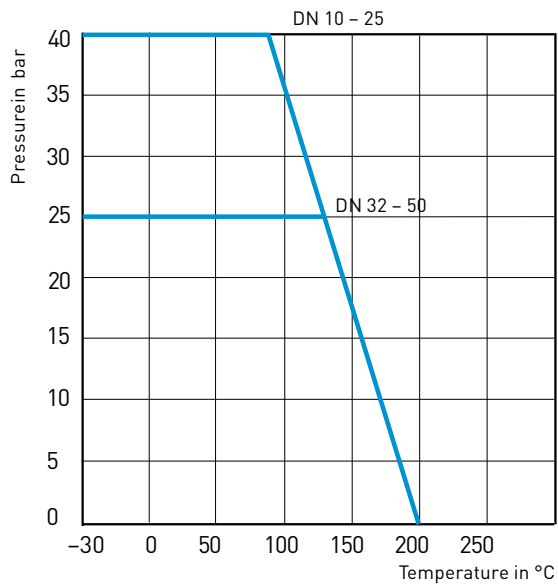
- Gland nut must be adjusted in intervals.
- Drinking water registered according to DIN EN 13828 and DVGW W 570.



# STAINLESS STEEL TWO-PIECE, FULL PORT, DVGW



## PRESSURE TEMPERATURE DIAGRAM



## DIMENSIONS (MM)

DN	LW	PN bar	D ISO 228	i*	t	L ±2	g	H1	R	H2	M	SW	Weight (kg)	
6	9	40	G 1/4	8.5	10	40	1/4-20 UNC	40	82	40	50	20	hexa- gon	0.128
10	9	40	G 3/8	8.5	10	40	1/4-20 UNC	40	82	40	50	20		0.118
15	14	40	G 1/2	10	11.5	50	5/16-18 UNC	45	100	44.5	60	25	Octagon	0.184
20	19	40	G 3/4	11	12.5	60	5/16-18 UNC	49	100	48.5	60	31		0.308
25	24	40	G 1	13	14.5	68	3/8-16 UNC	57	120	53	66	38		0.458
32	30	25	G 1 1/4	14	15.5	80	3/8-16 UNC	62	120	58.4	66	48		0.738
40	38	25	G 1 1/2	16	17.5	94	M12x1.25	80	160	-	-	54		1.235
50	47	25	G 2	17	18.5	106	M12x1.25	87	160	-	-	66	1.970	

\*i = useable length of thread

# STAINLESS STEEL THREE-PIECE, ECONOMICAL

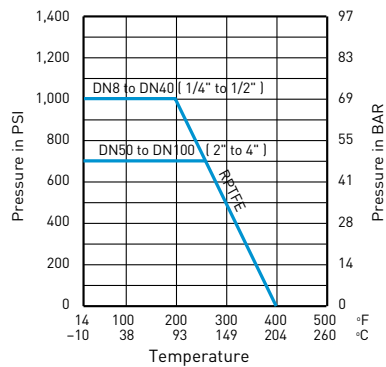
## BV2 - 3 F - 1/2" - 4" BSP/NPT

### FEATURES

- Blow-out proof stem
- Stainless steel ball and stem are standard
- Precision investment cast body and caps
- Easy installation with wide selection of end fittings
- Three-piece swing-out design allows in-line maintenance
- Full port orifice minimizes pressure drop across the pipeline
- Self-adjusting floating ball enables tight internal seal

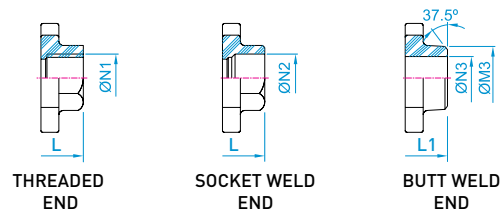
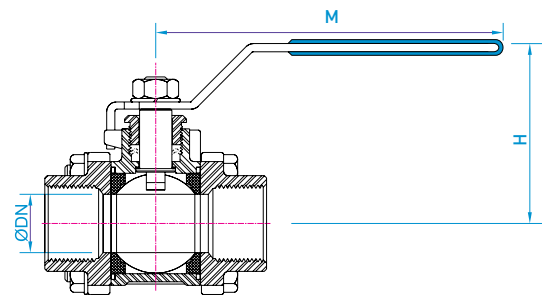


### PRESSURE/TEMPERATURE CHART



### DIMENSIONS (MM)

SIZE	DN	M	H	L	L1	ØDN	ØM3	ØN1	ØN2	ØN3
1/2"	8	103	54	61	61	11.6	18.0	NPT	14.2	11.6
3/8"	10	103	54	61	61	12.5	18.0		17.7	12.5
1/2"	15	133	55	69	69	15.0	22.7	or	21.9	17.0
3/4"	20	133	59	78	78	20.0	22.7		27.2	22.5
1"	25	153	70	84	84	25.0	33.5	BSPT	33.9	26.0
1 1/4"	32	153	75	104	104	32.0	42.2		42.7	34.4
1 1/2"	40	191	84	118	119	38.5	48.8	or	48.8	41.5
2"	50	191	92	129	131	50.0	61.0		61.3	53.0
2 1/2"	65	247	128	162	162	65.0	77.0	BSPP	74.2	65.8
3"	80	247	137	182	182	80.0	91.0		90.0	81.0
4"	100	295	173	230	230	100.0	115.0	115.6	102.0	



# STAINLESS STEEL THREE-PIECE, ECONOMICAL, DIRECT-MOUNTING

**BV2 - 3 F A - 1/4" - 4" BSP/NPT**

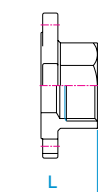
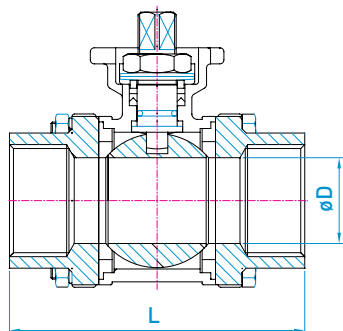
## FEATURES

- Blow-out proof stem
- Stainless steel ball and stem are standard
- Investment casting body and caps
- Easy installation with wide selection of end fittings
- Three-piece swing-out design allows in-line maintenance
- Full port from 1/4" to 4"
- Self-adjusting floating ball enables tight internal seal

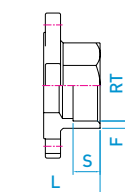


## DIMENSIONS (MM)

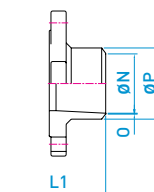
SIZE	ØD	F	L	L1	ØN	O	ØP	RT	S	ISO 5211
1/4"	11.60	3.60	60	70	11.60	1	18.00	14.20	11	F03/F04
3/8"	12.50	2.00	60	70	14.00	1	18.00	17.70	11	F03/F04
1/2"	15.00	2.00	69	69	17.00	1	22.70	21.90	12	F03/F04
3/4"	20.00	2.60	78	78	22.50	1	27.70	27.20	14	F03/F04
1"	25.00	3.20	84	84	26.00	1	33.50	33.90	14	F04/F05
1 1/4"	32.00	5.35	104	104	35.00	1	42.20	42.70	15	F04/F05
1 1/2"	38.00	5.70	118	119	41.50	1	48.80	48.80	17	F05/F07
2"	50.00	6.10	129	131	53.00	1	61.00	61.30	19	F05/F07
2 1/2"	65.00	7.15	185	190	69.40	1	78.00	74.00	21	F07/F10
3"	80.00	7.60	205	220	82.00	1	90.70	90.00	25	F07/F10
4"	100.00	7.85	230	269	103.00	1	115.80	115.60	30	F10



Threaded  
End



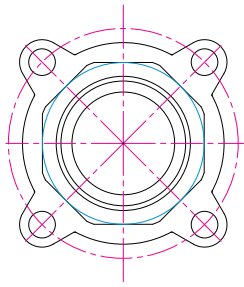
Socket Weld  
End



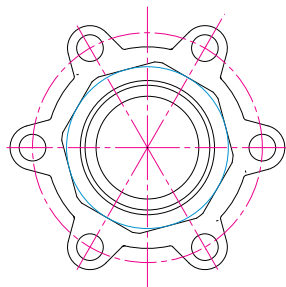
Butt Weld  
End

# STAINLESS STEEL

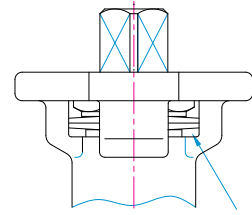
## THREE-PIECE, ECONOMICAL, DIRECT-MOUNTING



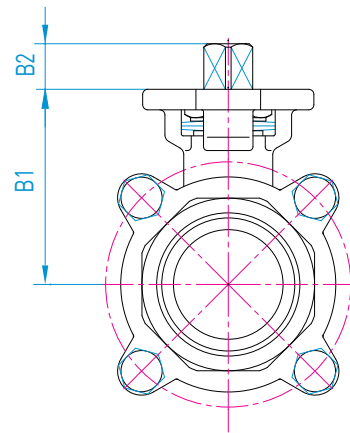
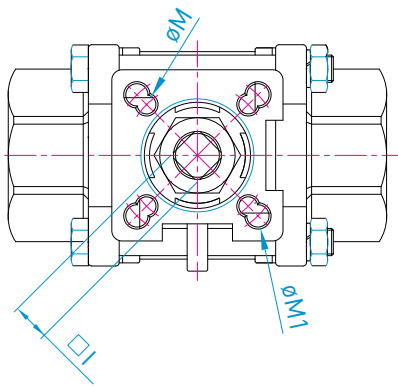
1/4"-2"



2 1/2"-4"



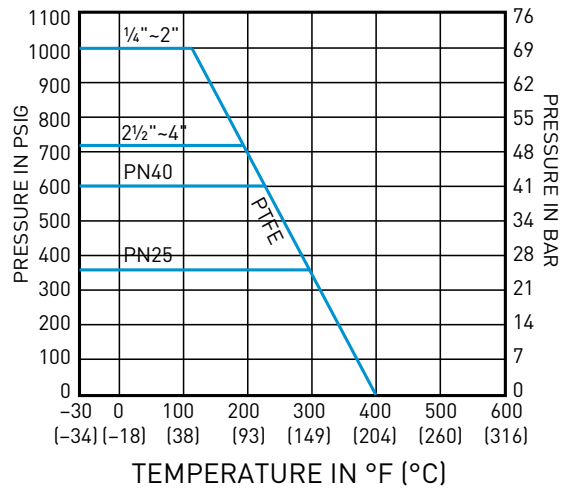
WINDOW



### DIMENSIONS (MM)

SIZE	B1	B2	ØM	ØM1	□
1/4"	40.20	9.00	5.50	5.50	19
3/8"	40.20	9.00	5.50	5.50	9
1/2"	40.20	9.00	5.50	5.50	9
3/4"	43.40	9.00	5.50	5.50	9
1"	52.00	11.00	5.50	6.50	11
1 1/4"	56.50	11.00	5.50	6.50	11
1 1/2"	65.70	15.50	6.50	8.50	14
2"	73.95	15.50	6.50	8.50	14
2 1/2"	93.00	16.50	9.00	11.00	17
3"	102.00	16.50	9.00	11.00	17
4"	132.00	21.50	-	11.00	22

### SPECIFICATIONS



# STAINLESS STEEL THREE-PIECE, HIGH-PERFORMANCE

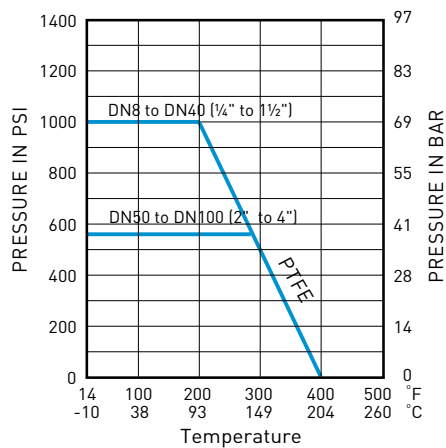
## BV2 - 3 F HIP - 1/4" - 4" BSP/NPT

### FEATURES

- Patented "Sealmaster" stem arrangement
- Double stem sealing complies with TA-LUFT requirements
- Three-piece swing out design
- ISO 5211 top mounting plate
- End connections flanged, screwed, butt weld or socket weld
- Carbon steel or stainless steel bodies
- Size range DN8 (1/4") to DN100 (4")
  - Full bore
- Seat material options
- Blow-out proof stem and anti-static design
- Tightness to EN12266-1

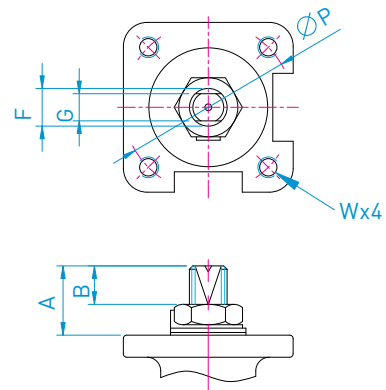


### PRESSURE/TEMPERATURE CHART

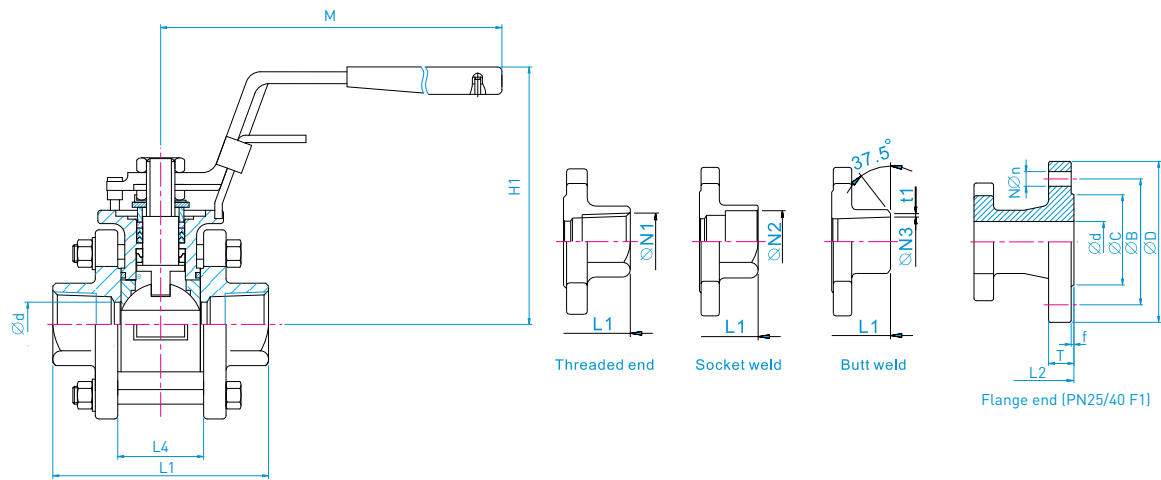


### DIMENSIONS (MM)

Size	DN	A	B	G	ØP	ØF	W	Wt (kg) threaded SW, BW	Wt (kg) PN25/40 F flange
1/4"	8	12.5	6.0	5.0	36	8.0	M5	0.44	N/A
3/8"	10	12.5	6.0	5.0	36	8.0	M5	0.44	N/A
1/2"	15	19.8	12.5	6.3	42	9.7	M5	0.44	2.24
3/4"	20	20.0	12.5	6.3	42	9.7	M5	0.95	3.04
1"	25	21.0	13.7	8.0	50	11.2	M6	1.40	3.90
1 1/4"	32	21.4	13.2	8.0	50	11.2	M6	1.90	6.25
1 1/2"	40	24.6	13.9	9.5	70	16.0	M8	3.08	7.15
2"	50	25.1	13.9	9.5	70	16.0	M8	4.70	10.15
2 1/2"	65	41.6	26.1	15.0	102	19.1	M10	8.90	16.62
3"	80	42.0	25.4	15.0	102	19.1	M10	14.10	23.80
4"	100	47.8	29.2	17.0	102	28.6	M10	22.00	35.60



# STAINLESS STEEL THREE-PIECE, HIGH-PERFORMANCE



## DIMENSIONS (MM)

Size	DN	Ød	M	H1	L4	L1	L2	N	t1	T	f	ØN	ØD	ØB	ØC	ØN1	ØN2	ØN3
1/4"	8	11.6	135	65.5	21.1	65.00	-	-	0.80	-	-	-	-	-	-	-	14.2	11.6
3/8"	10	12.7	135	66.0	21.2	65.00	-	-	0.65	-	-	-	-	-	-	NPT	17.5	12.8
1/2"	15	15.0	135	83.0	26.5	72.10	130	4	0.80	16	2	14	95	65	45	or	21.7	15.8
3/4"	20	20.0	135	86.0	33.2	85.00	150	4	1.00	18	2	14	105	75	58	BSPT	27.1	20.9
1"	25	25.0	165	96.0	37.7	91.96	160	4	1.60	18	2	14	115	85	68	or	33.8	26.6
1 1/4"	32	32.0	165	102.0	46.8	110.00	180	4	1.60	18	2	18	140	100	78	BSPP	42.6	35.0
1 1/2"	40	38.0	200	115.0	58.0	123.00	200	4	1.65	18	3	18	150	110	88	or	48.6	40.9
2"	50	50.8	200	124.0	69.6	142.00	230	4	1.60	20	3	18	165	125	102	DIN	61.1	52.5
2 1/2"	65	65.0	250	160.0	86.5	174.00	290	8	2.00	22	3	18	185	145	122	2999	77.1	62.7
3"	80	76.0	250	170.0	102.6	193.00	310	8	2.00	24	3	18	200	160	138		90.2	78.0
4"	100	97.4	500	182.0	125.4	221.40	350	8	2.00	24	3	22	235	190	162		115.1	105.5

# STAINLESS STEEL THREE-PIECE, HIGH PURITY CLEAN

FULL & TRUE PORT MANUAL OR  
AUTOMATED 1/2" TO 12" (DN15-DN300)

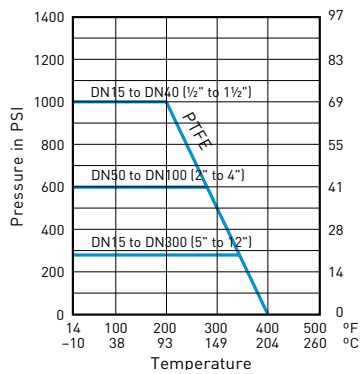
**BV2 - 3 F HP**

## FEATURES

- Patented "Sealmaster" stem arrangement
- Double stem sealing complies with TA-LUFT requirements
- Blow-out proof stem
- ISO 5211 top mounting plate
- Three-piece swing out design
- Valve pressure rating:
  - 1/2" to 1 1/2" - PN 63
  - 2" to 4" - PN 40
  - 5" to 12" - PN 16
- End connections butt weld, tubing and tri-clamp
- All wetted parts are polished to 180 Grit (0.51 to 0.64 micron)
- All extend weld ends in CF3M/DIN1.4409 material allows orbital welding in place
- High purity cleaning (oil free) and packing
- Bosses for purge connections are built into the end caps
- Size range DN15 (1/2") to DN300 (12")
- Helium leak detection calibrated to  $1 \times 10^5$  std cc/sec



## PRESSURE/TEMPERATURE CHART

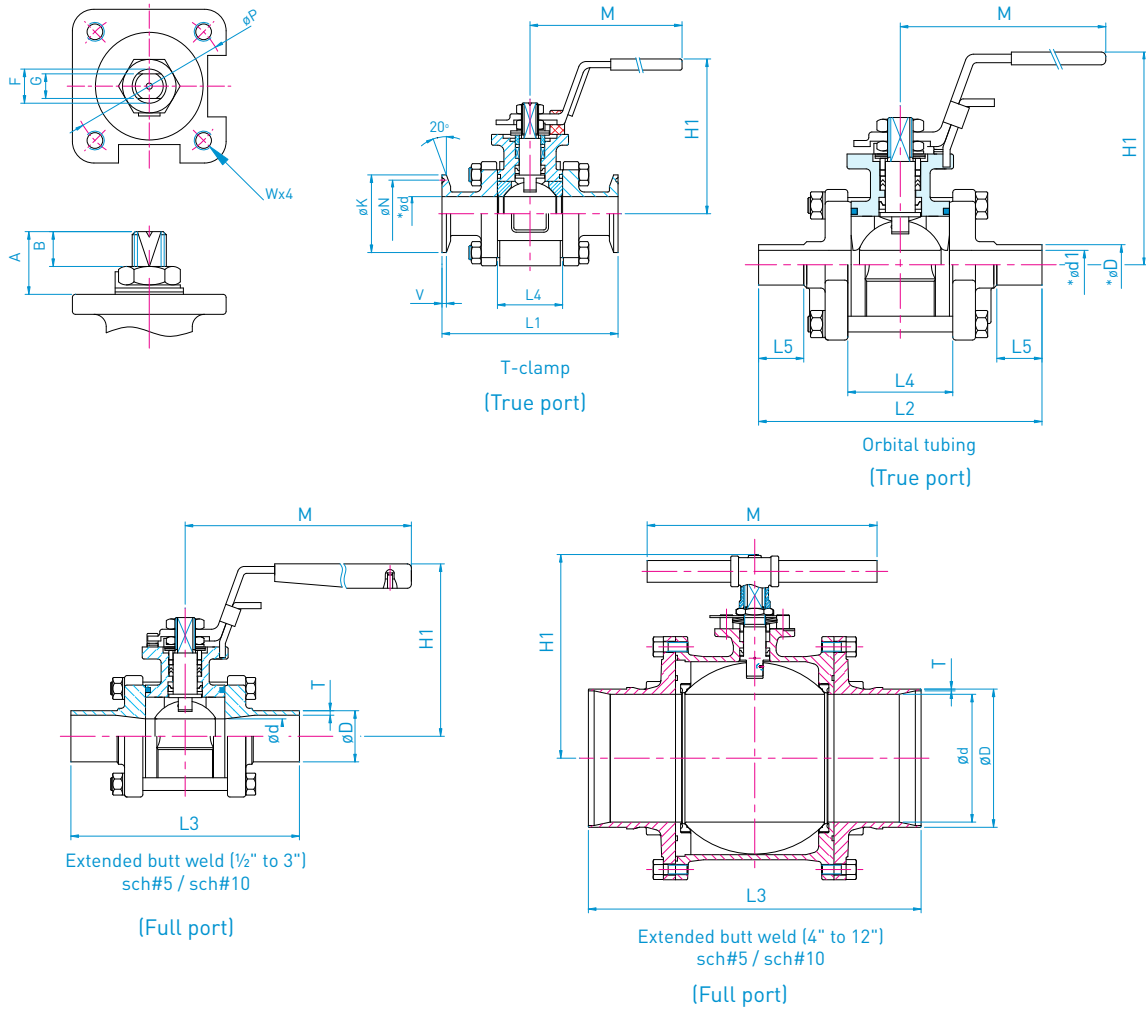


## POLISH STANDARD

Standaard Grit	RMS		Ra	
	µin	µm	µin	µm
150gr	30-50	.76-.89	27-32	.68-.80
180gr*	20-25	.51-.64	18-23	.46-.58
240gr	15-20	.38-.51	14-18	.34-.46
320gr	9-11	.23-.28	8-10	.21-.25

\*standard

# STAINLESS STEEL THREE-PIECE, HIGH PURITY CLEAN



## DIMENSIONS (MM)

SIZE	DN	V	L1	L2	L4	L5	ØK	ØN	Ød	Ød1	ØD	Wt (kg) T-Clamp
1/2"	15	3.63	93.0	139.7	26.5	35.0	25.0	20.2	9.40	10.22	12.70	0.86
3/4"	20	3.63	105.2	139.7	33.2	36.0	25.0	20.3	15.75	15.75	19.05	1.02
1"	25	2.85	113.9	160.7	37.7	38.0	50.4	43.6	22.10	22.10	25.40	1.54
1 1/2"	40	2.85	125.0	190.4	58.0	46.0	50.4	43.6	34.80	34.80	38.10	3.08
2"	50	2.85	146.0	203.2	69.6	46.0	63.9	56.3	47.50	47.50	50.80	4.54
2 1/2"	65	2.85	174.0	254.0	86.5	56.0	77.4	70.6	60.20	60.20	63.50	9.32
3"	80	2.85	193.0	279.0	102.6	60.0	90.9	83.3	72.90	72.90	76.20	14.50
4"	100	2.85	219.4	307.0	125.4	60.0	118.9	110.3	97.38	97.38	101.60	23.00

SIZE	DN	A	B	G	ØP	W	ØF	Ød	T		ØD	M	H1	H3	L3	Wt (kg) Ext.BW
									5S	10S						
1/4"	15	19.8	12.5	6.3	42	M5	9.7	15.0	1.65	2.1	21.7	135	82	82	139.7	0.98
3/4"	20	20.0	12.5	6.3	42	M5	9.7	20.0	1.65	2.1	27.2	135	86	86	139.7	1.18
1"	25	21.0	13.7	8.0	50	M6	11.2	25.0	1.65	2.8	34.0	165	98	98	152.4	1.80
1 1/4"	32	21.4	13.2	8.0	50	M6	11.2	32.0	1.65	2.8	42.7	165	100	-	165.1	2.64
1 1/2"	40	24.6	13.9	9.5	70	M8	16.0	38.0	1.65	2.8	48.6	200	116	101	190.5	3.90
2"	50	25.1	13.9	9.5	70	M8	16.0	50.8	1.65	2.8	60.5	200	125	115	203.2	5.42
2 1/2"	65	41.6	26.1	15.0	102	M10	19.1	65.0	2.10	3.0	76.3	250	160	124	254.0	10.42
3"	80	42.0	25.4	15.0	102	M10	19.1	76.0	2.10	3.0	89.1	250	171	160	279.4	15.74
4"	100	47.8	29.2	17.0	102	M10	28.6	97.4	2.10	3.0	114.3	595	204	170	317.5	23.06
5"	125	53.5	25.0	17.0	102	M10	28.6	125.0	2.80	3.4	139.8	595	226	-	381.0	49.00
6"	150	65.0	36.5	23.0	125	M12	34.0	150.0	2.80	3.4	165.2	800	281	-	403.0	76.00
8"	200	65.0	36.5	23.0	125	M12	34.0	200.0	2.80	4.0	216.3	1100	317	-	521.0	136.00
10"	250	82.0	40.0	30.0	140	M16	50.0	250.0	3.40	4.0	267.4	1100	378	-	559.0	153.00
12"	300	82.0	40.0	30.0	140	M16	50.0	300.0	4.00	4.5	318.5	1100	420	-	635.0	409.00



# STAINLESS STEEL THREE-PIECE, HEAVY DUTY, HIGH PERFORMANCE

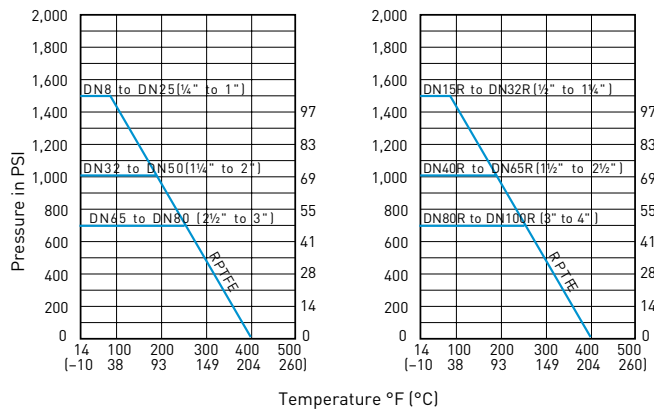
**BV2 - 3 F/R H - 1/4" - 4"**

## FEATURES

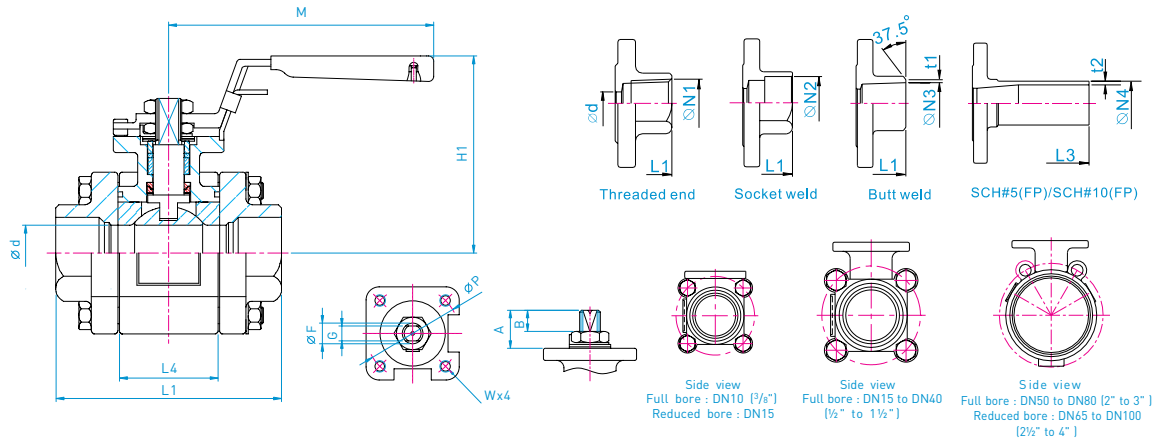
- Patented "Sealmaster" stem arrangement
- Double stem sealing complies with TA-LUFT requirements
- Heavy duty, three piece ball valve
- ISO 5211 top mounting plate
- Fully enclosed bolting for sizes up to DN40 full bore
- End connections, screwed, butt weld and socket weld
- Seat material options
- Size range DN8 (1/4") to DN100 (4") – full and reduced bore
- Blow-out proof stem and anti-static design
- Tightness to EN12266-1



## PRESSURE/TEMPERATURE CHART



# STAINLESS STEEL THREE-PIECE, HEAVY DUTY, HIGH PERFORMANCE



## FULL PORT DIMENSIONS (MM)

Size	DN	$\varnothing d$	A	B	G	$\varnothing P$	$\varnothing F$	W	M	t1	t2		L1	L3	L4	$\varnothing N1$	$\varnothing N2$	$\varnothing N3$	$\varnothing N4$	H1	Wt (kg)
											5S	10S									
1/4"	8	11.2	12.7	5.6	5.0	36	8.0	M5	115	0.5	-	-	66.6	-	21.2		14.1	9.2	-	66	0.62
3/8"	10	12.7	12.7	5.6	5.0	36	8.0	M5	115	0.5	-	-	66.6	-	21.2	NPT	17.5	12.5	-	66	0.60
1/2"	15	15.0	15.0	9.3	6.3	42	9.7	M5	135	0.5	1.65	2.1	71.6	129.8	25.2	or	22.4	15.8	21.7	84	0.82
3/4"	20	20.0	20.0	12.5	6.3	42	9.7	M5	135	0.5	1.65	2.1	96.6	140.9	32.3	BSPT	27.4	21.0	27.2	88	1.42
1"	25	25.0	21.4	13.4	8.0	50	11.2	M6	165	0.5	1.65	2.8	109.0	223.3	42.3	or	34.2	26.6	34.0	98	2.02
1 1/4"	32	31.8	21.7	13.8	8.0	50	11.2	M6	165	0.5	1.65	2.8	117.0	230.4	49.4	BSPP	43.0	35.1	42.7	101	2.76
1 1/2"	40	38.1	25.6	15.6	9.5	70	16.0	M8	200	0.5	1.65	2.8	129.0	240.2	57.2	or	49.0	40.9	48.6	117	4.12
2"	50	50.8	25.2	16.3	9.5	70	16.0	M8	200	1.0	1.65	2.8	142.0	259.4	71.4	DIN	61.1	52.5	60.5	125	6.00
2 1/2"	65	65.0	42.7	25.2	17.0	102	22.3	M10	250	1.0	-	-	174.0	-	89.0	2999	77.1	68.9	-	165	9.48
3"	80	80.0	39.4	24.8	17.0	102	22.3	M10	250	1.6	-	-	193.0	-	108.5		90.2	77.9	-	174	15.64

## REDUCED PORT DIMENSIONS (MM)

Size	DN	$\varnothing d$	A	B	G	$\varnothing P$	$\varnothing F$	W	M	t1	L1	L4	$\varnothing N1$	$\varnothing N2$	$\varnothing N3$	H1	Wt (kg)
1/2"	15	12.7	12.7	5.6	5.0	36	8.0	M5	115	0.5	66.6	21.2	NPT	22.4	15.8	66	0.63
3/4"	20	15.0	15.0	9.3	6.3	42	9.7	M5	135	0.5	71.6	25.2	or	27.4	21.0	84	0.85
1"	25	20.0	20.0	12.5	6.3	42	9.7	M5	135	0.5	96.6	32.3	BSPT	34.2	26.6	85	1.48
1 1/4"	32	25.0	21.4	13.4	8.0	50	11.2	M6	165	0.5	109.0	42.3	or	43.0	35.1	98	2.08
1 1/2"	40	31.8	21.7	13.8	8.0	50	11.2	M6	165	0.5	117.0	49.4	BSPP	49.0	40.9	101	2.82
2"	50	38.1	25.6	15.6	9.5	70	16.0	M8	200	1.0	129.0	57.2	or	61.1	52.5	117	4.32
2 1/2"	65	50.8	25.2	16.3	9.5	70	16.0	M8	200	1.0	142.0	71.4	DIN	77.1	68.9	125	5.89
3"	80	65.0	42.7	25.2	17.0	102	22.3	M10	250	1.6	174.0	89.0	2999	90.2	77.9	165	9.63
4"	100	80.0	39.4	24.8	17.0	102	22.3	M10	250	1.6	193.0	108.5		115.1	102.3	174	15.44

# STAINLESS STEEL THREE-PIECE, FIRE SAFE

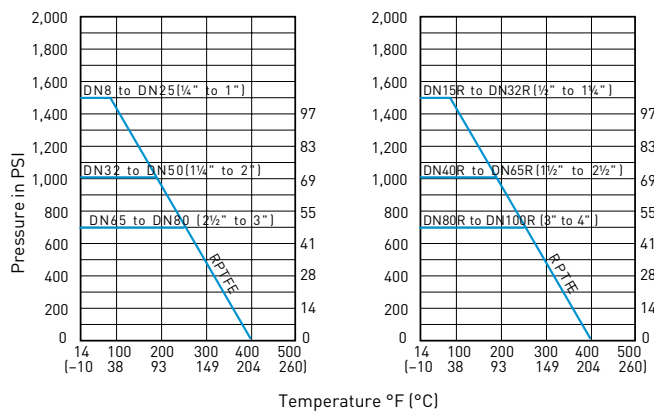
**BV2 – 3 F/R FS**



## STANDARD SERIES 81F FEATURES

- Patented “Sealmaster™” stem arrangement
- Double stem sealing to comply with TA-LUFT requirements
- Blow out proof stem
- Built-in ISO 5211 mounting pad for easy automation
- Anti-static devices for ball-stem-body
- Semi-encapsulated ball seats for cold flow resistance
- Easy to interface with all TV’s ball valve accessories
- Investment casting for body and end caps
- Pressure balance hole in ball slot
- Independently 8-12 end cap bolts for superior integrity and high level of flexibility
- Encapsulated body gasket to seal off any possible leak path
- Face to face comply to ANSI B16.10 for #150 & #300 flanged ball valve
- Secondary metal to metal seating surface
- Fire safe certified to API 607 4th edition up to 3"

## PRESSURE/TEMPERATURE CHART



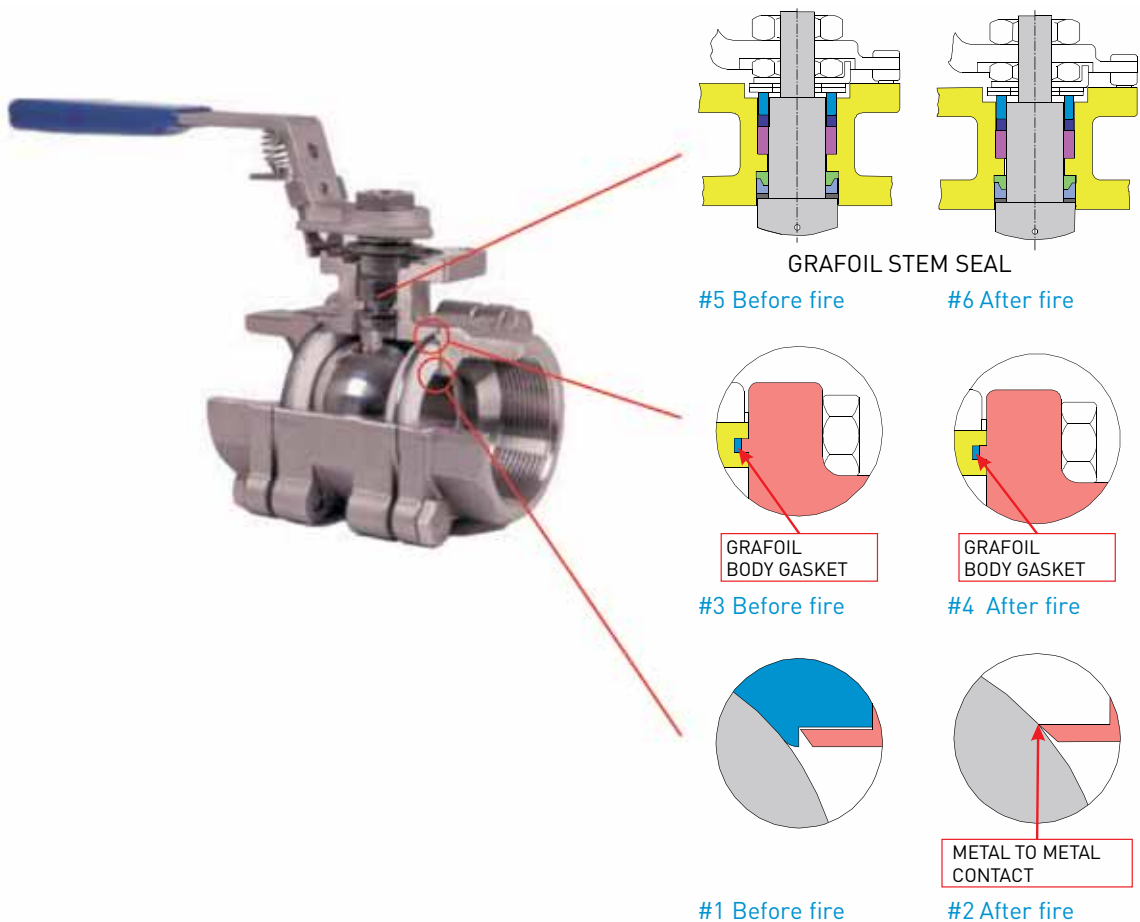
# STAINLESS STEEL THREE-PIECE, FIRE SAFE

## FIRE TESTED TO API 607 4TH EDITION ON TV'S 81F SOFT-SEATED 3PC BALL VALVE UP TO 3" (DN 80)

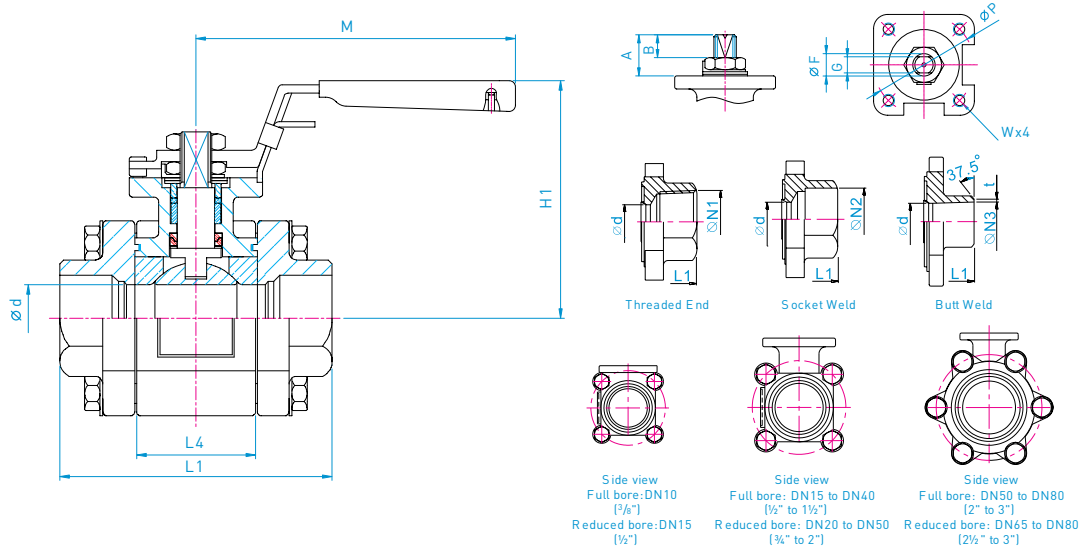
Plant fires are serious concern for soft-seated ball valve especially when the flammable fluids or dangerous gases are in service. The possible flammable fluid leakage during the fire consequently increases the fire magnitude and worsens the situation.

TV's floating ball valves are designed to be fire safe to minimize both external and internal fluid leakage after plant fires due to:

1. Contact between ball & end cap fire safe lip for through leakage prevention. During a fire, the soft seats are destroyed and the ball is free to move to downstream to form metal to metal contact between the ball and the end cap fire safe lip. This lip is integral part of the end connection which has very tight clearance with the ball. (See fig. #1 & #2)
2. To maintain the integrity between end cap and body, our independent end cap bolts are screwed to body instead of using through bolts to attach the end caps and center section of the valve. It eliminates the end cap bolts from thermal expansion and contraction resulted from the fire and make fire resistance grafoil body gasket (encapsulated to body groove) to function as the way it should be and prevent the line fluid permeation and resultant leakage to external. (See fig. #3& #4)
3. Stem packing, seal arrangement remained unaffected due to grafoil material for fire resistance (see figure #5 & #6).



# STAINLESS STEEL THREE-PIECE, FIRE SAFE



## FULL PORT DIMENSIONS (MM)

Size	DN	Ød	A	B	G	ØP	ØF	W	H1	L1	L4	M	ØN1	ØN2	ØN3	t	Wt (kg)
3/8"	10	12.7	12.7	5.6	5.0	36	8.0	M5	66	66.6	21.2	115	NPT	17.5	13.5	0.5	0.62
1/2"	15	15.0	15.0	9.3	6.3	42	9.7	M5	84	71.6	25.2	135	or	22.4	16.8	0.5	0.88
3/4"	20	20.0	20.0	12.5	6.3	42	9.7	M5	88	96.6	32.3	135	BSPT	27.4	22.0	0.5	1.40
1"	25	25.0	21.4	13.4	8.0	50	11.2	M6	98	109.0	42.3	165	or	34.2	27.6	0.5	1.96
1 1/4"	32	31.8	21.7	13.8	8.0	50	11.2	M6	101	117.0	49.4	165	BSPP	43.0	36.1	0.5	2.72
1 1/2"	40	38.1	25.6	15.6	9.5	70	16.0	M8	117	129.0	57.2	200	or	49.0	41.9	0.5	4.04
2"	50	50.8	24.2	15.3	9.5	70	16.0	M8	125	142.0	71.4	200	DIN	61.1	54.5	1.0	6.56
2 1/2"	65	65.0	42.2	24.7	17.0	102	22.3	M10	165	174.0	89.0	250	2999	77.1	70.9	1.0	N/A
3"	80	80.0	35.4	24.	17.0	10	22.3	M10	174	193.0	108.5	250		90.2	81.1	1.6	N/A

## REDUCED PORT DIMENSIONS (MM)

Size	DN	Ød	A	B	G	ØP	ØF	W	H1	L1	L4	M	ØN1	ØN2	ØN3	t
1/2"	15	12.7	12.7	5.6	5.0	36	8.0	M5	66	66.6	21.2	115	NPT	22.4	16.8	0.5
3/4"	20	15.0	15.0	9.3	6.3	42	9.7	M5	84	71.6	25.2	135	or	27.4	22.0	0.5
1"	25	20.0	20.0	12.5	6.3	42	9.7	M5	88	96.6	32.3	135	BSPT	34.2	27.6	0.5
1 1/4"	32	25.0	21.4	13.4	8.0	50	11.2	M6	98	109.0	42.3	165	or	43.0	36.1	0.5
1 1/2"	40	31.8	21.7	13.8	8.0	50	11.2	M6	101	117.0	49.4	165	BSPP	49.0	41.9	0.5
2"	50	38.1	25.6	15.6	9.5	70	16.0	M8	117	129.0	57.2	200	or	61.1	54.5	1.0
2 1/2"	65	50.8	24.2	15.3	9.5	70	16.0	M8	125	142.0	71.4	200	DIN	77.1	70.9	1.0
3"	80	65.0	42.2	24.7	17.0	102	22.3	M10	165	174.0	89.0	250	2999	90.2	81.1	1.6

N/A = Not Available

# STAINLESS STEEL MULTI-PORT, THREE-WAY, THREADED END

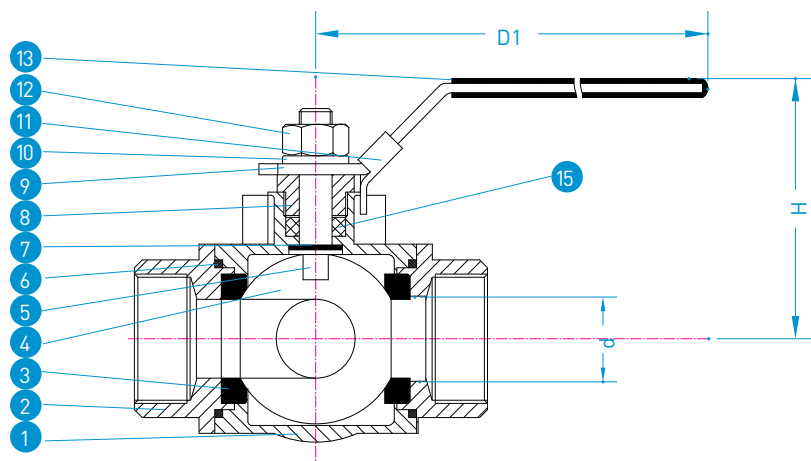
**BV2 - R MP - 1/4" - 2" BSP/NPT**

## FEATURES

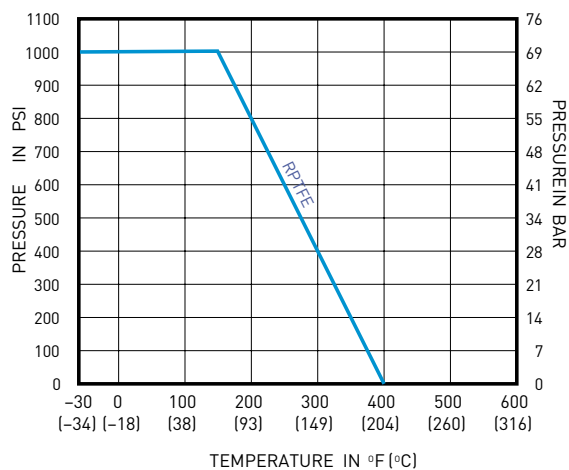
- Investment casting body & caps
- All stainless steel construction
- Variety of thread standards available
- L or T port options
- Blow-out proof stem
- 4 Seats for rigid ball supporting

## SPECIFICATION

- Reduced port
- Size available from 1/4" to 2"
- Pressure rating: 69 bar



## PRESSURE VS. TEMPERATURE CHART

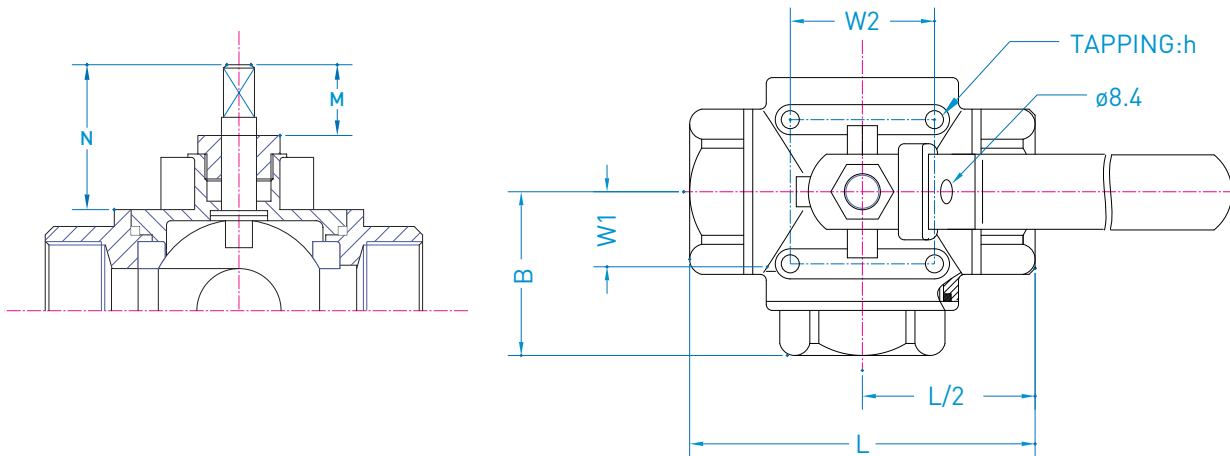


## MATERIAL OF CONSTRUCTION

NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M/1.4408	1
2	Cap	CF8M/1.4408	3
3	Seat	RPTFE	4
4	Ball	316SS	1
5	Stem	316SS	1
6	Joint gasket	PTFE	3
7	Thrust washer	PTFE	1
8	Gland	316SS	1
9	Handle	304SS	1
10	Handle washer	304SS	1
11	Locking plate	304SS	1
12	Handle nut	304SS	1
13	Handle sleeve	VINYL	1
15	Stem packing	PTFE	1 Set

# STAINLESS STEEL

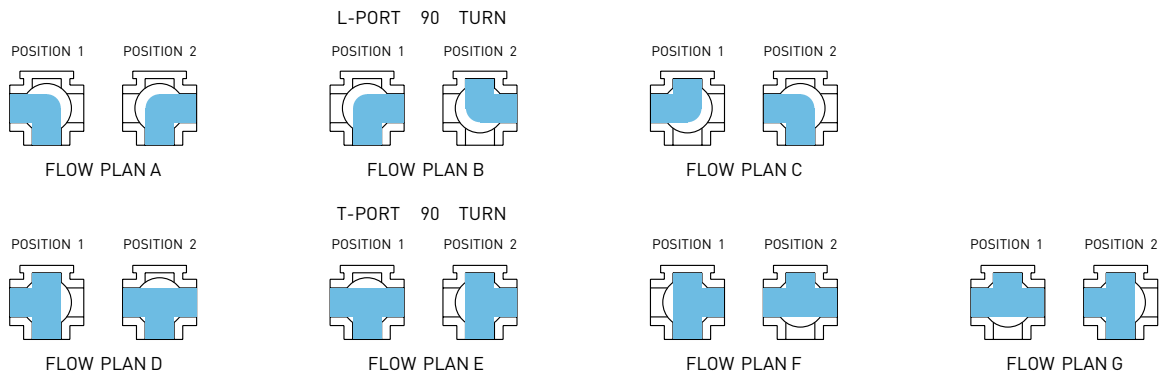
## MULTI-PORT, THREE-WAY, THREADED END



### DIMENSIONS (MM)

SIZE	D	L	H	D1	B	W1	W2	h	M	N
¼"	11.0	69.4	61.0	106	35	13	28.50	10-24 UNC	13.0	24.0
⅜"	11.0	69.4	61.0	106	35	13	28.50	10-24 UNC	13.0	24.0
½"	12.7	76.0	65.5	138	37	13	28.50	10-24 UNC	20.0	30.0
¾"	16.0	86.6	71.0	138	45	21	34.60	10-24 UNC	19.5	31.0
1"	20.0	102.0	76.0	157	51	21	34.60	10-24 UNC	23.0	40.0
1¼"	25.0	118.0	81.5	157	58	24	38.00	¼-20 UNC	23.0	41.5
1½"	32.0	126.0	102.0	222	63	24	38.00	¼-20 UNC	26.0	50.5
2"	38.1	149.0	112.0	222	77	24	38.00	¼-20 UNC	26.0	55.5

### FLOW PATTERNS FOR THREE-WAY VALVES



# STAINLESS STEEL MULTI-PORT, THREE-WAY, THREADED END

[MANUAL OR ACTUATED]

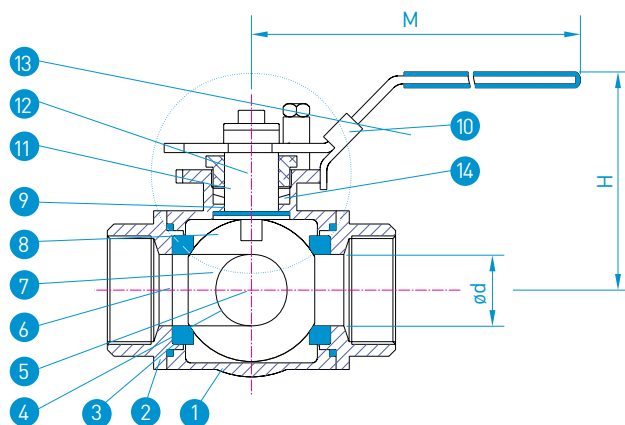
## BV2 - R MP (A) - 1/4" - 3" BSP/NPT

### FEATURES

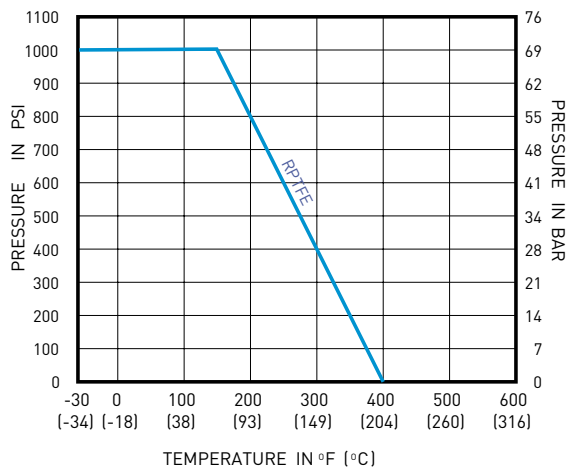
- Investment casting body & caps
- All stainless steel construction
- Variety of thread standards available
- L or T port options
- Built-in ISO 5211 mounting dimension
- Blow-out proof stem
- 4 Seats for rigid ball supporting
- Locking in every 90° increment

### SPECIFICATION

- Reduced port
- Size available from 1/4" to 3"
- Pressure rating: 69 bar



### PRESSURE VS. TEMPERATURE CHART



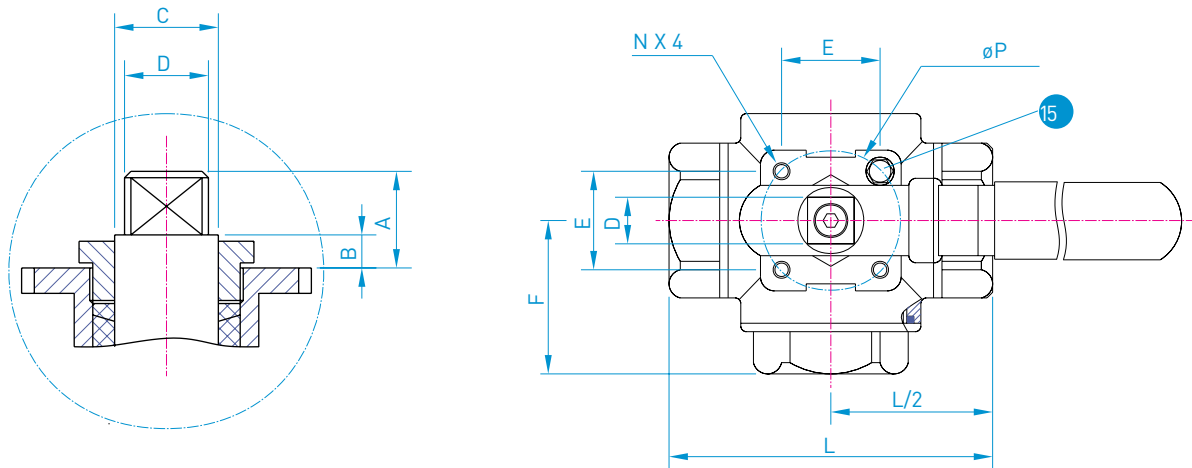
### MATERIAL OF CONSTRUCTION

NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M/1.4408	1
2	End cap	CF8M/1.4408	3
3	Ball seat	RPTFE	4
4	Ball	ASTM 351 Gr. CF8M	1
5	Stem	316SS	1
6	Joint gasket	PTFE	3
7	Thrust washer	PTFE	1
8	Gland	304SS	1
9	Handle	304SS	1
10	Locating lock	304SS	1
11	Washer	304SS	1
12	Handle nut	304SS	1
13	Handle sleeve	VINYL	1
14	Stem packing	PTFE	1 Set
15	Set screw	304SS	1



# STAINLESS STEEL

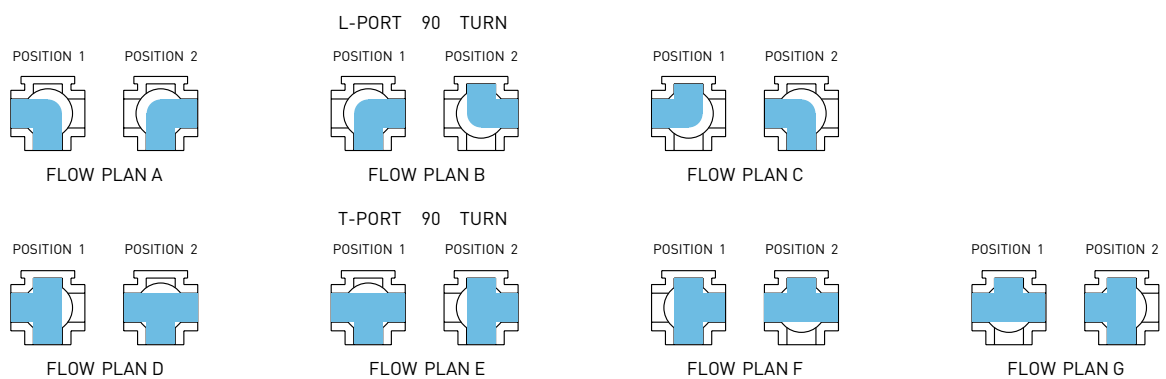
## MULTI-PORT, THREE-WAY, THREADED END (MANUAL OR ACTUATED)



### DIMENSIONS (MM)

SIZE	$\text{Ød} \pm 0.2$	$L \pm 0.8$	$H \pm 1.0$	$M \pm 1.0$	A	B	C	D	E	F	$\text{ØP}$	N
1/4"	11.0	69	60.7	133.4	10.7	5.7	12.0	9	29.7	34.60	42	M5*0.8
3/8"	11.0	69	60.7	133.4	10.7	5.7	12.0	9	29.7	34.60	42	M5*0.8
1/2"	12.5	75	64.1	133.4	10.7	5.8	12.0	9	29.7	37.25	42	M5*0.8
3/4"	16.0	86	82.4	178.5	13.9	6.9	15.0	11	35.4	44.70	50	M6*0.1
1"	20.0	101	86.1	178.5	20.0	8.5	15.0	11	35.4	51.40	50	M6*0.1
1 1/4"	25.0	115	91.4	209.9	23.8	7.8	15.0	11	35.4	57.70	50	M6*0.1
1 1/2"	32.0	125	102.7	208.0	25.8	10.2	15.0	11	49.5	62.70	70	M8*1.25
2"	38.1	149	110.7	229.9	25.3	9.7	18.5	14	49.5	74.60	70	M8*1.25
2 1/2"	50.0	160	132.0	265.0	24.5	8.5	18.5	14	49.5	80.00	70	M8*1.25
3"	65.0	185	132.0	265.0	29.0	9.0	21.0	17	72.1	92.50	102	M10*1.50

### FLOW PATTERNS FOR 3 WAY VALVES



# STAINLESS STEEL MULTI-PORT, HIGH PERFORMANCE, THREE-WAY

MANUAL OR ACTUATED  
3/8" TO 1 1/2" (DN10-DN40)

**BV2 – F/R MP HIP (A) – 3/8" - 1 1/2"**

## FEATURES

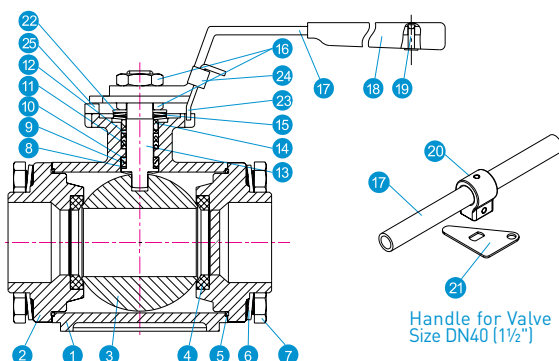
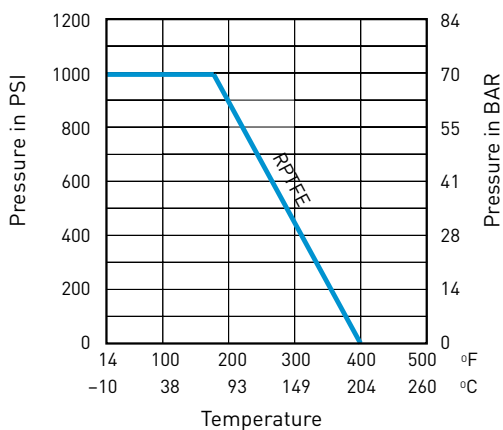
- Four ball seats
- Simplicity in replacing valve seats and packing
- Investment casting for body and end cap
- Optional LL port for 4-way
- Patented "Sealmaster" stem arrangement
- Double stem sealing complies with TA-LUFT requirements
- Blow-out proof stem
- ISO 5211 mounting plate
- Anti-static design
- Optional ball & body patterns for various flow paths
- Weld in place for socket or butt weld end
- Size range DN10 (3/8") to DN40 (1 1/2")
  - Full and reduced bore
- Valve pressure rating:
  - ANSI Class 150/300
  - DIN PN 10/16/25/40
  - JIS 10K
- End connections screwed, butt weld, socket weld and flanged
- Flanged connection in full bore only



## MATERIAL LIST

NO.	PART NAME	MATERIAL	Q'TY
1	Body	CF8M/WCB, 1.4408/1.0619	1
2	Cap	CF8M/WCB, 1.4408/1.0619	4
3	Ball	ASTM A351 Gr. CF8M	1
4	Ball seat	RPTFE	4
5	Body gasket	PTFE	4
6	Bolt washer	304SS	16
7	Bolt	A2-70	16
8	Lower thrust washer	50% S.S Powder/ 50% PTFE	1
9	Compress ring	316SS	1
10	Upper thrust washer	TFM1600	1
11	V-ring stem packing	PTFE	1 Set
12	Thrust washer	50% S.S Powder/ 50% PTFE	1
13	Anti-static stem	A276 Type 316	1
14	Gland	304SS	1
15	Belleville washer	301SS	2
16	Stem nut	304SS	1-2
17	Handle	CF8 (1/2" to 1 1/4")/SGP Zn Plating (1 1/2")	1
18	Handle sleeve	Vinyl	1
19	Rivet	304SS	2
20	Stem adapter	304SS	1
21	Triangle stopper	304SS	1
22	Lock saddle	304SS	1
23	Locking trigger	304SS	1
24	Fix plate	304SS	1
25	Block cover	CF8M/WCB, 1.4408/1.0619	1

## PRESSURE/TEMPERATURE CHART

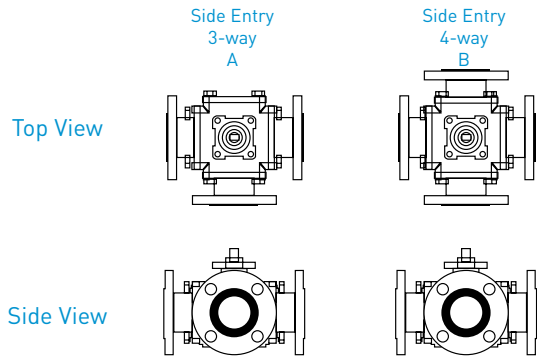


3/8" to 1 1/4" For standard handle  
1 1/2" T-handle

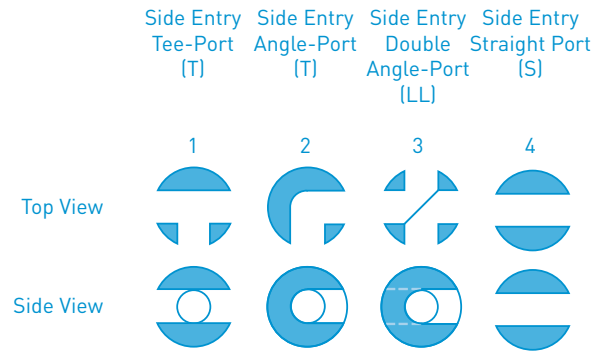
# STAINLESS STEEL

## MULTI-PORT, HIGH PERFORMANCE, THREE-WAY

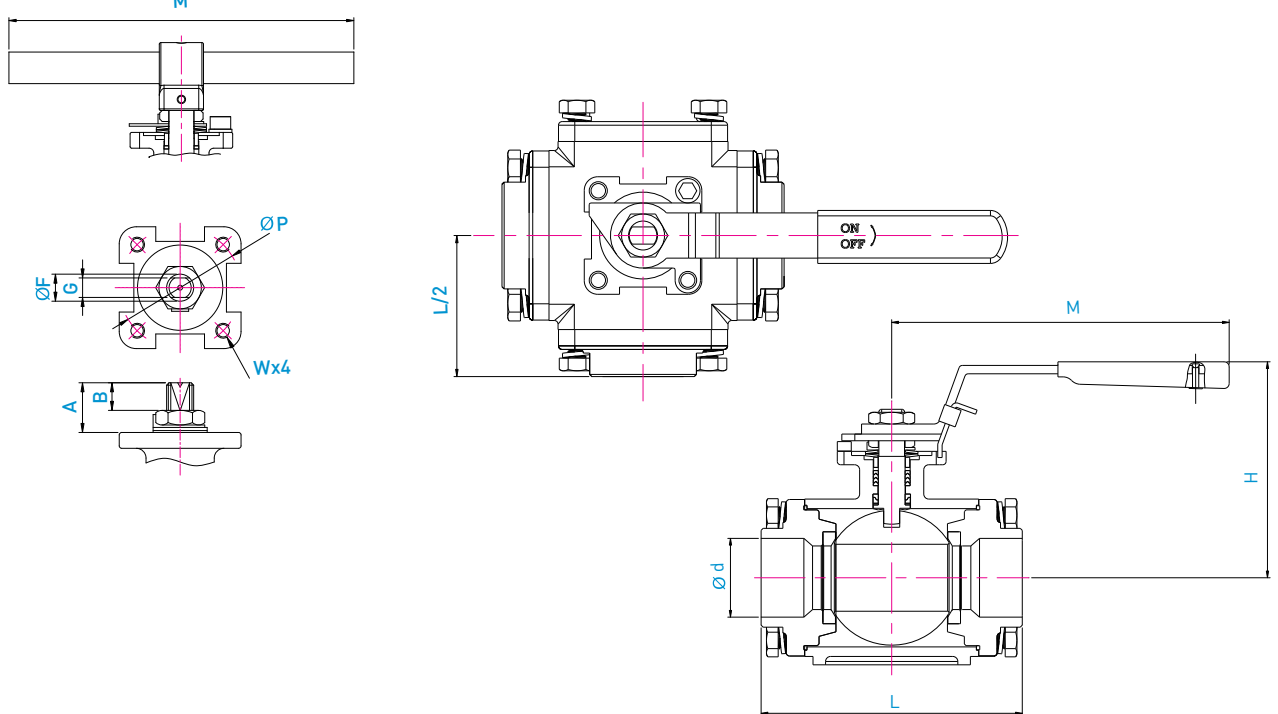
### BODY PORT CONFIGURATION



### BALL PORT CONFIGURATION



### MULTI-PORT VALVE WITH THREADED END

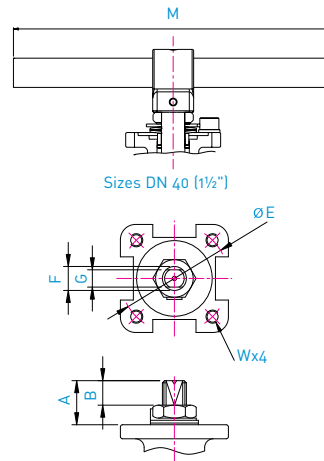
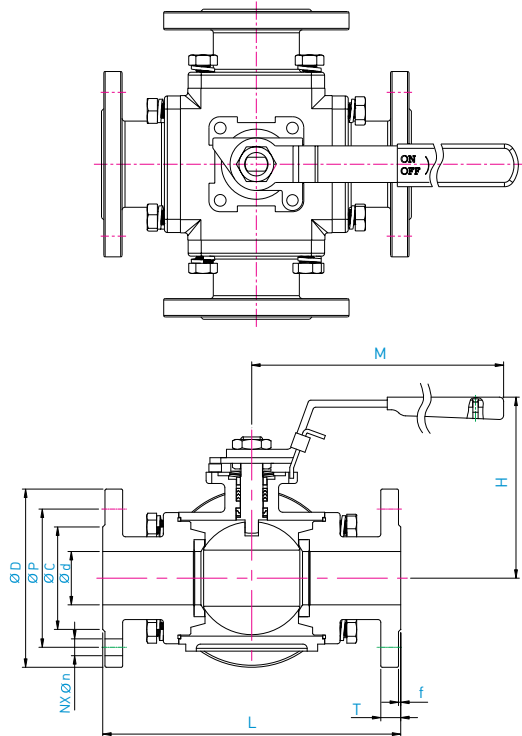


### DIMENSIONS (MM)

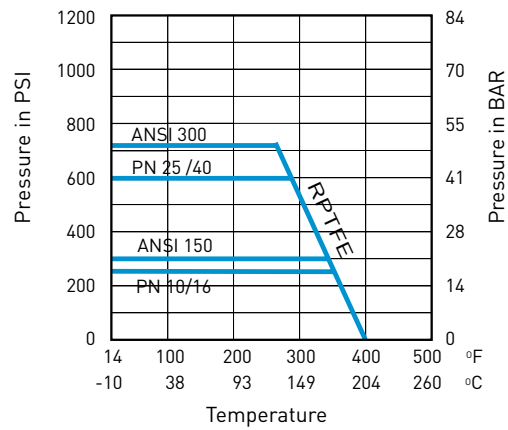
Size	DN		Ød	H	L	M	A	B	G	ØP	ØF	W	
	full bore	reduced bore											full bore
3/8"	1/2"	10	15	12.5	63.5	90.0	115	12.5	5.5	6.3	42	9.7	M5
1/2"	3/4"	15	20	15.5	82.0	107.0	130	19.0	11.4	6.3	42	9.7	M5
3/4"	1"	20	25	20.0	86.0	110.5	130	21.8	14.0	8.0	50	11.2	M6
1"	1 1/4"	25	32	25.0	98.0	126.5	165	21.8	14.3	8.0	50	11.2	M6
1 1/4"	1 1/2"	32	40	32.0	100.0	135.0	200	24.5	15.0	9.5	70	16.0	M8
1 1/2"	2"	40	50	38.0	127.0	154.0	395	24.5	15.0	9.5	70	16.0	M8

# STAINLESS STEEL MULTI-PORT, HIGH PERFORMANCE, THREE-WAY

## MULTI-PORT VALVE WITH FLANGED END



## PRESSURE/TEMPERATURE CHART



## DIMENSIONS (MM)

Size	DN	A	B	ØC			ØD				Ød	ØP	ØB				N	M	W
				150 300	10K 20K	PN 10/40	150	300	PN 10/40	10K 20K			150	300	PN 10/40	10K 20K			
½"	15	19.0	11.4	35	51	45	89	95	95	95	15.5	42	60.5	66.5	65	70	4	130	M5
¾"	20	21.8	14.0	43	56	58	98	117	105	100	20.0	50	70.0	82.5	75	75	4	130	M6
1"	25	21.8	14.3	51	67	68	108	124	115	125	25.0	50	79.5	89.0	85	90	4	165	M6
1½"	40	24.5	15.0	73	81	88	127	156	150	140	38.0	70	98.5	114.5	110	105	4	400	M8

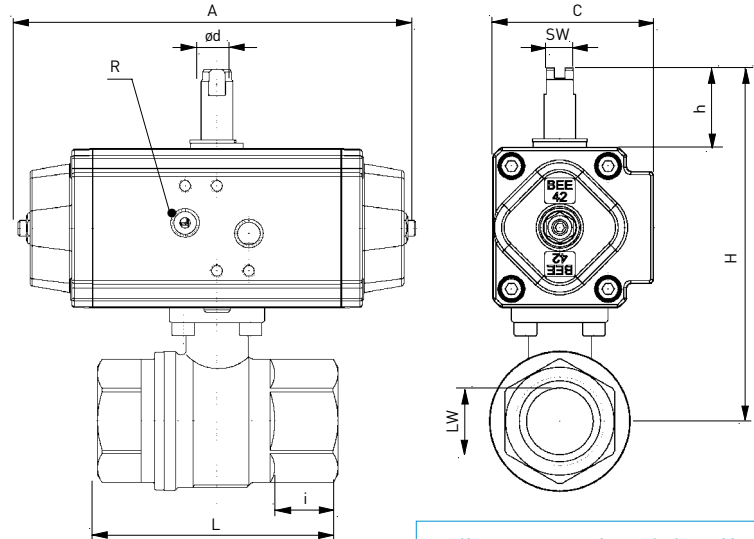
Size	DN	F	G	H	L			T					f			Øn			
					150 10K	300 20K	PN 10/40	150	300	PN 10/40	10K	20K	150 300	10K 20K	PN 10/40	150	300	10K 20K	PN 10/40
½"	15	9.7	6.3	82	148.2	153.8	157.8	11.2	14.3	16	12	14	1.6	1	2	16	16	15	14
¾"	20	11.2	8.0	86	153.9	163.6	167.8	11.2	15.9	18	14	16	1.6	1	2	16	19	15	14
1"	25	11.2	8.0	98	168.4	181.0	182.0	11.2	17.5	18	14	16	1.6	1	2	16	19	19	14
1½"	40	16.0	9.5	127	212.4	223.4	218.0	14.2	20.7	18	16	18	1.6	2	3	16	22	19	18

# BRASS

## AUTOMATIC BALL VALVE (PNEUMATIC)

TWO-PIECE BRASS BALL VALVES  
THREAD CONNECTIONS

**BV1 - 2 P - 1/4" - 2" BSP**



L = length of thread

Air pressure connections and valve positions		
	Open	Closed
DAD32.1	Top thread	Lower thread
DAD42.1	Top thread	Lower thread
DAD63.1	Left	Right

### TECHNICAL DATA BALL VALVE

#### MATERIALS

Body: brass nickel plated  
Ball: brass chrome plated  
Ball seal: PTFE  
Stem seal: Viton

#### WORKING TEMPERATURE

-20°C to max. +170°C  
(depending on working pressure)  
Note: temperature range of the actuator!

#### SUITABLE FOR

Oils, compressed air, water,  
paint, solvents, fuels, gas  
For gas according to  
DIN-DVGW/MOP5 on request

#### REMARK

- Length of complete valve according to DIN 3202 - M3 1/4" and 3/8" are 1/2" ball valves with reducing nipples on the respective connection measurement

### TECHNICAL DATA ACTUATOR

#### MATERIALS

Body: aluminium hard anodized  
Shaft: steel nickel plated  
Piston: aluminium  
Seals: perbunan

#### WORKING TEMPERATURE

-20°C to +90°C

#### OPERATING MEDIA

Filtered air according to Pneurop/ISO class 4

# BRASS AUTOMATIC BALL VALVE (PNEUMATIC)

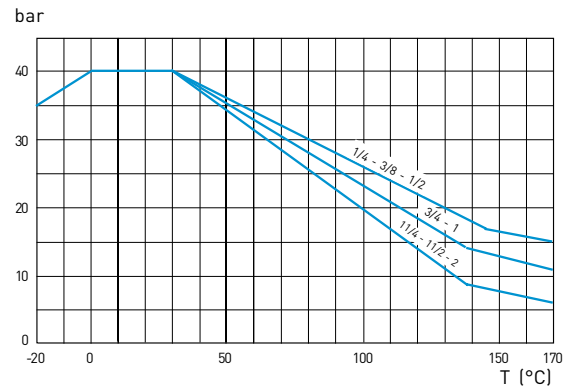
## SPECIAL FEATURES

- No bracket and no coupler essential.  
The pneumatic actuator will be mounted directly on the ball valve.
- Direct mounting of magnetic valves per Namur from 42.1 is also possible (Brands: Airtec, Festo, Herion).
- Suitable for mounting of switch box from DAD42.1.

## REMARKS

- Suitable for industrial purposes.
- The dimension of the device is calculated with a control pressure rate from 6 bar up to 10 bar.
- Lower control pressure dimensioning on request.
- For non-greasing mediums (e. g. water) or/and long non-working time it might be necessary to choose a bigger actuator size. In this case please contact our technical staff.
- Ball valves with DAD32.1 are available with DAD42.1
- Different switch positions see table on page 1.3.1

## PRESSURE TEMPERATURE DIAGRAM



## DIMENSIONS (MM)

### MODE OF FUNCTION: DAD = DOUBLE ACTING

DN LW	PN (bar) Ball valve	D ISO 7/1	I	L ± 2	H ~	h	A	C	Ød	SW 2-flat	R	Mounting flange DIN ISO 5211	Actuator DAD	Weight (kg)
6	65	Rp 1/4	15.5	75	91.0	14	115	49.5	12	10	G 1/8	F 03	32.1	0.965
10	65	Rp 3/8	15.5	75	91.0	14	115	49.5	12	10	G 1/8	F 03	32.1	0.945
15	65	Rp 1/2	15.5	75	91.0	14	115	49.5	12	10	G 1/8	F 03	32.1	0.920
20	40	Rp 3/4	18.0	80	98.5	14	115	49.5	12	10	G 1/8	F 03	32.1	1.070
25	40	Rp 1	21.0	90	102.5	14	115	49.5	12	10	G 1/8	F 03	32.1	1.410
32	30	Rp 1 1/4	23.0	110	145.5	30	150	60	12	10	G 1/8	F 05	42.1	2.255
40	30	Rp 1 1/2	24.5	120	152.0	30	150	60	12	10	G 1/8	F 05	42.1	2.845
50	30	Rp 2	26.5	140	185.0	30	180	81.5	16	13	G 1/8	F 05	63.1	5.200

### MODE OF FUNCTION: DAE = SINGLE ACTING

DN LW	PN (bar) Ball valve	D ISO 7/1	I	L ± 2	H ~	h	A	C	Ød	SW 2-flat	R	Mounting flange DIN ISO 5211	Actuator DAD	Weight (kg)
6	65	Rp 1/4	15.5	75	121.0	30	150	60	12	10	G 1/8	F 03	42.1-2F	1.355
10	65	Rp 3/8	15.5	75	121.0	30	150	60	12	10	G 1/8	F 03	42.1-2F	1.325
15	65	Rp 1/2	15.5	75	121.0	30	150	60	12	10	G 1/8	F 03	42.1-2F	1.310
20	40	Rp 3/4	18.0	80	128.5	30	150	60	12	10	G 1/8	F 03	42.1-2F	1.460
25	40	Rp 1	21.0	90	132.5	30	150	60	12	10	G 1/8	F 03	42.1-2F	1.800
32	30	Rp 1 1/4	23.0	110	171.5	30	180	81.5	16	13	G 1/8	F 05	63.1-10F	3.490
40	30	Rp 1 1/2	24.5	120	178.0	30	180	81.5	16	13	G 1/8	F 05	63.1-10F	4.080
50	30	Rp 2	26.5	140	185.0	30	180	81.5	16	13	G 1/8	F 05	63.1-10F	5.350

# GGG40

## FLANGED AUTOMATIC BALL VALVE (ELECTRICAL)

IN SPHEROIDAL GRAPHITE CAST IRON

**BV3 - FL E - DN25 - DN150**



PED: 97/23/EG



### TECHNICAL DATA BALL VALVE

#### MATERIALS

Body: spheroidal cast iron GGG 40

Ball: type B grey cast iron  
GG 25 chrome plated  
Ball material E + F on  
request (additional costs):  
- type E stainless steel  
(1.4301) (hollow)  
- type F stainless steel  
(1.4408) (solid)

Ball seal E: PTFE + GF

Stem seal: Viton

#### WORKING TEMPERATURE

-20°C to +180°C

(depending on working pressure)

Note: temperature range of the actuator!

More than 50°C coupler+bracket must be used

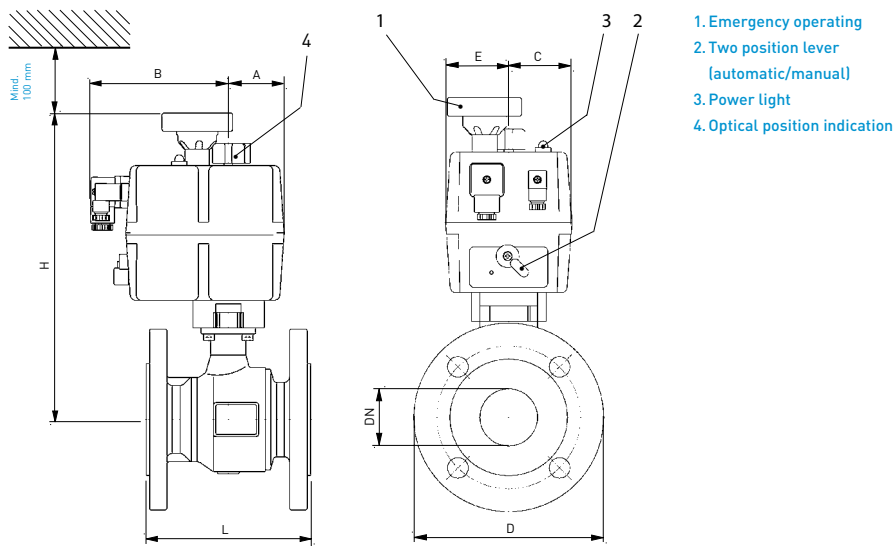
#### SUITABLE FOR

Oils, compressed air, water, fuels, gas

#### REMARKS

- Ball valve DN 150 can only be installed or removed with ball in open position.
- Ball type B = standard version  
Ball seal E = standard version

# GGG40 FLANGED AUTOMATIC BALL VALVE (ELECTRICAL)



## DIMENSIONS (MM)

DN	PN (bar) Ball valve	L	D	H	A	B	C	E	Mounting flange DIN ISO 5211	Actuator*	Weight (kg)
25	16	125	115	209	51	126	55	55	F 05	L/H 20	4.600
32	16	130	140	220	51	126	55	55	F 05	L/H 20	6.100
40	16	140	150	248	51	126	55	55	F 05	L/H 35	7.400
50	16	150	165	280	51	126	55	55	F 05	L/H 55	9.900
65	16	170	185	291	51	126	55	73	F 07	L/H 85	14.800

\* Actuator size for greasing mediums (for non-greasing mediums on request)

## TECHNICAL DATA ACTUATOR

### CHARACTERISTICS

- Series L (low) for 12-24V AC/DC
- Series H (high) for 85-240V AC+DC
- ETL (electronic torque limiting)
- AVS (automatic voltage sensing)
- ATC (automatic temperature control) intern switch room heater for prevention of condensation
- Mounting pad acc. to ISO 5211
- 4 limit switches (2 for motor adjustment, 2 for response)

- Emergency operating
- Visual position indicator
- External plug connection acc. to DIN 43650
- Corrosion resistant synthetic body
- Temperature range -20°C to +70°C
- Mounting position free, not upside down

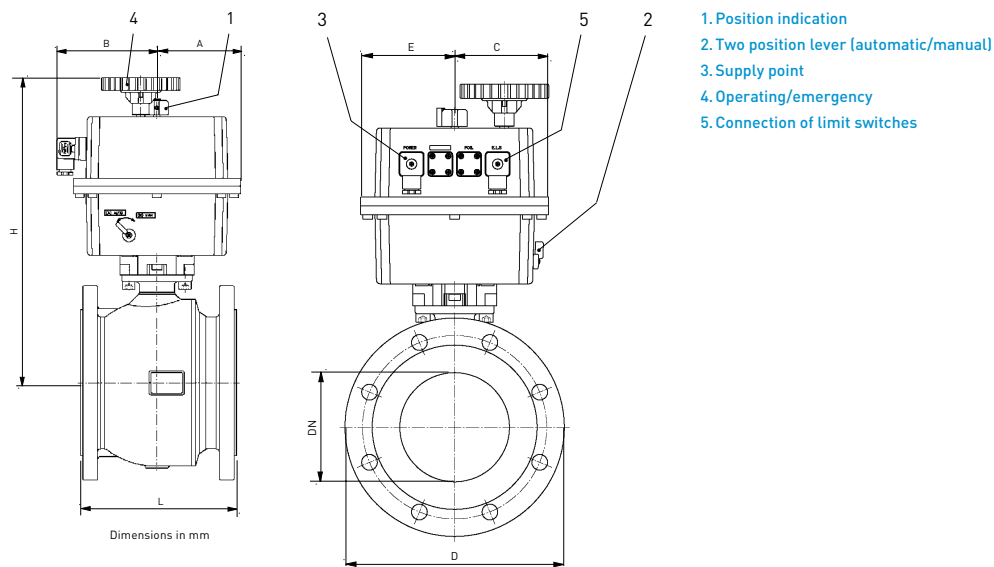
### SPECIAL VERSIONS

- Higher mounting (approx 60 mm) for medium temperatures over 50°C
- Other voltages and turning angles on request

Actuator series	ISO Flange	Octagon mm	Protection class	Operating factor	Min./Max. Power supply Model H 85-240V AC/DC (+/-5%)	Min./Max. Power supply Model L 12-24V AC/DC (-0/+5%)	Working torque (Nm)	Starting torque (Nm)	Time of cycle 90° without strain
20	F03/04/05	9/11/14	IP 65	75 %	0.01A - 0.21A	0.18A - 2.14A	20	25	L20 = 11 sec. (+/-10%) H20 = 11 sec. (+/-10%)
35	F03/04/05	9/11/14	IP 65	75 %	0.01A - 0.24A	0.33A - 3.23A	35	38	L35 = 12 sec. (+/-10%) H35 = 11 sec. (+/-10%)
55	F05/F07	14/17	IP 65	75 %	0.04A - 0.31A	0.33A - 4.12A	55	60	L55 = 17 sec. (+/-10%) H55 = 13 sec. (+/-10%)
85	F05/F07	14/17	IP 65	75 %	0.04A - 0.31A	0.35A - 4.64A	85	90	L85 = 33 sec. (+/-10%) H85 = 32 sec. (+/-10%)



# GGG40 FLANGED AUTOMATIC BALL VALVE (ELECTRICAL)



## DIMENSIONS (MM)

DN	PN (bar) ball valve	L	D	H ~	A	B	C	E	Mounting flange DIN ISO 5211	Actuator*	Weight (kg)
80	16	180	200	357	107	128	107	107	F 07	L/H 140	20.700
100	16	190	220	374	107	128	107	107	F 10	L/H 140	27.800
125	16	200	250	393	107	128	107	107	F 10	L/H 300	29.700
150	16	210	285	412	107	128	107	107	F 10	L/H 300	38.700

Actuator size for greasing mediums (for non-greasing mediums on request)

## TECHNICAL DATA ACTUATOR

### CHARACTERISTICS

- Series L (low) for 12-24V AC/DC
- Series H (high) for 85-240V AC+DC
- ETL (electronic torque limiting)
- AVS (automatic voltage sensing)
- ATC (automatic temperature control)  
intern switch room heater for  
prevention of condensation
- mounting pad acc. to ISO 5211
- 4 limit switches (2 for motor adjustment,  
2 for response)

- Emergency operating
- Visual position indicator
- External plug connection acc. to DIN 43650
- Corrosion resistant synthetic body
- Temperature range -20°C to +70°C
- Mounting position free, not upside down

### SPECIAL VERSIONS

- Higher mounting (approx. 60 mm) for  
medium temperatures over 50°C
- Other voltages and turning angles on request

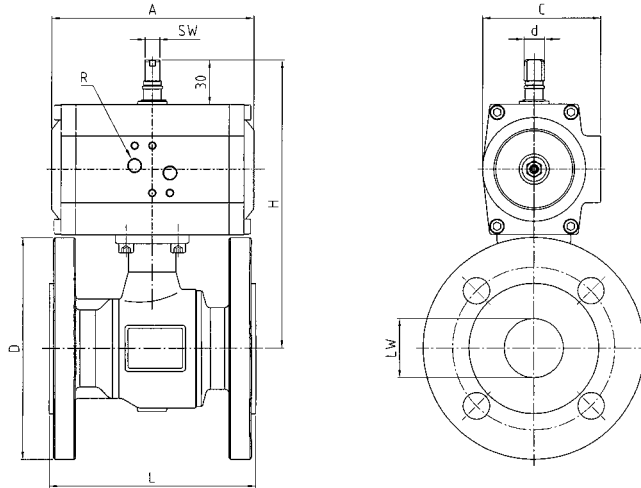
Actuator series	ISO Flange	Octagon mm	Protection class	Operating factor	Min./Max. Power supply Model H 85-240V AC/DC (+/-5%)	Min./Max. Power supply Model L 12-24V AC/DC (-0/+5%)	Working torque (Nm)	Starting torque (Nm)	Time of cycle 90° without strain
140	F07/F10	22	IP 65	75 %	0.15A - 0.65A	0.6A - 6.4A	140	170	L140 = 33 sec. (+/-10%) H140 = 30 sec. (+/-10%)
300	F07/F10	22	IP 65	75 %	0.15A - 0.75A	1A - 6.9A	300	350	L300 = 66 sec. (+/-10%) H300 = 60 sec. (+/-10%)

# GGG40

## FLANGED AUTOMATIC BALL VALVE (PNEUMATIC)

FLANGED BALL VALVES IN SPHEROIDAL GRAPHITE CAST IRON

**BV3 - FL P - DN25 - DN150**



### TECHNICAL DATA BALL VALVE

#### MATERIALS

- Body: spheroidal cast iron  
GGG40 (0.7040)
- Ball: type B grey cast iron  
(0.6025) hard chrome plated  
Ball material E + F on request  
(additional costs):
- type E stainless steel  
(1.4301) (hollow)
  - type F stainless steel  
(1.4408) (solid)
- Ball seal: PTFE + GF  
Stem seal: Viton

#### WORKING TEMPERATURE

-20°C to max. +180°C  
(depending on working pressure)  
Note: temperature range of the actuator!

#### SUITABLE FOR

Oils, compressed air, water, fuels

### REMARKS

- Ball valve DN 150 can only be installed or removed with ball in open position
- Type B = standard version

### TECHNICAL DATA ACTUATOR

#### MATERIALS

- Body: aluminium anodized  
Shaft: steel nickel plated  
Piston: aluminium  
Seals: perbunan

#### WORKING TEMPERATURE

-20°C to +95°C

#### OPERATING MEDIA

Filtered and oiled air according to Pneuop/ISO class 4  
Filtered air according to Pneuop/ISO class 4



DVGW approved ball valve according to KSN75 data sheet on request.

# GGG40

## FLANGED AUTOMATIC BALL VALVE (PNEUMATIC)

### SPECIAL FEATURES

- Direct mounting of magnetic valves per Namur is also possible (Brands: Airtec, Festo, Herion)

### REMARKS

- Suitable for industrial purposes
- The actuators are designed for air supply of 6 bar up to 10 bar
- For non-greasing mediums (e. g. water) or/and long non-working time it might be necessary to choose a bigger actuator size. In this case please contact our technical staff.

### DIMENSIONS (MM)

#### > MODE OF FUNCTION: GTD = DOUBLE ACTING

DN	PN (bar) Ball valve	L	D	H ~	A	C	a	d	SW 2-flat	R	Mounting flange DIN ISO 5211	Actuator GTD	Weight (kg)
25	16	125	115	164	130	68.5	24	14.0	10	G 1/8	F 05	58	4.100
32	16	130	140	175	130	68.5	24	14.0	10	G 1/8	F 05	58	5.600
40	16	140	150	195	137	80	24	14.0	10	G 1/8	F 05	68	7.150
50	16	150	165	214	161	82.5	24	14.0	10	G 1/8	F 05	78	9.700
65	16	170	185	233	180	99.5	24	14.0	10	G 1/8	F 07	88	14.500
80	16	180	200	273	222	120	24	19.5	14	G 1/4	F 07	110	20.700
100	16	190	220	290	222	120	24	19.5	14	G 1/4	F 10	110	27.800
125	16	200	250	309	294	120	24	28.0	20	G 1/4	F 10	115	31.600
150	16	210	285	386	350	172	24	28.0	20	G 1/4	F 10	143	45.920

#### > MODE OF FUNCTION: GTE = SINGLE ACTING

DN	PN (bar) Ball valve	L	D	H ~	A	C	a	d	SW 2-flat	R	Mounting flange DIN ISO 5211	Actuator GTE	Weight (kg)
25	16	125	115	164	130	68.5	24	14.0	10	G 1/8	F 05	58-8F	4.200
32	16	130	140	189	137	80	24	14.0	10	G 1/8	F 05	68-8F	6.320
40	16	140	150	207	161	92.5	24	14.0	10	G 1/8	F 05	78-8F	8.150
50	16	150	165	222	180	99.5	24	14.0	10	G 1/8	F 05	88-8F	10.550
65	16	170	185	242	209	110.5	24	19.5	14	G 1/8	F 07	98-8F	16.000
80	16	180	200	273	222	120	24	19.5	14	G 1/4	F 07	110-8F	21.700
100	16	190	220	290	294	120	24	28.0	20	G 1/4	F 10	115-8F	30.950
125	16	200	250	329	300	137	24	28.0	20	G 1/4	F 10	127-8F	35.200
150	16	210	285	386	350	172	24	28.0	20	G 1/4	F 10	143-8F	49.280

Contact our sales engineers to receive detailed product information.  
We recommend to visit our website for regularly updated product information.

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