

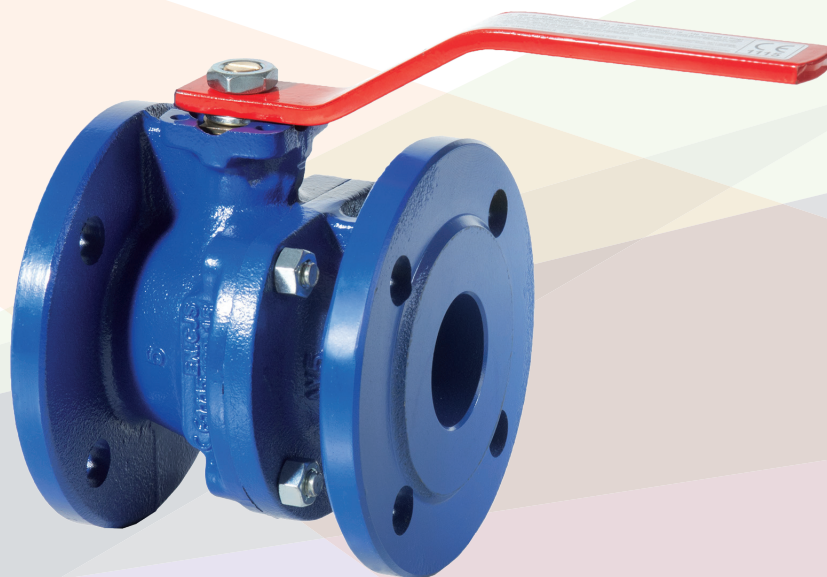
# B2.1系列

法兰式球铁球阀

Flanged ductile iron ball valve



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DATASHEET



**b**-Smart, Be-Brandoni



[www.brandonivalves.com](http://www.brandonivalves.com)

**brandoni**  
VALVES

## 法兰式球铁球阀 / Flanged ductile iron ball valve

B2.1系列两片式法兰球阀，阀体材质为球铁，球体为浮球，严格按照相关产品质量标准生产，符合 EN ISO 9001 标准。

适用于供暖和空调系统，集中供热、供水和水处理、工业、农业、消防系统，介质可以是压缩空气、油类及碳氢化合物。

(请确保您的选择与适用范围一致)

**YES:** 可安装于管路中部及末端，可频繁开启，上法兰符合ISO 5211标准，可连接多种驱动器。

B2.1系列球阀为全通径，可有效减少流体扰动和水头损失。

**NO:** 不适用于蒸汽系统及流量调节。

## 附件

- 隔热延长杆
- 用于给水总管系统的连接方头
- 阀杆延长装置
- ISO 5211标准法兰连接装置
- 手柄锁定装置
- 限位开关和开关位置指示装置

## 驱动器

- 气动执行器：单作用/双作用
- 可定制：限位开关，位置指示器
- 电动执行器
- 齿轮箱

## 认证 / Certifications



符合2014/68/UE (ex 97/23/CE PED) 标准

符合EN 13774标准

DVGW气体认证

适用于饮用水系统，符合D.M. 174 (98/83/CE指令) 标准。

### 结构及检测标准：

结构长标准：EN558/1 ISO 5752

法兰标准：EN1092 ISO 7005, ANSI B16.5 #150

设计标准：EN 1983, EN12516, ISO 5211

标识标准：EN19

检测标准：EN 12266 cat. A (ISO 5208 cat. A)

Series B2.1 valves are shut-off ball valves split-body type in ductile iron and floating ball, manufactured according to the relevant product standards and the quality management relative to ISO 9001.

Suitable for heating and conditioning (HVAC), district heating, distribution and treatment of water, industrial application, agricultural application, for compressed air processing, for oils and hydrocarbon, for fire fighting.

(Please ensure the choice of the corresponding item)

**YES:** for installation in line and end of line, for services with frequent acting, the integrated ISO 5211 support allows the installation of a wide range of actuators.

The B2.1 range of ball valves are full and straight bore reducing turbulences and minimizing head loss.

**NO:** for steam, for choking and flow regulation.

## Accessories

- Stem extension for thermal insulation
- Square cap for water main system connection
- Stem extension
- Kit ISO 5211 flange
- Kit lockable operation lever
- Kit limit switches for ON/OFF position indicator

## Actuators

- Double acting and single acting pneumatic actuators
- On request: limit switches, position indicator
- Electric actuators
- Gear box

In conformity with directive 2014/68/UE (ex 97/23/CE PED)

Conformity to EN 13774 norms,

DVGW certification for gas

Suitable for drinking water application, comply with Italian regulation D.M.174

### Design and testing standards (correspondences):

Face-to-face: EN558/1 ISO 5752

Flanges: EN1092 ISO 7005, ANSI B16.5 #150

Design: EN 1983, EN12516, ISO 5211

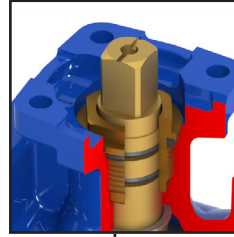
Marking: EN19

Testing: 100% testing in accordance with EN 12266 cat. A (ISO 5208 cat. A)



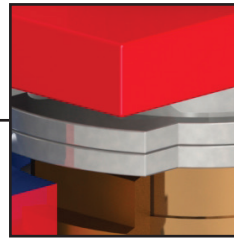
内外环氧树脂喷涂，耐高温。环保水性涂料。

*Inside and outside epoxy coating, high temperature resistant. Environmentally friendly, water-based paint.*



ISO 5211标准上法兰。

*Integrated flange, in accordance with ISO 5211.*

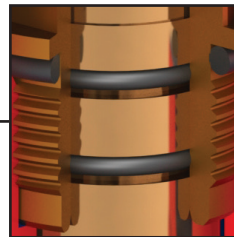


双定位板。

旋转90度重置该定位板，手柄可以锁定阀门在开或关的位置。

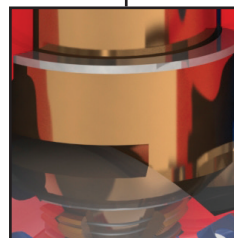
**Twin stop plate**

*Removing and repositioning of the plate at 90° allows locking of the valve in ON-OFF position.*



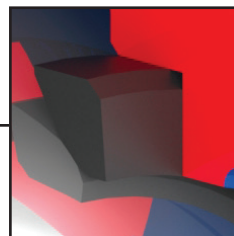
阀杆处的双O型圈动态密封确保阀门在严苛的工作条件下也能正常工作。

*The dynamic seal of the stem is guaranteed by a double O-ring, even in severe working conditions.*



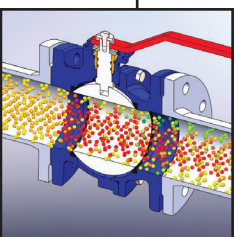
防脱出阀杆。

*Blow-out proof stem.*



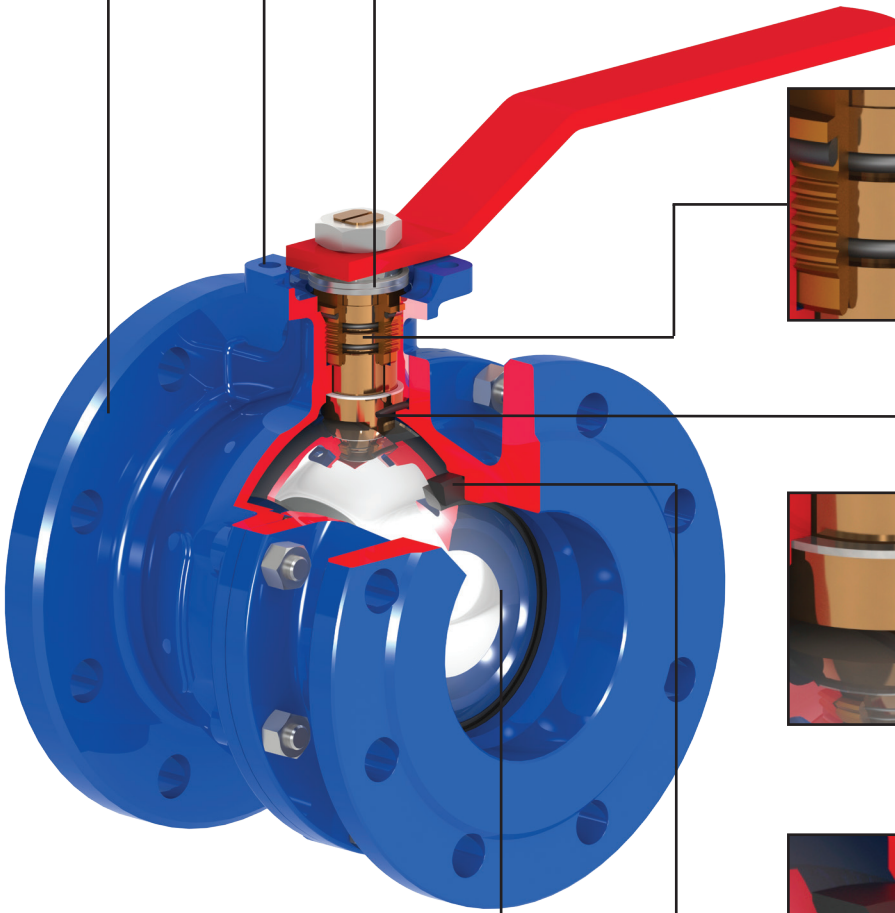
加强型PTFE密封座，可确保温度改变时扭矩恒定。

*Seat of ball in reinforced PTFE, as temperature changes, the torque remains constant.*



全通径球体，材质为表面镀铬黄铜或不锈钢。

*Ball with full and straight bore, in chromed brass or stainless steel.*



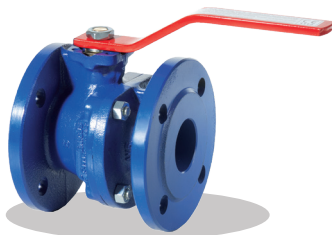
O型圈 / O-Ring: NBR



**B2.100**

阀体: EN GJS 400-15  
 阀球: 黄铜  
 阀杆: 黄铜  
 O型圈: NBR  
 工作温度: -10 + 100°C

Body: Ductile iron  
 Ball: Brass  
 Stem: Brass  
 O-ring: NBR  
 Temp: -10 +100°C



**B2.110**

阀体: EN GJS 400-15  
 阀球: AISI 304  
 阀杆: 黄铜  
 O型圈: NBR  
 工作温度: -10 + 100°C

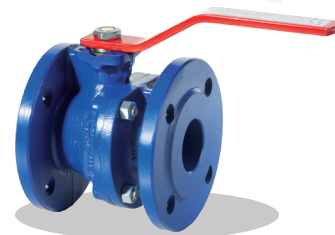
Body: Ductile iron  
 Ball: AISI 304  
 Stem: Brass  
 O-ring: NBR  
 Temp: -10 +100°C



**B2.111**

阀体: EN GJS 400-15  
 阀球: AISI 304  
 阀杆: AISI 304  
 O型圈: NBR  
 工作温度: -10 + 100°C

Body: Ductile iron  
 Ball: AISI 304  
 Stem: AISI 304  
 O-ring: NBR  
 Temp: -10 +100°C



**B2.121**

阀体: EN GJS 400-15  
 阀球: AISI 316  
 阀杆: AISI 304  
 O型圈: NBR  
 工作温度: -10 + 100°C

Body: Ductile iron  
 Ball: AISI 316  
 Stem: AISI 304  
 O-ring: NBR  
 Temp: -10 +100°C

DN 200 - 250 / For DN 200 - 250

**B2.000**

阀体: EN GJL 250  
 Body: Cast iron

**B2.010**

阀体: EN GJL 250  
 Body: Cast iron

**B2.011**

阀体: EN GJL 250  
 Body: Cast iron

**B2.021**

阀体: EN GJL 250  
 Body: Cast iron

结构长符合EN 558/1-29 (ex NF 29-323) 标准 / Face to face EN 558/1-29 (ex NF 29-323)

**F2.100**

同: B2.100  
 See: B2.100

**F2.110**

同: B2.110  
 See: B2.110

**F2.111**

同: B2.111  
 See: B2.111

**F2.121**

同: B2.121  
 See: B2.121

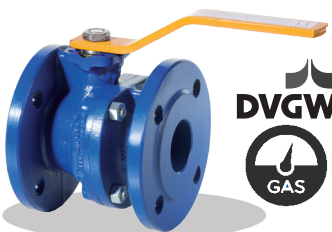
燃气系统适用 / For Gas



**B2.100 gas**

阀体: EN GJS 400-15  
 阀球: 黄铜  
 阀杆: 黄铜  
 O型圈: NBR  
 工作温度: -10 + 70°C

Body: Ductile iron  
 Ball: Brass  
 Stem: Brass  
 O-ring: NBR  
 Temp: -10 +70°C



**B2.110 gas**

阀体: EN GJS 400-15  
 阀球: AISI 304  
 阀杆: 黄铜  
 O型圈: NBR  
 工作温度: -10 + 70°C

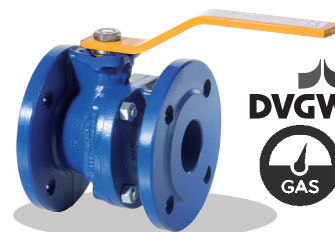
Body: Ductile iron  
 Ball: AISI 304  
 Stem: Brass  
 O-ring: NBR  
 Temp: -10 +70°C



**B2.111 gas**

阀体: EN GJS 400-15  
 阀球: AISI 304  
 阀杆: AISI 304  
 O型圈: NBR  
 工作温度: -10 + 70°C

Body: Ductile iron  
 Ball: AISI 304  
 Stem: AISI 304  
 O-ring: NBR  
 Temp: -10 +70°C

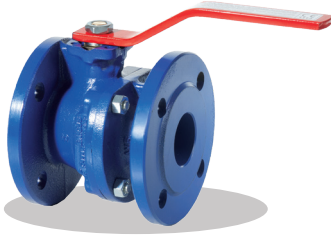


**B2.121 gas**

阀体: EN GJS 400-15  
 阀球: AISI 316  
 阀杆: AISI 304  
 O型圈: NBR  
 工作温度: -10 + 70°C

Body: Ductile iron  
 Ball: AISI 316  
 Stem: AISI 304  
 O-ring: NBR  
 Temp: -10 +70°C

## O型圈 / O-Ring: FKM



### B2.100 FKM \*

阀体: EN GJS 400-15  
阀球: 黄铜  
阀杆: 黄铜  
O型圈: FKM  
工作温度: -10 + 150°C

Body: Ductile iron  
Ball: Brass  
Stem: Brass  
O-ring: FKM  
Temp: -10 +150°C



### B2.110 FKM \*

阀体: EN GJS 400-15  
阀球: AISI 304  
阀杆: 黄铜  
O型圈: FKM  
工作温度: -10 + 150°C

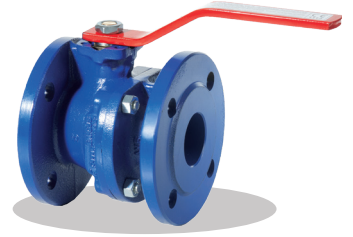
Body: Ductile iron  
Ball: AISI 304  
Stem: Brass  
O-ring: FKM  
Temp: -10 +150°C



### B2.111 FKM \*

阀体: EN GJS 400-15  
阀球: AISI 304  
阀杆: AISI 304  
O型圈: FKM  
工作温度: -10 + 150°C

Body: Ductile iron  
Ball: AISI 304  
Stem: AISI 304  
O-ring: FKM  
Temp: -10 +150°C



### B2.121 FKM \*

阀体: EN GJS 400-15  
阀球: AISI 316  
阀杆: AISI 304  
O型圈: FKM  
工作温度: -10 + 150°C

Body: Ductile iron  
Ball: AISI 316  
Stem: AISI 304  
O-ring: FKM  
Temp: -10 +150°C

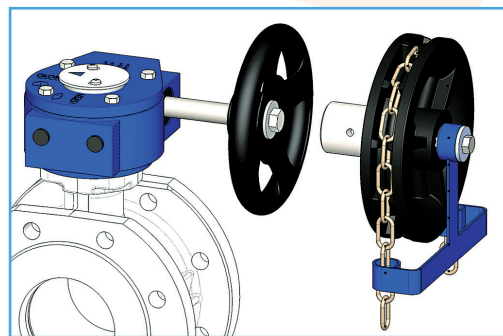
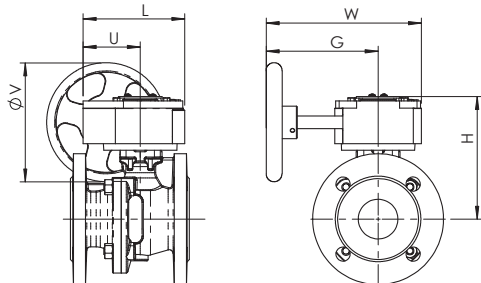
- \* 非常适合集中供热系统, 可用于150°C最高水温
- \* *Most suitable for district heating for water up to 150 °C*

涂层: 内外环氧树脂喷涂颜色RAL 5002  
Coating: inside and outside epoxy coated RAL 5002 colour

驱动器和附件 / Actuators and accessories



**B2.1 + RM**  
齿轮箱  
Gear box

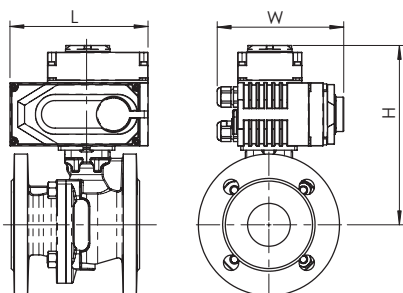


**KCAT**  
链条驱动装置  
Chain driver kit

DN	15	20	25	32	40	50	65	80	100	125	150	200	250
B2 + RM	RM.0250	RM.0250	RM.0250	RM.0250	RM.0250	RM.0250	RM.0250	RM.0250	RM.0250	RM.0750	RM.0750	RM.1200	RM.1200
L	130	130	130	130	130	130	130	130	130	180	180	205	256
U	77	77	77	77	77	77	77	77	77	104	104	124	101
H	112.5	114	121	126	140.5	149	157	180	194.5	243	260.5	310	448
W	225	225	225	225	225	225	225	225	225	338	338	345	464
G	170	170	170	170	170	170	170	170	170	260	260	260	360
V	150	150	150	150	150	150	150	150	150	300	300	300	500
重量 / Weight Kg	6.9	7.6	8.5	10.1	11.8	13.3	14.8	19.8	22.8	38.3	48.8	105.3	192.3



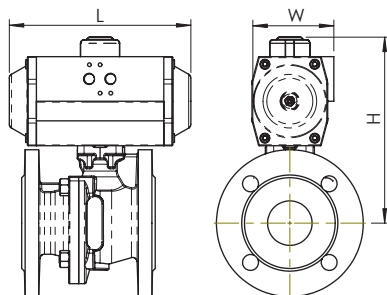
**B2.1 + AOX**  
电动执行器  
Electric actuators



DN	15	20	25	32	40	50	65	80	100	125	150	200
B2 + AOX	003	003	003	003	005	005	008	015	015	030	040	100
L	123	123	123	123	160	160	160	189	189	268	268	268
H	164	165	172	177	200	208	216	247	262	329	347	394
W	100	100	100	100	121	121	121	145	145	225	225	225
重量 / Weight Kg	4.7	5.4	6.3	7.9	11.1	12.6	14.1	20.1	23.1	41.4	52.3	107.5



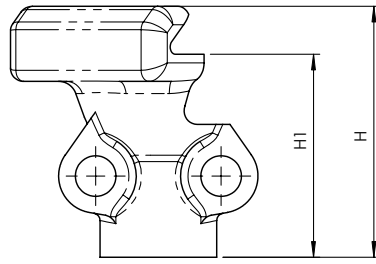
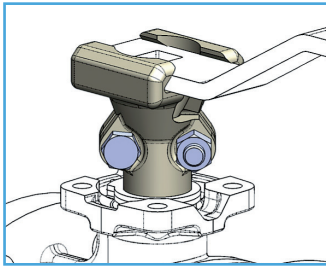
**B2.1 + AP**  
气动执行器  
Pneumatic actuator



DN	15	20	25	32	40	50	65	80	100	125	150	200	250
B2 + AP DE - DA	AP2	AP2	AP2	AP2	AP3	AP3	AP3	AP4	AP4	AP5	AP5.5	AP8	AP10
L	155	155	155	155	213	213	213	276	276	366	388	563	750
H	153.5	155	162	167	199	207	215	263	278	350	389	530	720
W	73	73	73	73	85	85	85	110	110	140	160	215	290
重量 / Weight Kg	4.02	4.72	5.62	7.22	10.04	11.54	13.04	20.6	23.6	38.1	52.44	129.6	257
B2 + AP SE 弹簧复位 - SPRING RETURN	AP3S	AP3S	AP3.5S	AP3.5S	AP3.5S	AP3.5S	AP4S	AP4.5S	AP5.5S	AP6S	AP8S	AP10S	-
L	213	213	236	236	236	236	276	310	388	468	563	750	-
H	210.5	212	229	234	259	267	290	350	399	455	543	575	-
W	85	85	98	98	98	98	110	128	160	175	215	290	-
重量 / Weight Kg	5.7	6.4	8.5	10.1	11.8	13.3	16.7	25.17	35.59	51.86	83.32	194	-



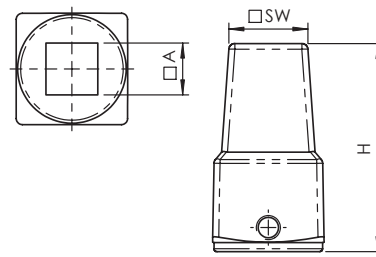
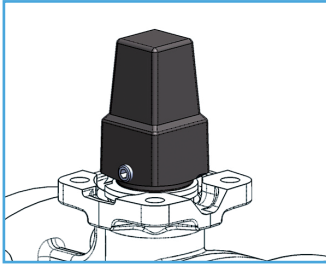
## 驱动器附件 / Actuators and accessories



DN	25-32-40-50-65	80-100-125-150
H	68	68
H1	55	55

### KITB2

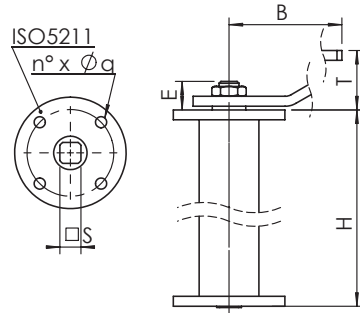
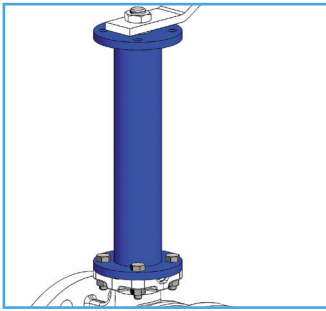
隔热延长杆 / Stem extension for thermal insulation



DN	40-50-65	80-100	125-150
SW	26	26	26
A	14	17	22
H	69	69	71

### KCAPB2

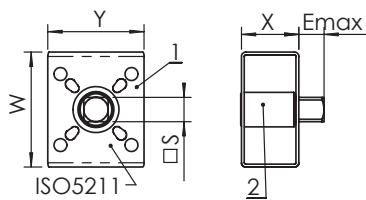
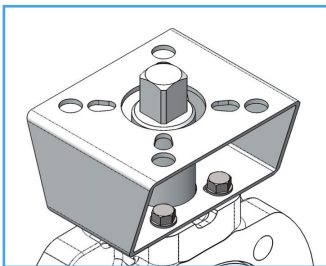
用于给水总管系统的连接方头 / Square cap for water main system connection



DN	40	50	65	80	100	125	150
H	250-500-800-1000						
T	48	48	48	48	48	59	59
B	230	230	230	280	360	450	560
ISO5211	F05	F05	F05	F07	F07	F10	F10
J	50	50	50	70	70	102	102
n° x Øq	4x7	4x7	4x7	4x9	4x9	4x11	4x11
E	22	22	22	23	23	27	27
S	14	14	14	17	17	22	22

### KPRB

用于连接给水总管系统的阀杆延长装置 / Stem extension for water main system connection

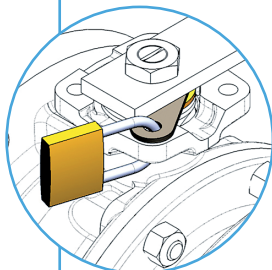
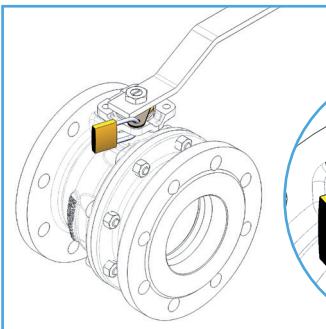


DN	15-20	25-32	40-50-65	80	100	125	150
ISO 5211*	F04-05-07	F04-05-07	F05-07	F10-12	F10-12	F10-12	F10-12-14
S x E	14 x 14	17 x 17	17 x 17	22 x 22	27 X 27	27 X 27	36 X 36
钻孔侧 Drilling valve side	F03-04	F03-04	F05-07	F07-10	F07-10	F07-10	F10-12-14
X	40	40	50	60	60	60	80
Y	70	70	70	120	120	120	140
W	80	80	100	120	120	120	160

- 1) 支架 / Bracket
- 2) 接头 / Joint

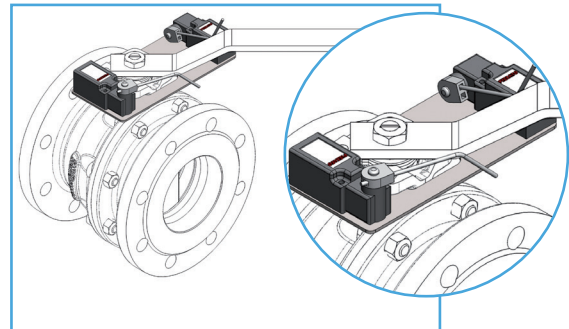
### KISO.B2

ISO 5211标准法兰连接装置 / Kit ISO 5211 flange



### 手柄锁定装置

Kit lockable operation lever

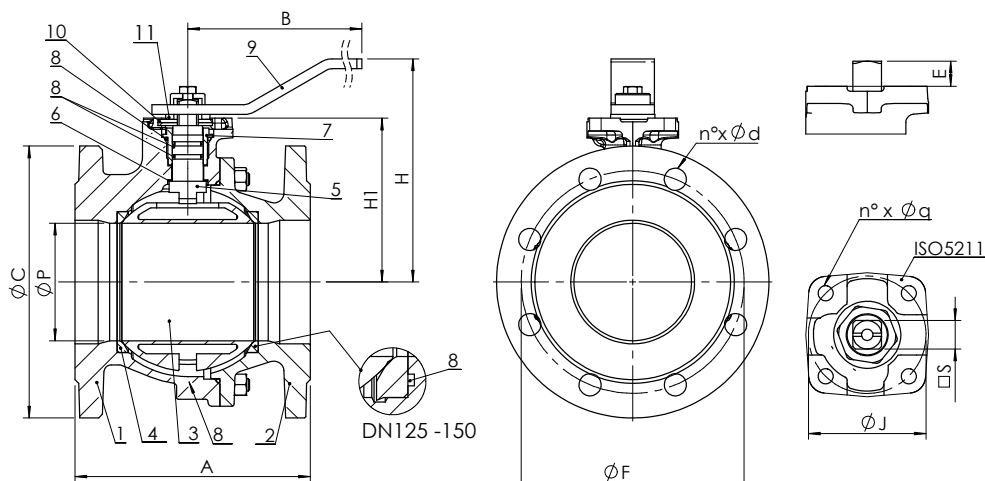


### KFC

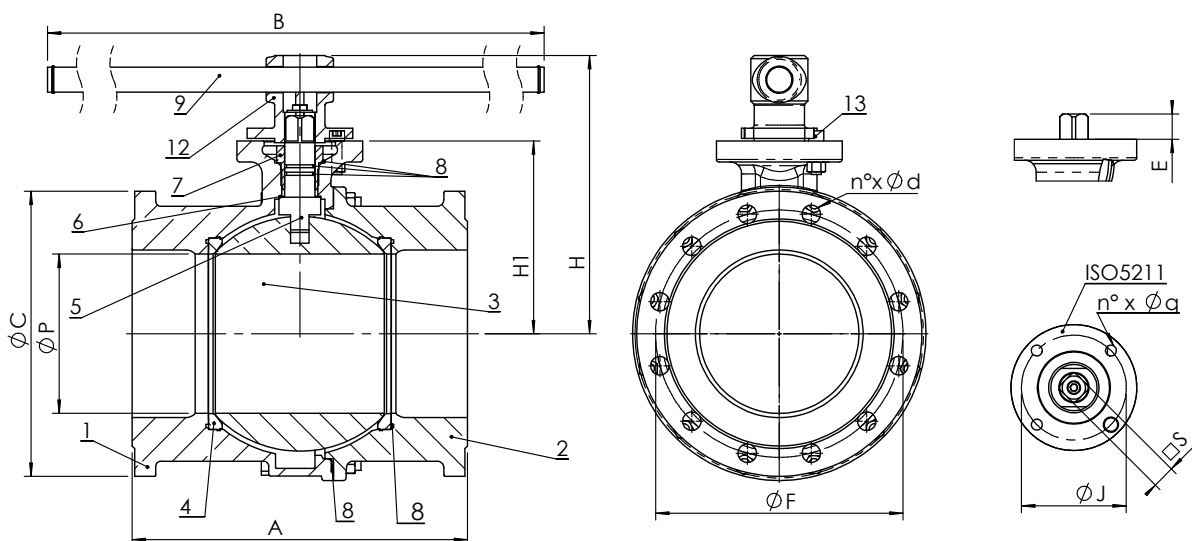
限位开关和开关位置指示装置

Kit limit switches for ON/OFF position indicator

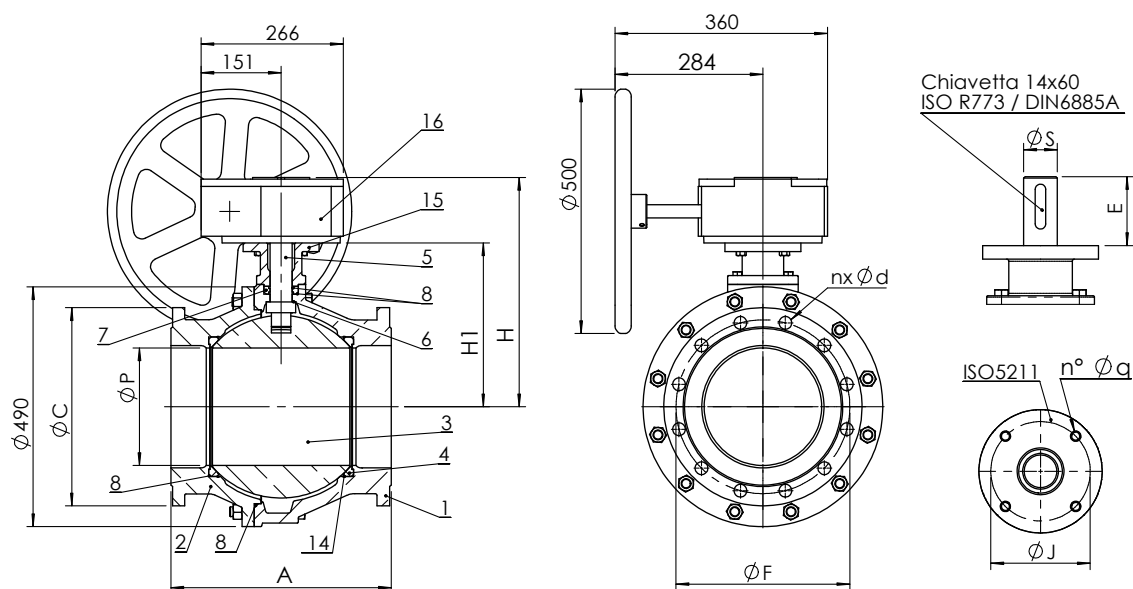
B2.1 - DN 15- 150



B2.0/B2.1 - DN 200



B2.0 - DN 250





## 尺寸 (mm) / Dimensions (mm)

DN		15	20	25	32	40	50	65	80	100	125	150	200	250***
P		15	20	25	32	40	50	63	76	95	120	145	190	240
A (B2.1)	EN 558/1 - 14 (ex DIN 3202 F4)	115	120	125	130	140	150	170	180	190	200	210	-	-
A (B2.0)	EN 558/1 - 14 (ex DIN 3202 F5)	-	-	-	-	-	-	-	-	-	-	-	400	450
A (F2.1)	EN 558/1 - 29 (ex NF 29-323)	-	-	-	-	136	142	154	160	172	186	200	-	-
H		84	84	96	101	125	135	143	165	180	225	243	320	448
H1		50,5	52	59	64	78,5	87	95	118	132,5	165	182,5	230	335
B		160	160	170	170	230	230	230	280	360	520	520	1'000	-
C		95	105	115	140	150	165	185	200	220	250	285	340	405
F	EN1092/2 PN 16	65	75	85	100	110	125	145	160	180	210	240	295	355
n x d		4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18	4 x 18	8 x 18	8 x 18	8 x 18	8 x 22	12 x 22	12 x 26
ISO 5211		F04	F04	F04	F04	F05	F05	F05	F07	F07	F10	F10	F12	12
J		42	42	42	42	50	50	50	70	70	102	102	125	125
n' x Øq		4 x 6	4 x 6	4 x 6	4 x 6	4 x 7	4 x 7	4 x 7	4 x 9	4 x 9	4 x 11	4 x 11	4 x 13	4 x 13
E		9,5	9,5	11	11	13,5	13,5	15	15	15	21	21	27	92
S		□ 9	□ 9	□ 11	□ 11	□ 14	□ 14	□ 14	□ 14	□ 17	□ 17	□ 22	□ 22	□ 27

## 重量 (kg) / Weight (kg)

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
B2.100		2,6	3,3	4,2	5,8	7,5	9	10,5	15,5	18,5	28	38,5	-	-
B2.110 - B2.111 - B2.121		2,6	3,3	4,2	5,8	7,8	9,7	12,2	16,7	22,2	35,8	46,6	-	-
B2.000 - B2.040		-	-	-	-	-	-	-	-	-	-	-	93	180
B2.010 - B2.011 - B2.021		-	-	-	-	-	-	-	-	-	-	-	117	180

## 扭矩 (Nm) / Operating torque (Nm)

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
Nm		15	15	18	18	18	20	40	70	100	180	250	600	2'000

注意：请将扭矩数值乘以1.5倍作为选择驱动装置的依据。

N.B.: In order to choose the right actuator, we recommend multiplying the operating torque figure by a safety coefficient, K=1.5

## 材质 / Materials

	组件 - Component	材质 - Material	
		B2.1系列	B2.0系列
1	阀体 - Body	球铁 / Ductile iron EN GJS 400-15	铸铁 / Cast iron EN GJL250
2	法兰 - Flange	球铁 / Ductile iron EN GJS 400-15	铸铁 / Cast iron EN GJL250
3	球阀 - Ball	黄铜 / Brass CuZn40Pb2 不锈钢 / Stainless steel AISI 304 不锈钢 / Stainless steel AISI 316	DN200 镀铬黄铜 / Brass chrome plated CuZn40Pb2 DN250 镍基涂层铸铁 / Cast iron EN GJL250 Niploy coated 不锈钢 / Stainless steel AISI 304 不锈钢 / Stainless steel AISI 316
4	球座 - Ball seat	加强型 PTFE / Carbon reinforced PTFE	
5	阀杆 - Stem	镀铬黄铜 / Brass chrome plated CuZn40Pb2 不锈钢 / Stainless steel AISI 304 不锈钢 / Stainless steel AISI 316	
6	滑动垫圈 - Sliding Ring	PTFE	
7	圆环 - Ring nut	镀铬黄铜 / Brass chrome plated CuZn40Pb2 不锈钢 / Stainless steel AISI 304 不锈钢 / Stainless steel AISI 316	
8	O型圈 - O Ring	NBR / FKM (Viton®)	
9	手柄 - Handle	环氧树脂涂层碳钢 / Carbon steel epoxy coated	
10	定位板 - Stop plate	镀锌碳钢 / Carbon steel galvanized	
11	卡簧 - Spring washer	镀锌碳钢 / Carbon steel galvanized	
12	手柄连接块 - Handle support	球铁 / Ductile iron EN GJS 400-15	
13	手柄止动块 - Handle stop	镀锌碳钢 / Carbon steel galvanized	
14	防脱环 - Retaining ring	AISI302	
15	齿轮箱轴承 - Gear box bearing	DN200 球铁 / Ductile iron EN GJS 400-15 EN GJS 400-15 DN250 铸铁 / Cast iron EN GJL250	
16	齿轮箱 - Gear box	-	
17	螺母和螺栓 - Nuts and bolts	镀锌碳钢 / Carbon steel galvanized	

## 钻孔 / Drilling

DN		15	20	25	32	40	50	65	80	100	125	150	200	250
法兰尺寸符合 PN 16 EN1092/2标准 Dimensions of flanges according to PN 16 EN1092/2	钻孔符合PN 16 EN1092/2标准 Drilling PN 16 EN1092/2	std	std	std	std	std	std	std	std	std	std	std	std	std
	钻孔符合PN 10 EN1092/2标准 Drilling PN 10 EN1092/2	=	=	=	=	=	=	=	=	=	=	=	opt	opt
	钻孔符合PN 6 EN1092/2标准 Drilling PN 6 EN1092/2	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt
	钻孔符合PN 25 EN1092/2标准 Drilling PN 25 EN1092/2	=	=	=	=	=	=	=	opt	=	no	no	no	no
	钻孔符合ANSI B16.5 #150标准 Drilling ANSI B16.5 #150	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt	opt

std: 标准 / opt: 可按客户要求生产 / =: 与PN16相同 / std: standard / opt: option on request / -: same as PN16  
注意: 可按客户要求定制其他钻孔 / other drillings on request

## 最大工作压力 / Maximum pressure

介质* Fluids *	安装位置 Mounting	
	法兰中间 BETWEEN FLANGES	管路末端 END OF LINE
危险性气体 G1 Hazardous gases G1	16 bar DN15-200 10 bar DN250	10 bar DN15-100 NO DN125-250
危险性液体 L1 Hazardous liquids L1	16 bar DN15-200 10 bar DN250	10 bar
非危险性气体 G2 Non hazardous gases G2	16 bar DN15-200 10 bar DN250	10 bar
非危险性液体 G2 Non hazardous liquids G2	16 bar	10 bar
水** Water**	16 bar	16 bar

\* 危险性气体、液体的认证以 2014/68/EU e 1272/2008 (CLP) 标准为准

\*\* 是指供水和排水系统的水 (PED 2014/68/EU 11.2b)

\* hazardous gas, liquids acc. 2014/68/EU e 1272/2008 (CLP)

\*\* For supply, distribution and discharge of water (PED 2014/68/EU 11.2b)

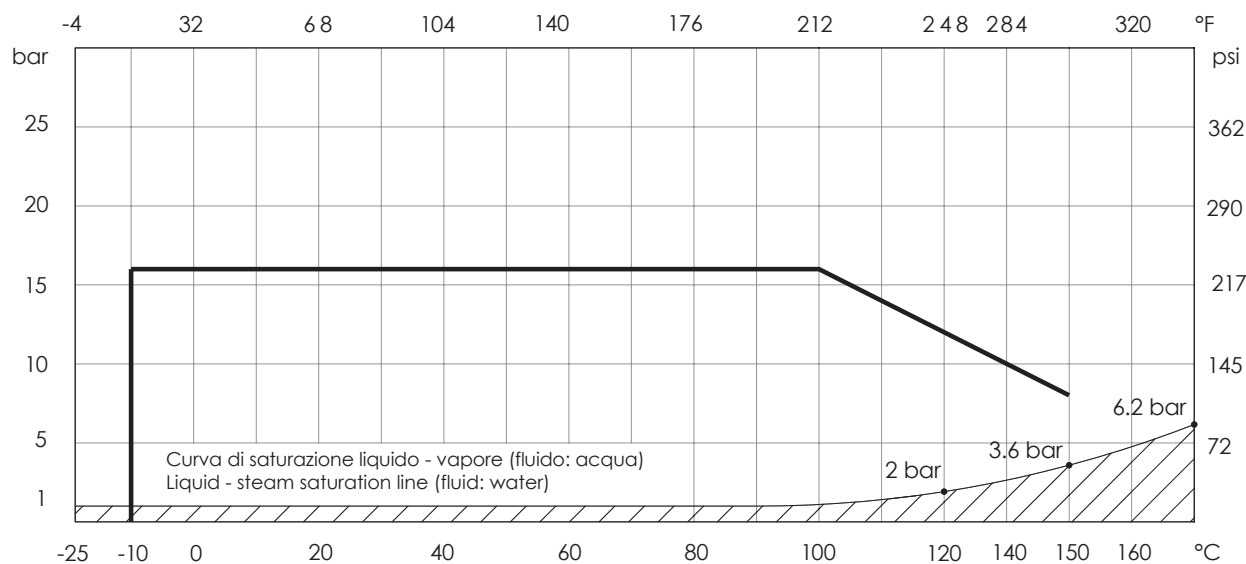
## 工作温度 / Temperature (°C)

温度 Temperature	最低 min	最高 Max	
		长期 continuous	短时 peak
NBR	-10	100	110
FKM (Viton®)	-10	150	170

注意：温度上升时最大工作压力会有所下降；详情请参考压力温度曲线

NB: the maximum working pressure decreases while temperature increases, please refer to "pressure/temperature" chart

## 压力温度曲线 - Pressure/temperature chart

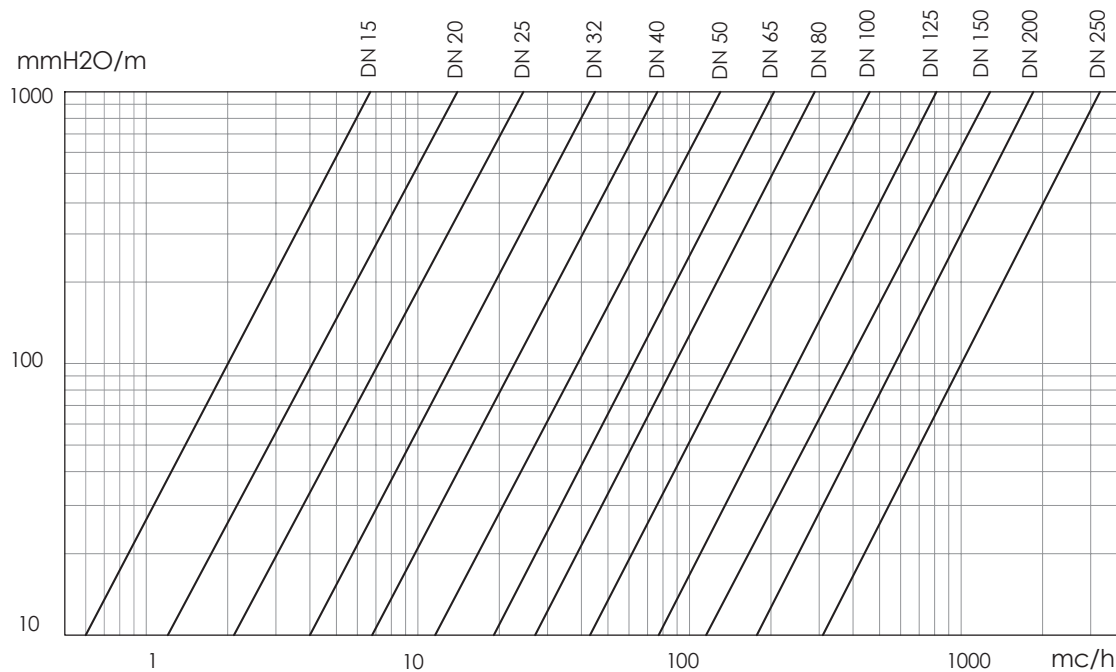


不适用于蒸汽系统。当工作温度和压力处于饱和蒸汽压曲线（阴影区域）下方时，请勿使用该阀门。

RANGE NOT SUITABLE FOR STEAM. DO NOT use when temperature and pressure are below the liquid-steam saturation line (hatched area)



水头损失 介质: 水 (1m H<sub>2</sub>O = 0,098bar) / Head loss Fluid: water (1m H<sub>2</sub>O = 0,098bar)



**Kv - DN 表 / Kv - DN chart**

DN	15	20	25	32	40	50	65	80	100	125	150	200	250
Kv	22.3	47.7	83.5	150.4	255	435	672	947	1'508	2'633	4'261	5'957	10'510

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