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QINGDAO YOKOSUN FLUID TECHNOLOGY CO.,LTD.

青岛优科上野流体科技有限公司



QINGDAO YOKOSUN FLUID TECHNOLOGY Co., Ltd. is a professional manufacturer and exporter specializing in the design, development and production of JIS marine valves, DIN series and ANSI series. We are located in Qingdao with convenient transportation access. All of our products comply with international quality standards and are well received in different markets around the world.

We have more than 50 employees, with annual sales exceeding USD 15,000,000.00. Currently, four fifths of our production is exported worldwide. Our well-equipped facilities and rigorous quality control across all production stages allow us to guarantee full customer satisfaction.

Thanks to our high-quality products and outstanding customer service, we have built a global sales network covering Japan, South Korea, Singapore, Malaysia, Turkey, the United Arab Emirates, the United States, Europe and other regions.

We always adhere to our principle of integrity, excellence and respect. Supported by strict quality control, on time delivery, excellent service and competitive pricing, we welcome customers from all over the world to cooperate with us for a win-win future.

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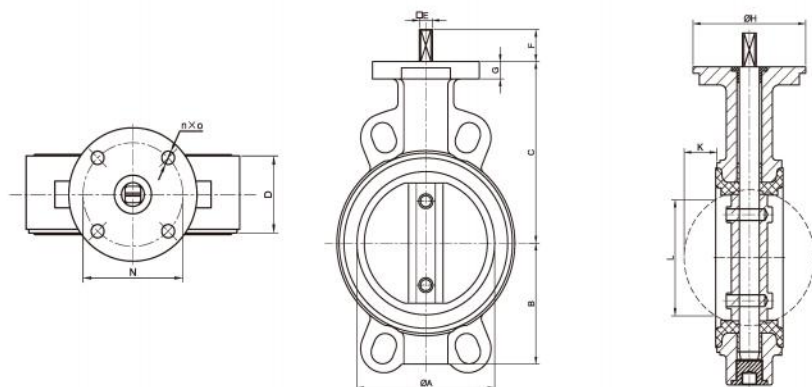
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Concentric Butterfly Valves Vulcanized Seat

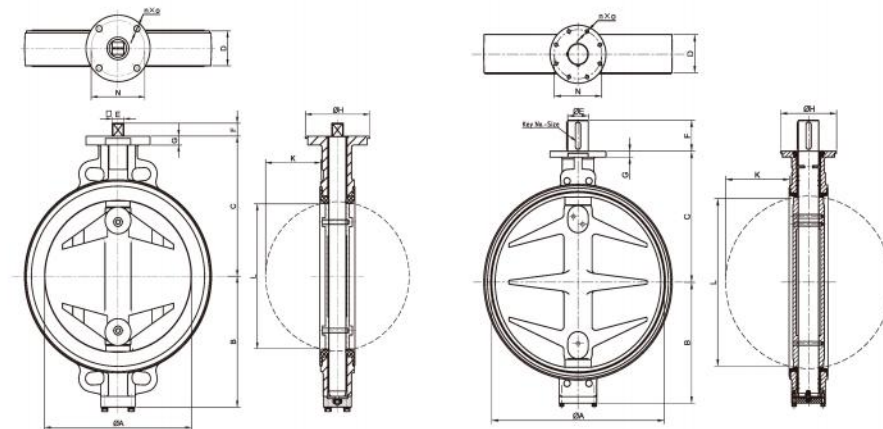
■ Wafer Type Series 570

Nominal Diameter	DN40-DN1200(1 1/2"-48") DN1400-DN2000 (56"-80") other sizes on request
Flange Connection	EN1092(PN6-10-16,PN25 up to DN400) ASME B16.5(CL150) JIS B2239 & JISB2220 JIS5K /10K /16K /30K)
Temperature Range	-23 to +200°C
Face To Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute



■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	"N(PCD) [ISO 5211]"	nxØ	G	L	K	"Weight Appr.[KG]"
40	1 1/2"	40	11	25	61	113	90	33	Φ70[F07]	4xΦ9	12	23	3.5	2.2kg
50	2"	50	11	25	67	118	90	43	Φ70[F07]	4xΦ9	12	30	4.7	2.4kg
65	2 1/2"	65	11	25	74	126	90	46	Φ70[F07]	4xΦ9	12	49	11	3.0kg
80	3"	80	11	25	82	133	90	46	Φ70[F07]	4xΦ9	14	68	18	3.8kg
100	4"	102	11	25	100	147	90	52	Φ70[F07]	4xΦ9	14	90	26	4.6kg
125	5"	125	14	28	112	160	90	56	Φ70[F07]	4xΦ9	14	114	35	7.2kg
150	6"	150	14	28	134	180	90	56	Φ70[F07]	4xΦ9	14	140	47	9.5kg
200	8"	200	17	28	159	204	90	60	Φ70[F07]	4xΦ9	14	192	70	13.5kg
250	10"	250	22	30	195	245	125	68	Φ102[F10]	4xΦ11	15	243	91	20.2kg
300	12"	300	22	30	220	270	125	78	Φ102[F10]	4xΦ11	15	293	113	29.6kg



S57 DN350-DN650

S57 DN700-DN1200

■ Dimensions

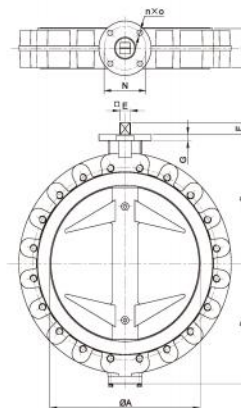
DN	NPS	ØA	E	F	B	C	ØH	D	"N(PCD) [ISO 5211]"	nxØ	G	L	K	"Weight Appr.[KG]"
350	14"	336	27	29	282	315	150	78	Φ125[F12]	4xΦ14	20	327	129	39kg
400	16"	400	27	29	307	350	150	102	Φ125[F12]	4xΦ14	20	383	147	70kg
450	18"	450	36	38	352	375	175	114	Φ140[F14]	4xΦ18	20	432	167	98kg
500	20"	500	36	38	387	415	175	127	Φ140[F14]	4xΦ18	20	481	185	128kg
550(PN10)	22"	550	36	38	420	480	210	154	Φ140[F14]	4xΦ18	20	526	198	178kg
550(PN16)	22"	550	46	48	420	480	210	154	Φ140[F14]	4xΦ18	25	526	198	185kg
600	24"	600	46	48	452	465	210	154	Φ165[F16]	4xΦ22	25	581	223	203kg
650	26"	650	46	48	475	530	210	165	Φ165[F16]	4xΦ22	30	621	239	281kg
700(PN10)	28"	700	70	110	502	555	210	165	Φ165[F16]	4xΦ22	25	669	262	270kg
700(PN16)	28"	700	80	120	502	555	300	165	Φ254[F25]	8xΦ18	30	669	262	320kg
800(PN10)	32"	800	80	120	557	620	300	190	Φ254[F25]	8xΦ18	30	767	300	380kg
800(PN16)	32"	800	100	120	557	620	300	190	Φ254[F25]	8xΦ18	30	767	300	430kg
900(PN10)	36"	900	90	120	622	675	300	203	Φ254[F25]	8xΦ18	30	865	343	500kg
900(PN16)	36"	900	110	160	622	675	300	203	Φ254[F25]	8xΦ18	30	865	343	550kg
1000(PN10)	40"	1000	90	120	672	740	300	216	Φ254[F25]	8xΦ18	30	962	385	750kg
1000(PN16)	40"	1000	120	160	672	740	300	216	Φ254[F25]	8xΦ18	30	962	385	825kg
1100(PN10)	44"	1100	105	120	800	756	350	254	Φ298[F30]	8xΦ22	40	1042	410	1021kg
1100(PN16)	44"	1100	125	160	800	756	350	254	Φ298[F30]	8xΦ22	40	1042	410	1120kg
1200(PN10)	48"	1200	110	160	875	824	350	254	Φ298[F30]	8xΦ22	40	1146	410	1250kg
1200(PN16)	48"	1200	130	160	875	824	350	254	Φ298[F30]	8xΦ22	40	1146	410	1370kg



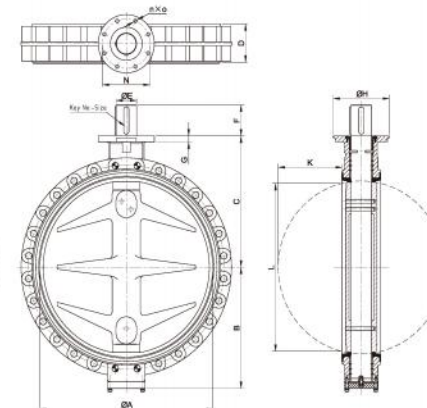
Concentric Butterfly Valves Vulcanized Seat

■ Lug Type Series 640

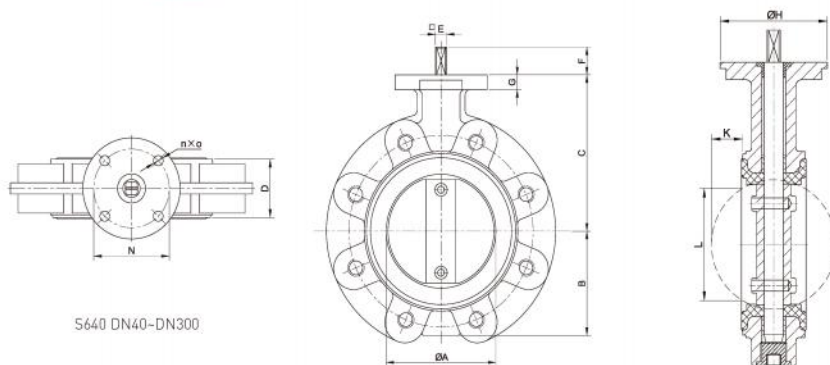
Nominal Diameter	DN40-DN1200(1 1/2"-48") DN1400-DN2000 (56"-80") other sizes on request
Flange Connection	EN1092(PN6-10-16,PN25 up to DN400) ASME B16.5(CL150) JIS B2239 & JISB2220 JIS5K/10K/16K /30K)
Temperature Range	-23 to + 200°C
Face To Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute



S640 DN350-DN650



S640 DN700-DN1200



S640 DN40-DN300

■ Dimensions

DN	NPS	ΦA	E	F	B	C	ΦH	D	"N(PCD) [ISO 5211]"	nxO	G	L	K	"Weight Appr.[KG]"
40	1 1/2"	40	11	25	61	113	90	33	Φ70[F07]	4xΦ9	12	23	3.5	4kg
50	2"	50	11	25	67	118	90	43	Φ70[F07]	4xΦ9	12	30	4.7	5.1kg
65	2 1/2"	65	11	25	74	126	90	46	Φ70[F07]	4xΦ9	12	49	11	5.9kg
80	3"	80	11	25	82	133	90	46	Φ70[F07]	4xΦ9	14	68	18	8.1kg
100	4"	102	11	25	100	147	90	52	Φ70[F07]	4xΦ9	14	90	26	9.1kg
125	5"	125	14	28	120	160	90	56	Φ70[F07]	4xΦ9	14	114	35	10.4kg
150	6"	150	14	28	134	180	90	56	Φ70[F07]	4xΦ9	14	140	47	17kg
200	8"	200	17	28	159	204	90	60	Φ70[F07]	4xΦ9	14	192	70	21kg
250	10"	250	22	30	195	245	125	68	Φ102[F10]	4xΦ11	15	243	91	39kg
300	12"	300	22	30	220	270	125	78	Φ102[F10]	4xΦ11	15	293	113	53kg

■ Dimensions

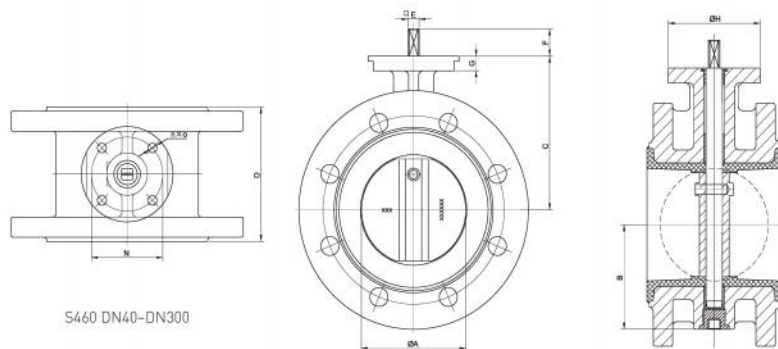
DN	NPS	ΦA	E	F	B	C	ΦH	D	"N(PCD) [ISO 5211]"	nxO	G	L	K	"Weight Appr.[KG]"
350	14"	336	27	29	282	315	150	78	Φ125[F12]	4xΦ14	20	327	129	63kg
400	16"	400	27	29	307	350	150	102	Φ125[F12]	4xΦ14	20	383	147	91kg
450	18"	450	36	38	352	375	175	114	Φ140[F14]	4xΦ18	20	432	167	113kg
500	20"	500	36	38	387	415	175	127	Φ140[F14]	4xΦ18	20	481	185	163kg
550(PN10)	22"	550	36	38	420	480	210	154	Φ140[F14]	4xΦ18	25	527	198	173kg
550(PN16)	22"	550	46	48	420	480	210	154	Φ140[F14]	4xΦ18	25	527	198	180kg
600	24"	600	46	48	452	465	210	154	Φ165[F16]	4xΦ22	25	581	223	249kg
650	26"	650	46	48	451	530	210	165	Φ165[F16]	4xΦ22	30	621	239	281kg
700(PN10)	28"	700	70	110	489	555	210	165	Φ165[F16]	4xΦ22	25	669	262	340kg
700(PN16)	28"	700	80	120	489	555	300	165	Φ254[F25]	8xΦ18	30	669	262	375kg
800(PN10)	32"	800	80	120	549	620	300	190	Φ254[F25]	8xΦ18	30	767	300	530kg
800(PN16)	32"	800	100	120	549	620	300	190	Φ254[F25]	8xΦ18	30	767	300	580kg
900(PN10)	36"	900	90	120	614	675	300	203	Φ254[F25]	8xΦ18	30	865	343	650kg
900(PN16)	36"	900	110	160	614	675	300	203	Φ254[F25]	8xΦ18	30	865	343	700kg
1000(PN10)	40"	1000	90	120	664	740	300	216	Φ254[F25]	8xΦ18	30	962	385	970kg
1000(PN16)	40"	1000	120	160	664	740	300	216	Φ254[F25]	8xΦ18	30	962	385	1050kg
1100(PN10)	44"	1100	105	120	756	800	350	254	Φ298[F30]	8xΦ22	40	1042	410	1221kg
1100(PN16)	44"	1100	125	160	756	800	350	254	Φ298[F30]	8xΦ22	40	1042	410	1330kg
1200(PN10)	48"	1200	110	160	824	875	350	254	Φ298[F30]	8xΦ22	40	1146	460	1417kg
1200(PN16)	48"	1200	130	160	824	875	350	254	Φ298[F30]	8xΦ22	40	1146	460	1560kg



Concentric Butterfly Valves Vulcanized Seat

■ Double Flange Series 460

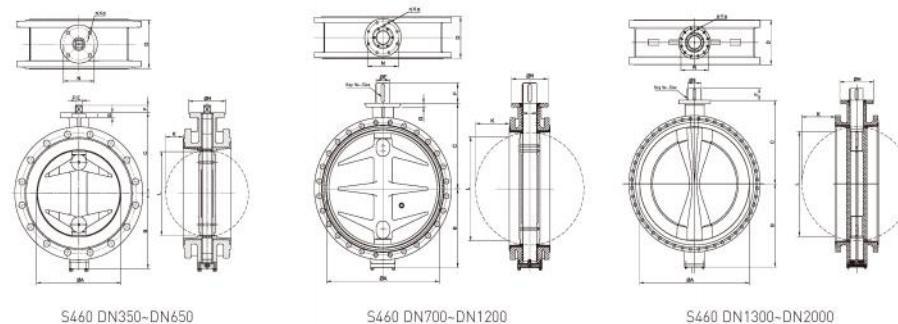
Nominal Diameter	DN40-DN2000(1 1/2"-80") DN1400-DN2000 (56"-80") other sizes on request
Flange Connection	EN1092(PN6-10-16,PN25 up to DN400) ASME B16.5(CL150) JIS B2239 & JISB2220 JIS5K/10K/16K /30K)
Temperature Range	-23 to + 200°C
Face to Face Acc	EN558-1 row 13
Top Flange Acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute



S460 DN40-DN300

■ Dimensions

DN	NPS	ΦA	E	F	B	C	ΦH	D	"N(IPCD) [ISO 5211]"	nxO	G	L	K	"Weight Appr.[KG]"
40	1 1/2"	40	11	25	61	113	90	106	Φ70[F07]	4xΦ9	12	NA	NA	7.2kg
50	2"	50	11	25	67	118	90	108	Φ70[F07]	4xΦ9	12	NA	NA	8kg
65	2 1/2"	65	11	25	74	126	90	112	Φ70[F07]	4xΦ9	12	NA	NA	8.8kg
80	3"	80	11	25	82	133	90	114	Φ70[F07]	4xΦ9	14	NA	NA	10kg
100	4"	102	11	25	100	147	90	127	Φ70[F07]	4xΦ9	14	NA	NA	13.1kg
125	5"	125	14	28	112	160	90	140	Φ70[F07]	4xΦ9	14	NA	NA	18kg
150	6"	150	14	28	134	180	90	140	Φ70[F07]	4xΦ9	14	56	5.4	23.1kg
200	8"	200	17	28	172	204	90	152	Φ70[F07]	4xΦ9	14	132	25	43kg
250	10"	250	22	30	203	245	125	165	Φ102[F10]	4xΦ11	15	190	43	52kg
300	12"	300	22	30	223	270	125	178	Φ102[F10]	4xΦ11	15	246	63	77kg



S460 DN350-DN650

S460 DN700-DN1200

S460 DN1300-DN2000

■ Dimensions

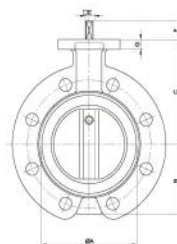
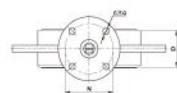
DN	NPS	ΦA	E	F	B	C	ΦH	D	"N(IPCD) [ISO 5211]"	nxO	G	L	K	"Weight Appr.[KG]"
350	14"	336	27	29	282	315	150	190	Φ125[F12]	4xΦ14	20	277	73	95kg
400	16"	400	27	29	307	350	150	216	Φ125[F12]	4xΦ14	20	332	90	101kg
450	18"	450	36	38	352	375	175	222	Φ140[F14]	4xΦ18	20	388	112	154kg
500	20"	500	36	38	387	415	175	229	Φ140[F14]	4xΦ18	20	441	134	170kg
550(PN10)	22"	550	36	38	420	480	210	267	Φ140[F14]	4xΦ18	25	478	141	200kg
550(PN16)	22"	550	46	48	420	480	210	267	Φ140[F14]	4xΦ18	25	478	141	205kg
600	24"	600	46	48	452	465	210	267	Φ165[F16]	4xΦ22	25	538	167	231kg
650	26"	650	46	48	475	530	210	292	Φ165[F16]	4xΦ22	30	573	176	311kg
700(PN10)	28"	700	70	110	489	555	210	292	Φ165[F16]	4xΦ22	25	624	198	365kg
700(PN16)	28"	700	80	120	489	555	300	292	Φ254[F25]	8xΦ18	30	624	198	420kg
800(PN10)	32"	800	80	120	549	620	300	318	Φ254[F25]	8xΦ18	30	723	236	440kg
800(PN16)	32"	800	100	120	549	620	300	318	Φ254[F25]	8xΦ18	30	723	236	510kg
900(PN10)	36"	900	90	120	614	675	300	330	Φ254[F25]	8xΦ18	30	825	279	671kg
900(PN16)	36"	900	110	160	614	675	300	330	Φ254[F25]	8xΦ18	30	825	279	760kg
1000(PN10)	40"	1000	90	120	664	740	300	410	Φ254[F25]	8xΦ18	30	897	288	990kg
1000(PN16)	40"	1000	120	160	664	740	300	410	Φ254[F25]	8xΦ18	30	897	288	1050kg
1100(PN10)	44"	1100	105	120	740	800	350	410	Φ298[F30]	8xΦ22	40	942	332	1180kg
1100(PN16)	44"	1100	125	160	740	800	350	410	Φ298[F30]	8xΦ22	40	942	332	1250kg
1200(PN10)	48"	1200	110	160	802	875	350	470	Φ298[F30]	8xΦ22	40	1075	352	1440kg
1200(PN16)	48"	1200	130	160	802	875	350	470	Φ298[F30]	8xΦ22	40	1075	352	1580kg
1300(PN6)	52"	1300	110	160	935	990	415	490	Φ356[F35]	8xΦ33	35	1180	394	--
1300(PN10)	52"	1300	110	160	935	990	415	490	Φ356[F35]	8xΦ33	35	1180	394	--
1400(PN6)	56"	1400	140	160	1020	1000	415	530	Φ356[F35]	8xΦ33	35	1273	425	--
1400(PN10)	56"	1400	140	160	1020	1000	415	530	Φ356[F35]	8xΦ33	35	1273	425	--
1500(PN6)	60"	1500	150	160	1054	1050	415	570	Φ356[F35]	8xΦ33	40	1361	453	--
1500(PN10)	60"	1500	150	160	1054	1050	415	570	Φ356[F35]	8xΦ33	40	1361	453	--
1600(PN6)	64"	1600	160	180	1080	1150	415	600	Φ356[F35]	8xΦ33	50	1457	488	--
1600(PN10)	64"	1600	160	180	1080	1150	415	600	Φ356[F35]	8xΦ33	50	1457	488	--
1800(PN6)	72"	1800	180	200	1186	1200	475	670	Φ406[F40]	8xΦ39	45	1643	552	--
1800(PN10)	72"	1800	180	200	1186	1200	475	670	Φ406[F40]	8xΦ39	45	1643	552	--
2000(PN6)	80"	2000	200	200	1370	1425	560	760	Φ483[F48]	12xΦ39	60	1794	594	--
2000(PN10)	80"	2000	200	200	1370	1425	560	760	Φ483[F48]	12xΦ39	60	1794	594	--



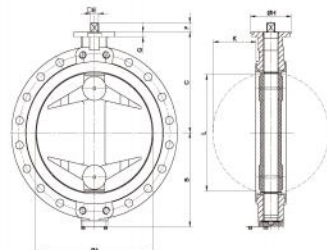
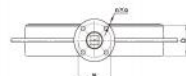
Concentric Butterfly Valves Vulcanized Seat

■ Mono Flange Type Series 600

Nominal Diameter	DN50-DN600(2"-24")
Flange Connection	EN1092(PN6-10-16) ASME B16.5(CL150)
Temperature Range	-23 to +200°C
Face to Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute



S600 DN40-DN300



S600 DN350-DN600

■ Dimensions

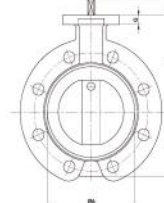
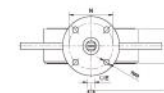
DN	NPS	ΦA	E	F	B	C	ΦH	D	"N(PCD) [ISO 5211]"	nxO	G	L	K	"Weight Appr. (KG)"
40	1 1/2"	40	11	25	61	113	90	33	Φ70[F07]	4xΦ9	12	23	3.5	2.7kg
50	2"	50	11	25	67	118	90	43	Φ70[F07]	4xΦ9	12	30	4.7	3kg
65	2 1/2"	65	11	25	74	126	90	46	Φ70[F07]	4xΦ9	12	49	11	4kg
80	3"	80	11	25	82	133	90	46	Φ70[F07]	4xΦ9	14	68	18	4.2kg
100	4"	102	11	25	100	147	90	52	Φ70[F07]	4xΦ9	14	90	26	6.1kg
125	5"	125	14	28	112	160	90	56	Φ70[F07]	4xΦ9	14	114	35	8.3kg
150	6"	150	14	28	134	180	90	56	Φ70[F07]	4xΦ9	14	140	47	10.5kg
200	8"	200	17	28	159	204	90	60	Φ70[F07]	4xΦ9	14	192	70	15kg
250	10"	250	22	30	195	245	125	68	Φ102[F10]	4xΦ11	15	243	91	25.8kg
300	12"	300	22	30	220	270	125	78	Φ102[F10]	4xΦ11	15	293	113	33.6kg
350	14"	336	27	29	294	315	150	78	Φ125[F12]	4xΦ14	20	327	129	54kg
400	16"	400	27	29	319	350	150	102	Φ125[F12]	4xΦ14	20	383	147	69kg
450	18"	450	36	38	352	375	175	114	Φ140[F14]	4xΦ18	20	432	167	101kg
500	20"	500	36	38	387	415	175	127	Φ140[F14]	4xΦ18	20	481	185	146kg
550	22"	550	36	38	420	480	210	154	Φ140[F14]	4xΦ18	25	526	198	155kg
600	24"	600	46	48	452	465	210	154	Φ165[F16]	4xΦ22	25	581	223	224kg



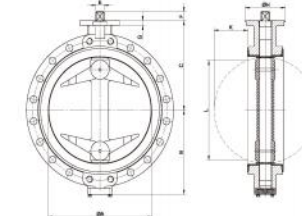
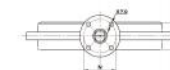
Concentric Butterfly Valves Vulcanized Seat

■ Mono Flange Type Series 610

Nominal diameter	DN50-DN600(2"-24")
Flange connection	EN1092(PN6-10-16) ASME B16.5(CL150)
Temperature range	-23 to +200°C
Face to face acc	EN558-1 row16
Top flange acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute



S610 DN40-DN300



S610 DN350-DN600

■ Dimensions

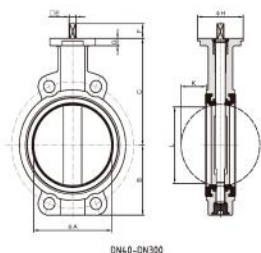
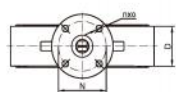
DN	NPS	ΦA	E	F	B	C	ΦH	D	"N(PCD) [ISO 5211]"	nxO	G	L	K	"Weight Appr. (KG)"
40	1 1/2"	40	11	25	61	113	90	33	Φ70[F07]	4xΦ9	12	23	3.5	2.7kg
50	2"	50	11	25	67	118	90	43	Φ70[F07]	4xΦ9	12	30	4.7	3kg
65	2 1/2"	65	11	25	74	126	90	46	Φ70[F07]	4xΦ9	12	50	11	4kg
80	3"	80	11	25	82	133	90	64	Φ70[F07]	4xΦ9	14	52	18	5.6kg
100	4"	102	11	25	100	147	90	64	Φ70[F07]	4xΦ9	14	82	26	7.5kg
125	5"	125	14	28	112	160	90	70	Φ70[F07]	4xΦ9	14	106	35	10.5kg
150	6"	150	14	28	134	180	90	76	Φ70[F07]	4xΦ9	14	131	47	13.5kg
200	8"	200	17	28	159	204	90	89	Φ70[F07]	4xΦ9	14	181	70	20kg
250	10"	250	22	30	195	245	125	114	Φ102[F10]	4xΦ11	15	225.3	91	33kg
300	12"	300	22	30	220	270	125	114	Φ102[F10]	4xΦ11	15	282	113	43kg
350	14"	336	27	29	294	315	150	127	Φ125[F12]	4xΦ14	20	311	129	70kg
400	16"	400	27	29	319	350	150	140	Φ125[F12]	4xΦ14	20	371	147	86kg
450	18"	450	36	38	352	375	175	152	Φ140[F14]	4xΦ18	20	420.3	167	113kg
500	20"	500	36	38	387	415	175	152	Φ140[F14]	4xΦ18	20	473.3	185	163kg
550	22"	550	36	38	420	480	210	178	Φ140[F14]	4xΦ18	25	519.3	198	173kg
600	24"	600	46	48	452	465	210	178	Φ165[F16]	4xΦ22	25	573.7	223	249kg



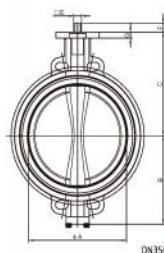
Concentric Butterfly Valves Replaceable Seat

■ Wafer Type Series 575/576

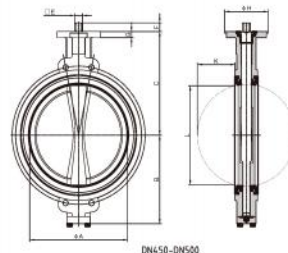
Nominal Diameter	DN40-DN1200 [1 1/2"-48"] DN1400-DN2000 [56"-80"] other sizes on request
Flange Connection	EN1092(PN6-10-16,PN25 up to DN400) ASME B16.5(CL150) JIS B2239 & JISB2220 JIS5K /10K /16K /30K
Temperature Range	-23 to + 200°C
Face to Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211



DN40-DN300



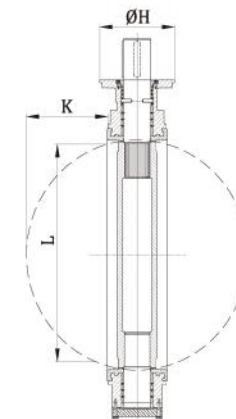
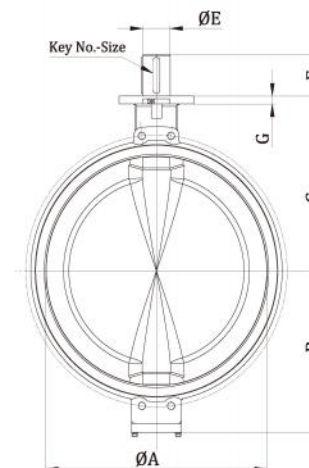
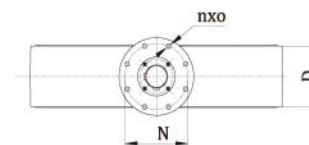
DN350-DN400



DN450-DN550

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	N(PCD) (ISO 5211)	N*Ø	G	L	K
40	1 1/2"	40.6	11	25	61	135	90	33	70(F07)	4*Ø9	13	26.3	4.6
50	2"	50.6	11	25	65	140	90	43	70(F07)	4*Ø9	13	29.6	4.6
65	2 1/2"	62.5	11	25	73	152.5	90	46	70(F07)	4*Ø9	14	44.4	9
80	3"	80	11	25	80	157.5	90	46	70(F07)	4*Ø9	14	67	17.7
100	4"	102.5	11	25	98	176	90	52	70(F07)	4*Ø9	14	89.7	25.9
125	5"	125.5	14	28	110	191	90	56	70(F07)	4*Ø9	14	113.7	35.4
150	6"	154.2	14	28	133	203	90	56	70(F07)	4*Ø9	14	145.2	49.8
200	8"	200.9	17	28	158	240	90	60	70(F07)	4*Ø9	14	193.2	71.2
250	10"	248.9	22	30	194	273	125	68	102(F10)	4*Ø11	15	240.9	91.2
300	12"	297.9	22	30	219	311	125	78	102(F10)	4*Ø11	15	289.2	110.8
350	14"	337.2	27	29	294	345	150	78	125(F12)	4*Ø14	20	329.7	130.4
400	16"	388.1	27	29	319	375	150	102	125(F12)	4*Ø14	20	376.1	143.9
450	18"	443.8	36	38	352	405	175	114	140(F14)	4*Ø18	20	430.8	165.8
500	20"	489.7	36	38	387	438	175	127	140(F14)	4*Ø18	20	474.8	182.3

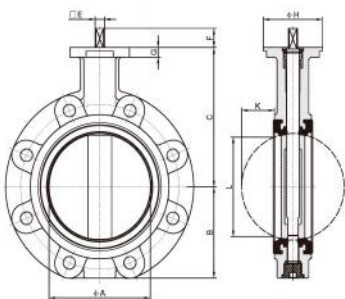
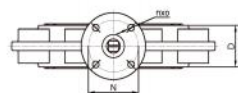


S576 DN550-DN1200

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	N(PCD) (ISO 5211)*	nxØ	G	L	K	"Weight Appr.(KG)"
550(PN10)	22"	550	36	38	420	480	210	154	Φ140[F14]	4xΦ18	20	526	198	178kg
550(PN16)	22"	550	46	48	420	480	210	154	Φ140[F14]	4xΦ18	25	526	198	178kg
600	24"	600	46	48	452	465	210	154	Φ165[F16]	4xΦ22	25	581	223	203kg
650	26"	650	46	48	475	530	210	165	Φ165[F16]	4xΦ22	30	621	239	281kg
700(PN10)	28"	700	70	110	502	555	210	165	Φ165[F16]	4xΦ22	25	669	262	270kg
700(PN16)	28"	700	80	120	502	555	300	165	Φ254[F25]	8xΦ18	30	669	262	320kg
800(PN10)	32"	800	80	120	557	620	300	190	Φ254[F25]	8xΦ18	30	767	300	380kg
800(PN16)	32"	800	100	120	557	620	300	190	Φ254[F25]	8xΦ18	30	767	300	430kg
900(PN10)	36"	900	90	120	622	675	300	203	Φ254[F25]	8xΦ18	30	865	343	500kg
900(PN16)	36"	900	110	160	622	675	300	203	Φ254[F25]	8xΦ18	30	865	343	550kg
1000(PN10)	40"	1000	90	120	672	740	300	216	Φ254[F25]	8xΦ18	30	962	385	750kg
1000(PN16)	40"	1000	120	160	672	740	300	216	Φ254[F25]	8xΦ18	30	962	385	825kg
1100(PN10)	44"	1100	105	120	800	756	350	254	Φ298[F30]	8xΦ22	40	1042	410	1021kg
1100(PN16)	44"	1100	125	160	800	756	350	254	Φ298[F30]	8xΦ22	40	1042	410	1120kg
1200(PN10)	48"	1200	110	160	875	824	350	254	Φ298[F30]	8xΦ22	40	1146	410	1250kg
1200(PN16)	48"	1200	130	160	875	824	350	254	Φ298[F30]	8xΦ22	40	1146	410	1370kg

* Shaft size of E is Ø from DN700

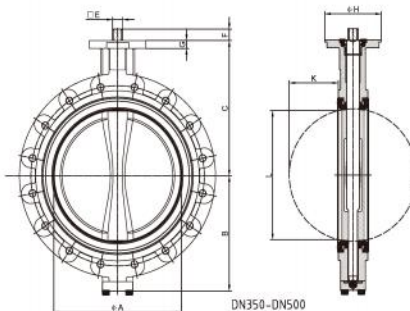


DN40-DN300

Concentric Butterfly Valves Replaceable Seat

■ Lug Type Series 645/646

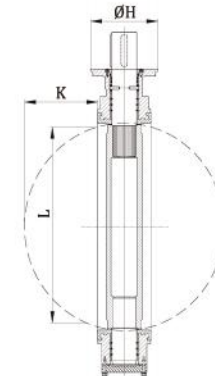
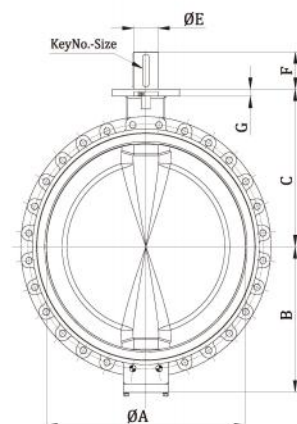
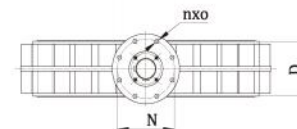
Nominal Diameter	DN40-DN1200 [1 1/2"-48"] DN1400-DN2000 [56"-80"] other sizes on request
Flange Connection	EN1092(PN6-10-16, PN25 up to DN400) ASME B16.5(CL150) JIS B2239 & JIS B2220 (JIS5K/10K/16K/30K)
Temperature Range	-23 to +200°C
Face to Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211



DN350-DN500

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	N(PCD) (ISO 5211)	N*O	G	L	K
40	1 1/2"	40.6	11	25	61	135	90	33	70(F07)	4*Ø9	13	26.3	4.6
50	2"	50.6	11	25	65	140	90	43	70(F07)	4*Ø9	13	29.6	4.6
65	2 1/2"	62.5	11	25	73	152.5	90	46	70(F07)	4*Ø9	14	44.4	9
80	3"	80	11	25	80	157.5	90	46	70(F07)	4*Ø9	14	67	17.7
100	4"	102.5	11	25	98	176	90	52	70(F07)	4*Ø9	14	89.7	25.9
125	5"	125.5	14	28	110	191	90	56	70(F07)	4*Ø9	14	113.7	35.4
150	6"	154.2	14	28	133	203	90	56	70(F07)	4*Ø9	14	145.2	49.8
200	8"	200.9	17	28	158	240	90	60	70(F07)	4*Ø9	14	193.2	71.2
250	10"	248.9	22	30	194	273	125	68	102(F10)	4*Ø11	15	240.9	91.2
300	12"	297.9	22	30	219	311	125	78	102(F10)	4*Ø11	15	289.2	110.8
350	14"	337.2	27	29	294	345	150	78	125(F12)	4*Ø14	20	329.7	130.4
400	16"	388.1	27	29	319	375	150	102	125(F12)	4*Ø14	20	376.1	143.9
450	18"	443.8	36	38	352	405	175	114	140(F14)	4*Ø18	20	430.8	165.8
500	20"	489.7	36	38	387	438	175	127	140(F14)	4*Ø18	20	474.8	182.3

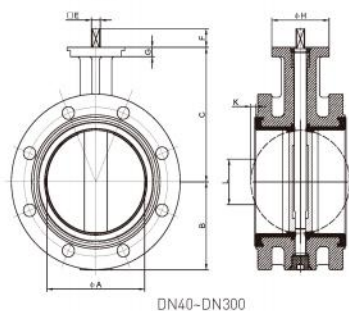
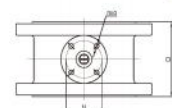


S646 DN550-DN1200

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	"N(PCD) (ISO 5211)"	nxO	G	L	K	"Weight Appr. (KG)"
550(PN10)	22"	550	36	38	420	480	210	154	Ø140(F14)	4xØ18	25	527	198	173kg
550(PN16)	22"	550	46	48	420	480	210	154	Ø140(F14)	4xØ18	25	527	198	180kg
600	24"	600	46	48	452	465	210	154	Ø165(F16)	4xØ22	25	581	223	249kg
650	26"	650	46	48	451	530	210	165	Ø165(F16)	4xØ22	30	621	239	281kg
700(PN10)	28"	700	70	110	489	555	210	165	Ø165(F16)	4xØ22	25	669	262	340kg
700(PN16)	28"	700	80	120	489	555	300	165	Ø254(F25)	8xØ18	30	669	262	375kg
800(PN10)	32"	800	80	120	549	620	300	190	Ø254(F25)	8xØ18	30	767	300	530kg
800(PN16)	32"	800	100	120	549	620	300	190	Ø254(F25)	8xØ18	30	767	300	580kg
900(PN10)	36"	900	90	120	614	675	300	203	Ø254(F25)	8xØ18	30	865	343	650kg
900(PN16)	36"	900	110	160	614	675	300	203	Ø254(F25)	8xØ18	30	865	343	700kg
1000(PN10)	40"	1000	90	120	664	740	300	216	Ø254(F25)	8xØ18	30	962	385	970kg
1000(PN16)	40"	1000	120	160	664	740	300	216	Ø254(F25)	8xØ18	30	962	385	1050kg
1100(PN10)	44"	1100	105	120	756	800	350	254	Ø298(F30)	8xØ22	40	1042	410	1221kg
1100(PN16)	44"	1100	125	160	756	800	350	254	Ø298(F30)	8xØ22	40	1042	410	1330kg
1200(PN10)	48"	1200	110	160	824	875	350	254	Ø298(F30)	8xØ22	40	1146	460	1417kg
1200(PN16)	48"	1200	130	160	824	875	350	254	Ø298(F30)	8xØ22	40	1146	460	1560kg

* Shaft size of E is Ø from DN700

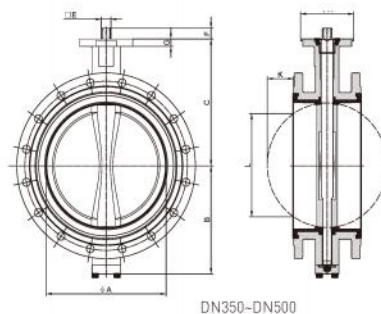


DN40-DN300

Concentric Butterfly Valves Replaceable Seat

■ Double FlangeType Series 465/466

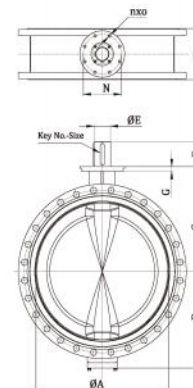
Nominal Diameter	DN40-DN2000(1 1/2"-80") DN1400-DN2000 (56"-80") other sizes on request
Flange Connection	EN1092(PN6-10-16,PN25 up to DN400) ASME B16.5(CL150) JIS B2239 & JISB2220 (JIS5K /10K /16K /30K)
Temperature Range	-23 to +200°C
Face to Face Acc	EN558-1 row 13
Top Flange Acc	EN ISO 5211



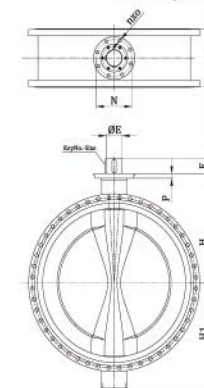
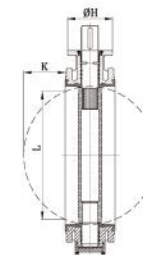
DN350-DN500

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	N(PCD) (ISO 5211)	N*Ø	G	L	K
40	1 1/2"	40.6	11	25	61	135	90	106	70(F07)	4*Ø9	13	-	-
50	2"	50.6	11	25	65	140	90	108	70(F07)	4*Ø9	13	-	-
65	2 1/2"	62.5	11	25	73	152.5	90	112	70(F07)	4*Ø9	14	-	-
80	3"	80	11	25	80	157.5	90	114	70(F07)	4*Ø9	14	-	-
100	4"	102.5	11	25	98	176	90	127	70(F07)	4*Ø9	14	-	-
125	5"	125.5	14	28	110	191	90	140	70(F07)	4*Ø9	14	-	-
150	6"	154.2	14	28	133	203	90	140	70(F07)	4*Ø9	14	67.9	7.8
200	8"	200.9	17	28	158	240	90	152	70(F07)	4*Ø9	14	133.5	25.2
250	10"	248.9	22	30	194	273	125	165	102(F10)	4*Ø11	15	188.2	42.7
300	12"	297.9	22	30	219	311	125	178	102(F10)	4*Ø11	15	240.9	60.8
350	14"	337.2	27	29	294	345	150	190	125(F12)	4*Ø14	20	280.5	74.4
400	16"	388.1	27	29	319	375	150	216	125(F12)	4*Ø14	20	324.4	86.9
450	18"	443.8	36	38	352	405	175	222	140(F14)	4*Ø18	20	386.4	111.8
500	20"	489.7	36	38	387	438	175	229	140(F14)	4*Ø18	20	434.9	131.3



S466 DN550-DN1200



S466 DN1300-DN2000

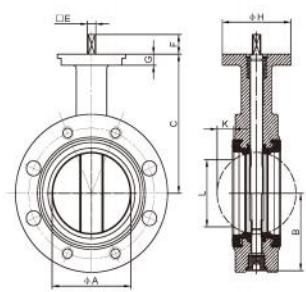
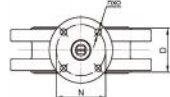
■ Dimensions

DN	NPS	ΦA	E	F	B	C	ΦH	D	"N(PCD) (ISO 5211)"	nxØ	G	L	K	"Weight Appr.(KG)"
550(PN10)	22"	550	36	38	420	480	210	267	Φ140(F14)	4xΦ18	25	478	141	200kg
550(PN16)	22"	550	46	48	420	480	210	267	Φ140(F14)	4xΦ18	25	478	141	205kg
600	24"	600	46	48	452	465	210	267	Φ165(F16)	4xΦ22	25	538	167	231kg
650	26"	650	46	48	475	530	210	292	Φ165(F16)	4xΦ22	30	573	176	311kg
700(PN10)	28"	700	70	110	489	555	210	292	Φ165(F16)	4xΦ22	25	624	198	365kg
700(PN16)	28"	700	80	120	489	555	300	292	Φ254(F25)	8xΦ18	30	624	198	420kg
800(PN10)	32"	800	80	120	549	620	300	318	Φ254(F25)	8xΦ18	30	723	236	440kg
800(PN16)	32"	800	100	120	549	620	300	318	Φ254(F25)	8xΦ18	30	723	236	510kg
900(PN10)	36"	900	90	120	614	675	300	330	Φ254(F25)	8xΦ18	30	825	279	671kg
900(PN16)	36"	900	110	160	614	675	300	330	Φ254(F25)	8xΦ18	30	825	279	760kg
1000(PN10)	40"	1000	90	120	664	740	300	410	Φ254(F25)	8xΦ18	30	897	288	990kg
1000(PN16)	40"	1000	120	160	664	740	300	410	Φ254(F25)	8xΦ18	30	897	288	1050kg
1100(PN10)	44"	1100	105	120	740	800	350	410	Φ298(F30)	8xΦ22	40	942	332	1180kg
1100(PN16)	44"	1100	125	160	740	800	350	410	Φ298(F30)	8xΦ22	40	942	332	1250kg
1200(PN10)	48"	1200	110	160	802	875	350	470	Φ298(F30)	8xΦ22	40	1075	352	1440kg
1200(PN16)	48"	1200	130	160	802	875	350	470	Φ298(F30)	8xΦ22	40	1075	352	1580kg

* Shaft size of E is Ø from DN700

■ Dimensions

"Nominal Size"	PN	ΦQ	E	" Key No-Size"	H1	H	F	P	L1	N	ΦK	n	ΦO	M	"Weight Appr.(KG)"
1300	10	1430	110	2-28x16x140	870	950	160	50	470	356	415	8	33	1196	1800
1400	10	1535	120	2-32x18x140	925	990	160	50	530	356	415	8	33	1280	2475
1500	10	1645	135	2-36x20x140	1000	1050	160	50	600	406	475	8	39	1350	2710
1600	10	1755	150	2-36x20x140	1085	1150	160	50	600	406	475	8	39	1449	2840
1800	10	1965	165	2-40x22x160	1214	1265	180	55	670	406	475	8	39	1638	3980
2000	10	2160	200	2-45x25x180	1437	1425	200	60	760	483	560	8	39	1900	6500
1300	16	1430	130	2-32x18x140	870	950	160	50	470	356	415	8	33	1196	1865
1400	16	1535	140	2-36x20x140	925	990	160	50	530	406	475	8	39	1280	2510
1500	16	1640	155	2-40x22x160	1000	1050	180	50	600	406	475	8	39	1350	2760
1600	16	1755	175	2-45x25x180	1085	1150	180	50	600	406	475	8	39	1449	2890
1800	16	1965	195	2-45x25x180	1214	1265	200	55	670	406	475	8	39	1638	4100
2000	16	2160	235	2-56x32x180	1437	1425	200	60	760	483	560	8	39	1900	6650

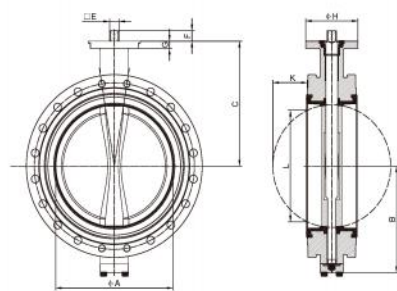


DN50-DN300

Concentric Butterfly Valves Replaceable Seat

■ U Flange Type Series 365/366

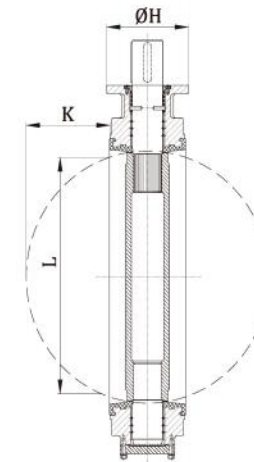
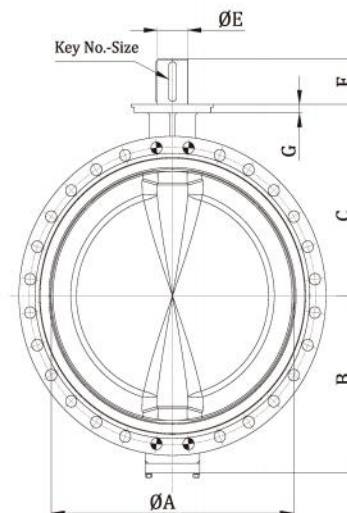
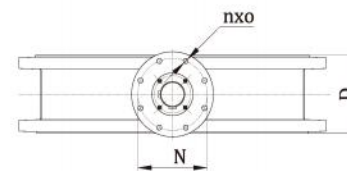
Nominal Diameter	DN50-DN1200(2"-48")
Flange Connection	EN1092(PN6-10-16,PN25 up to DN400) ASME B16.5(150) JIS B2239 & JIS B2220 (JIS5K/10K/16K/30K)
Temperature Range	-23 to +200°C
Face to Face Acc	JIS F7480
Top Flange Acc	EN ISO 5211



DN350-DN500

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	N(PCD) (ISO 5211)	N*Ø	G	L	K
50	2"	50.6	11	25	65	140	90	40	70(F07)	4*Ø9	13	33.5	6.1
65	2 1/2"	62.5	11	25	73	152.5	90	40	70(F07)	4*Ø9	14	49.8	12
80	3"	80	11	25	80	157.5	90	60	70(F07)	4*Ø9	14	54.9	10.7
100	4"	102.5	11	25	98	176	90	60	70(F07)	4*Ø9	14	84.6	21.9
125	5"	125.5	14	28	110	191	90	100	70(F07)	4*Ø9	14	77.8	13.4
150	6"	154.2	14	28	133	203	90	100	70(F07)	4*Ø9	14	119.2	27.8
200	8"	200.9	17	28	158	240	125	100	102(F10)	4*Ø11	14	175.9	51.2
250	10"	248.9	22	30	194	273	125	110	102(F10)	4*Ø11	15	224.8	70.2
300	12"	297.9	22	30	219	311	125	110	102(F10)	4*Ø11	15	278.6	94.8
350	14"	337.2	27	29	294	345	150	120	125(F12)	4*Ø14	20	316.8	109.4
400	16"	388.1	27	29	319	375	175	130	140(F14)	4*Ø18	20	367.4	129.9
450	18"	443.8	36	38	352	405	175	150	140(F14)	4*Ø18	20	419.6	147.8
500	20"	489.7	36	38	387	438	210	160	165(F16)	4*Ø22	20	464.7	165.8



S366 DN550-DN1200

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	*N(PCD) (ISO 5211)*	nxO	G	L	K	*Weight Appr.[KG]*
550(PN10)	22"	550	36	38	420	480	210	170	Φ140(F14)	4xΦ18	25	478	141	182kg
550(PN16)	22"	550	46	48	420	480	210	170	Φ140(F14)	4xΦ18	25	478	141	190kg
600	24"	600	46	48	452	465	210	200	Φ165(F16)	4xΦ22	30	538	167	210kg
650	26"	650	46	48	475	530	210	210	Φ165(F16)	4xΦ22	30	573	176	270kg
700(PN10)	28"	700	70	110	489	555	210	220	Φ165(F16)	4xΦ22	25	624	198	330kg
700(PN16)	28"	700	80	120	489	555	300	220	Φ254(F25)	8xΦ18	30	624	198	385kg
800(PN10)	32"	800	80	120	549	620	300	240	Φ254(F25)	8xΦ18	30	723	236	440kg
800(PN16)	32"	800	100	120	549	620	300	240	Φ254(F25)	8xΦ18	30	723	236	495kg
900(PN10)	36"	900	90	120	614	675	300	290	Φ254(F25)	8xΦ18	30	825	279	645kg
900(PN16)	36"	900	110	160	614	675	300	290	Φ254(F25)	8xΦ18	30	825	279	740kg
1000(PN10)	40"	1000	90	120	664	740	300	300	Φ254(F25)	8xΦ18	30	897	288	910kg
1000(PN16)	40"	1000	120	160	664	740	300	300	Φ254(F25)	8xΦ18	30	897	288	970kg
1100(PN10)	44"	1100	105	120	740	800	350	300	Φ298(F30)	8xΦ22	40	942	332	1110kg
1100(PN16)	44"	1100	125	160	740	800	350	300	Φ298(F30)	8xΦ22	40	942	332	1170kg
1200(PN10)	48"	1200	110	160	802	875	350	360	Φ298(F30)	8xΦ22	40	1075	352	1300kg
1200(PN16)	48"	1200	130	160	802	875	350	360	Φ298(F30)	8xΦ22	40	1075	352	1430kg

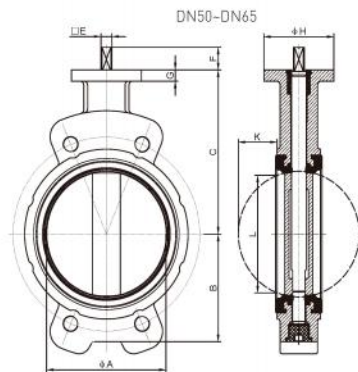
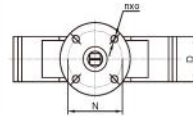
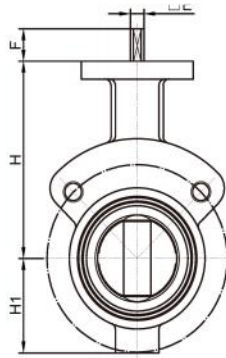
* Shaft size of E is Ø from DN700



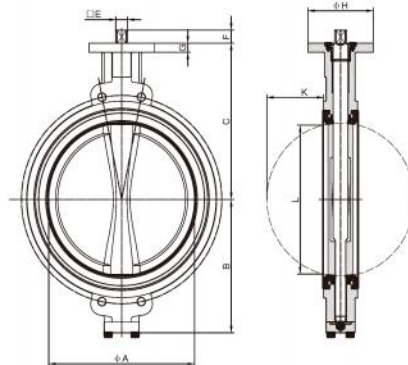
Concentric Butterfly Valves Replaceable Seat

■ Semi-Lug Type Series 578

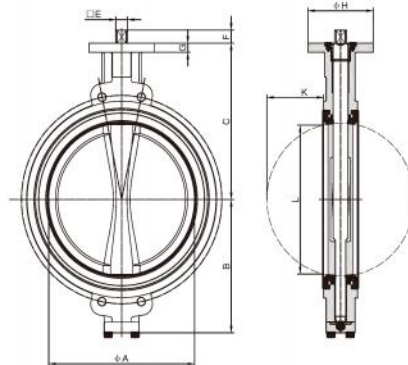
Nominal Diameter	DN50-DN500(2"-20")
Flange Connection	EN1092(PN6-10-16) ASME B16.5(CL150) JIS B2239 & JIS B2220 (JIS5K/10K/16K)
Temperature Range	EN558-1 row 20
Face to Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211



DN50-DN65



DN80-DN300



DN350-DN500

■ Dimensions

DN	NPS	ØA	E	F	B	C	ØH	D	N(PCD) (ISO 5211)	N*Ø	G	L	K
50	2"	50.6	11	25	65	140	90	43	70(F07)	4*Ø9	13	29.6	4.6
65	2 1/2"	62.5	11	25	73	152.5	90	46	70(F07)	4*Ø9	14	44.4	9
80	3"	80	11	25	80	157.5	90	46	70(F07)	4*Ø9	14	67	17.7
100	4"	102.5	11	25	98	176	90	52	70(F07)	4*Ø9	14	89.7	25.9
125	5"	125.5	14	28	110	191	90	56	70(F07)	4*Ø9	14	113.7	35.4
150	6"	154.2	14	28	133	203	90	56	70(F07)	4*Ø9	14	145.2	49.8
200	8"	200.9	17	28	158	240	125	60	102(F10)	4*Ø11	14	193.2	71.2
250	10"	248.9	22	30	194	273	125	68	102(F10)	4*Ø11	15	240.9	91.2
300	12"	297.9	22	30	219	311	125	78	102(F10)	4*Ø11	15	289.2	110.8
350	14"	337.2	27	29	294	345	150	78	125(F12)	4*Ø14	20	329.7	130.4
400	16"	388.1	27	29	319	375	175	102	140(F14)	4*Ø18	20	376.1	143.9
450	18"	443.8	36	38	352	405	175	114	140(F14)	4*Ø18	20	430.8	165.8
500	20"	489.7	36	38	387	438	210	127	165(F16)	4*Ø22	20	474.8	182.3

■ Materials

Parts	General Material	EN Standard	ASTM Standard	JIS Standard
Body	Ductile Iron	JS1030 EN 1563(GGG40 DIN1693)	Gr.65-45-12 ASTM A536	FCD450 JIS G5502
	Carbon Steel	1.0619(GP240GH) EN 10213	WCB ASTM A216	SCPH2 JIS G5151
	Stainless Steel	1.4408 EN 10213	CF8,CF8M,CF3,CF3M ASTM A351	SCS14A,SCS16A JIS G5121
	Duplex	1.4470 EN 10213	Gr.4A,5A,6A ASTM A890	
	Aluminium Bronze	AB1,AB2 BS1400	C95500,C95800 ASTM B148	ALBC2,ALBC3 JIS H5114
	Zinc Bronze	CuSn57ZnPb(RG5 DIN1705) EN 1982/ CuSn7ZnPb(RG7 DIN1705) EN 1982/ CuSn10Zn(RG10 DIN1705) EN 1982	C52100 ASTM B103	
Disc	Ductile Iron 300um Rilsan coated/Halar coating	JS1030 EN 1563(GGG40 DIN1693)	Gr.65-45-12 ASTM A536	FCD450 JIS G5502
	Stainless Steel	1.4408 EN 10213	CF8,CF8M,CF3,CF3M ASTM A351	SCS14A,SCS16A JIS G5121
	Aluminium Bronze	AB2 BS1400	C95500,C95800 ASTM B148	ALBC2,ALBC3 JIS H5114
	Duplex	1.4470 EN 10213	Gr.4A,5A,6A ASTM A890	
	Monel		M35-1(Monel K400),M35-2(Monel K500) ASTM A494	
Shaft	Stainless Steel	1.4122 EN 10088-3	F431,F316,F316L ASTM A182	SUSF316,SUSF316L JIS G3214
	Duplex	1.4462 EN 10088-3	F51,F53,F55 ASTM A182	
	Monel(K500)		UNS N05500 ASTM B865	
	Aluminium Bronze		UNS C63000 ASTM B150	
Seat	NBR		Temp. -15~80°C	
	EPDM		Temp. -23~120°C	
	VITON		Temp. -15~200°C	

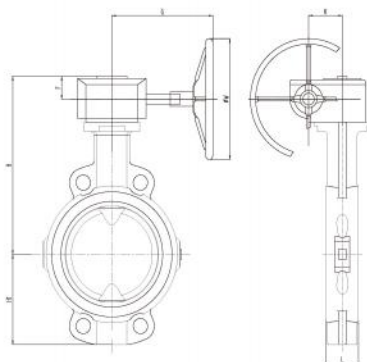
*Other materials are available on request.



PTFE-Lined Butterfly Valve

■ Wafer Type Series 586

Design Standard	API609/EN593
Nominal Diameter	DN50-DN600
Flange Connection	ASME B16.5(CL150) JIS B2239 & JISB2220 (JIS5K/10K) EN1092(PN6-10)
Temperature Range	-10 to +150°C
Face to Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211



■ Dimensions

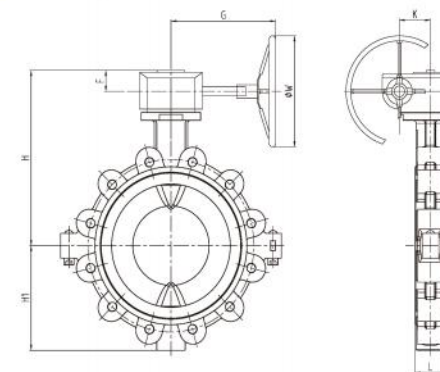
DN	H1	H	L	F	K	G	W	GearBox
50	65	193	43	34.5	43.5	145	150	Q200+C150
65	75	208	46	34.5	43.5	145	150	Q200+C150
80	95	218	46	34.5	43.5	145	150	Q200+C150
100	108	238	52	34.5	43.5	145	150	Q200+C150
125	125	258	56	34.5	43.5	145	150	Q200+C150
150	140	268	56	34.5	43.5	145	150	Q200+C150
200	173	313	60	39	52.5	213	200	Q400+W200
250	212	343	68	39	52.5	213	200	Q400+W200
300	236	388.5	78	48	69	269	250	Q800+W250
350	281	440.5	78	48	69	269	250	Q800+W250
400	319	477	102	52	84	290	300	Q1500+W300
500	393	550	127	50	96.5	339	500	Q2000+W500
600	465	683	154	73.5	137.5	408	500	Q4000+W500



PTFE-Lined Butterfly Valve

■ Lug Type Series 686

Design Standard	API609/EN593
Nominal Diameter	DN40-DN600
Flange Connection	ASME B16.5(CL150) JIS B2239 & JISB2220 (JIS5K/10K) EN1092(PN6-10)
Temperature Range	-10 to +150°C
Face to Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211



■ Dimensions

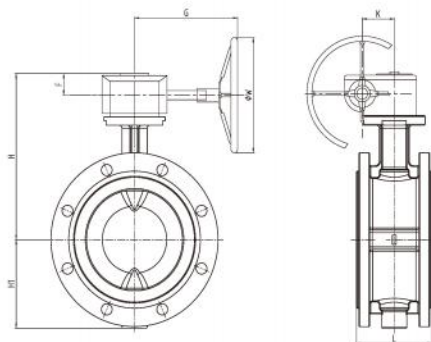
DN	H1	H	L	F	K	G	W	GearBox
40	57	183	33	34.5	43.5	145	150	Q200+C150
50	65	193	43	34.5	43.5	145	150	Q200+C150
65	75	208	46	34.5	43.5	145	150	Q200+C150
80	95	218	46	34.5	43.5	145	150	Q200+C150
100	108	238	52	34.5	43.5	145	150	Q200+C150
125	125	258	56	34.5	43.5	145	150	Q200+C150
150	140	268	56	34.5	43.5	145	150	Q200+C150
200	173	313	60	39	52.5	213	200	Q400+W200
250	212	343	68	39	52.5	213	200	Q400+W200
300	236	388.5	78	48	69	269	250	Q800+W250
350	281	440.5	78	48	69	269	250	Q800+W250
400	319	477	102	52	84	290	300	Q1500+W300
500	393	550	127	50	96.5	339	500	Q2000+W500
600	465	683	154	73.5	137.5	408	500	Q4000+W500



PTFE-Lined Butterfly Valve

■ Double FlangeType Series 486

Design Standard	API609/EN593
Nominal Diameter	DN50-DN600
Flange Connection	ASME B16.5(CL150) JIS B2239 & JISB2220 (JIS5K/10K) EN1092(PN6-10)
Temperature Range	-10 to +150°C
Face to Face Acc	EN558-1 row 20
Top Flange Acc	EN ISO 5211



■ Dimensions

DN	H1	H	L	F	K	G	W	GearBox
50	65	193	108	34.5	43.5	145	150	Q200+C150
65	75	208	112	34.5	43.5	145	150	Q200+C150
80	95	218	114	34.5	43.5	145	150	Q200+C150
100	108	238	127	34.5	43.5	145	150	Q200+C150
125	125	258	140	34.5	43.5	145	150	Q200+C150
150	140	268	140	34.5	43.5	145	150	Q200+C150
200	173	313	152	39	52.5	213	200	Q400+W200
250	212	343	165	39	52.5	213	200	Q400+W200
300	236	388.5	178	48	69	269	250	Q800+W250
350	281	440.5	190	48	69	269	250	Q800+W250
400	319	477	216	52	84	290	300	Q1500+W300
500	393	550	127	50	96.5	339	500	Q2000+W500
600	465	683	154	73.5	137.5	408	500	Q4000+W500

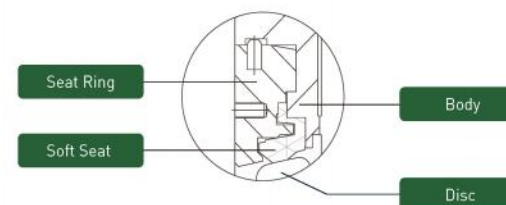


High Performance Double Eccentric Butterfly Valves

■ Wafer Type Series 960/961

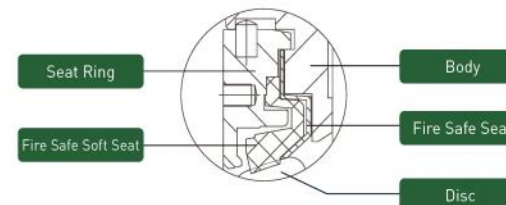
Nominal Diameter	DN50-DN1200(2"-48") other sizes on request
Flange Connection	EN1092(PN6-10-16-25-40-63) ASME B16.5(CL150-300) JIS B2220 (5K/10K/16K/30K)
Temperature Range	-40 to +650°C
Face to Face Acc	API609
Top Flange Acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute

■ Seat Sealing Options



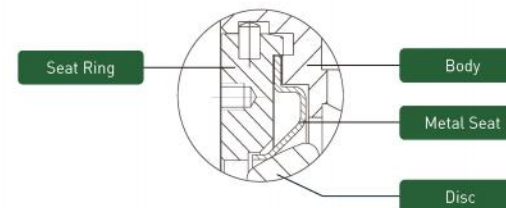
SOFT SEAT:

The elasticity of the seat together with the fluid pressure ensures zero leakage.



FIRE SAFE SEAT:

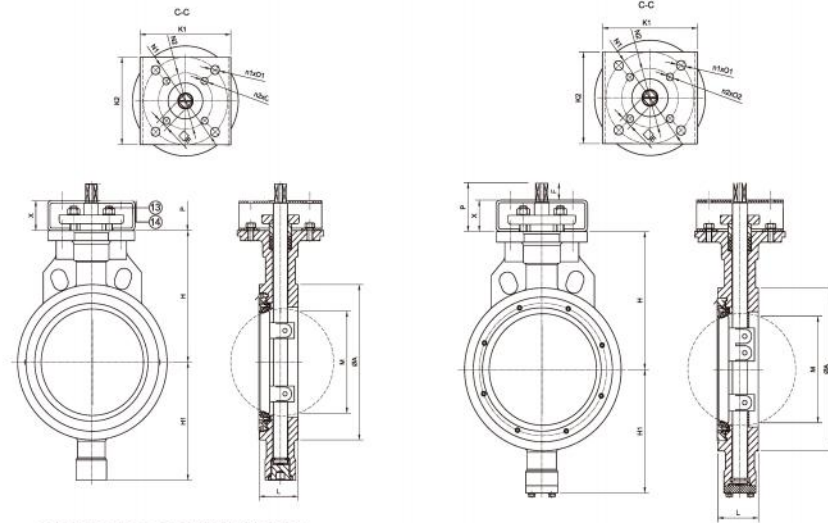
During a fire when the PTFE-R seat burns away, the supplementary metal seat activates automatically and prevents extraordinary leakage.



METAL SEAT:

This version offers very high sealing capabilities.

MARINE VALVE



S960 DN50-300 CL150/PN10/PN16/PN25
S960 DN50-200 CL300/PN40/PN63

S960 DN350-400 CL150/PN10/PN16/PN25

Dimension

PN10/16/25/CL150

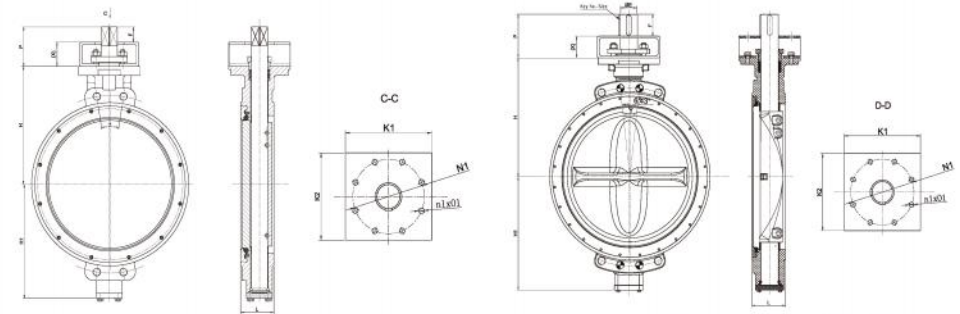
DN	ΦA	E	F	H	H1	K1	K2	L	N1	N2	n1xO1	n2xO2	P	X	M
50	102	12	15	108	91	90	70	43	70	50	4xΦ9	4xΦ7	65	[50]	44
65	122	12	15	123	101	90	70	46	70	50	4xΦ9	4xΦ7	65	[50]	61
80	132	12	15	133	107	90	70	46	70	50	4xΦ9	4xΦ7	65	[50]	74
100	156	12	15	155	115	90	70	52	70	50	4xΦ9	4xΦ7	65	[50]	93
125	188	17	20	173	155	110	100	56	102	70	4xΦ11	4xΦ9	65	[45]	119
150	216	17	20	183	164	110	100	56	102	70	4xΦ11	4xΦ9	65	[45]	138
200	268	19	25	218	195	140	120	60	125	102	4xΦ13	4xΦ11	85	[60]	190
250	326	22	25	253	230	140	120	68	125	102	4xΦ13	4xΦ11	85	[60]	239
300	375	27	30	278	260	160	140	78	140	102	4xΦ17	4xΦ11	90	[60]	277
350	420	30	32	318	308	160	140	92	140	102	4xΦ17	4xΦ11	92	[60]	331
400	482	36	44	363	354	200	170	102	165	140	4xΦ22	4xΦ17	124	[80]	374

*Other sizes available on request.

CL300

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xO1	n2xO2	X	M
80	17	20	65	158	123	48	110	100	102	70	4xΦ11	4xΦ9	[45]	74
100	17	20	65	178	142	54	110	100	102	70	4xΦ11	4xΦ9	[45]	93
125	22	25	85	190	190	59	140	120	125	102	4xΦ13	4xΦ11	[60]	119
150	22	25	85	210	209	59	140	120	125	102	4xΦ13	4xΦ11	[60]	138
200	27	30	90	265	215	73	160	140	140	102	4xΦ17	4xΦ11	[60]	190
250	Ø40 2-12x8x40	45	105	284	266	83	170	165	165	--	4xΦ22	--	[60]	239
300	Ø45 2-14x9x56	60	140	325	300	92	200	170	165	--	4xΦ22	--	[80]	278
350	Ø50 2-16x10x63	68	168	360	345	118	300	300	254	--	8xΦ18	--	[100]	317
400	Ø60 2-20x12x80	85	185	423	410	136	300	300	254	--	8xΦ18	--	[100]	361

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S960 DN450-650 CL150/PN10/PN16/PN25

S960 DN700-1200 CL150/PN10/PN16/PN25
S960 DN250-700 CL300/PN40/PN63

Dimension

PN10/16/25/CL150

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xO1	n2xO2	X	M
450	41	50	130	388	375	114	200	170	165	140	4xΦ22	4xΦ17	[80]	429
500	46	54	134	432	413	127	200	170	165	--	4xΦ22	--	[80]	477
550	55	63	163	458	439	154	300	300	254	--	8xΦ18	--	[100]	522
600	55	63	163	488	450	154	300	300	254	--	8xΦ18	--	[100]	571
650	55	63	163	516	500	165	300	300	254	--	8xΦ18	--	[100]	615
700(PN10)	*Φ80 2-22x14x110"	120	220	576	542	165	360	350	298	--	8xΦ22	--	[100]	676
700(PN16/CL150)	*Φ90 2-25x14x110"	120	240	576	542	165	360	350	298	--	8xΦ22	--	[120]	676
750(CL150)	*Φ100 2-28x16x110"	120	240	625	585	190	360	350	298	--	8xΦ22	--	[120]	723
800(PN10)	*Φ90 2-25x14x110"	120	240	652	621	190	360	350	298	--	8xΦ22	--	[120]	772
800(PN16/CL150)	*Φ100 2-28x16x110"	120	240	652	621	190	360	350	298	--	8xΦ22	--	[120]	772
900(PN10)	*Φ100 2-28x16x110"	120	240	720	690	210	360	350	298	--	8xΦ22	--	[120]	865
900(PN16/CL150)	*Φ110 2-32x18x140"	160	280	720	690	210	415	415	356	--	8xΦ33	--	[120]	865
1000(PN10)	*Φ110 2-32x18x140"	160	280	785	760	241	415	415	356	--	8xΦ33	--	[120]	955
1000(PN16/CL150)	*Φ120 2-32x18x140"	160	280	785	760	241	415	415	356	--	8xΦ33	--	[120]	955
1200(PN10)	*Φ120 2-32x18x140"	160	300	915	890	254	475	475	406	--	8xΦ39	--	[140]	1162
1200(PN16/CL150)	*Φ130 2-32x18x140"	160	300	915	890	254	475	475	406	--	8xΦ39	--	[140]	1162

CL300

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xO1	n2xO2	X	M
450	Ø70 2-20x12x90	100	200	445	439	152	300	300	254	--	8xΦ18	--	[100]	418
500	Ø80 2-22x14x110	120	240	496	456	160	360	350	298	--	8xΦ22	--	[120]	474
600	Ø90 2-25x14x110	120	240	552	543	182	360	350	298	--	8xΦ22	--	[120]	571
700	Ø115 2-32x18x140	160	280	650	624	229	415	415	356	--	8xΦ33	--	[120]	657

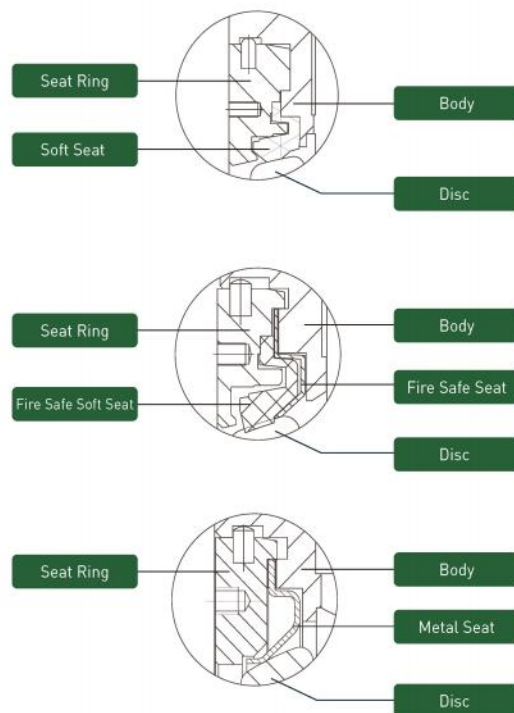


High Performance Double Eccentric Butterfly Valves

■ Lug Type Series 970/971

Nominal Diameter	DN50-DN1200(2"-48") other sizes on request
Flange Connection	EN1092(PN6-10-16-25-40-63) ASME B16.5(CL150-300) JIS B2220 (5K /10K /16K /30K)
Temperature Range	-40 to +650°C
Face to Face Acc	API609
Top Flange Acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute

■ Seat Sealing Options



SOFT SEAT:

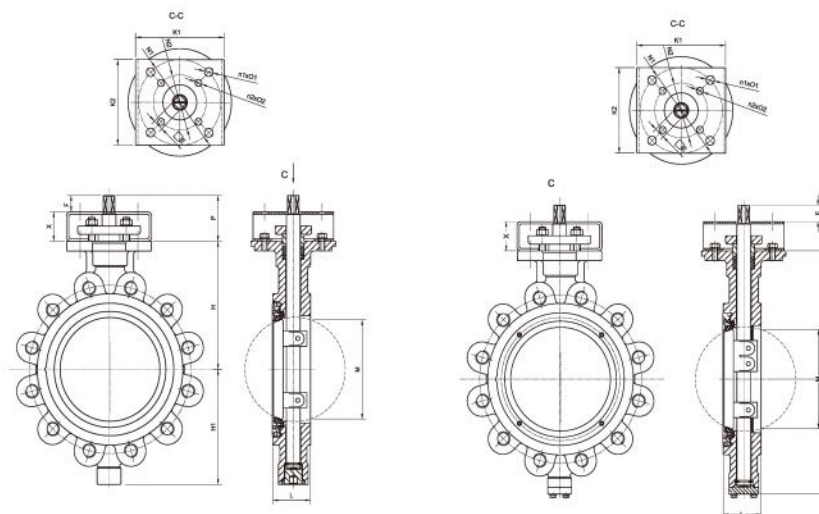
The elasticity of the seat together with the fluid pressure ensures zero leakage.

FIRE SAFE SEAT:

During a fire when the PTFE-R seat burns away, the supplementary metal seat activates automatically and prevents extraordinary leakage.

METAL SEAT:

This version offers very high sealing capabilities.



S970 DN50-300 CL150/PN10/PN16/PN25
S970 DN50-200 CL300/PN40/PN63

S970 DN350-400 CL150/PN10/PN16/PN25

■ Dimension

PN10/16/25/CL150

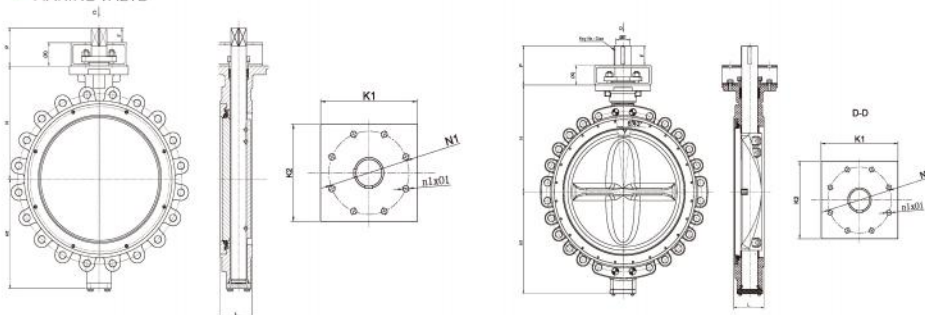
DN	E	F	P	H	H1	K1	K2	L	N1	N2	n1xO1	n2xO2	X	M
50	12	15	65	108	91	90	70	43	70	50	4xΦ9	4xΦ7	[50]	44.29
65	12	15	65	123	101	90	70	46	70	50	4xΦ9	4xΦ7	[50]	61.49
80	12	15	65	133	107	90	70	46	70	50	4xΦ9	4xΦ7	[50]	74.38
100	12	15	65	155	115	90	70	52	70	50	4xΦ9	4xΦ7	[50]	93.47
125	17	20	65	173	155	110	100	56	102	70	4xΦ11	4xΦ9	[45]	119.34
150	17	20	65	183	164	110	100	56	102	70	4xΦ11	4xΦ9	[45]	138.39
200	19	25	85	218	195	140	120	60	125	102	4xΦ13	4xΦ11	[60]	189.79
250	22	25	85	253	230	140	120	68	125	102	4xΦ13	4xΦ11	[60]	238.51
300	27	30	90	278	260	160	140	78	140	102	4xΦ17	4xΦ11	[60]	277.31
350	30	32	92	318	308	160	140	92	140	102	4xΦ17	4xΦ11	[60]	330.74
400	36	44	124	363	354	170	160	102	165	140	4xΦ22	4xΦ17	[80]	374.32

*Other sizes available on request.

CL300

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xO1	n2xO2	X	M
80	17	20	65	158	123	48	110	100	102	70	4xΦ11	4xΦ9	[45]	74.38
100	17	20	65	178	142	54	110	100	102	70	4xΦ11	4xΦ9	[45]	93.47
125	22	25	85	190	190	59	140	120	125	102	4xΦ13	4xΦ11	[60]	119.34
150	22	25	85	210	209	59	140	120	125	102	4xΦ13	4xΦ11	[60]	138.39
200	27	30	90	265	215	73	160	140	140	102	4xΦ17	4xΦ11	[60]	189.79
250	Ø40 2-12x8x40	45	105	284	266	83	170	165	165	--	4xØ22	--	[60]	238.51
300	Ø45 2-14x9x56	60	140	325	300	92	200	170	165	--	4xØ22	--	[80]	278.4
350	Ø50 2-16x10x63	68	168	360	345	118	300	300	254	--	8xØ18	--	[100]	316.68
400	Ø60 2-20x12x80	85	185	423	410	136	300	300	254	--	8xØ18	--	[100]	360.6

MARINE VALVE



S970 DN450-650 CL150/PN10/PN16/PN25

S970 DN700-1200 CL150/PN10/PN16/PN25
S970 DN250-700 CL300/PN40/PN63

Dimension

PN10/16/25/CL150

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xØ1	n2xØ2	X	M
450	41	50	130	388	375	114	200	170	165	140	4xØ22	4xØ17	[80]	428.56
500	46	54	134	432	413	127	200	170	165	--	4xØ22	--	[80]	477.08
550	55	63	163	458	439	154	300	300	254	--	8xØ18	--	[100]	522.02
600	55	63	163	488	450	154	300	300	254	--	8xØ18	--	[100]	570.56
650	55	63	163	516	500	165	300	300	254	--	8xØ18	--	[100]	615.38
700(PN10)	"Ø80 2-22x14x110"	120	220	576	542	165	360	350	298	--	8xØ22	--	[100]	676.24
700(PN16/CL150)	"Ø90 2-25x14x110"	120	240	576	542	165	360	350	298	--	8xØ22	--	[120]	676.24
700(PN25)	"Ø100 2-28x16x110"	120	240	576	542	229	360	350	298	--	8xØ22	--	[120]	676.24
750(CL150)	"Ø100 2-28x16x110"	120	240	625	585	190	360	350	298	--	8xØ22	--	[120]	723
800(PN10)	"Ø90 2-25x14x110"	120	240	652	621	190	360	350	298	--	8xØ22	--	[120]	772.24
800(PN16/CL150)	"Ø100 2-28x16x110"	120	240	652	621	190	360	350	298	--	8xØ22	--	[120]	772.24
900(PN10)	"Ø100 2-28x16x110"	120	240	720	690	210	360	350	298	--	8xØ22	--	[120]	865.16
900(PN16/CL150)	"Ø110 2-32x18x140"	160	280	720	690	210	415	415	356	--	8xØ33	--	[120]	865.16
1000(PN10)	"Ø110 2-32x18x140"	160	280	785	760	241	415	415	356	--	8xØ33	--	[120]	955.02
1000(PN16/CL150)	"Ø120 2-32x18x140"	160	280	785	760	241	415	415	356	--	8xØ33	--	[120]	955.02
1200(PN10)	"Ø120 2-32x18x140"	160	300	915	890	254	475	475	406	--	8xØ39	--	[140]	1161.76
1200(PN16/CL150)	"Ø130 2-32x18x140"	160	300	915	890	254	475	475	406	--	8xØ39	--	[140]	1161.76

CL300

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xØ1	n2xØ2	X	M
450	Ø70 2-20x12x90	100	200	445	439	152	300	300	254	--	8xØ18	--	[100]	418.42
500	Ø80 2-22x14x110	120	240	496	456	160	360	350	298	--	8xØ22	--	[120]	474.4
600	Ø90 2-25x14x110	120	240	552	543	182	360	350	298	--	8xØ22	--	[120]	570.76
700	Ø115 2-32x18x140	160	280	650	624	229	415	415	356	--	8xØ33	--	[120]	657.16

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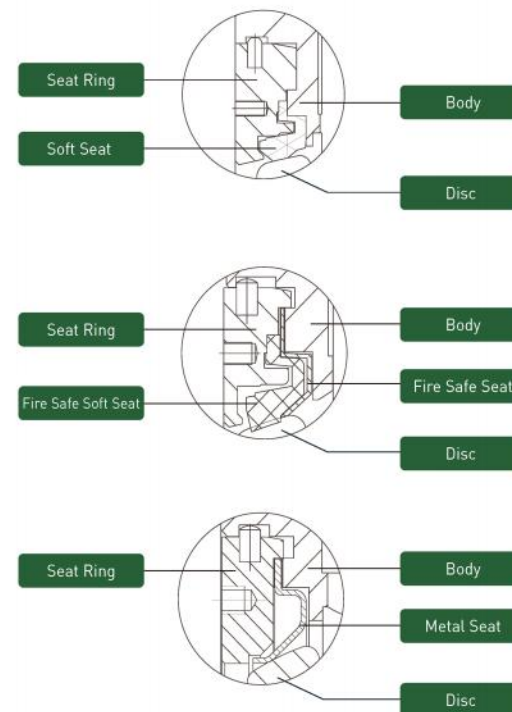
High Performance Double Eccentric Butterfly Valves

Double Flange Type Series 980/981

Nominal Diameter	DN50-DN1200(2"-48") other sizes on request
Flange Connection	EN1092(PN6-10-16-25-40-63) ASME B16.5(CL150-300) JIS B2220 (5K/10K/16K/30K)
Temperature Range	-40 to +650°C
Face to Face Acc	API609
Top Flange Acc	EN ISO 5211 Vacuum to 1*10 ⁻³ Torr absolute



Seat Sealing Options



SOFT SEAT:

The elasticity of the seat together with the fluid pressure ensures zero leakage.

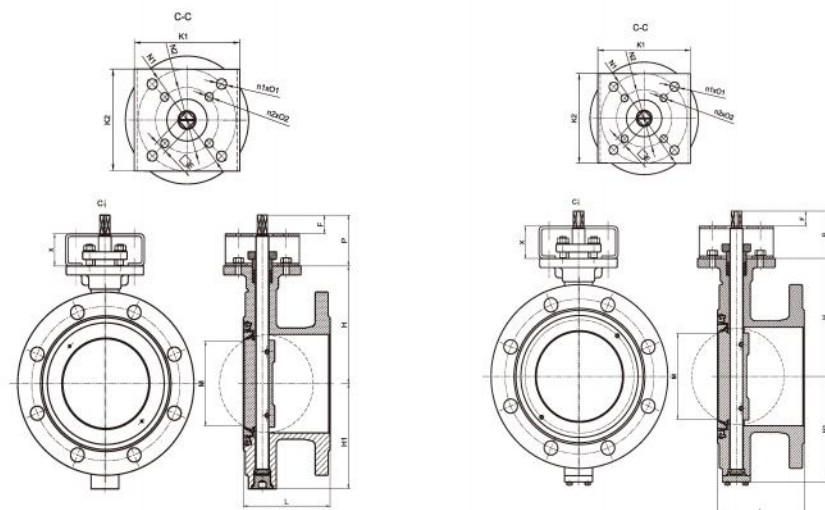
FIRE SAFE SEAT:

During a fire when the PTFE-R seat burns away, the supplementary metal seat activates automatically and prevents extraordinary leakage.

METAL SEAT:

This version offers very high seating capabilities.

MARINE VALVE



S980 DN50-300 CL150/PN10/PN16/PN25
S980 DN50-200 CL300/PN40/PN63

S980 DN350-400 CL150/PN10/PN16/PN25

Dimension

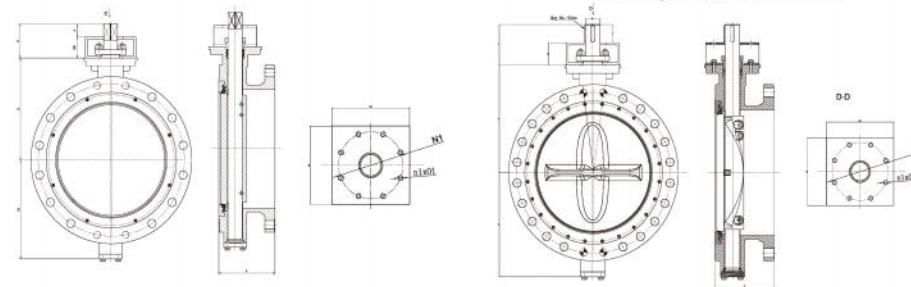
PN10/16/25/CL150

DN	E	F	P	H	H1	K1	K2	L	N1	N2	n1xO1	n2xO2	X	M
50	12	15	65	108	91	90	70	108	70	50	4xΦ9	4xΦ7	[50]	29
65	12	15	65	123	101	90	70	112	70	50	4xΦ9	4xΦ7	[50]	50
80	12	15	65	133	107	90	70	114	70	50	4xΦ9	4xΦ7	[50]	67
100	12	15	65	155	115	90	70	127	70	50	4xΦ9	4xΦ7	[50]	87
125	17	20	65	173	155	110	100	140	102	70	4xΦ11	4xΦ9	[45]	111
150	17	20	65	183	164	110	100	140	102	70	4xΦ11	4xΦ9	[45]	132
200	19	25	85	218	195	140	120	152	125	102	4xΦ13	4xΦ11	[60]	183
250	22	25	85	253	230	140	120	165	125	102	4xΦ13	4xΦ11	[60]	229
300	27	30	90	278	260	160	140	178	140	102	4xΦ17	4xΦ11	[60]	270
350	30	32	92	318	308	160	140	190	140	102	4xΦ17	4xΦ11	[60]	318
400	36	44	124	363	354	200	170	216	165	140	4xΦ21	4xΦ17	[80]	360

*Other sizes available on request.

CL300

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xO1	n2xO2	X	M
80	17	20	65	158	123	114	110	100	102	70	4xΦ11	4xΦ9	[45]	67
100	17	20	65	178	142	127	110	100	102	70	4xΦ11	4xΦ9	[45]	87
125	22	25	85	190	190	140	140	120	125	102	4xΦ13	4xΦ11	[60]	111
150	22	25	85	210	209	140	140	120	125	102	4xΦ13	4xΦ11	[60]	132
200	27	30	90	265	215	152	160	140	140	102	4xΦ17	4xΦ11	[60]	183
250	"Φ40 2-12x8x40"	45	105	284	266	165	170	165	165	--	4xΦ22	--	[60]	229
300	"Φ45 2-14x9x56"	60	140	325	300	178	200	170	165	--	4xΦ22	--	[80]	270
350	"Φ50 2-16x10x63"	68	168	360	345	190	300	300	254	--	8xΦ18	--	[100]	313
400	"Φ60 2-20x12x80"	85	185	423	410	216	300	300	254	--	8xΦ18	--	[100]	354



S980 DN450-650 CL150/PN10/PN16/PN25

S980 DN700-1200 CL150/PN10/PN16/PN25
S980 DN250-700 CL300/PN40/PN63

Dimension

PN10/16/25/CL150

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xO1	n2xO2	X	M
350	30	32	92	318	308	160	140	190	140	102	4xΦ17	4xΦ11	[60]	318
400	36	44	124	363	354	200	170	216	165	140	4xΦ21	4xΦ17	[80]	360
450	41	50	130	388	375	222	200	170	165	140	4xΦ22	4xΦ17	[80]	420
500	46	54	134	432	413	229	200	170	165	--	4xΦ22	--	[80]	468
550	55	63	163	458	439	267	300	300	254	--	8xΦ18	--	[100]	517
600	55	63	163	488	450	267	300	300	254	--	8xΦ18	--	[100]	563
650	55	63	163	516	500	292	300	300	254	--	8xΦ18	--	[100]	605
700(PN10)	"Φ80 2-22x14x110"	120	220	576	542	292	360	350	298	--	8xΦ22	--	[100]	669
700(PN16/CL150)	"Φ90 2-25x14x110"	120	240	576	542	292	360	350	298	--	8xΦ22	--	[120]	669
700(PN25)	"Φ100 2-28x16x110"	120	240	576	542	292	360	350	298	--	8xΦ22	--	[120]	669
750(CL150)	"Φ100 2-28x16x110"	120	240	625	585	318	360	350	298	--	8xΦ22	--	[120]	723
800(PN10)	"Φ90 2-25x14x110"	120	240	652	621	318	360	350	298	--	8xΦ22	--	[120]	767
800(PN16/CL150)	"Φ100 2-28x16x110"	120	240	652	621	318	360	350	298	--	8xΦ22	--	[120]	767
900(PN10)	"Φ100 2-28x16x110"	120	240	720	690	330	360	350	298	--	8xΦ22	--	[120]	862
900(PN16/CL150)	"Φ110 2-32x18x140"	160	280	720	690	330	415	415	356	--	8xΦ33	--	[120]	862
1000(PN10)	"Φ110 2-32x18x140"	160	280	785	760	410	415	415	356	--	8xΦ33	--	[120]	957
1000(PN16/CL150)	"Φ120 2-32x18x140"	160	280	785	760	410	415	415	356	--	8xΦ33	--	[120]	957
1200(PN10)	"Φ120 2-32x18x140"	160	300	915	890	470	475	475	406	--	8xΦ39	--	[140]	1154
1200(PN16/CL150)	"Φ130 2-32x18x140"	160	300	915	890	470	475	475	406	--	8xΦ39	--	[140]	1154

CL300

DN	E	F	P	H	H1	L	K1	K2	N1	N2	n1xO1	n2xO2	X	M
450	"Φ70 2-20x12x90"	100	200	445	439	222	300	300	254	--	8xΦ18	--	[100]	418
500	"Φ80 2-22x14x110"	120	240	496	456	229	360	350	298	--	8xΦ22	--	[120]	466
600	"Φ90 2-25x14x110"	120	240	552	543	267	360	350	298	--	8xΦ22	--	[120]	560
700	"Φ115 2-32x18x140"	160	280	650	624	292	415	415	356	--	8xΦ33	--	[120]	667

■ Materials

Parts	General Material	EN Standard	ASTM Standard	JIS Standard
Body	Carbon Steel	1.0619(GP240GH) EN 10213	WCB ASTM A216	SCPH2 JIS G5151
	Stainless Steel	1.4408 EN 10213	CF8,CF8M,CF3,CF3M ASTM A351	SCS14A,SCS16A JIS G5121
	Duplex	Duplex 1.4470 EN 10213	Gr.4A,5A,6A ASTM A890	
	Aluminium Bronze	AB2 BS1400	C95500,C95800 ASTM B148	ALBC2,ALBC3 JIS H5114
Disc	Stainless Steel	1.4408 EN 10213	CF8,CF8M,CF3,CF3M ASTM A351	SCS14A,SCS16A JIS G5121
	Duplex	1.4470 EN 10213	Gr.4A,5A,6A ASTM A890	
	Monel		Monel M35-1(Monel K400),M35-2(Monel K500) ASTM A494	
	Aluminium Bronze	AB2 BS1400	C95500,C95800 ASTM B148	ALBC2,ALBC3 JIS H5114
Shaft	Stainless Steel	1.4122 EN 10088-3	F431,F316,F316L ASTM A182	SUSF316,SUSF316L JIS G3214
	Duplex	1.4462 EN 10088-3	F51,F53,F55 ASTM A182	
	Monel		Monel(k500) UNSN05500 ASTM B865	
	Aluminium Bronze		Aluminium Bronze UNS C6300 ASTM B150	
Seat	Soft Sea	PTFE [-20~180 C]		
	Fire Safe Seat	RPTFE[-40~230 C]+S.S.316L ASTM A240/S31803 ASTM A240/Inconel 625		
	Metal Seat	Metal Seat S.316L ASTM A240/S31803 ASTM A240/Inconel 625[-40~450 C]		

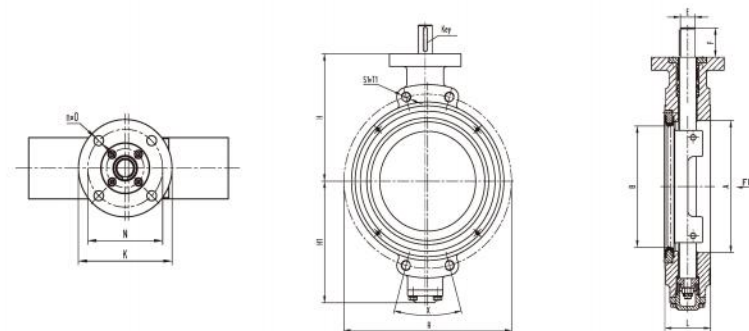
Other materials are on request



High Performance Double Eccentric Butterfly Valves with Replaceable Seat

■ Wafer Type Series 930

Nominal Diameter	DN50-DN900(2"-36 ") other sizes on request
Flange Connection	EN1092(PN10-16)
Temperature Range	-23 to +200°C
Face to Face Acc	EN558-1 SERIES 16 (ISO 5752 Series 16)
Top Flange Acc	EN ISO 5211



■ Dimension

PN10/16-S930

DN	L	H	H1	A	B	R		X		S1*T1		E	F	K	N	n*0	KEY SIZE
						PN10	PN16	PN10	PN16	PN10	PN16						
50	43	108	102	64	47	125	125	90°	90°	4*M16	4*M16	11	30	90	70	4*Ø9	4*4*20
65	46	125	115	80	65	145	145	90°	90°	4*M16	4*M16	11	30	90	70	4*Ø9	4*4*20
80	64	158	136	87	68	160	160	45°	45°	4*M16	4*M16	16	35	90	70	4*Ø9	5*5*30
100	64	165	148	114	89	180	180	45°	45°	4*M16	4*M16	16	50	125	102	4*Ø12	5*5*40
125	70	190	171	133	114	210	210	45°	45°	4*M16	4*M16	16	50	125	102	4*Ø12	5*5*40
150	76	210	186	160	125	240	240	45°	45°	4*M20	4*M20	20	50	125	102	4*Ø12	6*6*40
200	89	235	217	200	180	295	295	45°	30°	4*M20	4*M20	25	55	150	125	4*Ø14	8*7*50
250	114	275	255	256	229	350	355	30°	30°	4*M20	4*M24	30	80	150	125	4*Ø14	8*7*70
300	114	300	286	306	280	400	410	30°	30°	4*M20	4*M24	35	80	175	140	4*Ø18	10*8*70
350	127	349	323	335	313	460	470	22.5°	22.5°	4*M20	4*M24	40	90	175	140	4*Ø18	12*8*80
400	140	385	353	391	365	515	525	22.5°	22.5°	4*M24	4*M27	50	110	175	140	4*Ø18	14*9*100
450	152	410	394	434	410	565	585	18°	18°	4*M24	4*M27	55	110	210	165	4*Ø22	16*10*100
500	152	445	429	492	459	620	650	18°	18°	4*M24	4*M30	60	110	210	165	4*Ø22	18*11*100
600	178	530	496	590	551	725	770	18°	18°	8*M27	8*M33	70	110	300	254	8*Ø18	20*12*100
700	229	610	528	698	650	840	840	15°	15°	8*M27	8*M33	80	120	300	254	8*Ø18	22*14*110
800	241	680	591	790	752	950	950	15°	15°	8*M30	8*M36	90	120	300	254	8*Ø18	25*14*110
900	241	690	674	892	847	1050	1050	12.86°	12.86°	8*M30	8*M36	105	120	350	298	8*Ø22	28*16*110

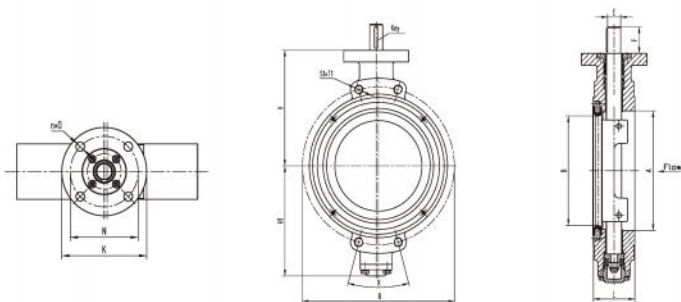
(JIS)

(API)

High Performance Double Eccentric Butterfly Valves with Replaceable Seat

■ Wafer Type Series 931

Nominal Diameter	DN50-DN900(2"-36") other sizes on request
Flange Connection	JIS B2239 & JIS B2220 (10K/16K)
Temperature Range	-23 to +200°C
Face to Face Acc	JIS B 2002 SERIES 45
Top Flange Acc	EN ISO 5211



■ Dimension

JIS 10K/16K-S931

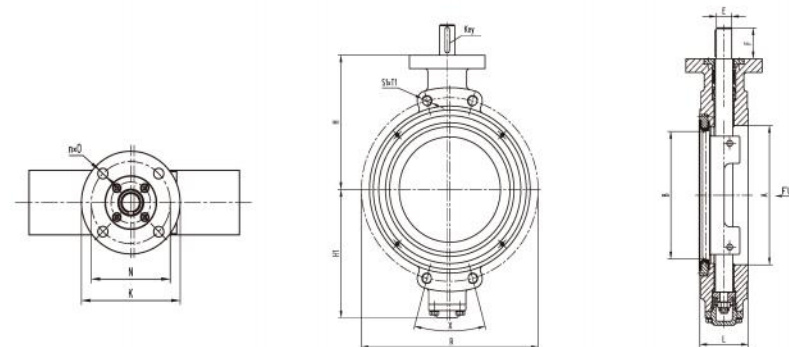
DN	L	H	H1	A	B	R		X		S1*T1		E	F	K	N	n*O	Key size
						10K	16K	10K	16K	10K	16K						
50	43	108	102	64	47	120	120	90°	45°	4*M16	4*M16	11	30	90	70	4*Ø9	4*4*20
65	46	125	115	80	65	140	140	90°	45°	4*M16	4*M16	11	30	90	70	4*Ø9	4*4*20
80	64	158	136	87	68	150	160	45°	45°	4*M16	4*M20	16	35	90	70	4*Ø9	5*5*30
100	65	165	148	114	89	175	185	45°	45°	4*M16	4*M20	16	50	125	102	4*Ø12	5*5*40
125	70	190	171	133	114	210	225	45°	45°	4*M20	4*M22	16	50	125	102	4*Ø12	5*5*40
150	90	210	186	160	125	240	260	45°	30°	4*M20	4*M22	20	50	125	102	4*Ø12	6*6*40
200	100	235	217	200	180	290	305	30°	30°	4*M20	4*M22	25	55	150	125	4*Ø14	8*7*50
250	110	275	255	256	229	355	380	30°	30°	4*M22	4*M24	30	80	150	125	4*Ø14	8*7*70
300	110	300	286	306	280	400	430	22.5°	22.5°	4*M22	4*M24	35	80	175	140	4*Ø18	10*8*70
350	120	349	323	335	313	445	480	22.5°	22.5°	4*M22	4*M30*3	40	90	175	140	4*Ø18	12*8*80
400	130	385	353	391	365	510	540	22.5°	22.5°	4*M24	4*M30*3	50	110	175	140	4*Ø18	14*9*100
450	150	410	394	434	410	565	605	18°	18°	4*M24	4*M30*3	55	110	210	165	4*Ø22	16*10*100
500	160	445	429	492	459	620	660	18°	18°	4*M24	4*M30*3	60	110	210	165	4*Ø22	18*11*100
550	170	500	461	540	513	680	720	18°	18°	4*M30	4*M36*3	65	110	300	254	8*Ø18	20*12*100
600	200	530	496	590	551	730	770	15°	15°	8*M30	8*M36*3	70	110	300	254	8*Ø18	20*12*100
650	210	585	511	634	602	780	--	15°	--	8*M30	--	75	120	300	254	8*Ø18	20*12*110
700	220	610	528	698	650	840	--	15°	--	8*M30	--	80	120	300	254	8*Ø18	22*14*110
750	230	660	583	734	700	900	--	15°	--	8*M30	--	85	120	300	254	8*Ø18	22*14*110
800	240	680	591	790	752	950	--	12.86°	--	8*M30	--	90	120	300	254	8*Ø18	25*14*110
900	241	690	674	892	847	1050	--	12.86°	--	8*M30	--	105	120	350	298	8*Ø22	28*16*110



High Performance Double Eccentric Butterfly Valves with Replaceable Seat

■ Wafer Type Series 932

Nominal Diameter	DN80-DN600(3"-24") other sizes on request
Flange Connection	ASME B16.5 (CL150)
Temperature Range	-23 to +200°C
Face to Face Acc	API 609 CATEGORY B
Top Flange Acc	EN ISO 5211



■ Dimension

CL150-S932

DN	L	H	H1	A	B	R	X	S1*T1	E	F	K	N	n*O	Key size
80	48	158	136	87	68	152.4	90°	4*5/8"UNC	16	35	90	70	4*Ø9	5*5*30
100	54	172	150	114	89	190.5	45°	4*5/8"UNC	16	50	125	102	4*Ø12	5*5*40
150	57	210	186	160	125	241.3	45°	4*3/4"UNC	20	50	125	102	4*Ø12	6*6*40
200	64	235	217	200	180	298.5	45°	4*3/4"UNC	26	55	150	125	4*Ø14	8*7*50
250	71	275	255	256	229	362	30°	4*7/8"UNC	30	80	150	125	4*Ø14	8*7*70
300	81	300	286	306	280	431.8	30°	4*7/8"UNC	35	80	175	140	4*Ø18	10*8*70
350	92	349	323	335	313	476.3	30°	4*1"UNC	40	75	175	140	4*Ø18	12*8*70
400	102	385	350	391	365	539.8	22.5°	4*1"UNC	45	110	175	140	4*Ø18	14*9*100
450	114	410	395	434	410	577.9	22.5°	4*1-1/8"-8UN*35*40	50	110	210	165	4*Ø22	16*10*100
500	127	445	426	492	459	635	18°	4*1-1/8"-8UN*35*40	55	110	210	165	4*Ø22	18*11*100
600	154	530	496	590	551	749.3	18°	8*1-1/4"-8UN*36*40	70	110	300	254	8*Ø18	20*12*100

(EN&ISO)

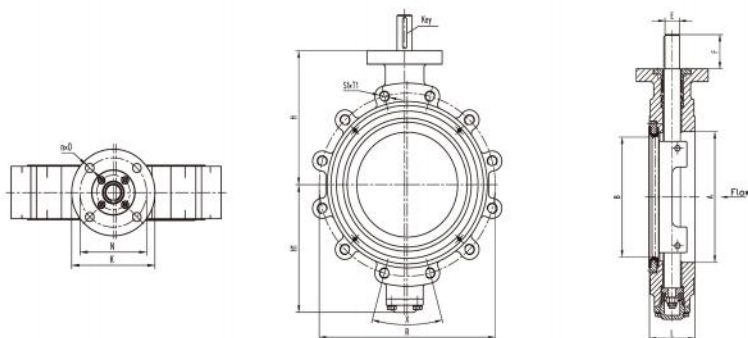
(JIS)



High Performance Double Eccentric Butterfly Valves with Replaceable Seat

■ Wafer Type Series 940

Nominal Diameter	DN50-DN900(2"-36") other sizes on request
Flange Connection	EN1092(PN10-16)
Temperature Range	-23 to +200°C
Face to Face Acc	EN558-1 SERIES 16 { ISO 5752 Series 16}
Top Flange Acc	EN ISO 5211



■ Dimension

PN10/16 -S940

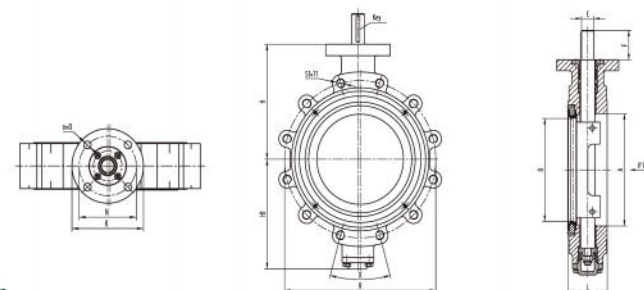
DN	L	H	H1	A	B	R		X		S1*T1		E	F	K	N	n°O	Key size
						PN10	PN16	PN10	PN16	PN10	PN16						
50	43	108	102	64	47	125	125	90°	90°	4*M16	4*M16	11	30	90	70	4*Ø9	4*4*20
65	46	125	115	80	65	145	145	90°	90°	4*M16	4*M16	11	30	90	70	4*Ø9	4*4*20
80	64	158	136	87	68	160	160	45°	45°	8*M16	8*M16	16	35	90	70	4*Ø9	5*5*30
100	64	165	148	114	89	180	180	45°	45°	8*M16	8*M16	16	50	125	102	4*Ø12	5*5*40
125	70	190	171	133	114	210	210	45°	45°	8*M16	8*M16	16	50	125	102	4*Ø12	5*5*40
150	76	210	186	160	125	240	240	45°	45°	8*M20	8*M20	20	50	125	102	4*Ø12	6*6*40
200	89	235	217	200	180	295	295	45°	30°	8*M20	12*M20	25	55	150	125	4*Ø14	8*7*50
250	114	275	255	256	229	350	355	30°	30°	12*M20	12*M24	30	80	150	125	4*Ø14	8*7*70
300	114	300	286	306	280	400	410	30°	30°	12*M20	12*M24	35	80	175	140	4*Ø18	10*8*70
350	127	349	323	335	313	460	470	22.5°	22.5°	16*M20	16*M24	40	90	175	140	4*Ø18	12*8*80
400	140	385	353	391	365	515	525	22.5°	22.5°	16*M24	16*M27	50	110	175	140	4*Ø18	14*9*100
450	152	410	394	434	410	565	585	18°	18°	20*M24	20*M27	55	110	210	165	4*Ø22	16*10*100
500	152	445	429	492	459	620	650	18°	18°	20*M24	20*M30	60	110	210	165	4*Ø22	18*11*100
600	178	530	496	590	551	725	770	18°	18°	20*M27	20*M33	70	110	300	254	8*Ø18	20*12*100
700	229	610	528	698	650	840	840	15°	15°	24*M27	24*M33	80	120	300	254	8*Ø18	22*14*110
800	241	680	591	790	752	950	950	15°	15°	24*M30	24*M36	90	120	300	254	8*Ø18	25*14*110
900	241	690	674	892	847	1050	1050	12.86°	12.86°	28*M30	28*M36	105	120	350	298	8*Ø22	28*16*110



High Performance Double Eccentric Butterfly Valves with Replaceable Seat

■ Lug Type Series 941

Nominal Diameter	DN50-DN900(2"-36") other sizes on request
Flange Connection	JIS B2239 & JIS B2220 (10K/16K)
Temperature Range	-23 to +200°C
Face to Face Acc	JIS B 2002 SERIES 45
Top Flange Acc	EN ISO 5211



■ Dimension

JIS 10K/16K-S941

DN	L	H	H1	A	B	R		X		S1*T1		E	F	K	N	n°O	Key size
						10K	16K	10K	16K	10K	16K						
50	43	108	102	64	47	120	120	90°	45°	4*M16	8*M16	11	30	90	70	4*Ø9	4*4*20
65	46	125	115	80	65	140	140	90°	45°	4*M16	8*M16	11	30	90	70	4*Ø9	4*4*20
80	64	158	136	87	68	150	160	45°	45°	8*M16	8*M20	16	35	90	70	4*Ø9	5*5*30
100	65	165	148	114	89	175	185	45°	45°	8*M16	8*M20	16	50	125	102	4*Ø12	5*5*40
125	70	190	171	133	114	210	225	45°	45°	8*M20	8*M22	16	50	125	102	4*Ø12	5*5*40
150	90	210	186	160	125	240	260	45°	30°	8*M20	12*M22	20	50	125	102	4*Ø12	6*6*40
200	100	235	217	200	180	290	305	30°	30°	12*M20	12*M22	25	55	150	125	4*Ø14	8*7*50
250	110	275	255	256	229	355	380	30°	30°	12*M22	12*M24	30	80	150	125	4*Ø14	8*7*70
300	110	300	286	306	280	400	430	22.5°	22.5°	16*M22	16*M24	35	80	175	140	4*Ø18	10*8*70
350	120	349	323	335	313	445	480	22.5°	22.5°	16*M22	16*M30*3	40	90	175	140	4*Ø18	12*8*80
400	130	385	353	391	365	510	540	22.5°	22.5°	16*M24	16*M30*3	50	110	175	140	4*Ø18	14*9*100
450	150	410	394	434	410	565	605	18°	18°	20*M24	20*M30*3	55	110	210	165	4*Ø22	16*10*100
500	160	445	429	492	459	620	660	18°	18°	20*M24	20*M30*3	60	110	210	165	4*Ø22	18*11*100
550	170	500	461	540	513	680	720	18°	18°	20*M30	20*M36*3	65	110	300	254	8*Ø18	20*12*100
600	200	530	496	590	551	730	770	15°	15°	24*M30	24*M36*3	70	110	300	254	8*Ø18	20*12*100
650	210	585	511	634	602	780	--	15°	--	24*M30	--	75	120	300	254	8*Ø18	20*12*110
700	220	610	528	698	650	840	--	15°	--	24*M30	--	80	120	300	254	8*Ø18	22*14*110
750	230	660	583	734	700	900	--	15°	--	24*M30	--	85	120	300	254	8*Ø18	22*14*110
800	240	680	591	790	752	950	--	12.86°	--	28*M30	--	90	120	300	254	8*Ø18	25*14*110
900	241	690	674	892	847	1050	--	12.86°	--	28*M30	--	105	120	350	298	8*Ø22	28*16*110

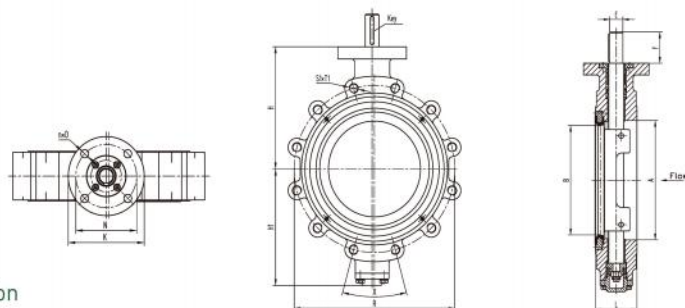
(API)



High Performance Double Eccentric Butterfly Valves with Replaceable Seat

■ Lug Type Series 942

Nominal Diameter	DN80-DN600(3"-24") other sizes on request
Flange Connection	ASME B16.5
Temperature Range	-23 to +200°C
Face to Face Acc	API 609 CATEGORY B
Top Flange Acc	EN ISO 5211



■ Dimension

CL150-S942

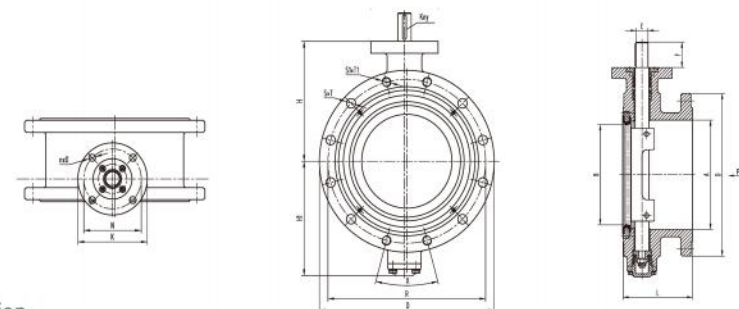
DN	L	H	H1	A	B	R	X	S1*T1	E	F	K	N	n*O	Key size
80	48	158	136	87	68	152.4	90°	4*5/8"UNC	16	35	90	70	4*Ø9	5*5*30
100	54	172	150	114	89	190.5	45°	8*5/8"UNC	16	50	125	102	4*Ø12	5*5*40
150	57	210	186	160	125	241.3	45°	8*3/4"UNC	20	50	125	102	4*Ø12	6*6*40
200	64	235	217	200	180	298.5	45°	8*3/4"UNC	26	55	150	125	4*Ø14	8*7*50
250	71	275	255	256	229	362	30°	12*7/8"UNC	30	80	150	125	4*Ø14	8*7*70
300	81	300	286	306	280	431.8	30°	12*7/8"UNC	35	80	175	140	4*Ø18	10*8*70
350	92	349	323	335	313	476.3	30°	12*1"UNC	40	75	175	140	4*Ø18	12*8*70
400	102	385	350	391	365	539.8	22.5°	16*1"UNC	45	110	175	140	4*Ø18	14*9*100
450	114	410	395	434	410	577.9	22.5°	16*1-1/8"-8UN*35*40	50	110	210	165	4*Ø22	16*10*100
500	127	445	426	492	459	635	18°	20*1-1/8"-8UN*35*40	55	110	210	165	4*Ø22	18*11*100
600	154	530	496	590	551	749.3	18°	20*1-1/4"-8UN*36*40	70	110	300	254	8*Ø18	20*12*100



High Performance Double Eccentric Butterfly Valves with Replaceable Seat

■ Lug Type Series 950

Nominal Diameter	DN50-DN900(2"-36") other sizes on request
Flange Connection	EN1092(PN10-16)
Temperature Range	-23 to +200°C
Face to Face Acc	EN558-1 SERIES 13 (ISO 5752 Series 13)
Top Flange Acc	EN ISO 5211



■ Dimension

PN10/16-S950

DN	L	H	H1	A	B	D		R		X		S*T		S1*T1		E	F	K	N	n*O	Key size
						PN10	PN16	PN10	PN16	PN10	PN16	PN10	PN16	PN10	PN16						
50	108	108	102	64	47	165	165	125	125	90°	90°	4*Ø18	4*Ø18	--	--	11	30	90	70	4*Ø9	4*4*20
65	112	125	115	80	65	185	185	145	145	90°	90°	4*Ø18	4*Ø18	--	--	11	30	90	70	4*Ø9	4*4*20
80	114	158	136	87	68	200	200	160	160	45°	45°	4*Ø18	4*Ø18	4*M16	4*M16	16	35	90	70	4*Ø9	5*5*30
100	127	165	148	114	89	220	220	180	180	45°	45°	4*Ø18	4*Ø18	4*M16	4*M16	16	50	125	102	4*Ø12	5*5*40
125	140	190	171	133	114	250	250	210	210	45°	45°	4*Ø18	4*Ø18	4*M16	4*M16	16	50	125	102	4*Ø12	5*5*40
150	140	210	186	160	125	285	285	240	240	45°	45°	4*Ø22	4*Ø22	4*M20	4*M20	20	50	125	102	4*Ø12	6*6*40
200	152	235	217	200	180	340	340	295	295	45°	30°	4*Ø22	8*Ø22	4*M20	4*M20	25	55	150	125	4*Ø14	8*7*50
250	165	275	255	256	229	395	405	350	355	30°	30°	8*Ø22	8*Ø26	4*M20	4*M24	30	80	150	125	4*Ø14	8*7*70
300	178	300	286	306	280	445	460	400	410	30°	30°	8*Ø22	8*Ø26	4*M20	4*M24	35	80	175	140	4*Ø18	10*8*70
350	190	349	323	335	313	505	520	460	470	22.5°	22.5°	12*Ø22	12*Ø26	4*M20	4*M24	40	90	175	140	4*Ø18	12*8*80
400	216	385	353	391	365	565	580	515	525	22.5°	22.5°	12*Ø26	12*Ø30	4*M24	4*M27	50	110	175	140	4*Ø18	14*9*100
450	222	410	394	434	410	615	640	565	585	18°	18°	16*Ø26	16*Ø30	4*M24	4*M27	55	110	210	165	4*Ø22	16*10*100
500	229	445	429	492	459	670	715	620	650	18°	18°	16*Ø26	16*Ø33	4*M24	4*M30	60	110	210	165	4*Ø22	18*11*100
600	267	530	496	590	551	780	840	725	770	18°	18°	16*Ø30	16*Ø36	4*M27	4*M33	70	110	300	254	8*Ø18	20*12*100
700	292	610	528	698	650	895	910	840	840	15°	15°	20*Ø30	20*Ø36	4*M27	4*M33	80	120	300	254	8*Ø18	22*14*110
800	318	680	591	790	752	1015	1025	950	950	15°	15°	20*Ø33	20*Ø39	4*M30	4*M36	90	120	300	254	8*Ø18	25*14*110
900	330	690	674	892	847	1115	1125	1050	1050	12.86°	12.86°	24*Ø33	24*Ø39	4*M30	4*M36	105	120	350	298	8*Ø22	28*16*110

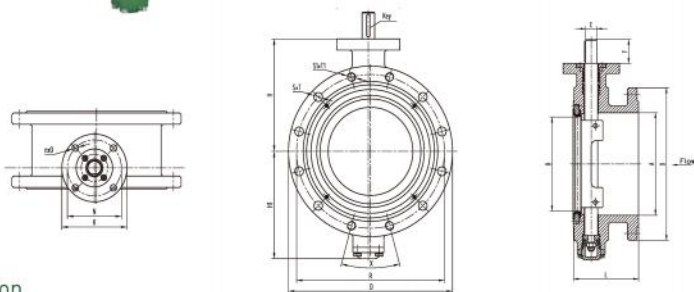
(JIS)

(API)

High Performance Double Eccentric Butterfly Valves with Replaceable Seat

Double Flange Type Series 951

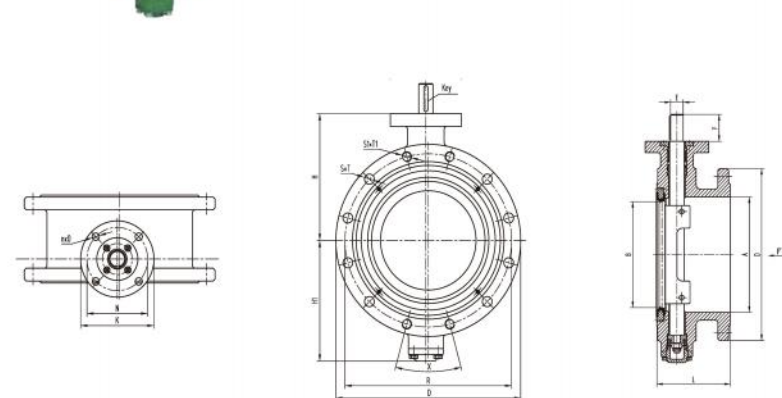
Nominal Diameter	DN50-DN900(2"-36") other sizes on request
Flange Connection	JIS B2239 & JIS B2220 (10K/16K)
Temperature Range	-23 to +200°C
Face to Face Acc	JIS B 2002 SERIES 42
Top Flange Acc	EN ISO 5211



Dimension

JIS 10K/16K-S951

DN	L	H	H1	A	B	D		R		X		S*T		S1*T1		E	F	K	N	n*O	Key size
						10K	16K	10K	16K	10K	16K	10K	16K	10K	16K						
50	108	108	102	64	47	155	155	120	120	90°	45°	4*Ø19	4*Ø19	--	4*M16	11	30	90	70	4*Ø9	4*4*20
65	112	125	115	80	65	175	175	140	140	90°	45°	4*Ø19	4*Ø19	--	4*M16	11	30	90	70	4*Ø9	4*4*20
80	114	158	136	87	68	185	200	150	160	45°	45°	4*Ø19	4*Ø23	4*M16	4*M20	16	35	90	70	4*Ø9	5*5*30
100	127	165	148	114	89	210	225	175	185	45°	45°	4*Ø19	4*Ø23	4*M16	4*M20	16	50	125	102	4*Ø12	5*5*40
125	140	190	171	133	114	250	270	210	225	45°	45°	4*Ø23	4*Ø25	4*M20	4*M22	16	50	125	102	4*Ø12	5*5*40
150	140	210	186	160	125	280	305	240	260	45°	30°	4*Ø23	8*Ø25	4*M20	4*M22	20	50	125	102	4*Ø12	6*6*40
200	152	235	217	200	180	330	350	290	305	30°	30°	8*Ø23	8*Ø25	4*M20	4*M22	25	55	150	125	4*Ø14	8*7*50
250	165	275	255	256	229	400	430	355	380	30°	30°	8*Ø25	8*Ø27	4*M22	4*M24	30	80	150	125	4*Ø14	8*7*70
300	178	300	286	306	280	445	480	400	430	22.5°	22.5°	12*Ø25	12*Ø27	4*M22	4*M24	35	80	175	140	4*Ø18	10*8*70
350	190	349	323	335	313	490	540	445	480	22.5°	22.5°	12*Ø25	12*Ø33	4*M22	4*M30*3	40	90	175	140	4*Ø18	12*8*80
400	216	385	353	391	365	560	605	510	540	22.5°	22.5°	12*Ø27	12*Ø33	4*M24	4*M30*3	50	110	175	140	4*Ø18	14*9*100
450	222	410	394	434	410	620	675	565	605	18°	18°	16*Ø27	16*Ø33	4*M24	4*M30*3	55	110	210	165	4*Ø22	16*10*100
500	229	445	429	492	459	675	730	620	660	18°	18°	16*Ø27	16*Ø33	4*M24	4*M30*3	60	110	210	165	4*Ø22	18*11*100
550	267	500	461	540	513	745	795	680	720	18°	18°	16*Ø33	16*Ø39	4*M30	4*M36*3	65	110	300	254	8*Ø18	20*12*100
600	267	530	496	590	551	795	845	730	770	15°	15°	20*Ø33	20*Ø39	4*M30	4*M36*3	70	110	300	254	8*Ø18	20*12*100
650	267	585	511	634	602	845	--	780	--	15°	--	20*Ø33	--	4*M30	--	75	120	300	254	8*Ø18	20*12*110
700	292	610	528	698	650	905	--	840	--	15°	--	20*Ø33	--	4*M30	--	80	120	300	254	8*Ø18	22*14*110
750	292	660	583	734	700	970	--	900	--	15°	--	20*Ø33	--	4*M30	--	85	120	300	254	8*Ø18	22*14*110
800	318	680	591	790	752	1020	--	950	--	12.86°	--	24*Ø33	--	4*M30	--	90	120	300	254	8*Ø18	25*14*110
900	330	690	674	892	847	1120	--	1050	--	12.86°	--	24*Ø33	--	4*M30	--	105	120	350	298	8*Ø22	28*16*110



High Performance Double Eccentric Butterfly Valves with Replaceable Seat

Double Flange Type Series 952

Nominal Diameter	DN80-DN600(3"-24") other sizes on request
Flange Connection	ASME B16.5 (CL150)
Temperature Range	-23 to +200°C
Face to Face Acc	API 609 CATEGORY B
Top Flange Acc	EN ISO 5211

Dimension

CL150-S952

DN	L	H	H1	A	B	D	R	X	S*T	S1*T1	E	F	K	N	n*O	Key size
80	114	158	136	87	68	190	152.4	90°	--	4*5/8"UNC	16	35	90	70	4*Ø9	5*5*30
100	127	165	148	114	89	230	190.5	45°	4*Ø19	4*5/8"UNC	16	50	125	102	4*Ø12	5*5*40
150	140	210	186	160	125	280	241.3	45°	4*Ø22	4*3/4"UNC	20	50	125	102	4*Ø12	6*6*40
200	152	235	217	200	180	345	298.5	45°	4*Ø22	4*3/4"UNC	25	55	150	125	4*Ø14	8*7*50
250	165	275	255	256	229	405	362	30°	8*Ø25	4*7/8"UNC	30	80	150	125	4*Ø14	8*7*70
300	178	300	286	306	280	485	431.8	30°	8*Ø25	4*7/8"UNC	35	80	175	140	4*Ø18	10*8*70
350	190	349	323	335	313	535	476.3	30°	8*Ø29	4*1"UNC	40	90	175	140	4*Ø18	12*8*80
400	216	385	353	391	365	595	539.8	22.5°	12*Ø29	4*1"UNC	50	110	175	140	4*Ø18	14*9*100
450	222	410	394	434	410	635	577.9	22.5°	12*Ø32	4*1-1/8"-8UN*34*36	55	110	210	165	4*Ø22	16*10*100
500	229	445	429	492	459	700	635	18°	16*Ø32	4*1-1/8"-8UN*35*40	60	110	210	165	4*Ø22	18*11*100
600	267	530	496	590	551	815	749.3	18°	16*Ø35	4*1-1/4"-8UN*36*40	70	110	300	254	8*Ø18	20*12*100

Materials

Parts	General Material	EN Standard	ASTM Standard	JIS Standard
Body	DUCTILE IRON	JS1030 EN 1563(GGG40 DIN1693)	Gr.65-45-12 ASTM A536	FCD450 JIS G5502
	CARBON STEEL	1.0619(GP240GH) EN 10213	WCB ASTM A216	SCPH2 JIS G5151
	STAINLESS STEEL	1.4408 EN 10213	CF8M ASTM A351	SCS 14A
	ALUMINIUM BRONZE	AB2 BS 1400	C95500,C95800 ASTM B148	ALBC3
	Ductile Iron 300um Rilsan coated/Halar coating	JS1030 EN 1563(GGG40 DIN1693)	Gr.65-45-12 ASTM A536	FCD450 JIS G5502
Disc	CARBON STEEL	1.0619 EN 10213	WCB ASTM A216	SCS450
	STAINLESS STEEL	1.4408 EN 10213	CF8M ASTM A351	SCS14A
	ALUMINIUM BRONZE	AB2 BS1400	C95500,C95800 ASTM B148	A1BC3
	STAINLESS STEEL	1.4122 EN 10088-3	431 ASTM A276	SUS630
Shaft	DEPLEX	1.4462 EN 10088-3	F51,F53,F55 ASTM A182	DP8
	ALUMINIUM BRONZE	CA104 BS2874	UNS C63000 ASTM B63000	C6301
Seat	NBR(NITRILE)	Temp. -15~80°C		
	EPDM	Temp. -23~120°C		
	VITON	Temp. -15~200°C		

Other materials are on request



Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 120°C
40-200	PN10	10
250-300	PN6	6

Materials

Component	Material	Code
Body	Cast Iron	EN-GJL-250 (GG25)
Bonnet	Cast Iron	EN-GJL-250 (GG25)
Wedge(<=100)	Bronze	CuSn5Zn5Pb5-C(CC491K)
(>=125)	Cast Iron	EN-GJL-250 (GG25)
Stem	Special Brass	CuSn39Pb3(CW614N)
Seat	Bronze	CuSn5Zn5Pb5-C(CC491K)
Gland Packing	PTFE	-
Bonnet Gasket	Asbestos free	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

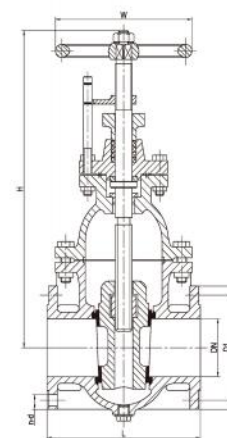
Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
40	140	150	110	270	140	4x18	11.0
50	150	165	125	270	140	4x18	13.0
65	170	185	145	295	160	4x18	17.0
80	180	200	160	325	160	8x18	20.0
100	190	220	180	360	200	8x18	28.0
125	200	250	210	450	200	8x18	40.0
150	210	285	240	500	200	8x22	50.0
200	230	340	295	620	250	8x22	85.0
250	250	395	350	730	315	12x22	133.5
300	270	445	400	860	315	12x22	180.0

Gate Valve

■ Non rising stem, DIN flanges, Cast Iron S205D

Refer Standards	Design Standard	DIN EN 1171 (DIN 3352 T2)
	Face to face	EN558, Series 14 (DIN 3202 F4)
	Flange connection	EN 1092-1 (DIN 2501)
Features	- Manually operated - Metal seated - Non rising stem with open/close indicator and bolted bonnet	
Options	- With drain plug - With actuator - Stainless steel trim	





Gate Valve

- Non rising stem, DIN flanges, Nodular cast iron S205D

Refer Standards	Design Standard	DIN EN 1171 (DIN 3352 T2)
	Face to face	EN558, Series 14 (DIN 3202 F4)
	Flange connection	EN 1092 (DIN 2501)
Features	• Manually operated • Metal seated • Non rising stem with open/close indicator and bolted bonnet	
Options	• With drain plug • With actuator • Stainless steel trim	
	• Nodular Cast Iron EN-GJL-400-18-LT (GGG40.3) available	
	• Soft seated	

Pressure & Temperature Range

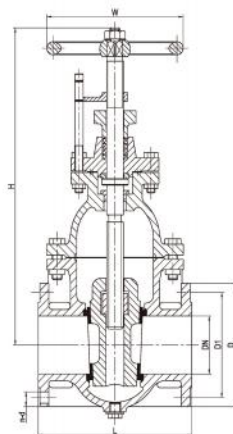
DN	Connection	Max.working pressure (bar) Up to 120°C
40-150	PN16	16
200-300	PN10	10

Materials

Component	Material	Code
Body	Nodular Cast Iron	EN-GJS-400-15 (GGG40)
Bonnet	Nodular Cast Iron	EN-GJS-400-15 (GGG40)
Wedge	Nodular Cast Iron	EN-GJS-400-15 (GGG40)
Stem	Special Brass	CuSn39Pb3(CW614N)
Seat	Bronze	CuSn5Zn5Pb5-CICC491K)
Gland Packing	PTFE	-
Bonnet Gasket	Asbestos free	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
40	140	150	110	270	140	4x18	11.0
50	150	165	125	270	140	4x18	13.0
65	170	185	145	295	160	4x18	17.0
80	180	200	160	325	160	8x18	20.0
100	190	220	180	360	200	8x18	28.0
125	200	250	210	450	200	8x18	40.0
150	210	285	240	500	200	8x22	50.0
200	230	340	295	620	250	8x22	85.0
250	250	395	350	730	315	12x22	133.5
300	270	445	400	860	315	12x22	180.0



Gate Valve

- Non rising stem, DIN flanges, Cast steel S205D

Refer Standards	Design Standard	DIN EN 1171 (DIN 3352 T2)
	Face to face	EN558, Series 14 (DIN 3202 F4)
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Metal seated • Non rising stem with open/close indicator and bolted bonnet	
Options	• Gearbox, electric or pneumatic actuators	
	• Larger dimensions on request	

Pressure & Temperature Range

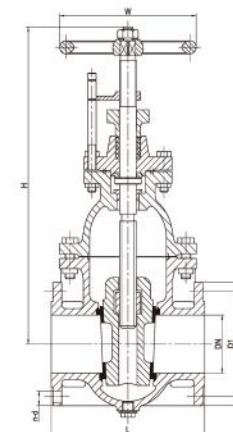
DN	Connection	Max.working pressure (bar) Up to 120°C
40-150	PN16	16
200-300	PN10	10

Materials

Component	Material	Code
Body	Cast steel	GP240GH (1.0619)
Bonnet	Cast steel	GP240GH (1.0619)
Wedge	Cast steel	GP240GH (1.0619) +Deposited stellite
Stem	Stainless steel	X5CrNi18-10 (1.4301)
Seat	Stainless steel	X20Cr13 (1.4021)
Gland Packing	PTFE	-
Bonnet Gasket	NBR bonded aramid	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
40	140	150	110	270	140	4x18	15.0
50	150	165	125	270	140	4x18	17.0
65	170	185	145	295	160	4x18	20.0
80	180	200	160	325	160	8x18	27.0
100	190	220	180	360	200	8x18	34.0
125	200	250	210	450	200	8x18	50.0
150	210	285	240	500	200	8x22	60.0
200	230	340	295	620	250	8x22	100
250	250	395	350	730	315	12x22	165
300	270	445	400	860	315	12x22	220





Gate Valve

- Non rising stem, DIN flanges, Stainless steel S205D

Refer Standards	Design Standard	DIN EN 1171 (DIN 3352 T2)
	Face to face	EN558, Series 14 (DIN 3202 F4)
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Metal seated • Non rising stem with open/close indicator and bolted bonnet	
Options	• Gearbox, electric or pneumatic actuators • Larger dimensions on request	

■ Pressure & Temperature Range

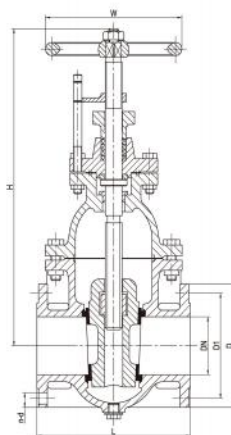
DN	Connection	Max.working pressure (bar) Up to 120°C
40-300	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Bonnet	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Wedge	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Stem	Stainless steel	+Deposited stellite X5CrNiMo17-12-2[1.4401]
Seat	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Gland Packing	PTFE	-
Bonnet Gasket	NBR bonded aramid	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

■ Dimensions

DN	L	D	D1	H	W	nxd	Weight[Kg]
40	140	150	110	270	140	4x18	15.0
50	150	165	125	270	140	4x18	17.0
65	170	185	145	295	160	4x18	20.0
80	180	200	160	325	160	8x18	27.0
100	190	220	180	360	200	8x18	34.0
125	200	250	210	450	200	8x18	50.0
150	210	285	240	500	200	8x22	60.0
200	230	340	295	620	250	8x22	100
250	250	395	350	730	315	12x22	165
300	270	445	400	860	315	12x22	220



Gate Valve

- Non rising stem, DIN flanges, Bronze S205D

Refer Standards	Design Standard	DIN EN 1171 [DIN 3352 T2]
	Face to face	EN558, Series 14 [DIN 3202 F4]
	Flange connection	EN 1092-3 [DIN 2501]
Features	• Metal seated • Non-Rising stem with open/close indicator and bolted bonnet	
Options	• With drain plug • With actuator • Other dimensions and materials on request	

■ Pressure & Temperature Range

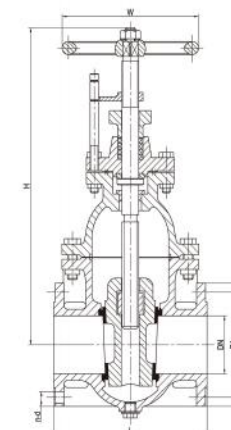
DN	Connection	Max.working pressure (bar) Up to 120°C
40-150	PN16	16
200	PN10	6
250	PN10	6
300	PN10	4

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C (CC491K)
Bonnet	Bronze	CuSn5Zn5Pb5-C (CC491K)
Stem	Special Brass	CuSn39Pb3(CW614N)
Seat	Bronze	CuSn5Zn5Pb5-C (CC491K)
Gland Packing	Graphite	-
Bonnet Gasket	SS+Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

■ Dimensions

DN	L	D	D1	H	W	nxd	Weight[Kg]
40	140	150	110	280	120	4x19	9.0
50	150	165	125	280	120	4x19	10.0
65	170	185	145	330	160	4x19	18.0
80	180	200	160	360	200	8x19	22.0
100	190	220	180	410	200	8x19	29.0
125	200	250	210	450	200	8x19	39.0
150	210	285	240	530	200	8x23	49.0
200	230	340	295	630	200	8x23	79.0
250	250	395	350	720	250	12x23	108.0
300	270	445	400	820	315	12x23	187.0





■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
40-300	PN16	Up to 120°C 16

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH [1.0619]
Bonnet	Cast steel	GP240GH [1.0619]
Wedge	Cast steel	GP240GH [1.0619] +Deposited stellite
Stem	Stainless steel	X5CrNi18-10[1.4301]
Seat	Stainless steel	X20Cr13[1.4021]
Gland Packing	Graphite	-
Bonnet Gasket	SS+Graphite	-
Hand wheel	Cast Iron	EN-GJL-250

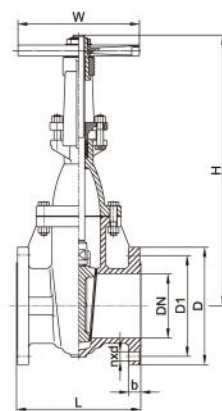
■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
40	240	150	110	300	200	4x18	27.7
50	250	165	125	358	240	4x18	30.2
65	270	185	145	375	240	4x18	34.5
80	280	200	160	433	280	8x18	46.5
100	300	220	180	502	320	8x18	64.6
125	325	250	210	612	380	8x18	109.5
150	350	285	240	676	380	8x22	135.7
200	400	340	295	820	400	12x22	194.2
250	450	405	355	969	450	12x26	275.3
300	500	460	410	1142	580	12x26	381.5

Gate Valve

■ Rising stem, DIN flanges, Cast steel S200D

Refer Standards	Design Standard	DIN EN 1171 (DIN 3352 T2)
	Face to face	EN558, Series 15 (DIN 3202 F5)
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Metal seated • Rising stem with open/close indicator and bolted bonnet	
Options	• With drain plug • With actuator • Other dimensions and materials on request	



■ Pressure & Temperature Range

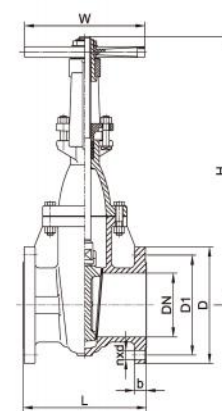
DN	Connection	Max.working pressure [bar]
40-300	PN16	Up to 120°C 16

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Bonnet	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Wedge	Stainless steel	GX5CrNiMo19-11-2 [1.4408] +Deposited stellite
Stem	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Gland Packing	PTFE	-
Bonnet Gasket	NBR bonded aramid	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	115	95	65	190	120	4x14	4.2
20	120	105	75	195	120	4x14	4.8
25	125	115	85	234	120	4x14	5.7
32	130	140	100	297	200	4x18	9.5
40	140	150	110	300	200	4x18	10.2
50	150	165	125	330	200	4x18	12.5
65	170	185	145	393	200	4x18	16.6
80	180	200	160	470	250	8x18	23.5
100	190	220	180	545	250	8x18	30.2
125	200	250	210	640	300	8x18	46.6
150	210	285	240	740	300	8x22	56.2
200	230	340	295	910	350	12x22	72.6
250	250	405	355	1097	400	12x26	96.3
300	270	460	410	1285	400	12x26	185.5





Gate Valve

■ Threaded ends, Stainless steel S210

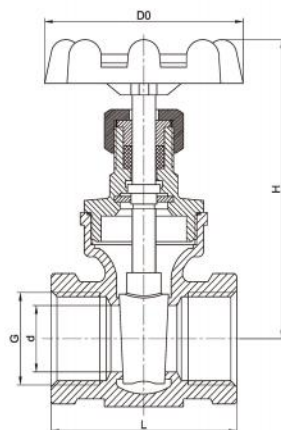
Refer Standards	Design Standard	BS 5352
	End Standard	ISO 228-1:2003
Features	• Threaded connection • Metal seal	
	Options	
	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Max. working pressure (bar)		
	up to 120°C	150°C	up to 225°C (steam up to 180°C)
15-80	16	10	6

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Bonnet	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Wedge	Stainless steel	X5CrNiMo17-12-2 [1.4401]
Stem	Stainless steel	X5CrNiMo17-12-2 [1.4401]
Gasket	PTFE	-



■ Dimensions

DN	G (BSP)	L	H	d	D0	Weight(Kg)
15	G1/2"	55	101	15	70	0.4
20	G3/4"	60	108	20	70	0.5
25	G1"	65	115	25	80	0.7
32	G1 1/4"	75	132	32	80	1.0
40	G1 1/2"	85	149	40	90	1.5
50	G2"	95	175	50	100	2.1
65	G2 1/2"	116	213	65	140	5.6
80	G3"	130	241	80	140	8.6



Gate Valve

■ Threaded ends, Bronze S210

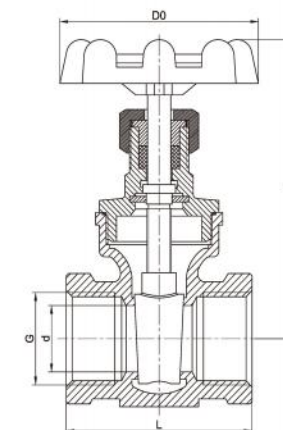
Refer Standards	Design Standard	Manufacturer's standard
	End Standard	ISO 228-1:2003
Features	• Threaded connection • Metal seal	
	Options	
	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Max. working pressure (bar)		
	up to 120°C	150°C	up to 225°C (steam up to 180°C)
15-80	16	10	6

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Wedge	Bronze	CuSn5Zn5Pb5-C
Stem	Brass	CW710R
Gasket	PTFE	-



■ Dimensions

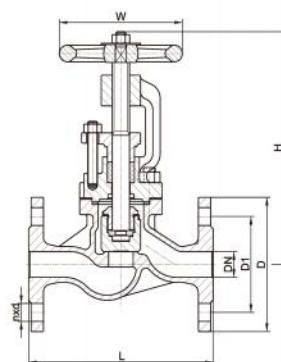
DN	G (BSP)	L	H	d	D0	Weight(Kg)
15	G1/2"	55	101	15	70	0.45
20	G3/4"	60	108	20	70	0.55
25	G1"	65	115	25	80	0.75
32	G1 1/4"	75	132	32	80	1.2
40	G1 1/2"	85	149	40	90	1.8
50	G2"	95	175	50	100	2.5
65	G2 1/2"	116	213	65	140	6.0
80	G3"	130	241	80	140	9.0



Globe Valve

- DIN flanges, Cast Iron, Straight type S220D

Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 1 (DIN 3202 F1)
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Metal seated • Outside screw & yoke and rising handwheel	
Options	• Screwed-down non-return and regulating disc • Stainless steel trim • With open/close indication	



■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]	
		Up to 120°C	180°C
15-150	PN16	16	10
200-250	PN10	10	6
300-350	PN6	6	4

■ Materials

Component	Material	Code
Body	Cast Iron	EN-GJL-250 (GG25)
Bonnet	Cast Iron	EN-GJL-250 (GG25)
Disc(<=65)	Bronze	CuSn5Zn5Pb5-C(CCC491K)
(>=80)	Ductile Iron	EN-GJS-400-15(GGG40)
Stem	Special Brass	CuZn40Pb2(CW617N)
Seat	Bronze	CuSn5Zn5Pb5-C(CCC491K)
Gland Packing	Graphite	-
Bonnet Gasket	Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	130	95	65	165	120	4x14	4.2
20	150	105	75	165	120	4x14	4.2
25	160	115	85	175	140	4x14	5.5
32	180	140	100	180	140	4x18	7.5
40	200	150	110	220	160	4x18	11.5
50	230	165	125	230	160	4x18	13.8
65	290	185	145	245	180	4x18	19.1
80	310	200	160	295	200	8x18	25.8
100	350	220	180	330	225	8x18	36.2
125	400	250	210	365	250	8x18	56.5
150	480	285	240	420	300	8x22	76.2
200	600	340	295	510	400	8x22	136.8
250	730	395	350	600	520	12x22	217.5
300	850	445	400	670	520	12x22	307.6
350	980	505	460	755	640	16x22	407.7



Globe Valve

- DIN flanges, Nodular Cast iron, Straight type S220D

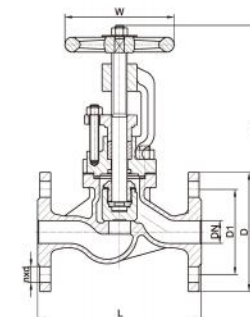
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 1 (DIN 3202 F1)
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Manually operated • Metal seated • Outside screw & yoke and rising handwheel	
Options	• Screwed-down non-return and regulating disc • Stainless steel trim • With open/close indication • Nodular Cast Iron EN-GJL-400-18-LT (GGG40.3) available	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]	
		Up to 120°C	180°C
15-150	PN16	16	10
200-250	PN10	10	6
300-350	PN6	6	4

■ Materials

Component	Material	Code
Body	Nodular Cast Iron	EN-GJS-400-15 (GGG40)
Bonnet	Nodular Cast Iron	EN-GJS-400-15 (GGG40)
Disc(<=65)	Bronze	CuSn5Zn5Pb5-C(CCC491K)
(>=80)	Ductile Iron	EN-GJS-400-15(GGG40)
Stem	Special Brass	CuZn40Pb2(CW617N)
Seat	Bronze	CuSn5Zn5Pb5-C(CCC491K)
Gland Packing	Graphite	-
Bonnet Gasket	Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)



■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	130	95	65	165	120	4x14	4.2
20	150	105	75	165	120	4x14	4.2
25	160	115	85	175	140	4x14	5.5
32	180	140	100	180	140	4x18	7.5
40	200	150	110	220	160	4x18	11.5
50	230	165	125	230	160	4x18	13.8
65	290	185	145	245	180	4x18	19.1
80	310	200	160	295	200	8x18	25.8
100	350	220	180	330	225	8x18	36.2
125	400	250	210	365	250	8x18	56.5
150	480	285	240	420	300	8x22	76.2
200	600	340	295	510	400	8x22	136.8
250	730	395	350	600	520	12x22	217.5
300	850	445	400	670	520	12x22	307.6
350	980	505	460	755	640	16x22	407.7



■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]	
		Up to 120°C	180°C
15-150	PN16	16	10

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH(1.0619)
Bonnet	Cast steel	GP240GH(1.0619)
Disc(<=65)	Stainless steel	X20Cr13(1.4021)
(>=80)	Cast steel	GP240GH(1.0619)
Stem	Stainless steel	X20Cr13(1.4021)
Seat	Deposited Stellite	STL
Gland Packing	Graphite	-
Bonnet Gasket	Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

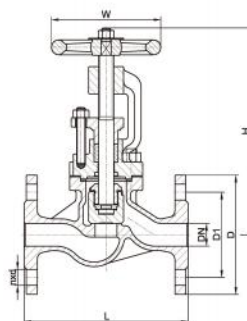
■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	130	95	65	165	120	4x14	4.2
20	150	105	75	165	120	4x14	4.8
25	160	115	85	175	140	4x14	5.5
32	180	140	100	180	140	4x18	7.5
40	200	150	110	220	160	4x18	11.5
50	230	165	125	230	160	4x18	13.8
65	290	185	145	245	180	8x18	20.2
80	310	200	160	295	200	8x18	25.8
100	350	235	190	330	225	8x22	38.2
125	400	270	220	365	250	8x26	62.3
150	480	300	250	420	300	8x26	85.6

Globe Valve

■ DIN flanges, Cast Steel, Straight type S220D

Refer Standards	Design Standard	DIN EN13709 [DIN 3356]
	Face to face	EN558, Series 1 [DIN 3202 F1]
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Metal seated • Outside screw & yoke and rising handwheel	
Options	• Screwed-down non-return and regulating disc • Bronze trim • With open/close indication • Pressure rating PN25& PN40	



■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]	
		Up to 120°C	180°C
15-150	PN16	16	10

Alternative for steam up to 400°C is available

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Bonnet	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Disc	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Stem	Stainless steel	X5CrNiMo18-10[1.4401]
Seat	Deposited Stellite	GX5CrNiMo19-11-2[1.4408]
Gland Packing	Graphite	-
Bonnet Gasket	Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

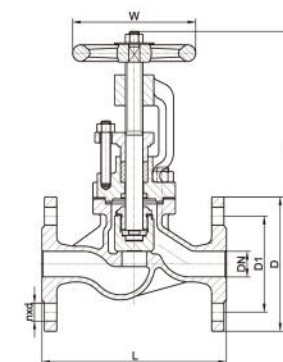
■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	130	95	65	165	120	4x14	4.2
20	150	105	75	165	120	4x14	4.8
25	160	115	85	175	140	4x14	5.5
32	180	140	100	180	140	4x18	7.5
40	200	150	110	220	160	4x18	11.5
50	230	165	125	230	160	4x18	13.8
65	290	185	145	245	180	8x18	20.2
80	310	200	160	295	200	8x18	25.8
100	350	235	190	330	225	8x22	38.2
125	400	270	220	365	250	8x26	62.3
150	480	300	250	420	300	8x26	85.6

Globe Valve

■ DIN flanges, Stainless steel, Straight type S220D

Refer Standards	Design Standard	DIN EN13709 [DIN 3356]
	Face to face	EN558, Series 1 [DIN 3202 F1]
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Metal seated • Outside screw & yoke and rising handwheel	
Options	• Screwed-down non-return and regulating disc • With open/close indication • Pressure rating PN25& PN40	





■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar)	
		Up to 120°C	180°C
15-150	PN16	16	10
200	PN10	10	6
250-300	PN6	6	4

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-CICC491K
Bonnet	Bronze	CuSn5Zn5Pb5-CICC491K
Disc	Bronze	CuSn5Zn5Pb5-CICC491K
Stem	Special Brass	CuZn40Pb2(CW617N)
Seat	Deposited Stellite	CuSn5Zn5Pb5-CICC491K
Gland Packing	Graphite	-
Bonnet Gasket	Dixo 4000	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

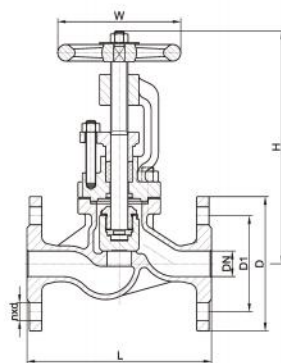
■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	130	95	65	140	100	4x14	2.66
20	150	105	75	150	100	4x14	3
25	160	115	85	160	100	4x14	4
32	180	140	100	165	100	4x18	5.2
40	200	150	110	195	140	4x18	7.4
50	230	165	125	205	140	4x18	9.5
65	290	185	145	255	160	4x18	12.5
80	310	200	160	290	200	8x18	19
100	350	220	180	335	200	8x18	24.5
125	400	250	210	405	250	8x18	41
150	480	285	240	445	320	8x22	62
200	600	345	295	530	320	8x22	120
250	730	395	350	640	400	12x22	203
300	850	445	400	720	400	12x22	279

Globe Valve

■ DIN flanges, Bronze, Straight type S220D

Refer Standards	Design Standard	DIN 86260 (DIN 3356)
	Face to face	EN558, Series 1 (DIN 3202 F1)
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Metal seated • Outside screw & yoke and rising handwheel	
	• Screwed-down non-return and regulating disc • Other dimensions and materials on request	



■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar)	
		Up to 120°C	180°C
15-150	PN16	16	10
200-250	PN10	10	6
300-350	PN6	6	4

■ Materials

Component	Material	Code
Body	Nodular Cast Iron	EN-GJS-400-15 (GGG40)
Bonnet	Nodular Cast Iron	EN-GJS-400-15 (GGG40)
Disc(<=65)	Bronze	CuSn5Zn5Pb5-CICC491K
(>=80)	Ductile Iron	EN-GJS-400-15(GGG40)
Stem	Special Brass	CuZn40Pb2(CW617N)
Seat	Bronze	CuSn5Zn5Pb5-CICC491K
Gland Packing	Graphite	-
Bonnet Gasket	Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)

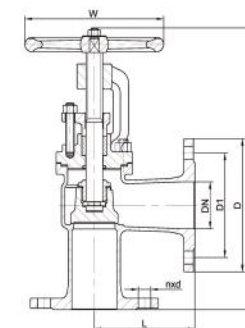
■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	90	95	65	165	120	4x14	4
20	95	105	75	165	120	4x14	4.5
25	100	115	85	175	140	4x14	5.3
32	105	140	100	180	140	4x18	6.8
40	115	150	110	220	160	4x18	9.7
50	125	165	125	230	160	4x18	12.1
65	145	185	145	245	180	4x18	16.3
80	155	200	160	295	200	8x18	21.2
100	175	220	180	330	225	8x18	33.4
125	200	250	210	365	250	8x18	43.1
150	225	285	240	420	300	8x22	71
200	275	340	295	510	400	8x22	112
250	325	395	350	600	520	12x22	161.5
300	375	445	400	670	520	12x22	228
350	425	505	460	755	640	16x22	308

Globe Valve

■ DIN flanges, Nodular cast iron, Angle type S221D

Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 8 (DIN 3202 F32)
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Metal seated • Outside screw & yoke and rising handwheel	
	• Screwed-down non-return and regulating disc • Stainless steel trim • With open/close indication • Nodular Cast Iron EN-GJS-400-18-LT (GGG40.3) GJL-250 (GG25) also available	





Globe Valve

■ DIN flanges, Cast steel, Angle type S221D

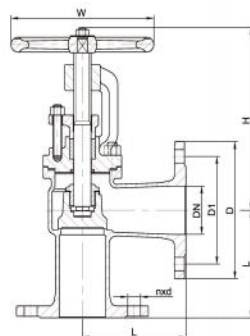
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 8 (DIN 3202 F32)
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Metal seated • Outside screw & yoke and rising handwheel	
Options	• Screwed-down non-return and regulating disc • Bronze trim • With open/close indication • Pressure rating PN25& PN40	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar)	
		Up to 120°C	180°C
15-150	PN40	40	25

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH(1.0619)
Bonnet	Cast steel	GP240GH(1.0619)
Disc(<=65)	Stainless steel	X20Cr13(1.4201)
(>=80)	Cast steel	GP240GH(1.0619)
Stem	Stainless steel	X20Cr13(1.4201)
Seat	Deposited Stellite	STL
Gland Packing	Graphite	-
Bonnet Gasket	Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)



■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	90	95	65	165	120	4x14	4
20	95	105	75	165	120	4x14	4.5
25	100	115	85	175	140	4x14	5
32	105	140	100	180	140	4x18	8
40	115	150	110	220	160	4x18	10.1
50	125	165	125	230	160	4x18	13.2
65	145	185	145	245	180	8x18	18.1
80	155	200	160	295	200	8x18	25.1
100	175	235	190	330	225	8x22	38.1
125	200	270	220	365	250	8x26	50
150	225	300	250	420	300	8x26	75



Globe valve

■ DIN flanges, Stainless steel, Angle type S221D

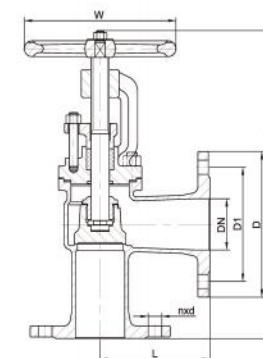
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 8 (DIN 3202 F32)
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Metal seated • Outside screw & yoke and rising handwheel	
Options	• Screwed-down non-return and regulating disc • With open/close indication • Pressure rating PN25& PN40	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar)	
		Up to 120°C	180°C
15-150	PN40	40	25

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2(1.4408)
Bonnet	Stainless steel	GX5CrNiMo19-11-2(1.4408)
Disc	Stainless steel	GX5CrNiMo19-11-2(1.4408)
Stem	Stainless steel	X5CrNiMo18-10(1.4401)
Seat	Deposited Stellite	GX5CrNiMo19-11-2(1.4408)
Gland Packing	Graphite	-
Bonnet Gasket	Graphite	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)



■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	90	95	65	165	120	4x14	4
20	95	105	75	165	120	4x14	4.5
25	100	115	85	175	140	4x14	5
32	105	140	100	180	140	4x18	8
40	115	150	110	220	160	4x18	10.1
50	125	165	125	230	160	4x18	13.2
65	145	185	145	245	180	8x18	18.1
80	155	200	160	295	200	8x18	25.1
100	175	235	190	330	225	8x22	38.1
125	200	270	220	365	250	8x26	50
150	225	300	250	420	300	8x26	75



Globe Valve

■ DIN flanges, Bronze, Angle type S221D

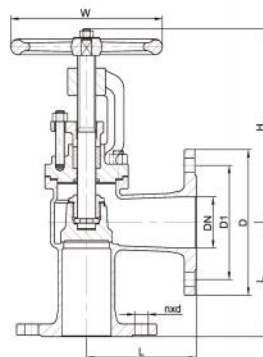
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 8 (DIN 3202 F32)
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Metal seated • Outside screw & yoke and rising handwheel	
Options	• Screwed-down non-return and regulating disc • Other dimensions and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]	
		Up to 120°C	180°C
15-150	PN16	16	10
200	PN10	10	6
250-300	PN6	6	4

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C[CC491K]
Bonnet	Bronze	CuSn5Zn5Pb5-C[CC491K]
Disc	Bronze	CuSn5Zn5Pb5-C[CC491K]
Stem	Special Brass	CuZn40Pb2[CW617N]
Seat	Deposited Stellite	CuSn5Zn5Pb5-C[CC491K]
Gland Packing	Graphite	-
Bonnet Gasket	Dixp 4000	-
Hand wheel	Cast Iron	EN-GJL-250 (GG25)



■ Dimensions

DN	L	D	D1	H	W	nxd	Weight(Kg)
15	90	95	65	130	100	4x14	3.8
20	95	105	75	130	100	4x14	4.0
25	100	115	85	150	100	4x14	4.5
32	105	140	100	155	100	4x18	7.2
40	115	150	110	180	140	4x18	9.0
50	125	165	125	185	140	4x18	11.7
65	145	185	145	225	160	4x18	16.2
80	155	200	160	260	200	8x18	22.5
100	175	220	180	290	200	8x18	35.1
125	200	250	210	325	250	8x18	45
150	225	285	240	335	320	8x22	67.5
200	275	345	295	390	320	8x22	96
250	325	395	350	520	400	12x22	155
300	375	445	400	550	400	12x22	220



Fire Hose Valve

■ DIN Flange, Bronze S280

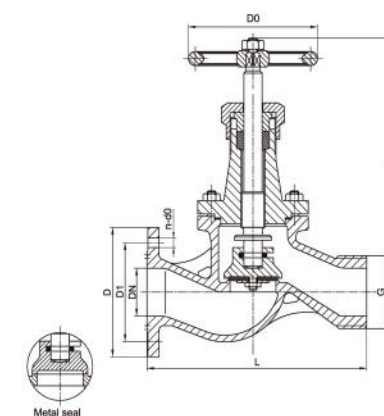
Refer Standards	Design Standard	DIN 86211
	Flange Standard	EN1092-3 (DIN2501)
	Thread Standard	ISO 228
Features	• Soft sealing/ Metal sealing	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
		-10°C to +100°C
DN40-DN65	PN16	16

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Disc	Bronze	CuSn5Zn5Pb5-C
Stem	Brass	CuZn35Ni
Packing	PTFE	-
Handwheel	Cast iron	-
Bolt/Nut	Stainless Steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	G	H	D	D1	D0	n	d0	Weight(Kg)
40	165	G1 1/2"	167	150	110	140	4	18	6.0
50	167	G2"	170	165	125	140	4	18	7.5
65	200	G2 1/2"	200	185	145	140	4	18	10.9



Fire Hose Valve

■ DIN Flange, Bronze S281

Refer Standards	Design Standard	DIN 86211
	Flange Standard	EN1092-3 [DIN2501]
	Thread Standard	ISO 228
Features	• Soft sealing/ Metal sealing	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

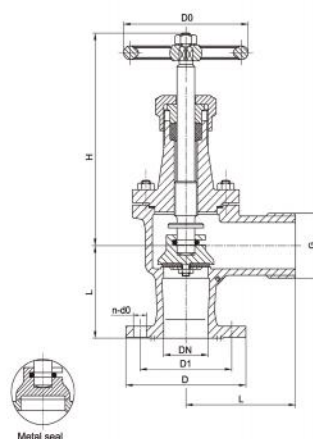
DN	Connection	Max.working pressure [bar] -10°C to +100°C
DN40-DN65	PN16	16

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Disc	Bronze	CuSn5Zn5Pb5-C
Stem	Brass	CuZn35Ni
Packing	PTFE	-
Handwheel	Cast iron	-
Bolt/Nut	Stainless Steel	X5CrNi18-10 [1.4301]

■ Dimensions

DN	L	G	H	D	D1	D0	n	d0	Weight(Kg)
40	75	G1 1/2"	140	150	110	140	4	18	5.3
50	75	G2"	140	165	125	140	4	18	5.9
65	95	G2 1/2"	170	185	145	140	4	18	10.2



Quick Closing Valves

■ Pneumatic control, Straight type, DIN Flanges, Nodular Cast iron S286

Refer Standards	Design Standard	Manufacturer's standard
	Face to face	DIN 3202-F1
	Flange connection	EN 1092-2 [DIN 2501]
Features	• Oil/fuel tank emergency shut-off valve, operated locally or remotely & self-closing valves counter weight or spring closing. • Manual, pneumatic, control off	
Options	• Impuls unit for remote control • Other dimension and materials on request	

■ Pressure & Temperature Range

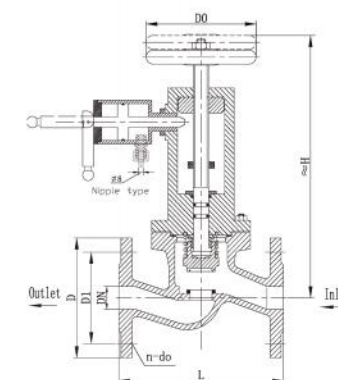
DN	Connection	Max.working pressure [bar] -10°C to +150°C
DN15-DN150	PN16	16
DN15-DN150	PN16	10

■ Materials

Component	Material	Code
Body	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Bonnet	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Disc	Stainless Steel	X20Cr13 [1.4021]
Stem	Stainless steel	X20Cr13 [1.4021]
Seat	Stainless Steel	X5CrNi18-10 [1.4301]
Spring	Spring steel	X10CrNi18-8 [1.4310]
Cylinder	Brass	CuZn39Pb3 (CW614N)

■ Dimensions

DN	L	H	D	D1	D0	n	d0	Weight(Kg)
15	130	237	95	65	80	4	14	6.0
20	150	240	105	75	80	4	14	7.5
25	160	242	115	85	100	4	14	8.4
32	180	245	140	100	140	4	18	10
40	200	274	150	110	140	4	18	13
50	230	283	165	125	140	4	18	15.7
65	290	325	185	145	140	4	18	22.7
80	310	350	200	160	180	8	18	27
100	350	375	220	180	180	8	18	40
125	400	400	250	210	200	8	18	47.5
150	480	430	285	240	225	8	22	61





Quick Closing Valves

- Pneumatic control, Straight type, DIN Flanges, Bronze S286

Refer Standards	Design Standard	Manufacturer's standard
	Face to face	DIN 3202-F1
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Oil/fuel tank emergency shut-off valve, operated locally or remotely & self-closing valves counter weight or spring closing. • Manual, pneumatic, control off	
Options	• Impuls unit for remote control • Other dimension and materials on request	

Pressure & Temperature Range

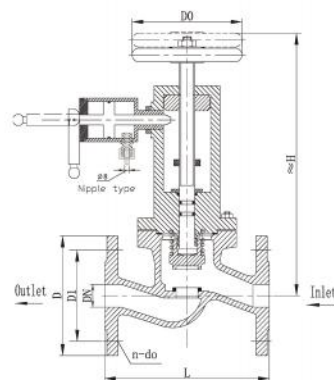
DN	Connection	Max.working pressure [bar] -10°C to +150°C
DN15-DN150	PN16	16
DN15-DN150	PN16	10

Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C (CC491K)
Bonnet	Bronze	CuSn5Zn5Pb5-C (CC491K)
Disc	Bronze	CuSn5Zn5Pb5-C (CC491K)
Stem	Brass	CuZn40Pb2 (CW617N)
Seat	Bronzeel	CuSn5Zn5Pb5-C (CC491K)
Spring	Spring steel	X10CrNi18-8 (1.4310)
Cylinder	Brass	CuZn39Pb3 (CW614N)

Dimensions

DN	L	H	D	D1	D0	n	d0	Weight(Kg)
15	130	237	95	65	80	4	14	5.5
20	150	240	105	75	80	4	14	7.0
25	160	242	115	85	100	4	14	7.9
32	180	245	140	100	140	4	18	8.5
40	200	274	150	110	140	4	18	11.8
50	230	283	165	125	140	4	18	14.5
65	290	325	185	145	140	4	18	21.5
80	310	350	200	160	180	8	18	25.6
100	350	375	220	180	180	8	18	38.5
125	400	400	250	210	200	8	18	45.5
150	480	430	285	240	225	8	22	58.5



Quick Closing Valves

- Pneumatic control, Angle type, DIN Flanges, Nodular Cast iron S286

Refer Standards	Design Standard	Manufacturer's standard
	Face to face	DIN 3202-F1
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Oil/fuel tank emergency shut-off valve, operated locally or remotely & self-closing valves counter weight or spring closing. • Manual, pneumatic, control off	
Options	• Impuls unit for remote control • Other dimension and materials on request	

Pressure & Temperature Range

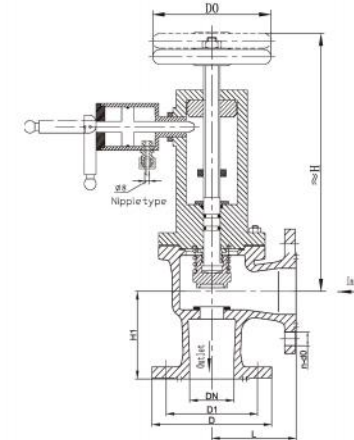
DN	Connection	Max.working pressure [bar] -10°C to +150°C
DN15-DN150	PN16	16
DN15-DN150	PN16	10

Materials

Component	Material	Code
Body	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Bonnet	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Disc	Stainless Steel	X20Cr13 (1.4021)
Stem	Stainless steel	X20Cr13 (1.4021)
Seat	Stainless Steel	X5CrNi18-10 (1.4301)
Spring	Spring steel	X10CrNi18-8 (1.4310)
Cylinder	Brass	CuZn39Pb3

Dimensions

DN	L	H1	H	D	D1	D0	n	d0	Weight(Kg)
15	90	90	320	95	65	80	4	14	7.0
20	95	95	320	105	75	80	4	14	8.0
25	100	100	325	115	85	100	4	14	8.8
32	105	105	330	140	100	140	4	18	9.8
40	115	115	365	150	110	140	4	18	12.6
50	125	125	381	165	125	140	4	18	16.7
65	145	145	437	185	145	140	4	18	20.7
80	155	155	466	200	160	180	8	18	26
100	175	175	500	220	180	180	8	18	36
125	200	200	540	250	210	200	8	18	43.5
150	025	225	580	285	240	225	8	22	52

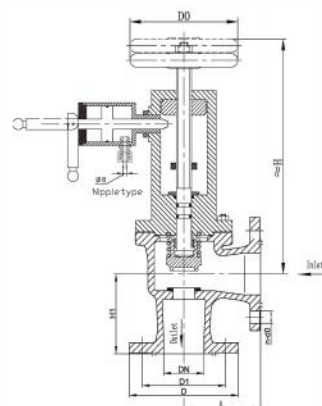




Quick Closing Valves

- Pneumatic control, Angle type, DIN Flanges, Bronze S286

Refer Standards	Design Standard	Manufacturer's standard
	Face to face	DIN 3202-F1
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Oil/fuel tank emergency shut-off valve, operated locally or remotely & self-closing valves counter weight or spring closing. • Manual, pneumatic, control off	
Options	• Impuls unit for remote control • Other dimension and materials on request	



■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +150°C
DN15-DN150	PN16	16
DN15-DN150	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Disc	Bronze	CuSn5Zn5Pb5-C
Stem	Brass	CuZn40Pb
Seat	Bronzeel	CuSn5Zn5Pb5-C
Spring	Spring steel	X10CrNi18-8 [1.4310]
Cylinder	Brass	CuZn39Pb3

■ Dimensions

DN	L	H1	H	D	D1	D0	n	d0	Weight(Kg)
15	90	90	320	95	65	80	4	14	6.5
20	95	95	320	105	75	80	4	14	7.2
25	100	100	325	115	85	100	4	14	8.0
32	105	105	330	140	100	140	4	18	8.8
40	115	115	365	150	110	140	4	18	11.2
50	125	125	381	165	125	140	4	18	15.0
65	145	145	437	185	145	140	4	18	18.5
80	155	155	466	200	160	180	8	18	23.5
100	175	175	500	220	180	180	8	18	32.5
125	200	200	540	250	210	200	8	18	39
150	225	225	580	285	240	225	8	22	47.5



Self Closing Valve

- Straight type, DIN flange, Nodular Cast Iron S285

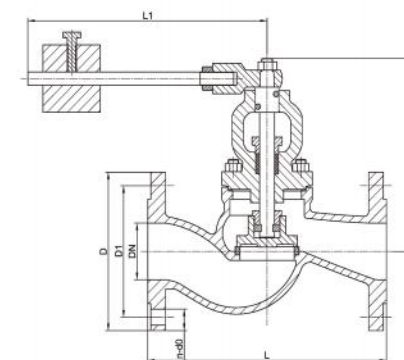
Refer Standards	Design Standard	DIN 86251
	Face to face	DIN 3202-F1/EN 558 Series 1
	Flange connection	EN 1092-2 (DIN2501)
Features	• Rotary or pedal type	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +120°C
DN15-DN100	PN16	16

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJS-400-15 (GGG40)
Bonnet	Cast iron	EN-GJS-400-15 (GGG40)
Seat	Stainless Steel	X5CrNi18-10 [1.4301]
Disc	Stainless steel	X5CrNi18-10 [1.4301]
Stem	Stainless Steel	X20Cr13[1.4021]
Bonnet gasket	Graphite	
Gland packing	Graphite	
Lever and counter weight	Steel	St37



■ Dimensions

DN	L	D	D1	H	L1	n	d0	Weight(Kg)
15	130	95	65	160	245	4	14	5.0
20	150	105	75	160	245	4	14	6.0
25	160	115	85	166	245	4	14	7.0
32	180	140	100	167	245	4	18	8.0
40	200	150	110	207	295	4	18	13
50	230	165	125	220	295	4	18	15
65	290	185	145	225	295	4	18	23
80	310	200	160	270	295	8	18	30
100	350	220	180	280	295	8	18	40



Self Closing Valve

■ Angle type, DIN flange, Cast iron S285

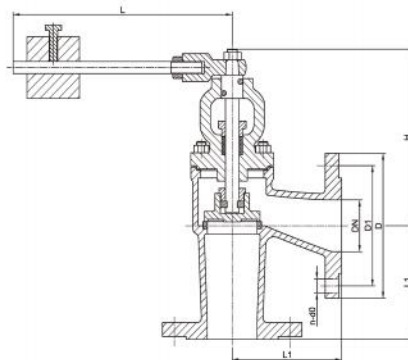
Refer Standards	Design Standard	DIN 86251
	Face to face	EN 558 Series 8
	Flange connection	EN 1092-2 (DIN2501)
Features	• Rotary or pedal type	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar)
DN15-DN100	PN16	16

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJL-250 (GG25)
Bonnet	Cast iron	EN-GJL-250 (GG25)
Seat	Stainless Steel	X5CrNi18-10 (1.4301)
Disc	Stainless Steel	X5CrNi18-10 (1.4301)
Stem	Stainless Steel	X20Cr13(1.4021)
Bonnet gasket	Graphite	
Gland packing	Graphite	
Lever and counter weight	Steel	St37



■ Dimensions

DN	L1	D	D1	H	L	n	d0	Weight(Kg)
15	90	95	65	153	245	4	14	5.0
20	95	105	75	153	245	4	14	5.5
25	100	115	85	153	245	4	14	7.0
32	105	140	100	158	245	4	18	8.0
40	115	150	110	203	295	4	18	13
50	125	165	125	208	295	4	18	15
65	145	185	145	208	295	4	18	23
80	155	200	160	240	295	8	18	30
100	175	220	180	260	295	8	18	40



Self Closing Valve

■ Threaded ends, Bronze S285

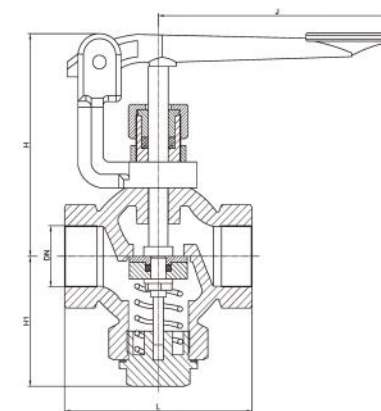
Refer Standards	Design Standard	Manufacturer's standard
	End connection	ISO228-1:2003
Features	• Pedal type	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar)
DN15-DN100	PN16	16

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Disc	Brass	-
Stem	Brass	-
Spring	Stainless Steel	-
Lever	Bronze	CuSn5Zn5Pb5-C
Gasket	PTFE	-
Disc Ring	PTFE	-



■ Dimensions

DN	Connection(BSP)	L	H1	H	J	Weight(Kg)
15	G1/2"	65	44	84	83	0.8
20	G3/4"	76	51	87	83	1
25	G1"	80	53	89	83	1.2
32	G1 1/4"	90	60	107	155	2.2
40	G2 1/2"	102	69	119	155	2.8
50	G2"	136	85	135	155	4.5



Self Closing Valve

■ DIN flange, Bronze S285

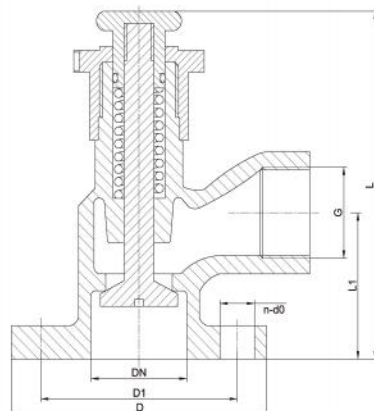
Refer Standards	Design Standard	Manufacturer's standard
	End connection	ISO228-1:2003
Features	• Pedal type	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +80°C
DN20-DN25	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Stem	Special brass	SoMs59
Spring	Stainless Steel	X5CrNiMo17-12-2[1.4401]
Locking Nut	Bronze	CuSn5Zn5Pb5-C
Push Button	Bronze	CuSn5Zn5Pb5-C
O-Ring	NBR	



■ Dimensions

DN	G	L1	L	D	D1	n	d0	Weight[Kg]
20	1"	60	145	105	75	4	14	2.3
25	1"	60	145	115	85	4	14	2.7



Single Plate Check Valve

■ DIN flanges, Cast steel S253D

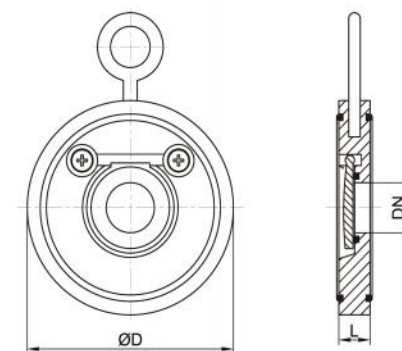
Refer Standards	Design Standard	API 6D
	Face to face	API 6D
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Very short face to face • Low Pressure loss • Low weight	
Options	• Overpressure secured • Spring loaded • Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
50-200	PN16	16
250-600	PN10	10

■ Materials

Component	Material	Code
Body	Steel+galvanised	GP240GH[1.0619] +galvanised/ENP
Disc	Steel+galvanised	GP240GH[1.0619] +galvanised/ENP
Pin	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	NBR/EPDM/VTQN	-



■ Dimensions

DN	L	D	Weight[Kg]
50	19	108	1.5
65	19	128	2.1
80	19	142	2.6
100	19	162	3.4
125	19	192	4.8
150	19	218	6.1
200	29	273	14.7
250	29	328	21.3
300	38	378	36.8
350	44	438	57.2
400	51	489	82.7
450	60	539	118.2
500	64	594	153.5
600	70	695	163



Single Plate Check Valve

■ DIN flanges, Stainless steel S253D

Refer Standards	Design Standard	API 6D
	Face to face	API 6D
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Very short face to face • Low Pressure loss • Low weight	
Options	• Spring loaded • Other dimensions on request	



Single Plate Check Valve

■ DIN flanges, Bronze S253D

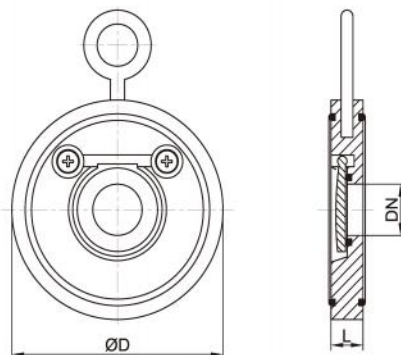
Refer Standards	Design Standard	API 6D
	Face to face	API 6D
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Very short face to face • Low Pressure loss • Low weight	
Options	• Spring loaded • Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
50-200	PN16	16
250-600	PN10	10

■ Materials

Component	Material	Code
Body	Stainless steel	GX2CrNiMo 19-11-2(1.4409)
Disc	Stainless steel	GX2CrNiMo 19-11-2(1.4409)
Seat	NBR/EPDM/VITON	-



■ Dimensions

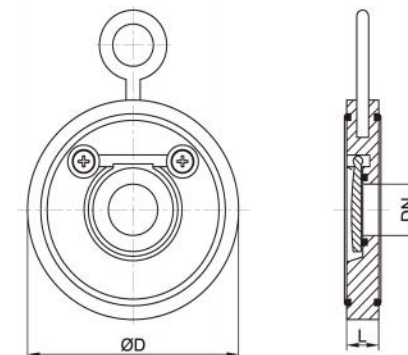
DN	L	D	Weight[Kg]
50	19	108	1.5
65	19	128	2.1
80	19	142	2.6
100	19	162	3.4
125	19	192	4.8
150	19	218	6.1
200	29	273	14.7
250	29	328	21.3
300	38	378	36.8
350	44	438	57.2
400	51	489	82.7
450	60	539	118.2
500	64	594	153.5
600	70	695	163

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
50-200	PN16	16
250-600	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C(CC491K)
Disc	Bronze	CuSn5Zn5Pb5-C(CC491K)
Seat	NBR/EPDM/VITON	-



■ Dimensions

DN	L	D	Weight[Kg]
50	19	108	1.7
65	19	128	2.3
80	19	142	2.9
100	19	162	3.7
125	19	192	5.3
150	19	218	6.7
200	29	273	16.2
250	29	328	23.4
300	38	378	40.5
350	44	438	63.1
400	51	489	91
450	60	539	130
500	64	594	169
600	70	695	181

Dual Plate Check Valve

■ DIN flanges, Nodular Cast iron S252D

Refer Standards	Design Standard	EN 16767
	Face to face	EN558, Series 16
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Spring loaded discs	
	• Short face to face	
	• Low Pressure loss	
	• Precision casting disc	
Options	• Metal seat available on request	

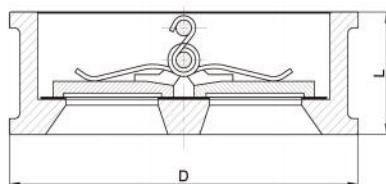


■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 80°C
40-300	PN16	16
350-600	PN10	10

■ Materials

Component	Material	Code
Body	Nodular Cast Iron	EN-GJS-400-15[GGG40]
Disc	Albronze	CuAl10Fe5Ni5[AB2]
Stem	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	NBR/EPDM/VITON	-



■ Dimensions

DN	L	D	Weight(Kg)
40	33	92	1.3
50	43	108	1.5
65	46	128	2.3
80	64	142	3.1
100	64	162	4.5
125	70	192	5.5
150	76	218	8.5
200	89	273	14.5
250	114	329	26.5
300	114	384	36.5
350	127	438	64.5
400	140	489	69.5
450	152	539	102
500	152	594	107
600	178	695	188

Dual Plate Check Valve

■ DIN flanges, Cast steel S252D

Refer Standards	Design Standard	EN 16767
	Face to face	EN558, Series 16
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Spring loaded discs	
	• Short face to face	
	• Low Pressure loss	
	• Precision casting disc	
Options	• Metal seat available on request	

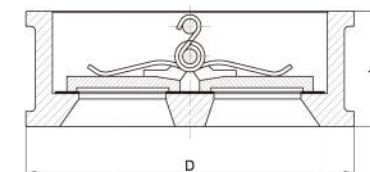


■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 80°C
40-300	PN16	16
350-600	PN10	10

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH[1.0619] +galvanised/ENP
Disc	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Pin	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	NBR/EPDM/VITON	-



■ Dimensions

DN	L	D	Weight(Kg)
40	33	92	1.3
50	43	108	1.5
65	46	128	2.3
80	64	142	3.1
100	64	162	4.5
125	70	192	5.5
150	76	218	8.5
200	89	273	14.5
250	114	329	26.5
300	114	384	36.5
350	127	438	64.5
400	140	489	69.5
450	152	539	102
500	152	594	107
600	178	695	188

Dual Plate Check Valve

■ DIN flanges, Stainless steel S252D

Refer Standards	Design Standard	EN 16767
	Face to face	EN558, Series 16
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Spring loaded discs	
	• Short face to face	
	• Low Pressure loss	
	• Precision casting disc	
Options	• Metal seat available on request	

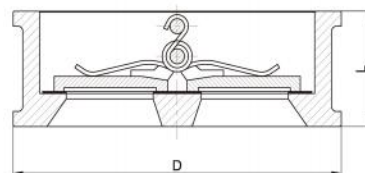


■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
40-300	PN16	16
350-600	PN10	10

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Disc	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Stem	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	NBR/EPDM/VITON	-



■ Dimensions

DN	L	D	Weight(Kg)
40	33	92	1.3
50	43	108	1.5
65	46	128	2.3
80	64	142	3.1
100	64	162	4.5
125	70	192	5.5
150	76	218	8.5
200	89	273	14.5
250	114	329	26.5
300	114	384	36.5
350	127	438	64.5
400	140	489	69.5
450	152	539	102
500	152	594	107
600	178	695	188



Dual Plate Check Valve

■ DIN flanges, Bronze S252D

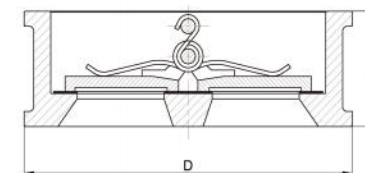
Refer Standards	Design Standard	EN 16767
	Face to face	EN558, Series 16
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Spring loaded discs	
	• Short face to face	
	• Low Pressure loss	
	• Precision casting disc	
Options	• Metal seat available on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
40-300	PN16	16
350-600	PN10	10

■ Materials

Component	Material	Code
Body	Albronze	CuAl10Fe5Ni5[AB2]
Disc	Albronze	CuAl10Fe5Ni5[AB2]
Stem	Stainless steel	X12CrNiMoN225[1.4462]
Seat	NBR/EPDM/VITON	-



■ Dimensions

DN	L	D	Weight(Kg)
40	33	92	1.5
50	43	108	1.8
65	46	128	2.6
80	64	142	3.6
100	64	162	5.7
125	70	192	6.9
150	76	218	10
200	89	273	17
250	114	329	30.3
300	114	384	41.8
350	127	438	72.6
400	140	489	77.6
450	152	539	114.5
500	152	594	120.5
600	178	695	211



Dual Plate Check Valve_ Rubber Lined

■ DIN flanges, Nodular Cast iron+EPDM S254D

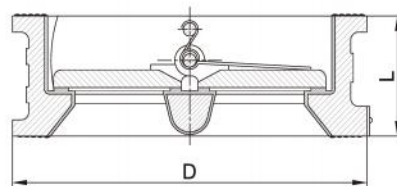
Refer Standards	Design Standard	EN 16767
	Face to face	EN558, Series 16
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Spring loaded discs	
	• Short face to face	
	• Low Pressure loss	
	• Precision casting disc	
Options	• Various seats available	
	• Various body and Disc materials available	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
40-300	PN16	16
350-600	PN10	10

■ Materials

Component	Material	Code
Body	Nodular Cast Iron +NBR/EPDM/ VITON	EN-GJS-400-15 (GGG40) +NBR/EPDM/VITON
Disc	Albronze	CuAl10Fe5Ni5(AB2)
Stem	Stainless steel	X12CrNiMoN225(1.4462)
Seat	NBR/EPDM/VITON	-



■ Dimensions

DN	L	D	Weight(Kg)
40	33	92	1.3
50	43	108	1.5
65	46	128	2.3
80	64	142	3.1
100	64	162	4.5
125	70	192	5.5
150	76	218	8.5
200	89	273	14.5
250	114	329	26.5
300	114	384	37
350	127	438	65
400	140	489	70
450	152	539	103
500	152	594	108
600	178	695	190



Swing Check Valve

■ DIN flanges, Cast iron S243D

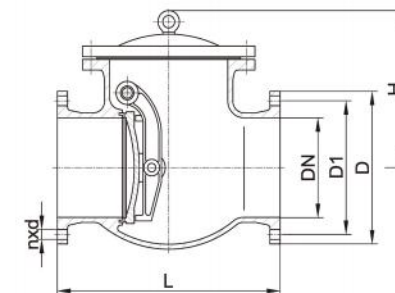
Refer Standards	Design Standard	DIN 16767
	Face to face	EN558, Series 14(DIN 3202 F4)
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Bolted bonnet	
	• Swing type	
Options	• Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
40-150	PN16	16
200-400	PN10	10

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJL-250 (GG25)
Bonnet	Nodular cast iron	EN-GJS-400-15 (GGG40)+CC491K
Pin	Special brass	CuZn39Pb3 (CW614N)
Seat	Bronze	CuSn5Zn5Pb5-C (CC491K)



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
40	140	150	110	140	4x19	15
50	150	165	125	150	4x19	18
65	170	185	145	180	4x19	25
80	180	200	160	200	8x19	29
100	190	220	180	300	8x19	45
125	200	250	210	300	8x19	75
150	210	285	240	300	8x23	105
200	230	340	295	300	8x23	176
250	250	395	350	380	12x23	286
300	270	445	400	405	12x23	290
350	290	505	460	430	16x23	295
400	310	565	515	472	16x28	526



Swing Check Valve

■ DIN flanges, Nodular Cast iron S243D

Refer Standards	Design Standard	DIN 16767
	Face to face	EN558, Series 14(DIN 3202 F4)
	Flange connection	EN 1092-2 (DIN 2501)
Features	- Bolted bonnet - Full bore - Swing type	
Options	Other dimensions on request	



Swing Check Valve

■ DIN flanges, Cast steel S243D

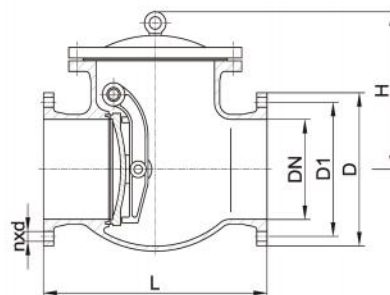
Refer Standards	Design Standard	DIN 16767
	Face to face	EN558, Series 14(DIN 3202 F4)
	Flange connection	EN 1092-2 (DIN 2501)
Features	- Bolted bonnet - Full bore - Swing type	
Options	Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
40-150	PN16	16
200-400	PN10	10

■ Materials

Component	Material	Code
Body	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Disc	Nodular Cast iron	EN-GJS-400-15 (GGG40)+CC491K
Pin	Special brass	CuZn39Pb3 (CW614N)
Seat	Bronze	CuSn5Zn5Pb5-C (CC491K)



■ Dimensions

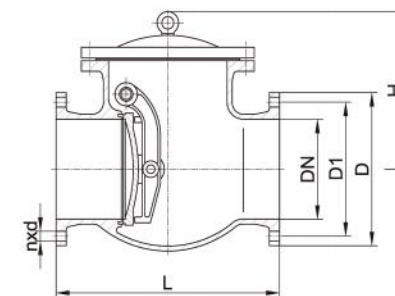
DN	L	D	D1	H	nxd	Weight(Kg)
40	140	150	110	140	4x19	15
50	150	165	125	150	4x19	18
65	170	185	145	180	4x19	25
80	180	200	160	200	8x19	29
100	190	220	180	300	8x19	45
125	200	250	210	300	8x19	75
150	210	285	240	300	8x23	105
200	230	340	295	300	8x23	176
250	250	395	350	380	12x23	286
300	270	445	400	405	12x23	290
350	290	505	460	430	16x23	295
400	310	565	515	472	16x28	526

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
40-150	PN16	16
200-400	PN10	10

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH(1.0619)
Disc	Bronze	CuSn5Zn5Pb5-C(CC491K)
Pin	Stainless steel	X20Cr13(1.4021)
Seat	Deposited stellite	-



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
40	140	150	110	140	4x18	15
50	150	165	125	150	4x18	18
65	170	185	145	180	8x18	25
80	180	200	160	200	8x18	29
100	190	220	180	300	8x18	45
125	200	250	210	300	8x18	75
150	210	285	240	300	8x22	105
200	230	340	295	300	8x22	176
250	250	395	350	380	12x22	286
300	270	445	400	405	12x22	290
350	290	505	460	430	16x22	295
400	310	565	515	472	16x26	526

Swing Check Valve

■ DIN flanges, Stainless steel S243D



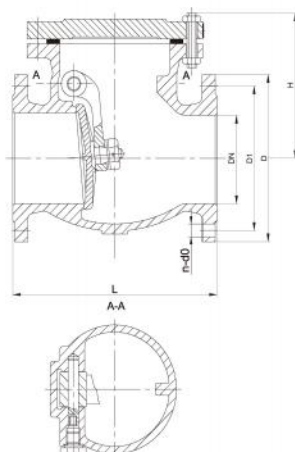
Refer Standards	Design Standard	DIN 16767
	Face to face	EN558, Series 14(DIN 3202 F4)
	Flange connection	EN 1092-1 (DIN 2501)
Features	- Bolted bonnet - Full bore - Swing type	
Options	Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
40-150	PN16	16
200-400	PN10	10

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Disc	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Pin	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	Stainless steel	X5CrNiMo17-12-2[1.4401]



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
40	140	150	110	140	4x18	15
50	150	165	125	150	4x18	18
65	170	185	145	180	8x18	25
80	180	200	160	200	8x18	29
100	190	220	180	300	8x18	45
125	200	250	210	300	8x18	75
150	210	285	240	300	8x22	105
200	230	340	295	300	8x22	176
250	250	395	350	380	12x22	286
300	270	445	400	405	12x22	290
350	290	505	460	430	16x22	295
400	310	565	515	472	16x26	526

Swing Check Valve

■ DIN flanges, Bronze S243D



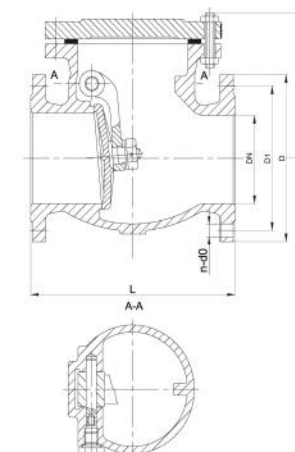
Refer Standards	Design Standard	DIN 16767
	Face to face	EN558, Series 14(DIN 3202 F4)
	Flange connection	EN 1092-3 (DIN 2501)
Features	- Bolted bonnet - Full bore - Swing type	
Options	Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
40-150	PN16	16
200-400	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C[CC491K]
Disc	Albronze	CuAl10Fe5Ni5[AB2]
Pin	Special Brass	CuZn39Pb3[CW614N]
Seat	Bronze	CuSn5Zn5Pb5-C[CC491K]



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
40	140	150	110	140	4x18	16
50	150	165	125	150	4x18	19
65	170	185	145	180	8x18	27
80	180	200	160	200	8x18	32
100	190	220	180	300	8x18	48
125	200	250	210	300	8x18	80
150	210	285	240	300	8x22	115
200	230	340	295	300	8x22	178
250	250	395	350	380	12x22	288
300	270	445	400	405	12x22	292
350	290	505	460	430	16x22	297
400	310	565	515	472	16x26	530



Lift Check Valve

- DIN flanges, Nodular Cast iron, Straight type S240D

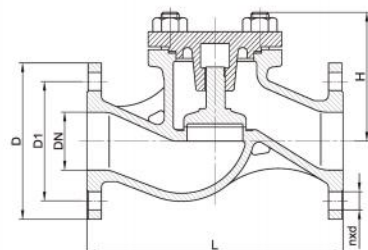
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 1 (DIN 3202 F1)
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Bolted bonnet • Horizontal installation	
Options	• Spring loaded • Other materials and dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Bonnet	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Disc	Special brass	CuZn40Pb2(CW617N)
Seat	Bronze	CuSn5Zn5Pb5-C(CCC491K)



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
15	130	95	65	56	4x14	2.2
20	150	105	75	56	4x14	2.8
25	160	115	85	68	4x14	4.0
32	180	140	100	78	4x19	5.8
40	200	150	110	90	4x19	7.8
50	230	165	125	98	4x19	10
65	290	185	145	105	4x19	15.9
80	310	200	160	125	8x19	21.2
100	350	220	180	163	8x19	30.8
125	400	250	210	175	8x19	43.5
150	480	285	240	200	8x23	70
200	600	340	295	250	8x23	117.7
250	730	395	350	335	12x23	207.8
300	850	445	400	380	12x23	320



Lift Check Valve

- DIN flanges, Cast steel, Straight type S240D

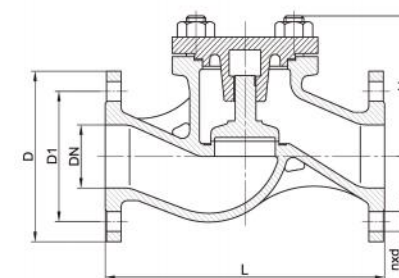
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 1 (DIN 3202 F1)
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Bolted bonnet • Horizontal installation	
Options	• Spring loaded • Other materials and dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH (1.0619)
Bonnet	Cast steel	GP240GH (1.0619)
Disc	Stainless steel	X20Cr13(1.4021)
Seat	Stainless steel	X20Cr13(1.4021)



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
15	130	95	65	56	4x14	3.2
20	150	105	75	56	4x14	3.5
25	160	115	85	68	4x14	5.5
32	180	140	100	78	4x18	7.5
40	200	150	110	90	4x18	9.5
50	230	165	125	98	4x18	12.1
65	290	185	145	105	8x18	17.2
80	310	200	160	125	8x18	23.5
100	350	235	190	163	8x22	32.8
125	400	270	220	175	8x26	45.5
150	480	300	250	200	8x26	73.8
200	600	360	310	250	12x26	123.5
250	730	425	370	335	12x30	210.5
300	850	485	430	380	16x30	345



Lift Check Valve

■ DIN flanges, Stainless steel, Straight type S240D

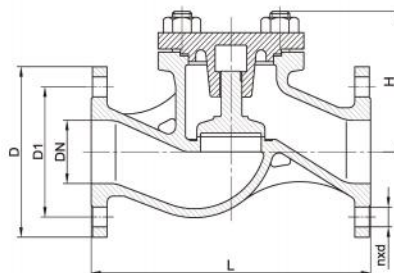
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 1 (DIN 3202 F1)
	Flange connection	EN 1092-2 (DIN 2501)
Features	- Bolted bonnet - Horizontal installation	
Options	- Spring loaded - Other materials and dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
		Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Bonnet	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Disc	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Seat	Stainless steel	GX5CrNiMo19-11-2 [1.4408]



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
15	130	95	65	56	4x14	3.2
20	150	105	75	56	4x14	3.5
25	160	115	85	68	4x14	5.2
32	180	140	100	78	4x18	6.5
40	200	150	110	90	4x18	8.4
50	230	165	125	98	4x18	11.5
65	290	185	145	105	4x18	17.7
80	310	200	160	125	8x18	22.3
100	350	220	180	163	8x18	31.5
125	400	250	210	175	8x18	45.2
150	480	285	240	200	8x22	71.5
200	600	340	295	250	8x22	119.5
250	730	395	350	335	12x22	208.5
300	850	445	400	380	12x22	321.2



Lift Check Valve

■ DIN flanges, Bronze, Straight type S240D

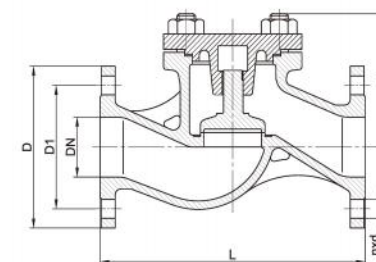
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 1 (DIN 3202 F1)
	Flange connection	EN 1092-3 (DIN 2501)
Features	- Bolted bonnet - Horizontal installation	
Options	- Spring loaded - Other materials and dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
		Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C (CC491K)
Bonnet	Bronze	CuSn5Zn5Pb5-C (CC491K)
Disc	Bronze	CuSn5Zn5Pb5-C (CC491K)
Seat	Bronze	CuSn5Zn5Pb5-C (CC491K)



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
15	130	95	65	56	4x14	3.2
20	150	105	75	56	4x14	3.5
25	160	115	85	68	4x14	5.2
32	180	140	100	78	4x18	6.5
40	200	150	110	90	4x18	8.4
50	230	165	125	98	4x18	11.5
65	290	185	145	105	4x18	17.7
80	310	200	160	125	8x18	22.3
100	350	220	180	163	8x18	31.5
125	400	250	210	175	8x18	45.2
150	480	285	240	200	8x22	71.5
200	600	340	295	250	8x22	119.5
250	730	395	350	335	12x22	208.5
300	850	445	400	380	12x22	321.2



Lift Check Valve

■ DIN flanges, Nodular Cast iron, Angle Type S241D

Refer Standards	Design Standard	DIN 86251 [DIN 3356]
	Face to face	EN558, Series8 [DIN 3202 F32]
	Flange connection	EN 1092-2 [DIN 2501]
Features	- Bolted bonnet - Horizontal installation	
Options	- Spring loaded - Other materials and dimensions on request	



Lift Check Valve

■ DIN flanges, Cast steel, Angle Type S241D

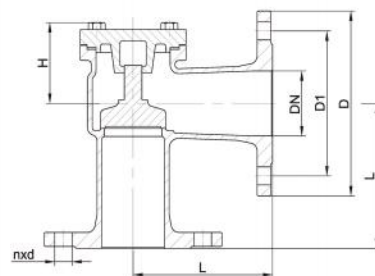
Refer Standards	Design Standard	DIN 86251 [DIN 3356]
	Face to face	EN558, Series 8 [DIN 3202 F32]
	Flange connection	EN 1092-1 [DIN 2501]
Features	- Bolted bonnet - Horizontal installation	
Options	- Spring loaded - Other materials and dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
		Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Nodular Cast iron	EN-GJS-400-15 [GGG40]
Bonnet	Nodular Cast iron	EN-GJS-400-15 [GGG40]
Disc	Special brass	CuZn40Pb2[CW617N]
Seat	Bronze	CuSn5Zn5Pb5-C[CC491K]



■ Dimensions

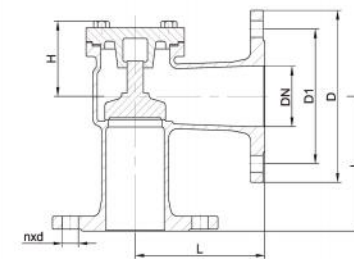
DN	L	D	D1	H	nxd	Weight(Kg)
15	90	95	65	50	4x14	2.3
20	95	105	75	50	4x14	3.0
25	100	115	85	58	4x14	4.2
32	105	140	100	65	4x19	5.8
40	115	150	110	75	4x19	7.4
50	125	165	125	75	4x19	9.8
65	145	185	145	80	4x19	12.7
80	155	200	160	80	8x19	18.2
100	175	220	180	115	8x19	26.5
125	200	250	210	120	8x19	38.2
150	225	285	240	125	8x23	58.3
200	275	340	295	160	8x23	102.8
250	325	395	350	200	12x23	208.5
300	375	445	400	240	12x23	322

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
		Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH [1.0619]
Bonnet	Cast steel	GP240GH [1.0619]
Disc	Stainless Steel	X20Cr13 [1.4021]
Seat	Stainless Steel	X20Cr13 [1.4021]



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
15	90	95	65	50	4x14	2.3
20	95	105	75	50	4x14	3.0
25	100	115	85	58	4x14	4.2
32	105	140	100	65	4x18	5.8
40	115	150	110	75	4x18	7.4
50	125	165	125	75	4x18	9.8
65	145	185	145	80	8x18	12.7
80	155	200	160	80	8x18	23.5
100	175	235	190	115	8x22	32.8
125	200	270	220	120	8x26	45.5
150	225	300	250	125	8x26	73.8
200	275	360	310	160	12x26	123.5
250	325	425	370	200	12x30	210.5
300	375	485	430	240	16x30	345



Lift Check Valve

■ DIN flanges, Stainless steel, Angle Type S241D

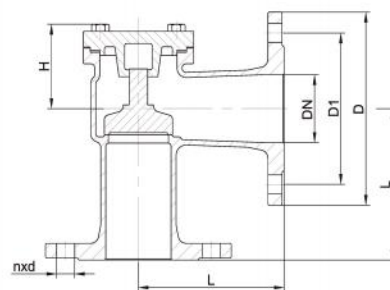
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 8 (DIN 3202 F32)
	Flange connection	EN 1092-1 (DIN 2501)
Features	- Bolted bonnet - Horizontal installation	
Options	- Spring loaded - Other materials and dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Stainless Steel	GX5CrNiMo19-11-2[1.4408]
Bonnet	Stainless Steel	GX5CrNiMo19-11-2[1.4408]
Disc	Stainless Steel	GX5CrNiMo19-11-2[1.4408]
Seat	Stainless Steel	GX5CrNiMo19-11-2[1.4408]



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
15	90	95	65	50	4x14	2.3
20	95	105	75	50	4x14	3.0
25	100	115	85	58	4x14	4.2
32	105	140	100	65	4x18	5.8
40	115	150	110	75	4x18	7.4
50	125	165	125	75	4x18	9.8
65	145	185	145	80	8x18	12.7
80	155	200	160	80	8x18	23.5
100	175	235	190	115	8x22	32.8
125	200	270	220	120	8x26	45.5
150	225	300	250	125	8x26	73.8
200	275	360	310	160	12x26	123.5
250	325	425	370	200	12x30	210.5
300	375	485	430	240	16x30	345



Lift Check Valve

■ DIN flanges, Bronze, Angle Type S241D

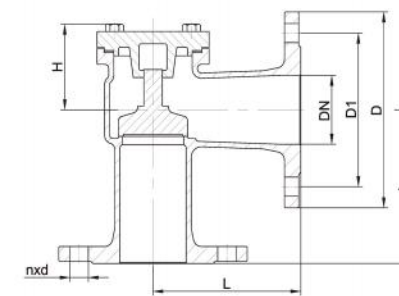
Refer Standards	Design Standard	DIN 86251 (DIN 3356)
	Face to face	EN558, Series 8 (DIN 3202 F32)
	Flange connection	EN 1092-3 (DIN 2501)
Features	- Bolted bonnet - Horizontal installation	
Options	- Spring loaded - Other materials and dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
15-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C[CC491K]
Bonnet	Bronze	CuSn5Zn5Pb5-C[CC491K]
Disc	Bronze	CuSn5Zn5Pb5-C[CC491K]
Seat	Bronze	CuSn5Zn5Pb5-C[CC491K]



■ Dimensions

DN	L	D	D1	H	nxd	Weight(Kg)
15	90	95	65	50	4x14	2.2
20	95	105	75	50	4x14	2.9
25	100	115	85	58	4x14	4.0
32	105	140	100	65	4x18	5.5
40	115	150	110	75	4x18	7.0
50	125	165	125	75	4x18	9.2
65	145	185	145	80	8x18	11.5
80	155	200	160	80	8x18	17.5
100	175	220	180	115	8x18	25.8
125	200	250	210	120	8x18	38.2
150	225	285	240	125	8x22	59
200	275	340	295	160	8x22	101
250	325	395	350	200	12x22	208
300	375	445	400	240	12x22	310



Wafer-Disc Check Valve

■ DIN flanges, Cast Steel S251D

Refer Standards	Design Standard	Manufacturer's standard
	Face to face	EN558, Series 49 [DIN 3202 K4]
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Wafer type	
Options	• Other dimensions on request	



Wafer-Disc Check Valve

■ DIN flanges, Stainless steel S251D

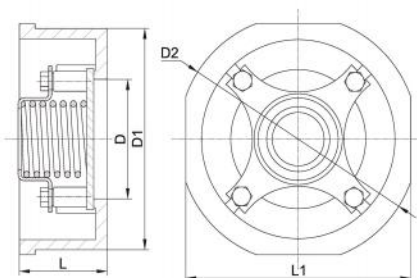
Refer Standards	Design Standard	Manufacturer's standard
	Face to face	EN558, Series 49 [DIN 3202 K4]
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Wafer type	
Options	• Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 200°C
15-100	PN40	40

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH[1.0619]
Disc	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Spring	Stainless steel	X5CrNiMo17-12-2[1.4401]
Cap	Stainless steel	X5CrNiMo17-12-2[1.4401]



■ Dimensions

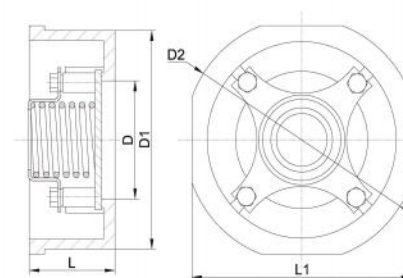
DN	L	D	D1	D2	L1	Weight(Kg)
15	16	15	45	53	45	0.1
20	19	20	55	63	55	0.2
25	22	25	65	73	65	0.3
32	28	32	79	84	79	0.5
40	32	38	89	94	89	0.7
50	40	50	99	107	99	1.1
65	46	62	118	126	118	1.6
80	50	76.5	134	144	134	1.8
100	60	98	154	164	154	3.3

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 200°C
15-100	PN40	40

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Disc	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Spring	Stainless steel	X5CrNiMo17-12-2[1.4401]
Cap	Stainless steel	X5CrNiMo17-12-2[1.4401]



■ Dimensions

DN	L	D	D1	D2	L1	Weight(Kg)
15	16	15	45	53	45	0.1
20	19	20	55	63	55	0.2
25	22	25	65	73	65	0.3
32	28	32	79	84	79	0.5
40	32	38	89	94	89	0.7
50	40	50	99	107	99	1.1
65	46	62	118	126	118	1.6
80	50	76.5	134	144	134	1.8
100	60	98	154	164	154	3.3



Wafer-Disc Check Valve

■ DIN flanges, Bronze S251D

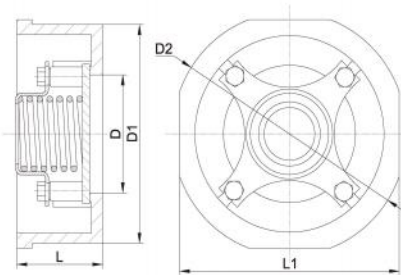
Refer Standards	Design Standard	Manufacturer's standard
	Face to face	EN558, Series 49 [DIN 3202 K4]
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Wafer type	
Options	• Stainless steel disc • Other dimensions on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 200°C
15-100	PN40	40

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C[CC491K]
Disc	Bronze	CuSn5Zn5Pb5-C[CC491K]
Spring	Stainless steel	X5CrNiMo17-12-2[1.4401]
Cap	Bronze	CuSn5Zn5Pb5-C[CC491K]



■ Dimensions

DN	L	D	D1	D2	L1	Weight(Kg)
15	16	15	45	53	45	0.1
20	19	20	55	63	55	0.22
25	22	25	65	73	65	0.33
32	28	32	79	84	79	0.55
40	32	38	89	94	89	0.77
50	40	50	99	107	99	1.2
65	46	62	118	126	118	1.8
80	50	76.5	134	144	134	2.0
100	60	98	154	164	154	3.6



Threaded Check Valve

■ Threaded Ends Valve, Stainless steel S260

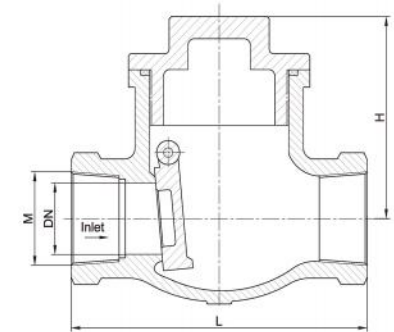
Refer Standards	Design Standard	BS5154
	Face to face	Manufacturer's standard
	Threaded connection	ISO228
Features	• Screwed and secured bonnet • ISO 228 female thread	
Options	• Other materials and dimensions on request • Metal seated disc available	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 200°C
10-100	PN16	16

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Disc	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Bonnet	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Pin	Stainless steel	X5CrNiMo18-10[1.4401]
Gasket	PTFE	



■ Dimensions

DN	Pressure rating	L	H	M	Weight
10	PN10	60	38	G 3/8"	0.3
15	PN10	60	38	G 1/2"	0.4
20	PN10	70	49	G 3/4"	0.5
25	PN10	80	55	G 1"	0.8
32	PN10	95	59	G 1-1/4"	1.1
40	PN10	105	69	G1-1/2"	1.5
50	PN10	130	78	G 2"	2.1
65	PN10	160	94	G 2-1/2"	4.6
80	PN10	184	130	G 3"	6.9
100	PN10	215	150	G 4"	10

Threaded Check Valve

■ Threaded Ends Valve, Bronze S260

Refer Standards	Design Standard	BS5154
	Face to face	Manufacturer's standard
	Threaded connection	ISO228
Features	- Screwed and secured bonnet - ISO 228 female thread	
	Options	
	- Other materials and dimensions on request - Metal seated disc available	

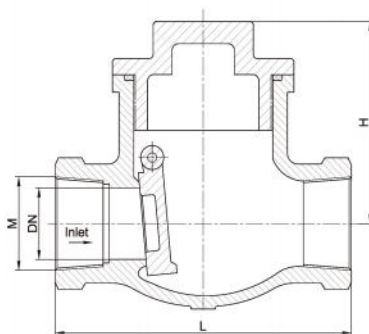


■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 200°C
10-100	PN16	16

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C[CC491K]
Disc	Bronze	CuSn5Zn5Pb5-C[CC491K]
Bonnet	Bronze	CuSn5Zn5Pb5-C[CC491K]
Pin	Special Brass	CuZn40Pb2 [CW617N]
Gasket	PTFE	



■ Dimensions

DN	Pressure rating	L	H	M	Weight
10	PN10	60	38	G 3/8"	0.35
15	PN10	60	38	G 1/2"	0.45
20	PN10	70	49	G 3/4"	0.55
25	PN10	80	55	G 1"	0.86
32	PN10	95	59	G 1-1/4"	1.5
40	PN10	105	69	G 1-1/2"	1.65
50	PN10	130	78	G 2"	2.5
65	PN10	160	94	G 2-1/2"	5
80	PN10	184	130	G 3"	7.5
100	PN10	215	150	G 4"	10.5



Storm Flap Valve

■ DIN flanges, Cast steel, Angle type S287E

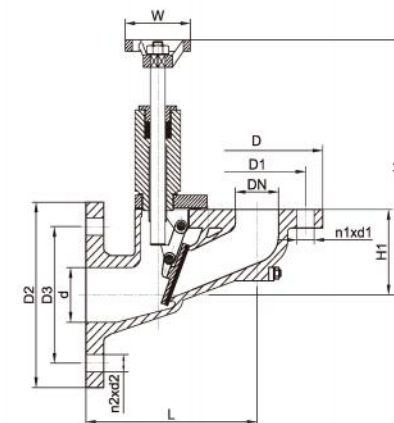
Refer Standards	Design Standard	DIN HNA Sr6 Form B-with closing device and handwheel
	Face to face	DIN HNA Sr6
	Flange connection	EN 1092-1 [DIN 2501]
Features	Different inlet/outlet diameter	
	Options	
	- Other dimensions on request - Metal seated disc available	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
50-250	PN10	4

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH[1.0619]
Disc	Bronze+NBR	CuSn5Zn5Pb5-C[CC491K] +NBR
Stem	Specail Brass	CuZn40Pb2 [CW617N]
Cap	Stainless steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	D	D1	D2	D3	d	n1xd1	n2xd2	H1	H	W	Weight(Kg)
50	180	165	125	200	160	70	4X18	8X18	90	335	100	13.5
65	200	185	145	220	180	85	8X18	8X18	100	345	140	15.8
80	215	200	160	250	210	100	8X18	8X18	108	360	140	22.2
100	250	220	180	285	240	130	8X18	8X22	130	370	140	26.8
125	290	250	210	340	295	158	8X18	8X22	152	460	180	38.2
150	330	285	240	395	350	190	8X22	12X22	176	490	180	45.3
200	425	340	295	445	400	240	8X22	12X22	180	580	180	75.5
250	630	395	350	505	460	300	12X22	12X26	300	730	200	102.5



Storm Flap Valve

■ DIN flanges, Bronze, Angle type S287E

Refer Standards	Design Standard	DIN HNA Sr6 Form B-with closing device and handwheel
	Face to face	DIN HNA Sr6
	Flange connection	EN 1092-3 [DIN 2501]
Features	• Different inlet/outlet diameter	
Options	• Other dimensions on request	
	• Metal seated disc available	



Storm Flap Valve

■ DIN flanges, Cast steel, Straight type S287D

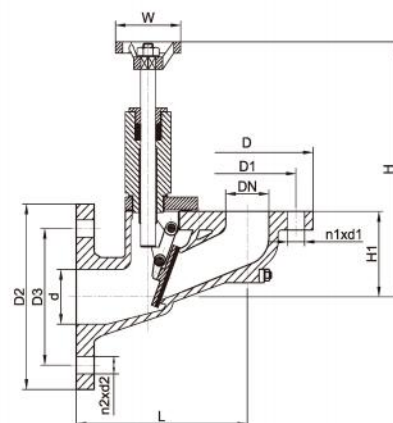
Refer Standards	Design Standard	Manufacturer's standard
	Face to face	Manufacturer's standard
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Different inlet/outlet diameter	
Options	• Other dimensions on request	
	• Metal seated disc available	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
50-250	PN10	4

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C[CC491K]
Disc	Bronze	CuSn5Zn5Pb5-C[CC491K]
Stem	Specail Brass	CuZn40Pb2 [CW617N]
Seat	Bronze	CuSn5Zn5Pb5-C[CC491K]



■ Dimensions

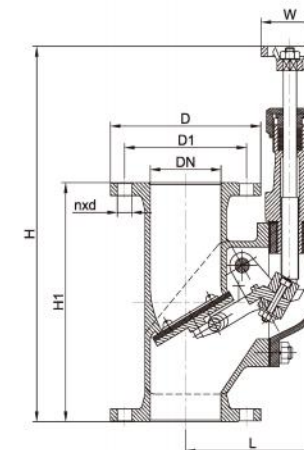
DN	L	D	D1	D2	D3	d	n1xd1	n2xd2	H1	H	W	Weight[Kg]
50	180	165	125	200	160	70	4X18	8X18	90	335	100	13.5
65	200	185	145	220	180	85	8X18	8X18	100	345	140	15.8
80	215	200	160	250	210	100	8X18	8X18	108	360	140	22.2
100	250	220	180	285	240	130	8X18	8X22	130	370	140	26.8
125	290	250	210	340	295	158	8X18	8X22	152	460	180	38.2
150	330	285	240	395	350	190	8X22	12X22	176	490	180	45.3
200	425	340	295	445	400	240	8X22	12X22	180	580	180	75.5
250	630	395	350	505	460	300	12X22	12X26	300	730	200	102.5

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
50-150	PN6	4

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH[1.0619]
Disc	Bronze+NBR	CuSn5Zn5Pb5-C[CC491K] +NBR
Stem	Specail Brass	CuZn40Pb2 [CW617N]
Seat	Stainless steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	D	D1	nxd	H1	H	W	Weight[Kg]
50	140	140	110	4x14	210	400	100	15
65	142	160	130	4x14	240	425	100	18
80	155	190	150	4x18	260	440	100	23.5
100	172	210	170	4x18	280	470	100	29.6
125	195	240	200	8x18	330	510	100	43.5
150	213	265	225	8x18	360	545	140	56.8



Storm Flap Valve

- DIN flanges, Bronze, Straight type S287D

Refer Standards	Design Standard	Manufacturer's standard
	Face to face	Manufacturer's standard
	Flange connection	EN 1092-3 [DIN 2501]
Features	• Different inlet/outlet diameter	
Options	• Other dimensions on request • Metal seated disc available	



Foot Valve

- DIN flanges, Cast iron S808

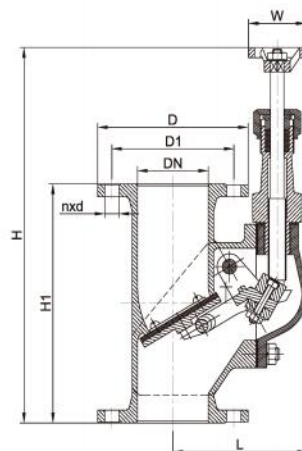
Refer Standards	Design Standard	Manufacturer's standard
	Flange connection	EN 1092-2 [DIN 2501]
Features	• Check valve for suction purpose • Equipped with a strainer and mounted in the end of a pipe	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
50-150	PN6	4

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C[CC491K]
Disc	Bronze	CuSn5Zn5Pb5-C[CC491K]
Stem	Specail Brass	CuZn40Pb2 [CW617N]
Seat	Bronze	CuSn5Zn5Pb5-C[CC491K]



■ Dimensions

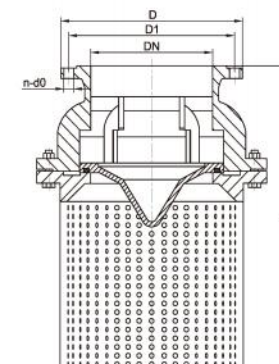
DN	L	D	D1	nxd	H1	H	W	Weight[Kg]
50	140	140	110	4x14	210	400	100	15
65	142	160	130	4x14	240	425	100	18
80	155	190	150	4x18	260	440	100	23.5
100	172	210	170	4x18	280	470	100	29.6
125	195	240	200	8x18	330	510	100	43.5
150	213	265	225	8x18	360	545	140	56.8

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 90°C
40-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJL-250 [GG25]
Disc	Cast iron	EN-GJL-250 [GG25]
Disc Ring	EPDM	-
Bonnet	Cast iron	EN-GJL-250 [GG25]
Basket	Stainless steel	X5CrNi18-10 [1.4301] [AISI 304]



■ Dimensions

DN	H	D	D1	n	d0	Weight [Kg]
40	230	150	110	4	18	7
50	230	165	125	4	18	8
65	280	185	145	4	18	10
80	300	200	160	8	18	14
100	315	220	180	8	18	21
125	400	250	210	8	18	26
150	505	285	240	8	22	44
200	530	340	295	8	22	72
250	620	395	350	12	22	100
300	700	445	400	12	22	160



Foot Valve

■ DIN flanges, Bronze S808

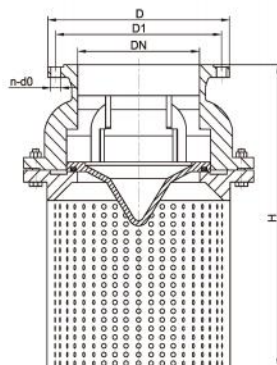
Refer Standards	Design Standard	Manufacturer's standard
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Check valve for suction purpose • Equipped with a strainer and mounted in the end of a pipe	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 90°C
40-150	PN16	16
200-300	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
disc	Bronze	CuSn5Zn5Pb5-C
bonnet	EPDM	-
Basket	Bronze	CuSn5Zn5Pb5-C
Basket	Stainless steel	X5CrNiMo17-12-2 [1.4401]



■ Dimensions

DN	H	D	D1	n	d0	Weight[Kg]
40	230	150	110	4	18	6.5
50	230	165	125	4	18	7.2
65	280	185	145	4	18	9.1
80	300	200	160	8	18	13
100	315	220	180	8	18	20
125	400	250	210	8	18	24
150	505	285	240	8	22	41
200	530	340	295	8	22	68
250	620	395	350	12	22	95
300	700	445	400	12	22	151



Air Vent Check Valve

■ DIN flanges, Nodlar Cast Iron S824

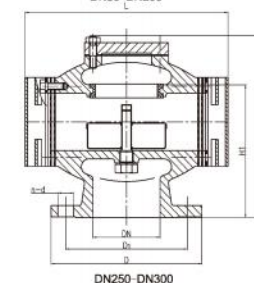
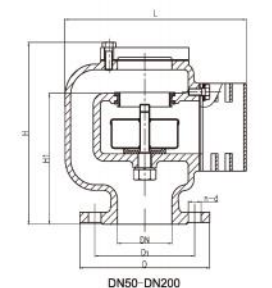
Refer Standards	Design Standard	Manufacturer's standard
	Flange connection	EN 1092-2 (DIN 2501)
Features	• For cargo tank and oil tank	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 200°C
50-300	PN10	10

■ Materials

Component	Material	Code
Body	Nodlar Cast Iron	EN-GJS-400-15 [GGG40]
bonnet	Nodlar Cast Iron	EN-GJS-400-15 [GGG40]
Screen	Stainless steel	X2CrNiMo18-10 [1.4301]
Screen Clip	Stainless steel	X2CrNiMo17-12-2 [1.4404]
Float	Stainless steel	X2CrNiMo17-12-2 [1.4404]
Seal Ring	NBR	



■ Dimensions

DN	L	H	H1	D	D1	n	d	Weight[Kg]
50	165	180	120	165	125	4	18	6.2
65	195	205	140	185	145	4	18	9.2
80	233	245	160	200	160	8	18	20
100	265	270	180	220	180	8	18	26.5
125	320	310	205	250	210	8	18	31
150	380	350	225	285	240	8	22	37
200	495	455	290	340	295	8	22	63.5
250	510	450	307	395	350	12	22	93
300	655	525	382	445	400	12	22	112

Ball Valve

- Two-piece Floating, DIN flanges, Cast iron S111D

Refer Standards	Design Standard	DIN 3357
	Face to face	EN558, Series 27 DIN 3202 F4
	Flange connection	EN 1092-2 (DIN 2501)
Features	- Full Bore - Floating Ball	
Options	- Gearbox, electric or pneumatic actuators - Carbon filled PTFE for steam applications	

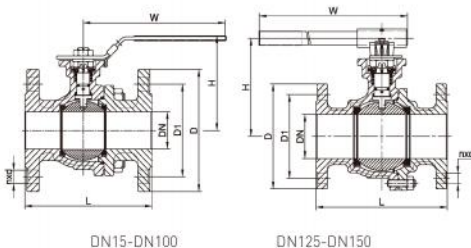


Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 150°C
15-150	PN16	16

Materials

Component	Material	Code
Body	Ductile Iron	EN-GJS-400-15 (GGG40)
Ball	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Stem	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	PTFE	-



Dimensions

DN	Pressure rating	L	D	D1	nxd	H	W	Weight(Kg)
15	PN16	115	95	65	4X14	78	130	2.0
20	PN16	120	105	75	4X14	113	160	2.5
25	PN16	125	115	85	4X14	107	160	3.2
32	PN16	130	140	100	4X19	113	160	4.4
40	PN16	140	150	110	4X19	130	250	5.5
50	PN16	150	165	125	4X19	146	250	8.5
65	PN16	170	185	145	8X19	176	350	11.5
80	PN16	180	200	160	8X19	222	350	15.5
100	PN16	190	220	190	8X23	222	400	20
125	PN16	325	250	220	8X28	257	750	45
150	PN16	350	285	250	8X28	275	850	65

Ball Valve

- Two-piece Floating, DIN flanges, Cast Steel S111D

Refer Standards	Design Standard	DIN 3357
	Face to face	EN558, Series 27 DIN 3202 F4/F5
	Flange connection	EN 1092-1 (DIN 2501)
Features	- Full Bore - Floating Ball	
Options	- Gearbox, electric or pneumatic actuators - Carbon filled PTFE for steam applications	

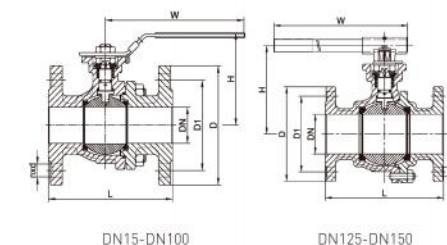


Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 150°C
15-150	PN40	40
65-150	PN16	16

Materials

Component	Material	Code
Body	Cast Steel	GP240GH(1.0619)
Ball	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Stem	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	PTFE	-



Dimensions

DN	Pressure rating	L	D	D1	nxd	H	W	Weight(Kg)
15	PN40	115	95	65	4X14	80	132	2.1
20	PN40	120	105	75	4X14	84.5	132	2.8
25	PN40	125	115	85	4X14	102	166	3.6
32	PN40	130	140	100	4X18	105	166	4.7
40	PN40	140	150	110	4X18	125	198	6.2
50	PN40	150	165	125	4X18	132	198	11
65	PN16	170	185	145	8X18	178	300	15
80	PN16	180	200	160	8X18	188	300	19
100	PN16	190	220	180	8X18	202	450	24
125	PN16	325	250	210	8X18	233	600	57
150	PN16	350	285	240	8X22	259	800	72



Ball Valve

- Two-piece Floating, DIN flanges, Stainless Steel S111D

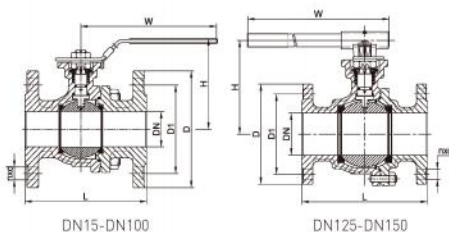
Refer Standards	Design Standard	DIN 3357
	Face to face	EN558, Series 27 DIN 3202 F4
	Flange connection	EN 1092-2 (DIN 2501)
Features	• Full Bore • Floating Ball	
Options	• Gearbox, electric or pneumatic actuators • Carbon filled PTFE for steam applications	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 150°C
15-150	PN40	40
65-150	PN16	16

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2[1.4408]
Ball	Stainless steel	X5CrNiMo17-12-2[1.4401]
Stem	Stainless steel	X5CrNiMo17-12-2[1.4401]
Seat	PTFE	-



■ Dimensions

DN	Pressure rating	L	D	D1	nxd	H	W	Weight(Kg)
15	PN40	115	95	65	4X14	80	132	2.1
20	PN40	120	105	75	4X14	84.5	132	2.8
25	PN40	125	115	85	4X14	102	166	3.6
32	PN40	130	140	100	4X18	105	166	4.7
40	PN40	140	150	110	4X18	125	198	6.2
50	PN40	150	165	125	4X18	132	198	11
65	PN16	170	185	145	8X18	178	300	15
80	PN16	180	200	160	8X18	188	300	19
100	PN16	190	220	180	8X18	202	450	24
125	PN16	325	250	210	8X18	233	600	57
150	PN16	350	285	240	8X22	259	800	72



Ball Valve

- Two-piece Floating, DIN flanges, Suplex Stainless Steel S111D

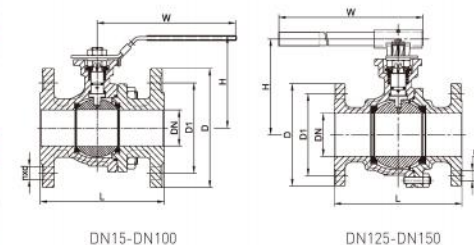
Refer Standards	Design Standard	DIN 3357
	Face to face	EN558, Series 27 DIN 3202 F4
	Flange connection	EN 1092-1 (DIN 2501)
Features	• Full Bore • Floating Ball	
Options	• Gearbox, electric or pneumatic actuators • Carbon filled PTFE for steam applications	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 150°C
15-150	PN16	16

■ Materials

Component	Material	Code
Body	Suplex Stainless Steel	GX2CrNiMoN22-5-3[1.4470]
Ball	Suplex Stainless Steel	GX2CrNiMoN22-5-3[1.4470]
Stem	Suplex Stainless Steel	X2CrNiMoN22-5-3[1.4462]
Seat	PTFE	-



■ Dimensions

DN	Pressure rating	L	D	D1	nxd	H	W	Weight(Kg)
15	PN16	115	95	65	4X14	80	132	2.1
20	PN16	120	105	75	4X14	84.5	132	2.8
25	PN16	125	115	85	4X14	102	166	3.6
32	PN16	130	140	100	4X18	105	166	4.7
40	PN16	140	150	110	4X18	125	198	6.2
50	PN16	150	165	125	4X18	132	198	11
65	PN16	170	185	145	8X18	178	300	15
80	PN16	180	200	160	8X18	188	300	19
100	PN16	190	220	180	8X18	202	450	24
125	PN16	325	250	210	8X18	233	600	57
150	PN16	350	285	240	8X22	259	800	72



Ball Valve

■ Two-piece Floating, DIN flanges, Bronze S111D

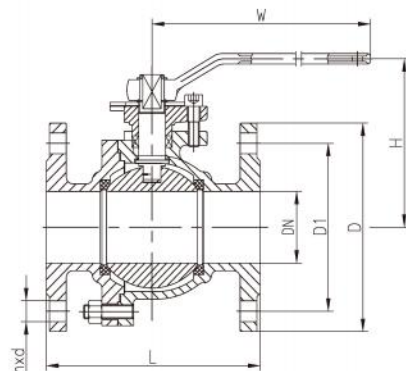
Refer Standards	Design Standard	DIN 3357
	Face to face	EN558, Series 27 DIN 3202 F4
	Flange connection	EN 1092-3 (DIN 2501)
Features	• Full Bore • Floating Ball	
Options	• Gearbox, electric or pneumatic actuators • Carbon filled PTFE for steam applications	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 150°C
15-150	PN16	16

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C [CC491K]
Ball	Bronze	CuZn40Pb2 [CW617N]
Stem	Bronze	CuZn40Pb2 [CW617N]
Seat	PTFE	-



■ Dimensions

DN	Pressure rating	L	D	D1	nxd	H	W	Weight(Kg)
15	PN16	115	95	65	4X14	59	130	2.2
20	PN16	120	105	75	4X14	63	130	2.8
25	PN16	125	115	85	4X14	75	160	3.6
32	PN16	130	140	100	4X18	85	180	4.7
40	PN16	140	150	110	4X18	95	230	6.5
50	PN16	150	165	125	4X18	107	230	10.5
65	PN16	170	185	145	8X18	142	400	14.8
80	PN16	180	200	160	8X18	152	400	17
100	PN16	190	220	180	8X18	178	650	22
125	PN16	325	250	210	8X18	252	1050	55
150	PN16	350	285	240	8X22	272	1050	71



Ball Valve

■ Threaded Ends, Stainless Steel S151

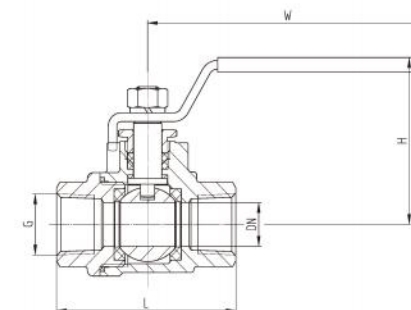
Refer Standards	Design Standard	DIN 3357
	Face to face	Manufacturers Standard
	Pipe thread connection	ISO 228-1
Features	• Full Bore • Floating Ball	
Options	• NPT thread. • Other materials on request.	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 150°C
8-50	PN16	16

■ Materials

Component	Material	Code
Body	Stainless Steel	GX5CrNiMo19-11-2 [1.4408]
Ball	Stainless Steel	GX5CrNiMo19-11-2 [1.4408]
Stem	Stainless Steel	X5CrNiMo17-12-2 [1.4401]
Seat	PTFE	-



■ Dimensions

DN	Pressure rating	L	G	H	W	Weight(Kg)
8	PN16	46.6	1/4"	50	75	0.3
10	PN16	46.6	3/8"	50	75	0.3
15	PN16	56.3	1/2"	56.5	95	0.3
20	PN16	61.5	3/4"	60.5	95	0.5
25	PN16	75.5	1"	68.8	120	0.8
32	PN16	85.8	1-1/4"	75	120	1.2
40	PN16	94.8	1-1/2"	83.5	150	1.8
50	PN16	114.2	2"	95	150	2.8

Ball Valve

■ Threaded Ends, Bronze S151

Refer Standards	Design Standard	DIN 3357
	Face to face	Manufacturers Standard
	Pipe thread connection	ISO 228-1
Features	• Full Bore • Floating Ball	
Options	• NPT thread • Other materials on request	

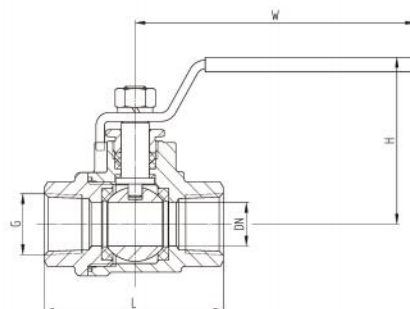


■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 150°C
8-50	PN16	16

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C (CC491K)
Ball	Bronze	CuZn40Pb2 (CW617N)
Stem	Bronze	CuZn40Pb2 (CW617N)
Seat	PTFE	-



■ Dimensions

DN	Pressure rating	L	G	H	W	Weight(Kg)
8	PN16	46.6	1/4"	50	75	0.3
10	PN16	46.6	3/8"	50	75	0.3
15	PN16	56.3	1/2"	56.5	95	0.3
20	PN16	61.5	3/4"	60.5	95	0.5
25	PN16	75.5	1"	68.8	120	0.8
32	PN16	85.8	1-1/4"	75	120	1.2
40	PN16	94.8	1-1/2"	83.5	150	1.8
50	PN16	114.2	2"	95	150	2.8

Plug Valve

■ Three-way Flanged ends, Cast iron S811L/S811T

Refer Standards	Design Standard	DIN 3472
	Flange Standard	EN1092-2 (DIN2501)
	Face to Face Standard	DIN 3202-F1
Features	• T or L type	
Options	• Other dimension and materials on request	

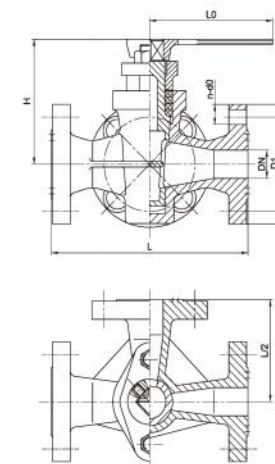


■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) -20°C to +200°C
DN15-DN80	PN10	6

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJL-250 (GG25)
Plug	Bronze	CuSn5Zn5Pb5-C
Gland	Cast iron	EN-GJL-250 (GG25)
Packing	Graphite	-
Hex Nut	Steel	-



■ Dimensions

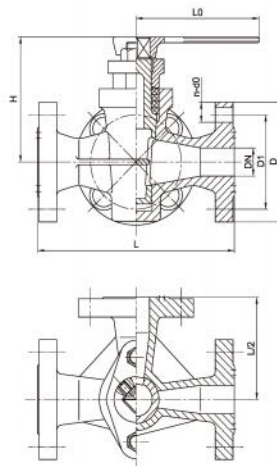
DN	L	D	D1	H	L0	n	d0	Weight (Kg)
15	130	95	65	90	125	4	14	5.0
20	150	105	75	102	125	4	14	5.0
25	160	115	85	117	140	4	14	5.8
32	180	140	100	141	160	4	18	9.1
40	200	150	110	148	180	4	18	12.5
50	230	165	125	176	230	4	18	18
65	290	185	145	215	250	4	18	28
80	310	200	160	250	320	8	18	36



Plug Valve

- Three-way Flanged ends, Bronze S811L/ S811T

Refer Standards	Design Standard	DIN 3472
	Flange connection	EN1092-3 (DIN2501)
	Face to Face Standard	DIN 3202-F1
Features	• T or L type	
Options	• Other dimension and materials on request	



■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -20°C to +200°C
DN15-DN80	PN10	6

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Plug	Bronze	CuSn5Zn5Pb5-C
Gland	Bronze	CuSn5Zn5Pb5-C
Packing	Graphite	-
Hex Nut	Steel	-

■ Dimensions

DN	L	D	D1	H	L0	n	d0	Weight (Kg)
15	130	95	65	90	125	4	14	5.0
20	150	105	75	102	125	4	14	5.0
25	160	115	85	117	140	4	14	5.8
32	180	140	100	141	160	4	18	9.1
40	200	150	110	148	180	4	18	12.5
50	230	165	125	176	230	4	18	18
65	290	185	145	215	250	4	18	28
80	310	200	160	250	320	8	18	36



Pressure Reducing Valve

- DIN flanges, Bronze S283

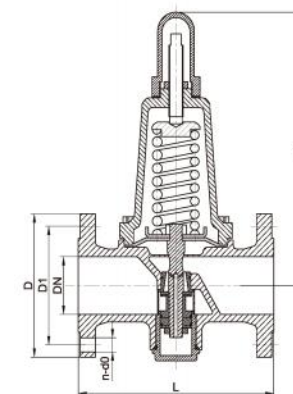
Refer Standards	Design Standard	Manufacturer's standard
	Flange Connection	EN 1092-3 (DIN 2501)
	Outlet Pressure Range	0.5 to 4, 4 to 8 Bar
Features	Highest Reduction Ratio	10:1
	• Diaphragm Type	
	• Direct spring loaded	
Working Fluid	• Metal Seated	
	• Water / Air / Gas	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 80°C
15-50	PN25	25

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C [CC491K]
Bonnet (DN15-50)	Brass	CuZn39Pb3 [CW614N]
Diaphragm	Reinforced CR	-
Sealing	NBR	-
Spring	Spring steel SH	-



■ Dimensions

DN	Pressure rating	L	D	D1	H	n	d0	Weight(Kg)
15	PN25	130	95	65	120	4	14	3.1
20	PN25	150	105	75	120	4	14	3.7
25	PN25	160	115	85	155	4	14	5.1
32	PN25	180	140	100	200	4	18	8.5
40	PN25	200	150	110	200	4	18	9.5
50	PN25	230	165	125	260	4	18	12.5



Safety Valve

■ DIN flanges, Bronze S284

Refer Standards	Design Standard	Manufacturer's standard
	Flange connection	EN 1092-3 (DIN 2501)
	Working pressure	0.5 to 11 Bar
Features	• Direct spring loaded • Metal Seated	
Working Fluid	• Steam / Air / Water / Oil	
Options	• Other dimension and materials on request	



Strainer

■ DIN Flanges, Nodular Cast iron S807

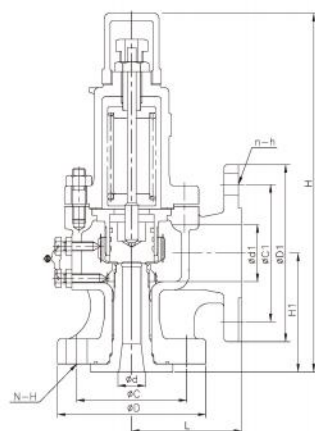
Refer Standards	Face to Face Std	DIN 3202-F1
	Flange Standard	EN 1902-2 (DIN2501)
Features	• Large filtering area in effective and pressure loss is low. • Easily assembled/disassembled, easy to clean and maintain	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 250°C
15-200	PN10	10

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Stem	SS304	-
Sealing	Metal	-
Spring	Spring steel	-



■ Dimensions

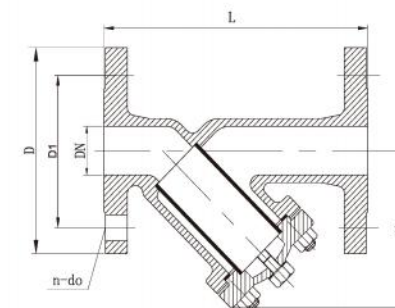
Size d x d1	d	d1	L	H1	H	Inlet Flange			Outlet Flange			Weight(Kg)
						D	C	N-H	D1	C1	n-h	
15AX25A	15	25	95	85	280	95	65	4-14	115	85	4-14	8
20AX25A	20	25	95	85	280	105	75	4-14	115	85	4-14	10
25AX40A	25	40	100	105	318	115	85	4-14	150	110	4-18	12
25AX50A	25	50	100	105	318	115	85	4-14	165	125	4-18	12.5
32AX65A	32	65	115	123	375	140	100	4-18	185	145	4-18	15
40AX50A	40	50	115	123	375	150	110	4-18	165	125	4-18	24
40AX65A	40	65	115	123	375	150	110	4-18	185	145	4-18	25
40AX80A	40	80	115	123	375	150	110	4-18	200	160	4-18	26
50AX80A	50	33	128	130	450	165	125	4-18	200	160	4-18	33
65AX100A	65	100	145	145	510	185	145	4-18	220	180	8-18	46
80AX125A	80	125	162	168	565	200	160	4-18	250	210	8-18	50
100AX150A	100	150	190	197	713	220	180	8-18	285	240	8-23	72

■ Pressure & Temperature Range

DN	Connection	Max.working pressure (bar) Up to 120°C
15-150	PN16	16
200-500	PN10	10

■ Materials

Component	Material	Code
Body	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Bonnet	Nodular Cast iron	EN-GJS-400-15 (GGG40)
Filter	Stainless Steel	X5CrNi18-10 [1.4301]
Basket	Aramid fiber	PTFE
Bolt/Nut	Stainless steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	H	D	D1	n	d0	Weight(Kg)
15	130	90	95	65	4	14	3.0
20	150	90	105	75	4	14	3.5
25	160	95	115	85	4	14	4.5
32	180	100	140	100	4	14	5.5
40	200	115	150	110	4	14	8.0
50	230	140	165	125	4	14	10
65	290	160	185	145	4	18	15
80	310	200	200	160	8	18	22
100	350	240	220	180	8	18	32
125	400	280	250	210	8	18	43
150	480	300	285	240	8	22	60
200	600	370	340	295	8	22	90
250	730	440	395	350	12	22	155
300	850	525	445	400	12	22	180
350	980	590	505	460	16	22	250
400	1100	680	565	515	16	26	320
500	1250	980	670	620	20	26	430



Strainer

■ DIN Flanges, Bronze S807

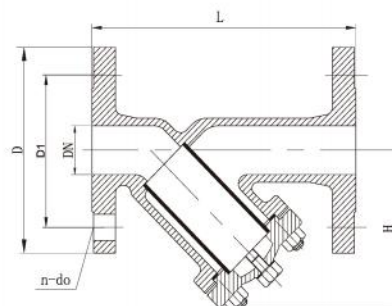
Refer Standards	Face to Face Std	DIN 3202-F1
	Flange Standard	EN 1902-3 (DIN2501)
Features	- Large filtering area in effective and pressure loss is low. - Easily assembled/disassembled, easy to clean and maintain	
Options	Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
		Up to 120°C
15-150	PN16	16

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Filter	Stainless Steel	X5CrNi18-10 [1.4301]
Basket	Aramid fiber	PTFE
Bolt/Nut	Stainless steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	H	D	D1	n	d0	Weight(Kg)
15	130	90	95	65	4	14	2.8
20	150	90	105	75	4	14	3.2
25	160	95	115	85	4	14	4.1
32	180	100	140	100	4	14	5.2
40	200	115	150	110	4	14	7.9
50	230	140	165	125	4	14	9.1
65	290	160	185	145	4	18	14
80	310	200	200	160	8	18	20.8
100	350	240	220	180	8	18	30.2
125	400	280	250	210	8	18	40.5
150	480	300	285	240	8	22	58



Basket Strainer

■ Straight Type, Steel S818L

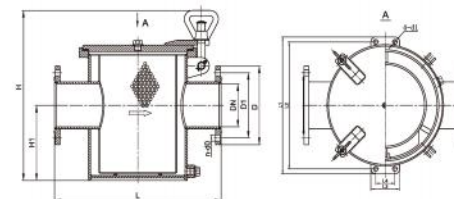
Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN 1092-1 (DIN 2501)
	Flanges Drilled	PN10 (DN 40- DN500)
Features	Welded structure	
Options	Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
		-10°C to +120°C
DN40-DN500	PN10	6

■ Materials

Component	Material	Code
Body	Steel	S235JR (Q235A)
Bonnet	Steel	S235JR (Q235A)
Screen	Stainless steel	X5CrNiMo17-12-2 [1.4401]



■ Dimensions

DN	Structure size			Flange dimensions				Installation dimensions					Weight (Kg)
	L	H	H1	D	D1	n	d0	L1	L2	L3	L4	d1	
40	270	255	92	150	110	4	18	-	-	-	-	-	13
50	270	255	92	165	125	4	18	-	-	-	-	-	13.2
65	310	325	122	185	145	4	18	-	-	-	-	-	17.4
80	350	360	152	200	160	8	18	-	-	-	-	-	21.7
100	420	415	182	220	180	8	18	-	-	-	-	-	38.4
125	420	445	182	250	210	8	18	-	-	-	-	-	43.4
150	490	470	190	285	240	8	22	-	-	-	-	-	62.1
200	540	550	240	340	295	8	22	440	410	80	50	17	95.7
250	600	675	315	395	350	12	22	520	490	80	50	17	146
300	660	770	340	445	400	12	22	590	560	100	70	17	186
350	850	963	508	505	460	16	22	680	640	120	80	19	376
400	950	995	515	565	515	16	22	770	730	120	80	19	514
450	1050	1040	550	615	565	20	20	880	830	140	90	23	648
500	1180	1120	630	670	620	20	26	980	930	160	110	23	774



Basket Strainer

■ Angle Type, Steel S818T

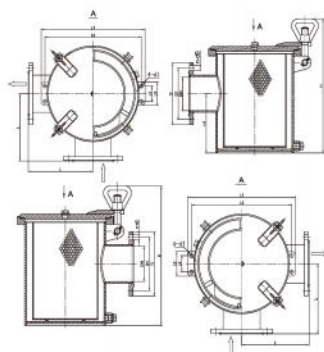
Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN 1092-1 (DIN 2501)
	Flanges Drilled	PN10 (DN 40-DN500)
Features	Welded structure	
Options	Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +120°C
DN40-DN500	PN10	6

■ Materials

Component	Material	Code
Body	Steel	S235JR (Q235A)
Bonnet	Steel	S235JR (Q235A)
Screen	Stainless steel	X5CrNiMo17-12-2 (1.4401)



■ Dimensions

DN	Structure size			Flange dimensions				Installation dimensions					Weight (Kg)
	L	H	H1	D	D1	n	d0	L1	L2	L3	L4	d1	
40	135	255	92	150	110	4	18	-	-	-	-	-	13
50	135	255	92	165	125	4	18	-	-	-	-	-	13.2
65	155	325	122	185	145	4	18	-	-	-	-	-	17.4
80	175	360	152	200	160	8	18	-	-	-	-	-	21.7
100	210	415	182	220	180	8	18	-	-	-	-	-	38.4
125	210	445	182	250	210	8	18	-	-	-	-	-	43.4
150	245	470	190	285	240	8	22	-	-	-	-	-	62.1
200	270	550	240	340	295	8	22	440	410	80	50	17	95.7
250	300	675	315	395	350	12	22	520	490	80	50	17	146
300	330	770	340	445	400	12	22	590	560	100	70	17	186
350	425	963	508	505	460	16	22	680	640	120	80	19	376
400	475	995	515	565	515	16	22	770	730	120	80	19	514
450	525	1040	550	615	565	20	20	880	830	140	90	23	648
500	590	1120	630	670	620	20	26	980	930	160	110	23	774



Mud box

■ DIN Flange, Cast Iron S818S

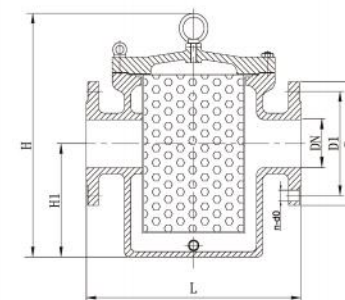
Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN 1092-2 (DIN 2501)
	Face to Face Standard	DIN 3202-F1
Features	- Straight type - Filtration area ≥3	
Options	Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +120°C
DN40-DN700	PN10	4

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJL-250 (GG25)
Bonnet	Cast iron	EN-GJL-250 (GG25)
Basket	Stainless steel	X5CrNiMo17-12-2(1.4401)



■ Dimensions

DN	L	D	D1	H	n	d0	Weight(Kg)
40	200	150	110	210	4	18	12
50	230	165	125	215	4	18	18
65	290	185	145	265	4	18	23
80	310	200	160	300	8	18	28
100	350	220	180	340	8	18	42
125	400	250	210	415	8	18	60
150	480	285	240	465	8	22	75
200	600	340	295	580	8	22	150
250	600	395	350	620	12	22	160
300	700	445	400	660	12	22	220
350	800	505	460	750	16	22	237
400	740	565	515	900	16	26	330
450	1000	615	565	1000	20	26	520
500	1100	670	620	1100	20	26	860
600	1100	780	725	1100	20	30	940
700	1250	895	840	1150	24	30	1000



Mud box

■ DIN Flange, Bronze S818S

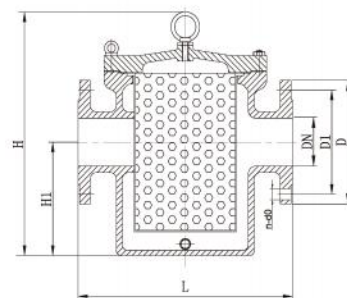
Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN 1092-3 [DIN 2501]
	Face to Face Standard	DIN 3202-F1
	Flanges Drilled	PN10 [DN 40-DN700]
Features	• Straight type • Filtration area ≥3	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +120°C
DN40-DN700	PN10	4

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Gasket	Stainless steel	X5CrNiMo17-12-2[1.4401]



■ Dimensions

DN	L	D	D1	H	n	d0	Weight(Kg)
40	200	150	110	210	4	18	10.8
50	230	165	125	215	4	18	16.2
65	290	185	145	265	4	18	21
80	310	200	160	300	8	18	25
100	350	220	180	340	8	18	38
125	400	250	210	415	8	18	54
150	480	285	240	465	8	22	67.5
200	600	340	295	580	8	22	138
250	600	395	350	620	12	22	145
300	700	445	400	660	12	22	200
350	800	505	460	750	16	22	215
400	740	565	515	900	16	26	298
450	1000	615	565	1000	20	26	469
500	1100	670	620	1100	20	26	780
600	1100	780	725	1100	20	30	850
700	1250	895	840	1150	24	30	910



Mud box

■ Angle Type, DIN Flange, Cast Iron S818A

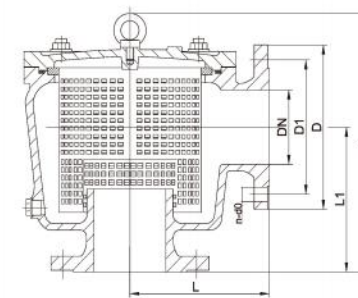
Refer Standards	Design Standard	DIN 87151
	Flange Standard	EN1092-2 [DIN2501]
	Face to Face Standard	DIN 87151
	Flanges Drilled	PN10 (DN 40-DN600)
Features	• Straight type • Filtration area ≥3	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +120°C
DN40-DN450	PN10	4
DN500-DN600	PN10	2.5

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJL-250 (GG25)
Bonnet	Cast iron	EN-GJL-250 (GG25)
Gasket	Stainless steel	X5CrNiMo17-12-2[1.4401]



■ Dimensions

DN	L	L1	D	D1	H	n	d0	Weight(Kg)
40	125	125	150	110	235	4	18	12
50	135	135	165	125	255	4	18	15
65	150	150	185	145	270	4	18	20
80	175	175	200	160	320	8	18	30
100	195	195	220	180	345	8	18	38
125	220	220	250	210	410	8	18	62
150	270	270	285	240	470	8	22	87
200	300	300	340	295	535	8	22	125
250	390	390	395	350	650	12	22	165
300	450	450	445	400	800	12	22	245
350	500	500	505	460	735	16	22	250
400	520	520	565	515	940	16	26	380
450	625	625	615	565	1050	20	26	530
500	675	675	670	620	1130	20	26	590
600	720	720	780	725	1225	20	30	850

Mud box

■ Angle Type, DIN Flange, Bronze S818A

Refer Standards	Design Standard	DIN 87151
	Flange Standard	EN1092-3 [DIN2501]
	Face to Face Standard	DIN 87151
	Flanges Drilled	PN10 [DN 40-DN600]
Features	• Straight type	
	• Filtration area ≥3	
Options	• Other dimension and materials on request	



Duplex Chain Oil Strainer

■ Thread connection, Cast Iron S806

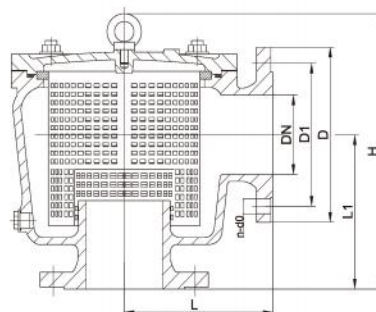
Refer Standards	Design Standard	DIN 3202-F1
	Face to face Standard	DIN 3202
	Flange Standard	EN 1092-2 [DIN 2501]
Features	• Double Stainless steel strainer	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -10°C to +120°C
DN40-DN450	PN10	4
DN500-DN600	PN10	2.5

■ Materials

Component	Material	Code
Body	Bronze	CuSn5Zn5Pb5-C
Bonnet	Bronze	CuSn5Zn5Pb5-C
Gasket	Stainless steel	X5CrNiMo17-12-2[1.4401]



■ Dimensions

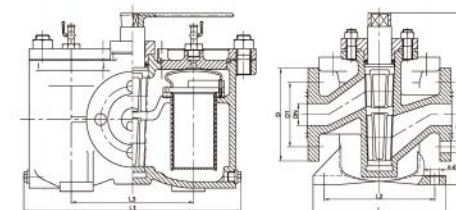
DN	L	L1	D	D1	H	n	d0	Weight[Kg]
40	125	125	150	110	235	4	18	14
50	135	135	165	125	255	4	18	18
65	150	150	185	145	270	4	18	22
80	175	175	200	160	320	8	18	30
100	195	195	220	180	345	8	18	42
125	220	220	250	210	410	8	18	70
150	270	270	285	240	470	8	22	94
200	300	300	340	295	535	8	22	145
250	390	390	395	350	650	12	22	170
300	450	450	445	400	800	12	22	260
350	500	500	505	460	735	16	22	270
400	520	520	565	515	940	16	26	390
450	625	625	615	565	1050	20	26	550
500	675	675	670	620	1130	20	26	630
600	720	720	780	725	1225	20	30	900

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] Up to 120°C
20-100	PN4	4

■ Materials

Component	Material	Code
Body	Cast iron	EN-GJL-250 (GG25)
Bonnet	Cast iron	EN-GJL-250 (GG25)
Core plug	bronze	ZQA195-2
Screen	Stainless steel	X5CrNiMo17-12-2 [1.4401]



■ Dimensions

DN	Structure dimension			Flange				Footing				Weight [Kg]
	H	L1	L	D	D1	n	d0	L2	L3	n	d	
20	218	223	145	90	65	4	11	115	125	4	11	10.8
25	237	252	170	100	75	4	11	130	140	4	11	12.8
32	265	292	195	120	90	4	11	145	165	4	11	16.9
40	298	340	210	130	100	4	14	165	195	4	13	24.2
50	340	398	235	140	110	4	14	190	230	4	13	34.2
65	395	482	272	160	130	4	14	225	280	4	15	42.6
80	445	560	306	190	150	4	18	260	335	4	15	76.7
100	535	665	346	210	170	4	18	300	380	4	15	126



Needle Valve

- Straight type Threaded ends, Stainless Steel S813

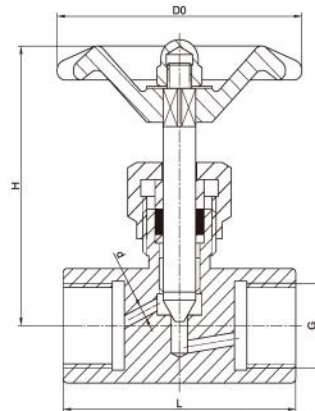
Refer Standards	Design Standard	Manufacturer's standard
	End Standard	ISO 228-1: 2003
Features	• Taper sealing • Threaded connection	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Max.working pressure (bar)			
	20°C	125°C	200°C	300°C
6-25	400	160	125	20

■ Materials

Component	Material	Code
Body	Stainless steel	X2CrNiMo17-12-2[1.4404]
Stem	Stainless Steel	X3CrNiMoN27-5-2[1.4460]
packing	Graphite	Graphite



■ Dimensions

DN	L	G[BSP]	d	H	D0	Weight(Kg)
6	60	G1/8"	4	85	65	0.4
8	60	G1/4"	5	85	65	0.4
10	60	G3/8"	5	85	65	0.4
15	60	G1/2"	5	85	65	0.4
20	70	G3/4"	8	100	85	0.9
25	80	G1"	10	110	100	1.1



Pressure Gauge Valve

- Straight type , Threaded ends, Brass S814-01

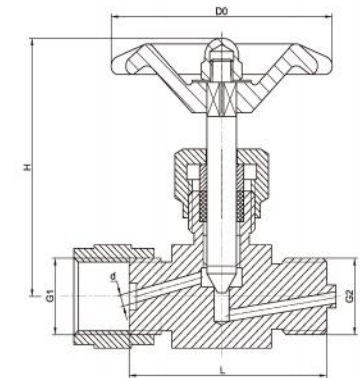
Refer Standards	Design Standard	Manufacturer's standard
	Thread Standard	ISO 228
Features	• Threaded connection	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Max.working pressure (bar)	
	up to 185°C	
DN8-DN15	100	

■ Materials

Component	Material	Code
Body	Brass	CW614N
Stem	Brass	CW614N
packing	Graphite	-



■ Dimensions

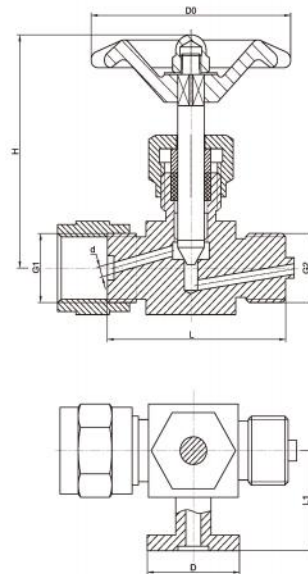
DN	L	G1[BSP]	G2[BSP]	d	H	D0	Weight(Kg)
8	50	G1/4"	G1/4"	3.5	95	65	0.3
10	54	G3/8"	G3/8"	3.5	95	65	0.3
15	64	G1/2"	G1/2"	3.5	95	65	0.4



Pressure Gauge Valve

- Straight type , Threaded ends, Brass S814-02

Refer Standards	Design Standard	Manufacturer's standard
	Thread Standard	ISO 228
Features	• Threaded connection	
Options	• Other dimension and materials on request	



■ Pressure & Temperature Range

DN	Max.working pressure [bar] up to 185°C
DN8-DN15	100

■ Materials

Component	Material	Code
Body	Brass	CW614N
Stem	Brass	CW614N
packing	Graphite	-

■ Dimensions

DN	L	G1(BSP)	G2(BSP)	D	d	L1	H	D0	Weight(Kg)
8	50	G1/4"	G1/4"	40	3.5	31	95	65	0.4
10	54	G3/8"	G3/8"	40	3.5	31	95	65	0.4
15	64	G1/2"	G1/2"	40	3.5	34	95	65	0.5



Blind Flange Valve

- DIN Flange, Cast Steel S812

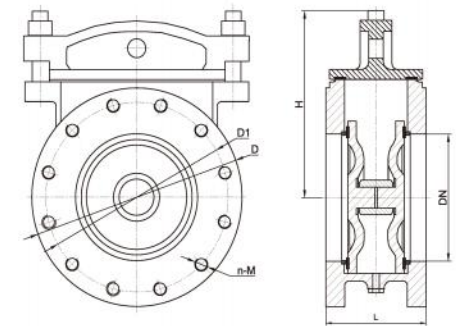
Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN1092-1 [DIN2501]
Features	• Isolating different tanks, especially when oil ,water and cement etc. may be handled in the seam system	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -50°C to +200°C
DN40-DN300	PN16	16

■ Materials

Component	Material	Code
Body	Cast steel	-
Disc	Stainless Steel	X5CrNi18-10 [1.4301]
Top cover	Cast steel	-
Disc Seal	PTFE	X5CrNi18-10 [1.4301]
Top Seal	PTFE	-
Metal Ring	Stainless Steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	D	D1	H	n	M	Weight(Kg)
40	154	150	110	180.5	4	M16	16
50	154	165	125	180.5	4	M16	20
65	154	185	145	185	4	M16	22
80	154	200	160	294	8	M16	29
100	162	220	180	235	8	M16	33
125	162	250	210	245	8	M16	42
150	162	285	240	265	8	M20	49
200	162	340	295	300	12	M20	67
250	200	405	355	330	12	M24	104
300	200	460	410	360	12	M24	112



Blind Flange Valve

■ DIN Flange, Stainless Steel S812

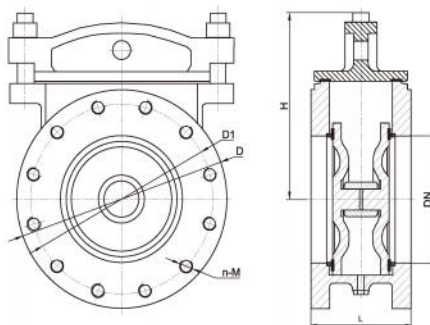
Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN1092-1 [DIN2501]
	Flanges Drilled	PN16(DN40-DN300)
Features	Isolating different tanks, especially when oil, water and cement etc. may be handled in the seam system	
Options	Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -50°C to +200°C
DN40-DN300	PN16	16

■ Materials

Component	Material	Code
Body	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Disc	Stainless Steel	GX5CrNiMo19-11-2 [1.4408]
Top cover	Stainless steel	GX5CrNiMo19-11-2 [1.4408]
Disc Seal	PTFE	-
Top Seal	PTFE	-
Metal Ring	Stainless Steel	GX5CrNiMo19-11-2 [1.4408]



■ Dimensions

DN	L	D	D1	H	n	M	Weight(Kg)
40	154	150	110	180.5	4	M16	16
50	154	165	125	180.5	4	M16	20
65	154	185	145	185	4	M16	22
80	154	200	160	294	8	M16	29
100	162	220	180	235	8	M16	33
125	162	250	210	245	8	M16	42
150	162	285	240	265	8	M20	49
200	162	340	295	300	12	M20	67
250	200	405	355	330	12	M24	104
300	200	460	410	360	12	M24	112



Expansion Joint

■ Bellows-type S804

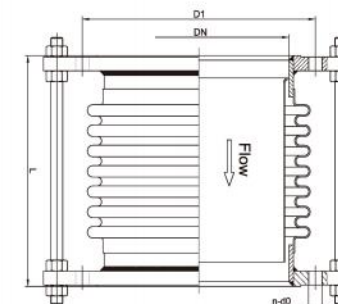
Refer Standards	Design Standard	Manufacturer's standard
	Face to face	Manufacturer's standard)
	Flange connection	EN 1092-1 [DIN 2501]
Features	- Flange connection - Pressure resistance, temperature resistance, fatigue resistance	
Options	Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar] -40°C to +225°C
DN40-DN150	PN16	16
DN200-DN500	PN10	10

■ Materials

Component	Material	Code
Body	Stainless steel	X5CrNiMo17-12-2 [1.4401]
Flange	Stainless steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	D	D1	n	d0	Weight(Kg)
40	180	150	110	4	18	6
50	180	165	125	4	18	7
65	200	185	145	4	18	8.5
80	200	200	160	8	18	10
100	200	220	180	8	18	12
125	225	250	210	8	18	14
150	225	285	240	8	22	18
200	265	340	295	8	22	30
250	270	395	350	12	22	40
300	280	445	400	12	22	51
350	290	505	460	16	22	75
400	310	565	515	16	22	96
500	330	670	620	20	26	168



Expansion Joint

■ Sphere Type S804

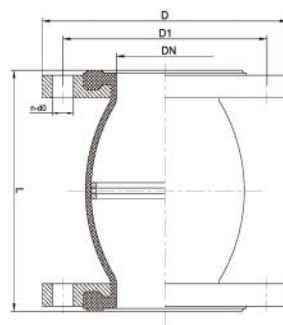
Refer Standards	Design Standard	Manufacturer's standard
	Face to face	Manufacturer's standard
	Flange connection	EN 1092-1 [DIN 2501]
Features	• Small in size • light in weight • flexible and easy to install and maintain	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
-10°C to +80°C		
DN32-DN150	PN16	16
DN200-DN300	PN10	10

■ Materials

Component	Material	Code
Body	NBR/EPDM	-
Flange	Stainless Steel	X5CrNi18-10 [1.4301]



■ Dimensions

DN	L	D	D1	n	d0	Weight(Kg)
32	100	140	100	4	18	4
40	100	150	110	4	18	5
50	110	165	125	4	18	7
65	130	185	145	4	18	8
80	160	200	160	8	18	10
100	180	220	180	8	18	12
125	200	250	210	8	18	15
150	200	285	240	8	22	18
200	260	340	295	8	22	28
250	320	395	350	12	22	48
300	320	445	400	12	22	55



Sight Glass

■ DIN Flange, Cast Steel S817

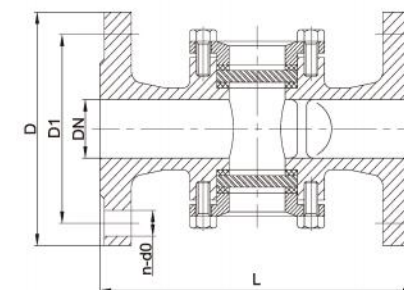
Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN1092-1 [DIN2501]
	Face to Face Standard	DIN 3202-F1
Features	• Parcel Material: Glass, PC Board	
Options	• Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
-20°C to +150°C		
DN 15-DN200	PN16	16

■ Materials

Component	Material	Code
Body	Cast Steel	GP240GH [1.0619]
Bonnet	Cast Steel	GP240GH [1.0619]
Gasket	PTFE	-
Glass Parcel	Glass	-



■ Dimensions

DN	L	D	D1	n	d0	Weight(Kg)
15	130	95	65	4	14	3.1
20	150	105	75	4	14	3.7
25	160	115	85	4	14	4.0
32	180	140	100	4	18	6.6
40	200	150	110	4	18	7.7
50	230	165	125	4	18	9.0
65	290	185	145	4	18	14.2
80	310	200	160	8	18	17.1
100	350	220	180	8	18	23.1
125	400	250	210	8	18	32.0
150	480	285	240	8	22	47.4
200	600	340	295	8	22	63.0

Sight Glass

■ DIN Flange, Stainless Steel S817

Refer Standards	Design Standard	Manufacturer's standard
	Flange Standard	EN 1092-1 (DIN 2501)
	Face to Face Standard	DIN 3202-F1
Features	Parcel Material: Glass, PC Board	
Options	Other dimension and materials on request	

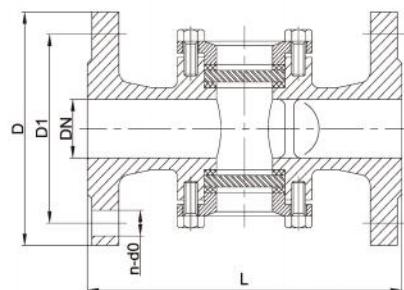


■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
DN 15-DN200	PN16	16

■ Materials

Component	Material	Code
Body	Stainless Steel	GX5CrNiMo19-11-2 [1.4408]
Bonnet	Stainless Steel	GX5CrNiMo19-11-2 [1.4408]
Gasket	PTFE	-
Glass Parcel	Glass	-



■ Dimensions

DN	L	D	D1	n	d0	Weight(Kg)
15	130	95	65	4	14	3.1
20	150	105	75	4	14	3.7
25	160	115	85	4	14	4.0
32	180	140	100	4	18	6.6
40	200	150	110	4	18	7.7
50	230	165	125	4	18	9.0
65	290	185	145	4	18	14.2
80	310	200	160	8	18	17.1
100	350	220	180	8	18	23.1
125	400	250	210	8	18	32.0
150	480	285	240	8	22	47.4
200	600	340	295	8	22	63.0



Temperature Control Valve

■ DIN flanges, Cast steel S819

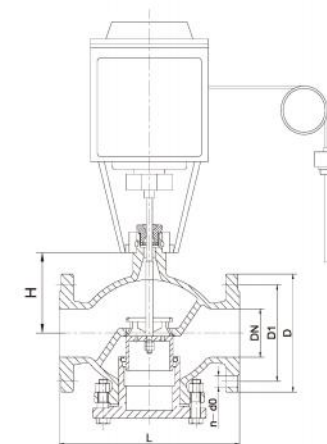
Refer Standards	Design Standard	IEC 60534
	Face to face	DIN 3202-F1
	Flange connection	EN 1092-1 (DIN2501)
Features	- Pneumatic, electric, hydraulic operated - Two-way type, Three-way type	
Options	Other dimension and materials on request	

■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
DN25-DN250	PN16	16

■ Materials

Component	Material	Code
Body	Cast steel	GP240GH[1.0619]
disc	stainless steel	X5CrNi18-10[1.4301]
Stem	stainless steel	X5CrNi18-10[1.4301]
Packing	FPM	-



■ Dimensions

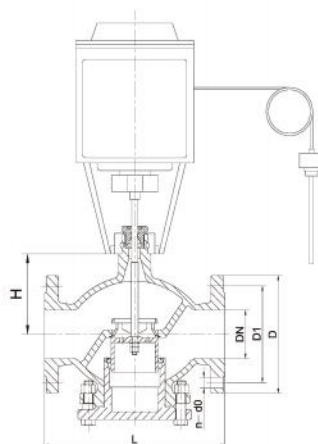
DN	L	D	D1	H	n	d0	Weight(Kg)
25	160	115	85	62	4	14	12.4
32	180	140	100	60	4	18	17.5
40	200	150	110	60	4	18	20.5
50	230	165	125	101	4	18	35.1
65	290	185	145	115	4	18	36.5
80	310	200	160	115	8	18	49.8
100	350	220	180	146	8	18	73.5
125	400	250	210	159	8	18	104.3
150	480	285	240	185	8	22	147.8
200	495	340	295	186	12	22	208
250	622	405	355	205	12	26	334



Temperature Control Valve

■ DIN flanges, Stainless steel S819

Refer Standards	Design Standard	IEC 60534
	Face to face	DIN 3202-F1
	Flange connection	EN 1092-1 (DIN2501)
Features	• Pneumatic, electric, hydraulic operated	
	• Two-way type, Three-way type	
Options	• Other dimension and materials on request	



■ Pressure & Temperature Range

DN	Connection	Max.working pressure [bar]
DN25-DN250	PN16	-25°C to +220°C

■ Materials

Component	Material	Code
Body	stainless steel	GX5CrNiMo19-11-2[1.4408]
Disc	stainless steel	GX5CrNiMo19-11-2[1.4408]
Stem	stainless steel	X5CrNi18-10[1.4301]
Packing	FPM	-

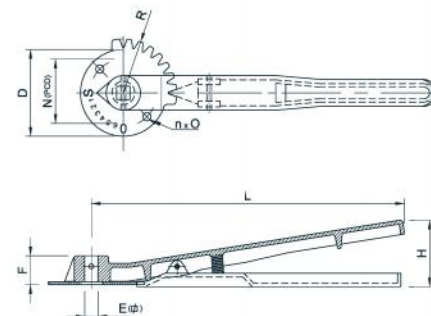
■ Dimensions

DN	L	D	D1	H	n	d0	Weight(Kg)
25	160	115	85	62	4	14	12.4
32	180	140	100	60	4	18	17.5
40	200	150	110	60	4	18	20.5
50	230	165	125	101	4	18	35.1
65	290	185	145	115	4	18	36.5
80	310	200	160	115	8	18	49.8
100	350	220	180	146	8	18	73.5
125	400	250	210	159	8	18	104.3
150	480	285	240	185	8	22	147.8
200	495	340	295	186	12	22	208
250	622	405	355	205	12	26	334



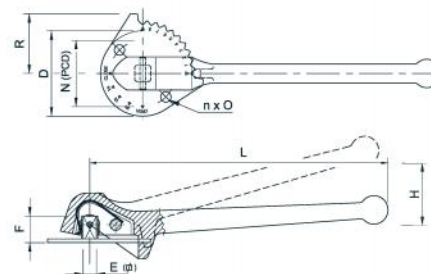
Hand Lever

Two series of levers are suitable for butterfly valves from DN40 up to DN300, for open&close or regulation in 8 or 10 positions, ductile iron GGG40 powder coated, and notch plate steel galvanized.



■ Series 2

MODELS	E	F	L	H	D	N	R	n*O	WEIGHTS	MATCHING BUTTERFLY SIZE
HL 2.1-11	11	25	232	57.5	90	70	56	2*Ø9	0.75KG	DN40/ DN50/ DN65/ DN80/ DN100
HL 2.2-14	14	28	329	69	90	70	56	2*Ø9	1.25KG	DN125/ DN150
HL 2.2-17	17	28	329	69	90	70	56	2*Ø9	1.25KG	DN200
HL 2.3-22	22	30	400	80.5	125	102	74.5	2*Ø11	2.00KG	DN 250/ DN300



■ Series 2

MODELS	E	F	L	H	D	N	R	n*O	WEIGHTS	MATCHING BUTTERFLY SIZE
SL1-11	11	25	232	57.5	90	70	56	2*Ø9	1.00KG	DN40/ DN50/ DN65/ DN80/ DN100
SL2-14	14	28	329	69	90	70	56	2*Ø9	1.45KG	DN125/ DN150
SL2-17	17	28	329	69	90	70	56	2*Ø9	1.45KG	DN200
SL3-22	22	30	400	80.5	125	102	74.5	2*Ø11	3.2KG	DN 250/ DN300

Gearbox



Temperature range:-25°C to +110°C

"AMQ" series is manufactured in cast iron housing& components. Padlocking devices, memory stop, spur gears and limit switchboxes can be easily mounted on site without any machining, due to the integration of all necessary connections on the housing. This series is IP68 sealing.



"AMQ-SS" series is produced with stainless steel 316 housing and components, applicable with padlocking devices, limitswitchboxes and memory stops. It is IP68 sealing, specially applicable for high corrosive environments.



"AMQ-X" series is light with aluminium alloy body& coverplate, IP67 sealing for waterwork.

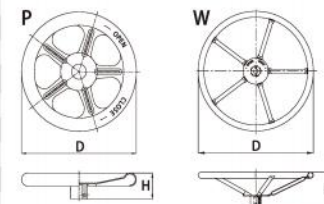


MOD series is declutchable gearbox to provide 90° manual operation for shut-off valves equipped with a pneumatic or hydraulic actuator.

■ AMQ Series



TYPE	RATIO	TORQUE(Nm)		M.A. ±10%	WEIGHT (Kg)
		OUTPUT	INPUT		
AMQ-2	40:1	200	16.8	11.9	2
AMQ-4	44:1	400	31.3	12.8	3.9
AMQ-8	40:1	800	60	13.3	7.7
AMQ-15	42:1	1,500	123	12.2	13.5
AMQ-20	48:1	2,000	131	15.3	14.6
AMQ-30	62:1	3,000	167	17.9	22.8
AMQ-40	72:1	4,000	185	21.6	31.5
AMQ-65	267:1	6,500	95	68.4	37.5
AMQ-120	267:1	12,000	168.5	71.2	56.7
AMQ-160	648:1	16,000	120	133.3	62.5
AMQ-240	720:1	24,000	140	171.4	192
AMQ-320	960:1	32,000	140	228.6	195
AMQ-500	960:1	50,000	150	333.3	352
AMQ-700	1280:1	70,000	185	378.4	352



How to size the diameter of the handwheel:

1 Get the output torque required

$$\text{Handwheel diameter} = \left(\frac{\text{Output Required}}{\text{M.A.}} \right) \times 5^*$$

2 Select the Handwheel diameter

* RIM pull 400 Nm

■ Handwheels "P(ressed)-series"

TYPE	Ø	H
P100	Ø 100	38
P125	Ø 125	42
P160	Ø 160	48
P200	Ø 200	53

Dimensions mentioned in mm.

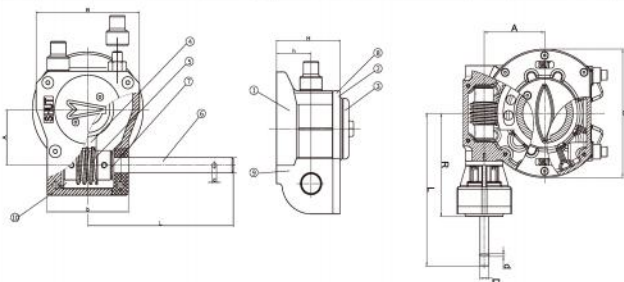
■ Handwheels "W(elded)-series"

TYPE	Ø	H
W125	Ø 125	50.5
W160	Ø 160	56
W200	Ø 200	73
W250	Ø 250	86
W300	Ø 300	86
W400	Ø 400	122
W500	Ø 500	141
W600	Ø 600	157
W700	Ø 700	180

Dimensions mentioned in mm.

Parts/Materials list for "Q" Series			
	Description	Material	Specs/Standard
1	Body	Cast Iron	GG25/ASTM A48
2	Coverplate	Cast Iron	GG25/ASTM A48
3	Pos. Indicator	Cast Iron	GG25/ASTM A48
4	Quadrant	Ductile Iron	GGG40/ASTM A356
5	Worm	Carbon steel	C45-k
6	Shaft	Stainless steel	AISI 303
7	Axial needle bearing	-	-
8	Gasket	Nitrile/Silicone	NBR-70° shore/Silicone
9	O-rings	Nitrile	NBR-70° shore
10	Grease	Complex EP-D	DIN KG0G0.5N-30 ISO-L-XCDIB0.5
11	Fasteners	Stainless steel	-

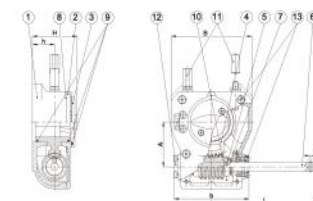
MODELS	Unit	A	b	B	d	D	h	H	L	R	Valve connection(ACC ISO5211)		
AMQ-2	mm	43.5	70	84	4	12	28.5	64	118	-	50(F05)	70(F07)	-
	inch	1.71	2.8	3.3	0.2	0.5	1.1	2.6	4.7	-	2	2.8	-
AMQ-4	mm	52.5	91	112	4	12	34	74.8	175	-	70(F07)	102(F10)	-
	inch	2.07	3.6	4.4	0.2	0.5	1.3	3	6.9	-	2.8	4.0	-
AMQ-8	mm	68.8	110	135	5	15	42.5	90.5	225	-	102(F10)	125(F12)	140(F14)
	inch	2.7	4.3	5.3	0.2	0.6	1.7	3.6	8.9	-	4	4.9	5.5
AMQ-15	mm	84	129	156	6	20	45	97	214	-	102(F10)	125(F12)	140(F14)
	inch	3.3	5.1	6.1	0.2	0.8	1.8	3.9	8.4	-	4	4.9	5.5
AMQ-20	mm	96.5	150	180	6	20	50	100	240	-	102(F10)	125(F12)	140(F14)
	inch	3.8	6	7.1	0.2	0.8	2	4	9.5	-	4	4.9	5.5
AMQ-30	mm	117.5	201	250	6	20	49	117.5	255	-	140(F14)	165(F16)	-
	inch	4.7	8	9.9	0.2	0.8	1.9	4.6	10	-	5.5	6.5	-
AMQ-40	mm	137.5	210	282	6	20	54.5	128	300	-	165(F16)	254(F25)	-
	inch	5.4	8.3	11.1	0.2	0.8	2.2	5	11.8	-	6.5	10	-
AMQ-65	mm	137.5	210	282	6	20	54.5	128	347	222	165(F16)	254(F25)	-
	inch	5.4	8.3	11.1	0.2	0.8	2.2	5	13.7	8.7	6.5	10	-
AMQ-120	mm	180	272	366	6	20	63.5	135	378	282	254(F25)	298(F30)	-
	inch	7.1	10.7	14.4	0.2	0.8	2.5	5.3	14.9	11.1	10	11.7	-
AMQ-160	mm	180	272	366	8	25	63.5	135	403	326	254(F25)	298(F30)	-
	inch	7.1	10.8	14.4	0.3	1	2.5	5.3	15.9	12.8	10	11.7	-
AMQ-240	mm	252.5	350	510	8	25	85	186	442	365	254(F25)	298(F30)	356(F35)
	inch	1	13.8	20.1	0.3	1	3.4	7.3	17.4	14.4	10	11.7	14
AMQ-320	mm	253	350	510	8	25	85	186	442	365	254(F25)	298(F30)	356(F35)
	inch	10	13.8	20.1	0.3	1	3.4	7.3	17.4	14.4	10.00	11.7	14
AMQ-500	mm	292	540	612	key 8mm	25	138	262.5	612	502	356(F35)	406(F40)	483(F48)
	inch	11.5	21.3	24.1	0.3" key	1	5.4	10.3	24.1	19.8	14	16	19
AMQ-700	mm	291.5	540	612	key 8mm	25	138	262.5	612	502	356(F35)	406(F40)	483(F48)
	inch	11.5	21.3	24.1	0.3" key	1	5.4	10.3	24.1	19.8	14	16	19



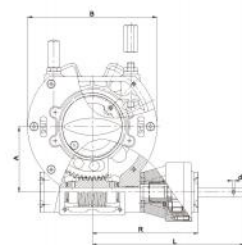
■ AMQ-SS Series



PART NO	DESCRIPTION	MATERIAL	SPECS/STANDARD
1	Body	Stainless steel-316	Werkstoffnr.1.4401-ASTM/AISI-316
2	Coverlate	Stainless steel-316	Werkstoffnr.1.4401-ASTM/AISI-316
3	Pos. Indicator	Stainless steel-316	Werkstoffnr.1.4401-ASTM/AISI-316
4	Quadrant	Aluminium Bronze	CC333G/ASTM C95800/AB2
5	Worm	Carbon steel	C45-K
6	Shaft	Stainless steel-316	Werkstoffnr.1.4401-ASTM/AISI-316
7	Axial needle bearing	-	-
8	Gasket	Nitrile/silicone	NBR-65° shore
9	O-rings	Nitrile	NBR-65° shore
10	Grease	Complex EP-0	DIN KG0G0.5N-30 ISO-L-XCDIB0.5
11	Stud nuts	Stainless steel-316	Werkstoffnr.1.4401-ASTM/AISI-316
12	Closing plates	Stainless steel-316	Werkstoffnr.1.4401-ASTM/AISI-316
13	Fasteners	Stainless steel	Werkstoffnr.1.4401-A4



TYPE	RATIO	TORQUE(Nm)		M.A. ±10%	WEIGHT [Kg]
		OUTPUT	INPUT		
AMQ-SS-4	44:1	400	31.3	12.8	4.8
AMQ-SS-8	40:1	800	60	13.3	8.5
AMQ-SS-15	42:1	1,500	123	12.2	11.6
AMQ-SS-20	48:1	2,000	131	15.3	16.1
AMQ-SS-40	72:1	4,000	185	21.6	39.8
AMQ-SS-65	267:1	6,500	95	68.4	46.4

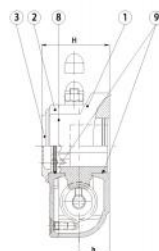
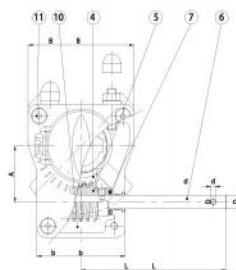


GEARBOX	TYPE	A	b	B	d	D	h	H	L	R	VALVE CONNECTION ACC ISO 5211			
AMQ-SS-4	MM	52.5	105	112	4	12	34	74.8	168	-	70(F07)	102(F10)		
	INCH	2.07	4.1	4.4	0.2	0.5	1.3	2.9	6.6	-	2.8	4		
AMQ-SS-8	MM	68.8	128	135	5	15	42.5	90.5	213	-	70(F07)	102(F10)	125(F12)	
	INCH	2.7	5	5.3	0.2	0.6	1.7	3.6	8.4	-	2.8	4	5	
AMQ-SS-15	MM	84	147	156	6	20	45	97	214	-	102(F10)	125(F12)	140(F14)	
	INCH	3.3	5.8	6.1	0.2	0.8	1.8	3.9	8.4	-	4	4.9	5.5	
AMQ-SS-20	MM	96.5	168	180	6	20	50	100	226	-	102(F10)	125(F12)	140(F14)	165(F16)
	INCH	3.8	6.6	7.1	0.2	0.8	2	4	8.9	-	4	4.9	5.5	6.5
AMQ-SS-40	MM	137.5	228	282	6	20	54.5	128	300	-	165(F16)	254(F25)		
	INCH	5.4	9	11.1	0.2	0.8	2.2	5	11.8	-	6.5	10		
AMQ-SS-65	MM	137.5	219	282	6	20	54.5	128	332	231	165(F16)	254(F25)		
	INCH	5.4	8.6	11.1	0.2	0.8	2.2	5	13.1	9.1	6.5	10		

■ AMQ-X Series



PART NO	DESCRIPTION	MATERIAL	SPECS/STANDARD
1	Body	Aluminium alloy	ADC 12
2	Coverplate	Aluminium alloy	ADC 12
3	Pos. Indicator	PA	PA
4	Quadrant	Ductile-iron	GGG40/ASTM A356
5	Worm	Carbon steel	C45-K
6	Shaft	Stainless steel	
7	Axial needle bearing		
8	Gasket	Nitrile	NBR-70° shore
9	O-rings	Nitrile	NBR-70°shore
10	Grease	Complex EP-0	DIN KG000.5N-30 ISO-L-XCDIB0.5
11	Fasteners	Stainless steel	



TYPE	RATIO	TORQUE(Nm)		M.A. ±10%	WEIGHT (Kg)
		OUTPUT	INPUT		
AMQ-X-2	40:1	200	19.7	10.2	0.9
AMQ-X-4	44:1	400	35.7	11.2	1.6
AMQ-X-6	34:1	600	51.3	11.7	2.8

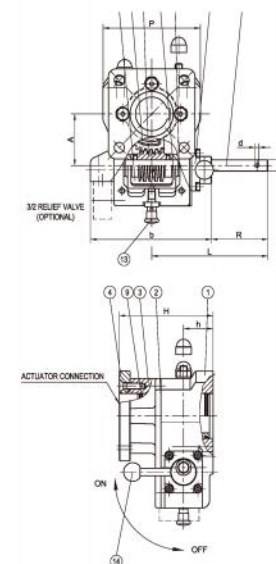
GEARBOX	TYPE	A	b	B	d	D	h	H	L	VALVE CONNECTION ACC ISO 5211	
										50(F05)	70(F07)
AMQ-X-2	MM	43.5	67	84	4	12	25.5	51.3	118	50(F05)	70(F07)
	INCH	1.71	2.64	3.3	0.2	0.5	1	2	4.7	2	2.8
AMQ-X-4	MM	52.5	85.5	112	4	12	30	63.5	126.5	70(F07)	102(F10)
	INCH	2.07	3.4	4.4	0.2	0.5	1.2	2.5	5	2.8	4
AMQ-X-6	MM	61.3	100	120	5	15	35	77	165	102(F10)	125(F12)
	INCH	2.4	4	4.7	0.2	0.6	1.4	3	6.5	4	5

■ MOD Series



Part No.	Description	Material	Specs/standard
1	Body	Ductile-iron	GGG40/ ASTM A48
2	Gasket	Nitrile	NBR 70° Shore
3	Coverplate	Ductile-iron	GGG40/ ASTM 356
4	Top Mounting Flange	Ductile-iron	GGG40/ ASTM 356
5	Quadrant	Ductile-iron	GGG40/ ASTM 356
6	Worm	Carbon Steel	C45-K
7	Axial needle bearing	-	-
8	Shaft	Stainless steel	-
9	O-ring	Nitrile	NBR 70° Shore
10	Closing Plate Rack	Ductile-iron	GGG40/ ASTM 356
11	Grease	Complex EP-0	DIN KG000.5N-30/ ISO-L-XCDIB05
12	Excentric Rack	Ductile-iron	GGG40/ ASTM 356
13	Fixating bolt	Stainless steel	-
14	Excentric lever	AISI-316/Plastic	-
15	Fasteners	Steel 8.8	-

MODELS	Ratio	Torque(NM)		M.A. ±10%	Weight(Kg) excel insert& adaptor
		Output	Input		
MOD 150	40:1	150	12.6	11.9	3.1
MOD 350	44:1	350	31.3	11.2	6
MOD 700	52:1	700	50	14.0	16.3
MOD 1600	42:1	1,600	125	12.8	25
MOD 3000	72:1	3,000	155	19.4	49.5
MOD 5000	267:1	5,000	95	52.6	56

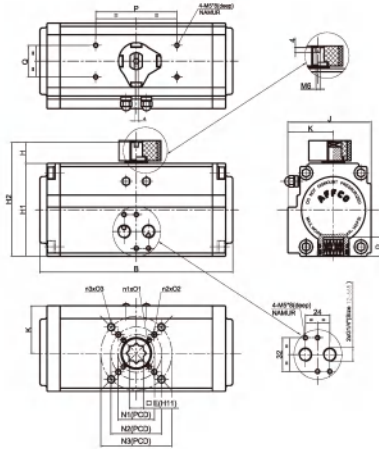


MODELS	Unit	A	b	B	d	D	h	H	L	R	Valve connection ACC ISO5211				Actuator connection ACC ISO5211				
											42(F04)	50(F05)	70(F07)	102(F10)	125(F12)	140(F14)	165(F16)	254(F25)	298(F30)
MOD 150	mm	43.5	122.5	84	4	12	28.5	120	117.5	60	42(F04)	50(F05)	70(F07)	102(F10)	125(F12)	140(F14)	165(F16)	254(F25)	298(F30)
	inch	1.7	4.8	3.3	0.2	0.5	1.1	4	4.6	2.4	1.7	2	2.8	4	5	6.5	10	11.8	
MOD 350	mm	52.5	143.5	112	4	12	34	122	148	78	70(F07)	102(F10)	125(F12)	140(F14)	165(F16)	254(F25)	298(F30)		
	inch	2.1	5.7	4.4	0.2	0.5	1.3	4.8	5.8	3.1	2.8	4	5	6.5	10	11.8			
MOD 700	mm	68.8	168	135	5	15	41	130	161	78	70(F07)	102(F10)	125(F12)	140(F14)	165(F16)	254(F25)	298(F30)		
	inch	2.7	6.6	5.3	0.2	0.6	1.6	5.1	6.3	3.1	2.8	4	4.9	5	6.5	10	11.8		
MOD 1600	mm	84	210	180	6.1	20	43	156	202.5	97.5	102(F10)	125(F12)	140(F14)	165(F16)	254(F25)	298(F30)			
	inch	3.3	8.3	7.1	0.2	0.8	1.7	6.1	8	3.9	4	4.9	5.5	6.5	10	11.8			
MOD 3000	mm	132.5	280.5	282	6.1	20	56.5	201	250.5	105	165(F16)	254(F25)	298(F30)						
	inch	5.2	11	11.1	0.2	0.8	2.2	7.9	9.9	4.1	6.5	10							
MOD 5000	mm	132.5	395.5	282	6.1	20	56.5	201	372.5	110	165(F16)	254(F25)	298(F30)						
	inch	5.2	15.6	11.1	0.2	0.8	2.2	7.9	14.7	4.3	6.5	10							

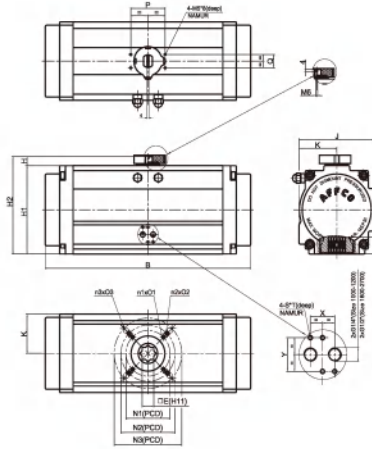
Pneumatic Actuator

PMA Series Rack and Pinion Pneumatic Actuators are with out-put torque from 4.3 to 4,678.6 NM;

- Both double acting and spring return types are available.
- Aluminum alloy, carbon steel and stainless steel materials available as options.



Size 12-665



Size 1000-2700

Dimensions

Actuator	E								Standard PCD				Optional PCD		Switchbox conn.			Solenoid conn.					
	D	B	J	H1	H2	K									N3	n3*03	H	P	Q	X	Y	S	T
							N1	n1*01	N2	n2*02													
	(H11)																						
PMA-12	9	9	109	47	45	65	24	36	4*M5	-	-	-	-	20	50	25	-	-	-	-			
PMA-20	11	14	158	65	74	94	33	50	4*M6	70	4*M8	-	-	20	80	30	-	-	-	-			
PMA-35	14	17.5	190	82	88	108	45	50	4*M6	70	4*M8	-	-	20	80	30	-	-	-	-			
PMA-50	14	18	206	97	100	120	52	50	4*M6	70	4*M8	-	-	20	80	30	-	-	-	-			
PMA-75	17	20	213	100	109	129	53	50	4*M6	70	4*M8	-	-	20	80	30	-	-	-	-			
PMA-110	17	21	259	110	120	140	58	50	4*M6	70	4*M8	-	-	20	80	30	-	-	-	-			
PMA-160	22	28	287	123	133	153	64	70	4*M8	102	4*M10	-	-	20	80	30	-	-	-	-			
PMA-255	22	32	340	139	155	175	70	70	4*M8	102	4*M10	-	-	20	80	30	-	-	-	-			
PMA-435	27	32	414	154	172	192	77	102	4*M10	125	4*M12	-	-	20	80	30	-	-	-	-			
PMA-665	27/36	34	476	175	197	217	88	102	4*M10	125	4*M12	140	4*M16	20	80	30	-	-	-	-			
PMA-1000	36	46	535	206	230	260	103	140	4*M16	-	-	125	4*M12	30	130	30	24	32	M5	8			
PMA-1200	36	46	603	226	255	285	113	140	4*M16	-	-	125	4*M12	30	130	30	24	32	M5	8			
PMA-1800	46	57	668.5	258	291	321	129	165	4*M20	-	-	140	4*M16	30	130	30	40	45	M6	10			
PMA-2700	46	57	744	292	320	350	146	165	4*M20	-	-	-	-	30	130	30	40	45	M6	10			

Torque Table -Output Torque(NM) of Single Acting Actuators

Models	Spring	Output Torque(NM) of Single Acting Actuators with Air Pressure Supplied															
		Spring torque		2.5 Bar		3.0 Bar		4.0 Bar		5.0 Bar		6.0 Bar		7.0 Bar		8.0 Bar	
		qty	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start
PMA-020-SR	5	6.2	4.3	5.7	3.8	7.6	5.7	-	-	-	-	-	-	-	-	-	-
	6	7.4	5.0	4.9	2.5	6.9	4.5	10.9	8.5	-	-	-	-	-	-	-	-
	7	8.6	5.9	4.0	1.3	6.0	3.3	9.8	7.3	14.0	10.4	-	-	-	-	-	-
	8	9.9	6.7	-	-	5.2	2.0	9.2	6.0	13.2	9.1	17.2	14.1	-	-	-	-
	9	11.1	7.6	-	-	4.3	0.8	8.3	4.8	12.3	7.9	16.3	12.8	20.3	16.8	-	-
	10	12.4	8.5	-	-	-	-	7.4	3.6	11.5	6.7	15.5	11.6	19.5	15.6	-	-
	11	13.6	9.3	-	-	-	-	6.6	2.3	10.6	5.4	14.6	10.4	18.6	14.3	22.6	18.3
PMA-035-SR	12	14.8	10.2	-	-	-	-	-	-	9.7	4.2	13.6	9.1	17.8	12.2	21.8	17.1
	5	10.4	6.8	11.4	7.7	15.0	11.4	22.3	14.9	-	-	-	-	-	-	-	-
	6	12.5	8.2	10.1	5.7	13.6	9.3	20.9	16.6	28.3	23.9	-	-	-	-	-	-
	7	14.6	9.6	8.6	3.6	12.5	7.2	19.5	14.5	26.8	21.9	-	-	-	-	-	-
	8	16.7	10.9	-	-	10.9	5.1	18.2	12.4	25.5	19.8	32.8	27.0	41.1	34.3	-	-
	9	18.8	12.3	-	-	-	-	16.8	10.4	24.1	17.7	31.4	24.9	38.7	32.2	-	-
	10	20.9	13.7	-	-	-	-	14.0	8.2	22.8	15.6	30.0	22.8	37.3	30.1	44.7	37.4
PMA-050-SR	11	22.9	15.0	-	-	-	-	-	-	21.5	13.5	28.7	20.7	36.0	28.0	43.3	35.3
	12	25.0	16.4	-	-	-	-	-	-	20.0	11.4	27.3	18.6	34.6	25.9	41.9	33.3
	5	14.5	10.5	14.5	10.6	19.4	15.5	29.5	25.7	-	-	-	-	-	-	-	-
	6	17.4	12.7	12.4	7.6	17.3	12.6	27.4	22.7	37.5	32.8	-	-	-	-	-	-
	7	20.3	14.8	10.4	4.8	15.2	9.7	25.3	19.9	35.4	29.9	-	-	-	-	-	-
	8	23.2	16.9	-	-	13.1	6.8	23.1	16.9	33.3	27.0	43.2	37.0	53.3	47.0	-	-
	9	26.1	19.0	-	-	-	-	21.0	14.1	31.2	24.1	41.1	34.1	51.2	44.2	-	-
PMA-075-SR	10	29.0	21.1	-	-	-	-	19.0	11.1	28.8	21.2	39.0	31.2	49.1	41.2	59.1	51.2
	11	31.9	23.2	-	-	-	-	-	-	27.0	18.3	37.0	28.3	47.0	38.4	57.0	48.4
	12	34.7	25.3	-	-	-	-	-	-	24.9	15.3	34.9	25.4	44.9	35.4	54.9	45.4
	5	23.0	15.8	23.3	16.1	31.1	24.0	46.8	39.7	-	-	-	-	-	-	-	-
	6	27.6	19.0	20.1	11.5	28.0	19.3	43.7	35.1	59.4	50.7	-	-	-	-	-	-
	7	32.2	22.1	17.0	6.9	24.8	14.8	40.5	30.5	56.2	46.2	-	-	-	-	-	-
	8	36.8	25.3	-	-	21.7	10.1	37.4	25.8	53.1	41.5	68.8	57.2	84.5	72.9	-	-
PMA-110-SR	9	41.4	28.5	-	-	-	-	34.2	21.3	49.9	37.0	65.6	52.6	81.2	68.3	-	-
	10	46.0	31.6	-	-	-	-	31.0	16.6	46.7	32.3	62.4	48.0	78.1	63.7	93.8	79.3
	11	50.6	34.8	-	-	-	-	-	-	43.6	27.7	59.3	43.4	75.0	59.1	90.6	74.8
	12	55.2	38.0	-	-	-	-	-	-	40.4	23.2	56.1	38.9	71.7	54.5	87.4	70.2
	5	34.4	23.3	33.1	22.0	44.2	33.2	66.8	55.9	-	-	-	-	-	-	-	-
	6	41.2	28.0	28.4	15.2	39.6	26.4	62.2	49.0	84.8	71.6	-	-	-	-	-	-
	7	48.1	32.7	23.8	8.2	34.9	19.4	57.5	42.1	80.2	64.7	-	-	-	-	-	-
PMA-160-SR	8	55.0	37.3	-	-	31.3	12.6	52.9	35.2	75.5	57.9	98.1	80.5	120.7	103.0	-	-
	9	61.9	42.0	-	-	-	-	48.2	28.4	70.9	51.0	93.5	73.6	116.0	96.1	-	-
	10	68.7	46.7	-	-	-	-	43.6	21.5	66.2	44.1	88.8	66.7	111.3	89.2	134.0	111.8
	11	75.6	51.4	-	-	-	-	-	-	61.5	37.2	84.1	59.9	106.6	82.4	129.2	105.0
	12	82.5	56.0	-	-	-	-	-	-	56.8	30.4	79.4	53.0	101.9	75.5	124.5	98.1
	5	49.2	31.6	51.0	33.4	67.5	49.9	100.6	83.0	-	-	-	-	-	-	-	-
	6	59.1	38.0	44.7	23.5	61.1	40.0	94.2	73.2	127.3	106.2	-	-	-	-	-	-
PMA-255-SR	7	68.9	44.3	38.4	13.7	54.9	30.3	87.9	63.4	121.0	96.4	-	-	-	-	-	-
	8	78.7	50.6	-	-	48.5	20.4	81.6	53.5	114.7	86.5	147.7	119.6	180.8	152.7	-	-
	9	88.6	56.9	-	-	-	-	75.3	43.7	108.4	76.8	141.5	109.8	174.5	142.9	-	-
	10	98.4	63.3	-	-	-	-	68.9	33.4	102.0	66.5	135.1	99.6	168.2	132.6	201.2	165.7
	11	108.3	69.6	-	-	-	-	-	-	95.7	57.0	128.7	90.1	161.8	123.1	194.8	156.2
	12	118.1	75.9	-	-	-	-	-	-	89.4	47.5	122.5	80.6	155.5	113.6	188.6	146.7
	5	79.0	52.0	73.0	47.0	98.0	72.0	148.0	122.0	-	-	-	-	-	-	-	-
PMA-435-SR	6	94.0	63.0	63.0	31.0	88.0	56.0	138.0	107.0	188.0	157.0	-	-	-	-	-	-
	7	110.0	73.0	52.0	15.0	77.0	40.0	127.0	90.0	178.0	141.0	-	-	-	-	-	-
	8	125.0	84.0	-	-	67.0	25.0	117.0	75.0	167.0	125.0	217.0	176.0	268.0	226.0	-	-
	9	141.0	94.0	-	-	-	-	107.0	59.0	157.0	109.0	207.0	159.0	257.0	210.0	-	-
	10	157.0	105.0	-	-	-	-	96.0	44.0	146.0	94.0	196.0	144.0	247.0	194.0	297.0	245.0
	11	173.0	115.0	-	-	-	-	-	-	136.0	78.0	186.0	128.0	236.0	178.0	286.0	228.0
	12	188.0	125.0	-	-	-	-	-	-	125.0	63.0	176.0	113.0	226.0	163.0	276.0	213.0
PMA-1000-SR	5	129.0	86.0	128.0	85.0	171.0	127.0	256.0	213.0	-	-	-	-	-	-	-	-
	6	155.0	103.0	111.0	59.0	154.0	102.0	239.0	187.0	325.0	273.0	-	-	-	-	-	-
	7	181.0	120.0	94.0	33.0	137.0	76.0	222.0	162.0	308.0	247.0	-	-	-	-	-	-
	8	206.0	137.0	-	-	120.0	50.0	205.0	136.0	291.0	221.0	376.0	307.0	462.0	392.0	-	-
	9	232.0	155.0	-	-	-	-	187.0	110.0	273.0	196.0	358.0	281.0	444.0	367.0	-	-
	10	258.0	172.0	-	-	-	-	170.0	84.0	256.0	169.0	341.0	255.0	427.0	340.0	512.0	426.0
	11	284.0	189.0	-	-	-	-	-	-	238.0	143.0	324.0	229.0	409.0	314.0	495.0	400.0
12	310.0	206.0	-	-	-	-	-	-	221.0	118.0	307.0	203.0	392.0	289.0	478.0	374.0	

Models	Spring	Spring torque		Output Torque(NM) of Single Acting Actuators with Air Pressure Supplied															
				2.5 Bar		3.0 Bar		4.0 Bar		5.0 Bar		6.0 Bar		7.0 Bar		8.0 Bar			
	qty	start	end	start	end	start	end	start	end	start	end	start	end	start	end	start	end		
PMA-665-SR	5	208.0	140.0	193.0	124.0	259.0	191.0	392.0	324.0	-	-	-	-	-	-	-	-		
	6	250.0	168.0	165.0	83.0	232.0	149.0	365.0	282.0	498.0	415.0	-	-	-	-	-	-		
	7	292.0	196.0	137.0	41.0	203.0	107.0	336.0	240.0	469.0	373.0	-	-	-	-	-	-		
	8	333.0	223.0	-	-	176.0	66.0	309.0	199.0	442.0	237.0	575.0	465.0	708.0	598.0	-	-		
	9	375.0	251.0	-	-	-	-	280.0	157.0	413.0	290.0	546.0	423.0	679.0	556.0	-	-		
	10	417.0	279.0	-	-	-	-	253.0	115.0	386.0	248.0	519.0	381.0	652.0	514.0	785.0	647.0		
	11	458.0	307.0	-	-	-	-	-	-	358.0	207.0	491.0	340.0	624.0	473.0	757.0	604.0		
	12	500.0	335.0	-	-	-	-	-	-	330.0	165.0	463.0	298.0	596.0	431.0	729.0	564.0		
	5	309.0	200.0	332.0	222.0	438.0	329.0	651.0	542.0	-	-	-	-	-	-	-	-		
	6	371.0	240.0	292.0	161.0	398.0	267.0	611.0	480.0	824.0	693.0	-	-	-	-	-	-		
	7	433.0	280.0	252.0	99.0	358.0	206.0	571.0	418.0	784.0	631.0	-	-	-	-	-	-		
	8	495.0	320.0	-	-	318.0	143.0	531.0	354.0	744.0	569.0	957.0	782.0	1169.0	995.0	-	-		
PMA-1000-SR	9	557.0	360.0	-	-	-	-	491.0	295.0	704.0	507.0	917.0	720.0	1130.0	933.0	-	-		
	10	618.0	400.0	-	-	-	-	451.0	233.0	644.0	446.0	877.0	658.0	1090.0	871.0	1302.0	1084.0		
	11	680.0	440.0	-	-	-	-	-	-	624.0	384.0	837.0	597.0	1050.0	809.0	1263.0	1022.0		
	12	742.0	480.0	-	-	-	-	-	-	584.0	322.0	797.0	535.0	1010.0	748.0	1223.0	960.0		
	5	380.0	275.0	390.0	285.0	523.0	418.0	789.0	684.0	-	-	-	-	-	-	-	-		
	6	456.0	330.0	335.0	209.0	468.0	342.0	734.0	608.0	1000.0	874.0	-	-	-	-	-	-		
	7	532.0	385.0	280.0	133.0	413.0	266.0	679.0	532.0	945.0	798.0	-	-	-	-	-	-		
	8	608.0	444.0	-	-	358.0	190.0	624.0	456.0	890.0	722.0	1146.0	988.0	1422.0	1254.0	-	-		
	9	684.0	495.0	-	-	-	-	569.0	380.0	835.0	646.0	1101.0	912.0	1367.0	1178.0	-	-		
	10	760.0	560.0	-	-	-	-	514.0	304.0	780.0	570.0	1046.0	836.0	1312.0	1102.0	1578.0	1348.0		
	11	836.0	605.0	-	-	-	-	-	-	725.0	494.0	991.0	760.0	1257.0	1026.0	1523.0	1292.0		
	12	912.0	660.0	-	-	-	-	-	-	670.0	418.0	936.0	684.0	1202.0	950.0	1468.0	1216.0		
PMA-1200-SR	5	554.0	410.0	552.0	409.0	744.0	600.0	1129.0	985.0	-	-	-	-	-	-	-	-		
	6	665.0	492.0	470.0	297.0	662.0	489.0	1047.0	874.0	1432.0	1259.0	-	-	-	-	-	-		
	7	775.0	575.0	388.0	187.0	580.0	379.0	964.0	744.0	1349.0	1149.0	-	-	-	-	-	-		
	8	886.0	656.0	-	-	498.0	268.0	883.0	653.0	1267.0	1073.0	1652.0	1422.0	2037.0	1807.0	-	-		
	9	998.0	739.0	-	-	-	-	800.0	542.0	1185.0	926.0	1596.0	1311.0	1954.0	1696.0	-	-		
	10	1108.0	821.0	-	-	-	-	718.0	431.0	1103.0	816.0	1488.0	1201.0	1872.0	1586.0	2257.0	1970.0		
	11	1219.0	903.0	-	-	-	-	-	-	1021.0	705.0	1406.0	1090.0	1791.0	1474.0	2176.0	1859.0		
	12	1330.0	985.0	-	-	-	-	-	-	939.0	594.0	1323.0	979.0	1708.0	1363.0	2093.0	1748.0		
	5	787.0	560.0	903.0	675.0	1195.0	948.0	1779.0	1552.0	-	-	-	-	-	-	-	-		
	6	943.0	672.0	790.0	519.0	1093.0	811.0	1667.0	1396.0	2252.0	1981.0	-	-	-	-	-	-		
	7	1101.0	783.0	679.0	361.0	972.0	654.0	1556.0	1238.0	2141.0	1823.0	-	-	-	-	-	-		
	8	1258.0	895.0	-	-	860.0	497.0	1444.0	1081.0	2029.0	1666.0	2614.0	2252.0	3099.0	2836.0	-	-		
PMA-2700-SR	9	1416.0	1007.0	-	-	-	-	1332.0	923.0	1917.0	1509.0	2502.0	2094.0	3087.0	2678.0	-	-		
	10	1572.0	1119.0	-	-	-	-	1220.0	767.0	1805.0	1352.0	2390.0	1937.0	2974.0	2521.0	3560.0	3107.0		
	11	1730.0	1231.0	-	-	-	-	-	-	1693.0	1194.0	2278.0	1779.0	2862.0	2364.0	3448.0	2949.0		
	12	1887.0	1342.0	-	-	-	-	-	-	1582.0	1037.0	2167.0	1623.0	2751.0	2207.0	3336.0	2792.0		

Torque Table -Output Torque(NM) of Double Acting Actuators

Models	Output Torque(NM) of Double Acting Actuators with Air Pressure Supplied									
	2.5Bar	3.0Bar	4.0Bar	4.5Bar	5.0Bar	5.5Bar	6.0Bar	7.0Bar	8.0Bar	
PMA-12-DA	3.48	4.2	6.0	6.8	7.5	8.4	9.0	10.0	11.5	
PMA-20-DA	10.0	12.0	16.0	18.0	20.0	21.9	23.9	27.9	31.9	
PMA-35-DA	18.2	21.9	29.2	32.8	36.5	40.1	43.8	51.1	58.4	
PMA-50-DA	25.1	30.1	40.1	45.1	50.2	55.2	60.2	70.2	80.3	
PMA-75-DA	39.2	47.0	62.7	70.5	78.4	86.2	94.1	109.7	125.4	
PMA-110-DA	56.4	67.7	90.3	101.6	112.9	124.1	135.4	158.0	180.6	
PMA-160-DA	82.7	99.2	132.2	148.8	165.3	181.1	198.4	231.4	264.5	
PMA-255-DA	125.4	150.5	200.6	225.7	250.8	275.9	301.0	351.1	401.3	
PMA-435-DA	213.8	256.5	342.0	384.8	427.5	470.3	513.0	598.5	684.0	
PMA-665-DA	332.5	399.0	532.0	598.5	665.0	731.5	798.0	931.0	1064.0	
PMA-1000-DA	532.0	638.4	851.2	957.6	1064.0	1170.4	1276.8	1489.6	1702.4	
PMA-1200-DA	665.0	798.0	1064.0	1197.0	1330.0	1463.0	1596.0	1862.0	2128.0	
PMA-1800-DA	961.9	1154.3	1539.0	1731.4	1928.8	2116.1	2308.5	2693.3	3078.0	
PMA-2700-DA	1462.1	1754.5	2339.3	2631.7	2924.1	3216.5	3508.9	4093.7	4678.6	

Air Volume (Dm³)

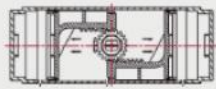
Models	PMA-12	PMA-20	PMA-35	PMA-50	PMA-75	PMA-110	PMA-255	PMA-235	PMA-435	PMA-665	PMA-1000	PMA-1200	PMA-1800	PMA-2700
Opening	0.08	0.12	0.21	0.30	0.43	0.64	0.95	1.60	2.50	3.70	5.90	7.50	11.00	17.00
Closing	0.07	0.16	0.23	0.34	0.47	0.73	0.88	1.40	2.20	3.20	5.40	7.50	9.00	14.00



Pneumatic Actuator

underwater actuator solution:

- PMA SS series, with stainless steel material.
- IP Degree: IP68
- Standard: DIN EN ISO5211
- Applicable to salt water, oxygen-rich water.

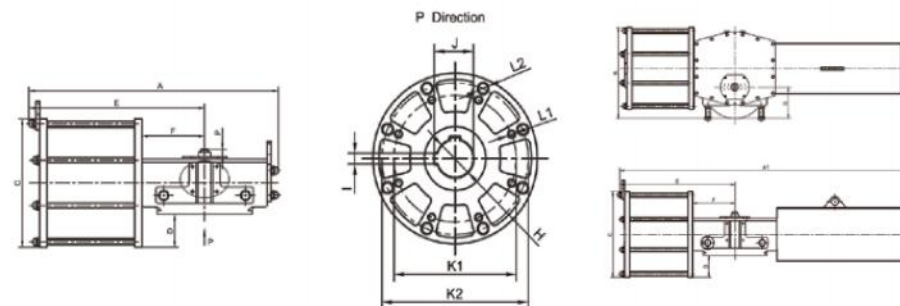
Operation		Models	
Double Acting		PMA-020-DA-SS	PMA-035-DA-SS
		PMA-075-DA-SS	PMA-160-DA-SS
		PMA-255-DA-SS	PMA-435-DA-SS
		PMA-665-DA-SS	PMA-1200-DA-SS
Spring Return		PMA-020-SR-SS	PMA-035-SR-SS
		PMA-075-SR-SS	PMA-160-SR-SS
		PMA-255-SR-SS	PMA-435-SR-SS
		PMA-665-SR-SS	PMA-1200-SR-SS

Pneumatic Actuator

PMAS/C series are Scotch Yoke Pneumatic Actuators



- PMAS series are symmetric scotch yoke actuators, with double acting type's out-put torque from 908 NM to 309,276NM, and spring return type's out-put torque from 495 to 233,891NM.
- PMAC series are canted scotch yoke actuators, with double acting out-put torque from 908 to 386,594NM, and spring return type's out-put torque from 452 to 302,163 NM.
- Body material: SG Iron, aluminum alloy.
- Temperature options: Low(-40°C); Standard(-20~80°C); High temperature(Up to 150°C).



■ Pmas/C Series Actuator Air Volume & Weights

MODELS	A	A1		B	C	D	E	F	G	H	I	J	K1	K2	L1	L2	M	N	O	P	X	Y	Z	Air Connection	Air volume (L)		Net weight(kg)		
		4.2 bar	5.5 bar																						Double Acting	Spring Return	Double Acting	Spring Return	
PMAS/C-02-20	720	1,240	1,255	311	Ø270	42	510	175	100	Ø50	14	53.8	Ø165	-		4-M20	-	30	80	130	30	80	80	4-M8	RC 3/8"	6	6	90	135
PMAS/C-02-25	720	1,255	1,285	336	Ø320	67	510	175	100	Ø50	14	53.8	Ø165	-		4-M20	-	30	80	130	30	80	80	4-M8	RC 1/2"	9.8	9.8	110	160
PMAS/C-02-30	720	1,315	1,325	361	Ø370	92	510	175	100	Ø50	14	53.8	Ø165	-		4-M20	-	30	80	130	30	80	80	4-M8	RC 1/2"	14.1	14.1	130	185
PMAS/C-02-35	720	1,355	1,370	386	Ø420	117	510	175	100	Ø50	14	53.8	Ø165	-		4-M20	-	30	80	130	30	80	80	4-M8	RC 1/2"	19.2	19.2	155	225
PMAS/C-03-35	840	1,545	1,550	467	Ø420	100	585	210	165	Ø80	20	84.9	Ø254	Ø298		8-M16	8-M20	30	80	130	30	80	80	4-M8	RC 3/4"	23	23	205	315
PMAS/C-03-38	840	1,560	1,615	482	Ø450	115	585	210	165	Ø80	20	84.9	Ø254	Ø298		8-M16	8-M20	30	80	130	30	80	80	4-M8	RC 3/4"	27	27	220	345
PMAS/C-03-43	840	1,600	1,665	507	Ø500	140	585	210	165	Ø80	20	84.9	Ø254	Ø298		8-M16	8-M20	30	80	130	30	80	80	4-M8	RC 3/4"	35	35	250	385
PMAS/C-04-43	1,045	1,895	1,920	573	Ø510	127	735	264	200	Ø90	25	95.4	Ø298	Ø356		8-M20	8-M30	30	80	130	30	100	100	4-M10	RC 1"	45	45	310	490
PMAS/C-04-48	1,045	1,935	2,070	598	Ø560	152	735	264	200	Ø90	25	95.4	Ø298	Ø356		8-M20	8-M30	30	80	130	30	100	100	4-M10	RC 1"	56	56	340	550
PMAS/C-04-53	1,045	2,045	1,980	623	Ø610	177	735	264	200	Ø90	25	95.4	Ø298	Ø356		8-M20	8-M30	30	80	130	30	100	100	4-M10	RC 1"	68	68	375	640
PMAS/C-05-53	1,365	2,405	2,475	680	Ø610	148	930	385	230	Ø120	32	127.4	Ø298	Ø356		8-M20	8-M30	30	80	130	30	140	160	4-M12	RC 1"	83	83	600	900
PMAS/C-05-58	1,365	2,405	2,555	710	Ø670	178	930	385	230	Ø120	32	127.4	Ø298	Ø356		8-M20	8-M30	30	80	130	30	140	160	4-M12	RC 1"	100	100	640	1020
PMAS/C-05-63	1,365	2,535	2,645	735	Ø720	203	930	385	230	Ø120	32	127.4	Ø298	Ø356		8-M20	8-M30	30	80	130	30	140	160	4-M12	RC 1"	118	118	680	1140
PMAS/C-06-63	1,575	2,980	3,025	815	Ø720	160	1,075	440	275	Ø150	36	158.4	Ø406	Ø483		8-M36	12-M36	30	80	130	30	160	160	4-M12	RC 1 1/4"	150	150	980	1600
PMAS/C-06-68	1,575	3,030	3,100	850	Ø790	195	1,075	440	275	Ø150	36	158.4	Ø406	Ø483		8-M36	12-M36	30	80	130	30	160	160	4-M12	RC 1 1/4"	175	175	1030	1720
PMAS/C-06-73	1,575	3,110	3,190	875	Ø840	220	1,075	440	275	Ø150	36	158.4	Ø406	Ø483		8-M36	12-M36	30	80	130	30	160	160	4-M12	RC 1 1/4"	200	200	1090	1850
PMAS/C-07-68	1,915	3,490	3,510	910	Ø790	145	1,335	520	275	Ø190	45	200.4	Ø406	Ø483		8-M36	12-M36	30	80	130	30	180	180	4-M16	RC 1 1/4"	230	230	1500	2150
PMAS/C-07-73	1,915	3,520	3,560	935	Ø840	170	1,335	520	275	Ø190	45	200.4	Ø406	Ø483		8-M36	12-M36	30	80	130	30	180	180	4-M16	RC 1 1/4"	260	260	1560	2400
PMAS/C-07-80	1,915	3,565	3,595	975	Ø920	210	1,335	520	275	Ø190	45	200.4	Ø406	Ø483		8-M36	12-M36	30	80	130	30	180	180	4-M16	RC 1 1/4"	316	316	1650	2700
PMAS/C-08-80	2,400	4,250	4,300	1,115	Ø920	140	1,680	650	335	Ø250	56	262.4	Ø483	Ø603		12-M36	20-M36	30	80	130	30	200	200	4-M16	RC 1 1/2"	416	416	2200	3400
PMAS/C-08-90	2,400	4,380	4,420	1,170	Ø1030	195	1,680	650	335	Ø250	56	262.4	Ø483	Ø603		12-M36	20-M36	30	80	130	30	200	200	4-M16	RC 1 1/2"	530	530	2300	3800
PMAS/C-08-100	2,400	4,480	4,550	1,220	Ø1130	245	1,680	650	335	Ø250	56	262.4	Ø483	Ø603		12-M36	20-M36	30	80	130	30	200	200	4-M16	RC 1 1/2"	652	652	2450	4200

■ Symmetric Yoke Pneumatic Actuator Out-Put Torque

MODELS	4.0 Bar			5.0 Bar			6.0 Bar			8.0 Bar		
	0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°
PMAS-D02-20	1,460	908	1,403	1,827	1,135	1,755	2,193	1,362	2,106	2,924	1,816	2,807
PMAS-D02-25	2,284	1,419	2,226	2,855	1,773	2,783	3,426	2,128	3,339	4,568	2,837	4,452
PMAS-D02-30	3,289	2,043	3,231	4,111	2,554	4,039	4,934	3,064	4,847	6,578	4,086	6,462
PMAS-D02-35	4,477	2,781	4,419	5,596	3,476	5,524	6,715	4,171	6,628	8,954	5,561	8,838
PMAS-D02-35	5,419	3,366	5,262	6,774	4,208	6,577	8,129	5,049	7,893	10,839	6,732	10,524
PMAS-D03-38	6,388	3,968	6,231	7,985	4,960	7,788	9,582	5,952	9,346	12,777	7,936	12,461
PMAS-D03-43	8,180	5,081	8,022	10,225	6,351	10,028	12,270	7,621	12,034	16,360	10,162	16,045
PMAS-D02-30	10,492	6,517	10,217	13,115	8,146	12,772	15,738	9,775	15,326	20,984	13,033	20,435
PMAS-D04-48	13,074	8,120	12,799	16,342	10,150	15,999	19,610	12,180	19,199	26,147	16,241	25,599
PMAS-D04-53	15,939	9,900	15,665	19,924	12,375	19,581	23,909	14,850	23,497	31,878	19,800	31,330
PMAS-D05-53	19,586	12,165	19,143	24,483	15,207	23,928	29,379	18,248	28,714	39,173	24,331	38,285
PMAS-D05-58	23,456	14,569	23,013	29,320	18,211	28,766	35,184	21,584	34,519	46,912	29,138	46,025
PMAS-D05-63	27,675	17,189	27,231	34,593	21,486	34,039	41,512	25,784	40,847	55,349	34,378	54,462
PMAS-D06-63	34,546	21,457	33,682	43,182	26,821	42,102	51,818	32,185	50,523	69,091	42,914	67,364
PMAS-D06-68	40,247	24,998	39,383	50,308	31,247	49,228	60,370	37,497	59,074	80,493	49,996	78,766
PMAS-D06-73	46,383	28,809	45,519	57,978	36,011	56,899	69,574	43,124	68,278	92,765	57,618	91,038
PMAS-D07-68	53,628	33,104	52,448	67,035	41,380	65,585	80,442	49,656	78,702	107,256	66,208	104,936
PMAS-D07-73	61,804	38,151	60,645	77,255	47,688	75,806	92,706	57,226	90,967	123,608	76,302	121,290
PMAS-D07-80	74,225	45,818	73,066	92,781	57,272	91,332	111,337	68,727	109,599	148,450	91,636	146,132
PMAS-D08-80	98,768	61,092	97,097	123,710	76,365	121,371	148,452	91,638	145,645	197,936	122,184	194,194
PMAS-D08-90	125,257	77,319	123,385	156,571	96,648	154,231	187,885	115,978	185,077	250,514	154,638	246,770
PMAS-D08-100	154,638	95,456	152,767	193,297	119,320	190,958	231,957	143,184	229,150	309,276	190,912	305,534

MODELS	Spring Torque			4.0 Bar			5.0 Bar			6.0 Bar			8.0 Bar		
	0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°
PMAS-S02-20	A	602	495	975	858	413	428	1,225	640	780	1,591	867	1,131	-	-
	B	790	650	1,280	-	-	-	1,037	485	475	1,403	712	826	2,134	1,166
PMAS-S02-25	A	913	751	1,479	1,371	668	747	1,942	1,022	1,304	2,513	1,377	1,860	-	-
	B	1,239	1,019	2,007	-	-	-	1,616	754	776	2,187	1,409	1,332	3,329	1,818
PMAS-S02-30	A	1,301	1,080	2,141	1,988	963	1,090	2,810	1,474	1,898	3,633	1,984	2,706	-	-
	B	1,787	1,469	2,894	-	-	-	2,324	1,085	1,145	3,147	1,595	1,953	4,791	2,617
PMAS-S02-35	A	1,628	1,352	2,679	2,849	1,429	1,740	3,968	2,124	2,845	5,087	2,819	3,949	-	-
	B	2,140	1,759	3,466	-	-	-	3,456	1,717	2,058	4,575	2,412	3,162	6,814	3,802
PMAS-S03-35	A	1,803	1,539	3,098	3,616	1,827	2,164	4,971	2,669	3,479	6,326	3,510	4,795	-	-
	B	2,566	2,120	4,189	-	-	-	4,208	2,088	2,388	5,563	2,929	3,704	8,273	4,612
PMAS-S03-38	A	2,480	2,049	4,048	3,908	1,919	2,183	5,505	2,911	3,740	7,102	3,903	5,298	-	-
	B	3,303	2,729	5,391	-	-	-	4,682	2,231	2,397	6,279	3,223	3,955	9,474	5,207
PMAS-S03-43	A	3,049	2,519	4,977	5,131	2,562	3,045	7,176	3,832	5,051	9,221	5,102	7,057	-	-
	B	4,097	3,554	7,223	-	-	-	6,128	2,797	2,805	8,173	4,067	4,811	12,263	6,608
PMAS-S04-43	A	4,167	3,569	7,202	6,325	2,948	3,015	8,948	4,577	5,570	11,571	6,061	8,124	-	-
	B	5,436	4,656	9,395	-	-	-	7,679	3,490	3,377	10,302	5,119	5,931	15,548	8,377
PMAS-S04-48	A	5,125	4,390	8,857	7,949	3,730	3,942	11,217	5,760	7,142	14,485	7,790	10,342	-	-
	B	6,406	5,582	11,372	-	-	-	9,936	4,568	4,627	13,204	6,598	7,827	19,741	10,659
PMAS-S04-53	A	6,214	5,323	10,745	9,275	4,577	4,920	13,710	7,052	8,836	17,695	9,527	12,752	-	-
	B	8,236	7,054	14,234	-	-	-	11,688	5,321	5,347	15,673	7,796	9,263	23,642	12,746
PMAS-S05-53	A	7,651	6,505	13,070	11,935	5,660	6,073	16,832	8,702	10,858	21,728	11,743	15,644	-	-
	B	10,204	8,675	17,431	-	-	-	14,279	6,532	6,497	19,175	9,573	11,283	28,969	15,656
PMAS-S05-58	A	9,296	7,733	15,538	14,160	6,836	7,475	20,024	10,478	13,228	25,888	14,121	18,981	-	-
	B	12,124	10,308	20,710	-	-	-	17,196	7,903	8,056	23,060	11,546	13,809	34,788	18,830
PMAS-S05-63	A	10,971	9,328	18,742	16,704	7,861	8,489	23,622	12,158	15,297	30,541	16,456	22,105	-	-
	B	14,127	12,010	24,132	-	-	-	20,466	9,476	9,907	27,385	13,774	16,715	41,222	22,368
PMAS-S06-63	A	13,456	11,608	23,515	21,090	9,849	10,167	29,726	15,213	18,587	38,362	20,577	27,008	-	-
	B	17,092	14,744	29,869	-	-	-	26,090	12,077	12,233	34,726	17,441	20,654	51,999	28,170
PMAS-S06-68	A	15,243	13,149	26,637	25,004	11,849	12,746	35,065	18,098	22,591	45,127	24,348	32,437	-	-
	B	20,474	17,662	35,779	-	-	-	29,834	13,585	13,449	39,896	19,835	23,295	60,019	32,334
PMAS-S06-73	A	17,816	15,368	31,314	28,567	13,441	14,385	40,162	20,643	25,765	51,758	27,846	37,114	-	-
	B	23,159	19,978	40,471	-	-	-	34,819	16,033	16,428	46,415	23,236	27,807	69,606	37,440
PMAS-S07-68	A	20,914	17,545	36,467	32,714	15,559	16,001	46,121	23,835	29,118	59,528	32,111	42,235	-	-
	B	26,143	21,931	45,583	-	-	-	40,892	19,449	20,002	54,299	27,725	33,119	81,113	44,277
PMAS-S07-73	A	24,103	20,220	42,026	37,701	17,931	18,619	53,152	27,468	33,780	68,603	37,006	48,941	-	-
	B	30,129	25,274	52,533	-	-	-	47,126	22,414	23,273	62,577	31,952	38,434	93,479	51,028
PMAS-S07-80	A	28,947	24,283	50,473	45,278	21,535	22,593	63,834	32,989	40,859	82,390	44,444	59,126	-	-
	B	36,184	30,354	63,091	-	-	-	56,597	26,918	28,241	75,153	38,373	46,508	112,266	61,282
PMAS-S08-80	A	38,597	32,378	67,298	60,371	28,714	29,799	85,113	43,987	54,073	109,855	59,260	78,347	-	-
	B	48,246	40,473	84,122	-	-	-	75,464	35,892	37,249	100,206	51,165	61,523	149,690	81,711
PMAS-S08-90	A	48,850	40,779	85,174	76,407	36,340	38,211	107,721	55,669	69,057	139,035	74,999	99,903	-	-
	B	61,062	51,223	106,468	-	-	-	95,509	45,425	47,763	124,823	64,755	78,609	189,452	103,415
PMAS-S08-100	A	60,308	50,591	105,153	94,330	44,865	47,614	132,989	68,729	85,805	171,649	92,593	123,997	-	-
	B	75,385	63,239	131,441	-	-	-	117,912	56,081	59,517	156,572	79,945	97,709	233,891	127,673

■ Canted Yoke Pneumatic Actuator Out-Put Torque

MODELS	4.0 Bar			5.0 Bar			6.0 Bar			8.0 Bar		
	0°	R	90°	0°	R	90°	0°	R	90°	0°	R	90°
PMAC-D02-20	1,836	908	1,279	2,295	1,135	1,599	2,754	1,362	1,919	3,672	1,816	2,559
PMAC-D02-25	2,869	1,419	1,999	3,586	1,773	2,499	4,303	2,128	2,998	5,737	2,837	3,998
PMAC-D02-30	4,131	2,043	2,879	5,164	2,554	3,598	6,196	3,064	4,318	8,262	4,086	5,757
PMAC-D02-35	5,623	2,781	3,918	7,028	3,476	4,898	8,434	4,171	5,877	11,245	5,561	7,836
PMAC-D03-35	6,806	3,366	4,743	8,508	4,208	5,929	10,209	5,049	7,114	13,613	6,732	9,486
PMAC-D03-38	8,023	3,968	5,591	10,029	4,960	6,988	12,035	5,952	8,386	16,046	7,936	11,182
PMAC-D03-43	10,273	5,081	7,159	12,842	6,351	8,949	15,410	7,621	10,738	20,547	10,162	14,318
PMAC-D04-43	13,177	6,517	9,182	16,471	8,146	11,477	19,765	9,755	13,773	26,353	13,033	18,364
PMAC-D04-48	16,419	8,120	11,441	20,524	10,150	14,302	24,629	12,180	17,162	32,838	16,241	22,883
PMAC-D04-53	20,018	9,900	13,959	25,023	12,375	17,347	30,027	14,850	20,924	40,036	19,800	27,899
PMAC-D05-53	24,598	12,165	17,141	30,748	15,207	21,426	36,898	18,268	25,712	49,197	24,331	34,282
PMAC-D05-58	29,459	14,569	20,528	36,823	18,211	25,640	44,188	21,854	30,792	58,917	29,138	41,055
PMAC-D05-63	34,757	17,189	24,220	43,446	21,486	30,274	52,135	25,784	36,329	69,512	31,378	54,462
PMAC-D06-63	43,386	21,457	30,233	54,332	26,821	37,791	65,079	32,185	45,349	86,771	42,914	60,465
PMAC-D06-68	50,546	24,998	35,222	63,182	31,247	44,027	75,818	37,497	52,833	101,091	49,996	70,444
PMAC-D06-73	58,252	28,809	40,592	72,815	36,011	50,740	87,378	43,214	60,888	116,504	57,618	81,184
PMAC-D07-68	67,035	33,104	46,696	83,793	41,380	58,370	100,552	49,656	70,044	134,070	66,208	93,392
PMAC-D07-73	77,256	38,151	53,974	96,568	47,688	67,467	115,882	57,226	80,961	154,510	76,302	107,948
PMAC-D07-80	92,781	45,818	65,028	115,976	57,272	81,285	139,171	68,727	97,542	185,562	91,636	130,056
PMAC-D08-80	123,710	61,092	86,416	154,637	76,365	108,020	185,565	91,638	129,624	247,420	122,184	172,832
PMAC-D08-90	156,571	77,319	109,812	195,713	96,648	137,265	234,856	115,978	164,718	313,142	154,638	219,624
PMAC-D08-100	193,297	95,456	135,962	241,621	119,320	169,952	289,945	143,184	203,943	386,594	190,912	271,924



Hydraulic Actuator

AHR series are gear rack type hydraulic(electro-hydraulic) actuators, applicable to control 0-90° rotating valves like butterfly valves, ball valves and so on. major material is carbon steel.

Torque Table—Double Acting

MODELS	7Mpa	10Mpa	12Mpa	14Mpa	16Mpa	Weight (Kg)	Volume (L)
AHR-D01-40	90	128	153	180	205	5	0.024
AHR-D01-50	140	200	240	280	320	8	0.037
AHR-D02-40	187	267	321	375	427	16	0.051
AHR-D03-50	292	417	501	585	668	20	0.08
AHR-D03-63	465	662	795	927	1060	21	0.124
AHR-D05-63	1113	1590	1908	2224	2543	40	0.312
AHR-D06-80	1795	2565	3077	3590	4102	78	0.484
AHR-D06-100	2805	4006	4807	5608	6409	100	0.76
AHR-D06-125	4381	6259	7511	8763	10015	111	1.2
AHR-D09-125	4820	6885	8262	9639	11015	158	1.28
AHR-D10-160	7896	11279	13535	15791	18047	243	2.84
AHR-D10-200	12337	17625	21149	24675	28200	317	3.27

Torque Table—Spring Return

MODELS	Spring Torque		7Mpa		10Mpa		14Mpa		Weight (Kg)	
	min	max	min	max	Dia of cylinder	min	max	Dia of cylinder	min	max
AHR-S01-50E	95	132	-	-	-	-	-	148	185	Ø50
AHR-S01-63C	95	132	91	128	Ø63	186	223	Ø63	-	-
AHR-S02-50E	161	293	-	-	-	-	-	291	423	Ø50
AHR-S02-63C	161	293	171	303	Ø63	369	501	Ø63	-	-
AHR-S02-63E	331	527	-	-	-	-	-	400	596	Ø63
AHR-S02-80D	331	527	-	-	-	541	737	Ø80	-	-
AHR-S02-100C	331	527	641	837	Ø100	-	-	-	-	-
AHR-S03-80D	425	662	-	-	-	406	643	Ø80	834	1,071
AHR-S03-100C	425	662	506	743	Ø100	-	-	-	-	-
AHR-S04-63E	709	1,250	-	-	-	-	-	976	1,517	Ø63
AHR-S04-80D	709	1,250	-	-	-	1,313	1,855	Ø80	-	-
AHR-S04-100C	709	1,250	1,553	2,095	Ø100	-	-	-	-	-
AHR-S05-80D	852	1,535	-	-	-	1,029	1,712	Ø80	2,053	2,737
AHR-S05-100C	852	1,535	1,269	1,952	Ø100	-	-	-	-	-
AHR-S06-80D	1,040	1,535	-	-	-	1,029	1,523	Ø80	2,053	2,549
AHR-S06-100C	1,040	1,535	1,269	1,763	Ø100	-	-	-	-	-
AHR-S07-100D	1,418	2,652	-	-	-	1,355	2,588	Ø100	2,956	4,190
AHR-S07-125C	1,418	2,652	1,728	2,962	Ø125	-	-	-	-	-
AHR-S08-100E	1,703	3,096	-	-	-	-	-	2,512	3,905	Ø100
AHR-S08-125D	1,703	3,096	-	-	-	3,161	4,553	Ø125	-	-
AHR-S08-140C	1,703	3,096	2,398	3,791	Ø140	-	-	-	-	-
AHR-S09-100E	2,800	4,700	-	-	-	-	-	1,468	3,308	Ø100
AHR-S09-125D	2,800	4,700	-	-	-	2,180	4,080	Ø125	-	-
AHR-S09-140C	2,800	4,700	1,345	3,245	Ø140	-	-	-	-	-
AHR-S10-125E	3,815	7,103	-	-	-	-	-	2,625	5,825	Ø125
AHR-S10-160D	3,815	7,103	-	-	-	4,263	7,461	Ø160	-	-
AHR-S10-180C	3,815	7,103	2,980	6,178	Ø180	-	-	-	-	-
AHR-S10-125E(III)	7,600	14,030	-	-	-	-	-	5,250	11,650	Ø125
AHR-S10-160D(III)	7,600	14,030	-	-	-	8,500	15,000	Ø160	-	-
AHR-S10-180C(III)	7,600	14,030	5,960	12,356	Ø180	-	-	-	-	-



Hydraulic Actuator

AHS series are scotch yoke type hydraulic(electro-hydraulic) actuators, applicable to control 0-90° rotating valves like butterfly valves, ball valves and so on. Carbon steel and nodular cast iron materials are available.

Torque Table—Double Acting

MODELS	7Mpa		10Mpa		12Mpa		14Mpa		16Mpa		Weight (Kg)
	Star& End	Run	Star& End	Run	Star& End	Run	Star& End	Run	Star& End	Run	
AHS-D03-100	4,590	2,638	6,556	3,768	7,868	4,522	9,179	5,276	10,490	6,029	105
AHS-D03-125	7,421	4,123	10,601	5,890	12,722	7,068	14,842	8,246	16,962	8,246	125
AHS-D04-80	5,033	2,815	7,190	4,022	8,629	4,826	10,067	5,630	11,505	6,435	174
AHS-D04-100	7,865	4,398	11,234	6,283	13,481	7,540	15,727	8,796	17,975	10,053	196
AHS-D05-100	9,438	5,278	13,480	7,540	16,177	9,048	18,872	10,556	21,570	12,065	237
AHS-D06-100	11,146	6,158	15,923	8,797	19,107	10,557	22,293	12,317	25,478	14,076	268
AHS-D06-125	17,417	9,622	24,879	13,746	29,855	16,495	34,831	19,245	39,807	21,993	320
AHS-D08-125	22,392	12,371	31,988	17,673	38,386	21,208	44,784	24,742	51,177	28,275	583
AHS-D08-140	28,079	15,514	40,112	22,162	48,135	26,595	56,157	31,027	64,180	35,460	657
AHS-D08-160	36,682	20,267	52,404	28,952	62,885	34,743	73,365	40,533	83,848	46,325	685
AHS-D08-180	46,428	25,651	66,327	36,645	79,592	43,973	92,856	51,302	106,122	58,631	707
AHS-D08-200	57,318	31,667	81,882	45,239	98,258	54,286	114,635	63,335	131,011	72,382	757

Torque Table— Spring Return

MODELS	Spring Torque			7Mpa			10Mpa			14Mpa			Weight [Kg]			
	Star	Mid-stroke	End	Star	Mid-stroke	End	Dia of cylinder	Star	Mid-stroke	End	Dia of cylinder	Star		Mid-stroke	End	Dia of cylinder
AHS-S03-100D	4,510	1,945	2,255	-	-	-	-	4,305	1,870	2,050	Ø100	6,929	3,278	4,675	Ø100	175
AHS-S03-125C	4,510	1,945	2,255	4,919	2,223	2,665	Ø125	-	-	-	-	-	-	-	-	175
AHS-S04-80D	5,865	2,460	2,932	-	-	-	-	4,258	1,562	2,178	Ø80	7,135	3,170	5,396	Ø80	387
AHS-S04-100C	5,865	2,460	2,932	4,933	1,938	2,932	Ø100	-	-	-	-	-	-	-	-	387
AHS-S04-110E	11,586	4,860	5,793	-	-	-	-	-	-	-	-	13,239	5,784	7,606	Ø110	436
AHS-S04-125D	11,586	4,860	5,793	-	-	-	-	11,758	4,956	5,965	Ø125	-	-	-	-	436
AHS-S04-160C	11,586	4,860	5,793	14,332	6,396	8,539	Ø160	-	-	-	-	-	-	-	-	436
AHS-S05-140E	17,376	13,032	8,688	-	-	-	-	-	-	-	-	28,750	7,652	20,062	Ø140	510
AHS-S05-160D	17,376	13,032	8,688	-	-	-	-	26,238	6,265	17,550	Ø160	-	-	-	-	510
AHS-S05-180C	17,376	13,032	8,688	22,265	4,068	13,579	Ø180	-	-	-	-	-	-	-	-	510
AHS-S06-140E	24,326	10,081	12,298	-	-	-	-	-	-	-	-	31,515	14,051	19,352	Ø140	580
AHS-S06-160D	24,326	10,081	12,298	-	-	-	-	28,900	12,431	16,870	Ø160	-	-	-	-	580
AHS-S06-180C	24,326	10,081	12,298	24,211	9,869	12,183	Ø180	-	-	-	-	-	-	-	-	580
AHS-S06-180E	49,200	21,352	24,595	-	-	-	-	-	-	-	-	48,425	18,549	23,819	Ø180	786
AHS-S06-200D	49,200	21,352	24,595	-	-	-	-	39,795	13,828	15,190	Ø200	-	-	-	-	786
AHS-S06-250C	49,200	21,352	24,595	45,831	17,132	22,226	Ø250	-	-	-	-	-	-	-	-	786
AHS-S08-180E	62,553	25,920	31,277	-	-	-	-	-	-	-	-	61,578	25,381	30,302	Ø180	980
AHS-S08-200D	62,553	25,920	31,277	-	-	-	-	50,606	19,319	19,330	Ø200	-	-	-	-	980
AHS-S08-250C	62,553	25,920	31,277	58,281	23,560	27,005	Ø250	-	-	-	-	-	-	-	-	980



Electric Actuator

AQTB series electric actuators provide wide range of torques from 50-20000 Nm.

- Applicable to 90° quarter-turn ball valves, butterfly valves, damper valves and so on.
- Available for use in ships, power plants, cement, petrochemical, waste water treatment and other industry.

■ AQTB Series Quarter Turn Electrical Actuator

Model	Max. output torque (N.M)	Power (W)	Open/Close Time 50HZ [sec.]	Open/Close Time 60HZ [sec.]	Handwheel diameter (mm)	No of handwheel turns	Handwheel thrust (Kg)	ISO5211	Max. Square Bore (mm)	Cable entry	Weight (Kg)
AQTB-0050	50	10	15	13	63	18.3	2.2	F05 & 07	11-14, Φ<14, H[Deep]<20	2 - PG13.5	3
AQTB-0080	80	10	22	18	63	36.6	1.8				3.6
AQTB-0100	100	40	19	16	120	12	4.5	F07 or F10	11-17, Φ<22, H[Deep]<35		11
AQTB-0200	200	40	39	33	120	12	8.9				11
AQTB-0300	300	40	39	33	120	12	8.9				11
AQTB-0400	400	90	29	24	197	14.5	9.8				22
AQTB-0600	600	90	39	33	197	14.5	14.7	F10 or F12 or F14	17-27, Φ<35, H[Deep]<55		22
AQTB-0800	800	90	47	39	197	14.5	19.6				22
AQTB-1000	1,000	120	47	39	197	14.5	24.5				22
AQTB-1300	1,300	120	47	39	197	14.5	24.5				22
AQTB-1700	1,700	200	34	28	290	16	22.6	F12 or F14 or F16	27-36, Φ<50, H[Deep]<65	2 - M25*1.5	36
AQTB-2000	2,000	200	34	28	290	16	22.6				36
AQTB-2300	2,300	200	47	39	290	16	30.5	F14 or F16	36-53, Φ<65, H[Deep]<85		36
AQTB-3500	3,500	200	76	63	290	35.6	20.9				76
AQTB-5000	5,000	200	105	88	290	35.6	29.9	F16 or F25	46-55, Φ<85, H[Deep]<130		76
AQTB-8000	8,000	200	143	119	290	48	35.4				107
AQTB-13000	13,000	400	109	91	290	141	18.3	F25 or F30	55-75, Φ<95, H[Deep]<120		218
AQTB-16000	16,000	400	129	108	290	141	22.6				218
AQTB-20000	20,000	400	155	129	290	141	28.3				218

■ Standard Specification

Enclosure	Weatherproof IP67, NEMA4 4X and 6, O-ring sealed.
Main Power supply	110/220VAC/1Ph/50/60Hz, 380/440VAC/3Ph/50/60/Hz ±10%, 24VDC
Control power supply	110/220VAC/1Ph/50/60Hz±10%, 24VDC
Duty cycle(on-off)	S2: 10Min~30Min
Duty cycle(modulating)	S4, 30~50%, 300~1200 start/Hr
Motor	Squirrel Cage induction motor
Limit switches	2 each for Open and Close (SPDT 250VAC/10A rating)
Stall protection/ set temp.	Built in Thermal protection
Travel angle	90° ±5°
Position indicator	3D indicator, Red and Green
Manual override	Non-clutch ,Including handwheel
Mechanical stopper	1 each for each travel end (Open and Close), external & adjustable
Space Heater	8W~15W(110/220VAC) for anti-condensation
Lubrication	EP type grease
Terminal block	Screw and Lever Push type (spring loaded)
Ambient temperature	Basic actuator : -25°C~+70°C c/w control options : -10°C~+60°C
Ambient humidity	90%RH Max (Non-Condensing)
Anti vibration	XYZ 10g. 02~34Hz, 30 minutes
External coating	Dry powder [Polyester] RAL6001

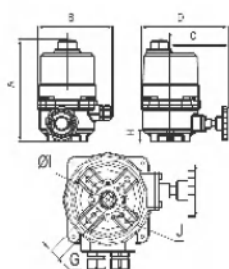
■ Options Available

WT	Water Tight IP68
PCU	Remote Position Controller Unit (4~20mA input/output)
CT	Current Transmitter(4~20mA)
PK	Potentiometer Kit (0~1Kohm)
ALS	Auxiliary Limit Switches
ATS	Auxiliary Torque Switches
LCU1	Local Control Units 1 (for 1Ph)
LCU2	Local Control Units 2(for 3Ph)
LT	Low temperature(-40 degree)
BP	Battery Pack
ICU	Intelligent Control Unit,(Auto Phase Discriminator, LCD Display, Local Control Unit)

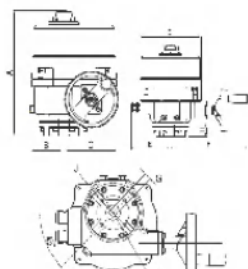
■ MARINE VALVE

■ Dimension or Series AQTB0050-AQTB20000

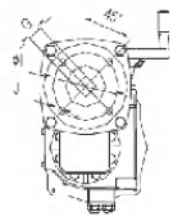
Model	A	B	C	D	E	F	G	H	I	J	Weight(Kg)
AQTB0050	192	150	135	170	--	--	11*11 14*14	20	36 50	4-M5 4-M6	3.6
AQTB0080	212	150	135	170	--	--	17*17	20	70	4-M8	3.7
AQTB0100	268	77	123	216	121	240	14*14 17*17	35	70	4-M8	11
AQTB0200	268	77	123	216	121	240	14*14 17*17	35	70	4-M8	11
AQTB0300	268	77	123	216	121	240	14*14 17*17	35	70	4-M8	11
AQTB0400	327	103	187	266	150	297	22*22	55	102	4-M10	22
AQTB0600	327	103	187	266	150	297	22*22	55	102	4-M10	22
AQTB0800	327	103	187	266	150	297	22*22 27*27	55	125	4-M12	22
AQTB1000	327	103	187	266	150	297	27*27	55	125	4-M12	22
AQTB1300	327	103	187	266	150	297	27*27	65	125	4-M12	22
AQTB1700	380	127	242	293	161	333	27*27 36*36	65	140	4-M12	36
AQTB2000	380	127	242	293	161	333	36*36	65	140	4-M12	36
AQTB2300	380	127	242	293	161	333	36*36	65	140	4-M12	36
AQTB3500	532	118	242	293	308	186	40*40 46*46	85	140 165	4-M16 4-M20	76
AQTB5000	532	118	242	293	308	186	40*40 46*46	85	165	4-M20	76
AQTB8000	545	160	242	293	343	160	55*55	130	254	8-M16	107
AQTB13000	672	520	--	293	281	331	55*55 77*77	120	254 298	8-M16 8-M20	218
AQTB16000	672	520	--	293	281	331	77*77	120	298	8-M20	218
AQTB20000	672	520	--	293	281	331	77*77	120	298	8-M20	218



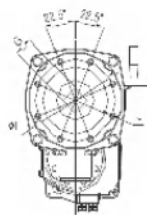
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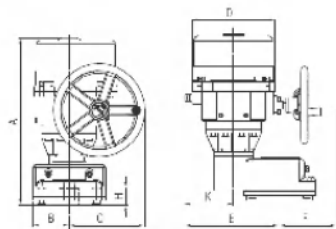
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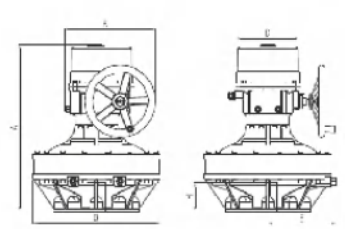
AQTB3500-AQTB5000



AQTB8000



AQTB3500-AQTB8000



AQTB13000-AQTB20000



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ANNOTATION

This image shows a blank sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



QINGDAO YOKOSUN FLUID TECHNOLOGY CO.,LTD.
青 岛 优 科 上 野 流 体 科 技 有 限 公 司



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工厂地址: 山东省潍坊高密市柴沟工业园
Factory ADD: Chaigou Industrial park, Gaomi City

