

ARI-ZETRIX® - Fig. 016 - Double flanged process valve with metallic sealing - Triple offset

ARI-ZETRIX® - Fig. 018 - Fully lugged process valve with metallic sealing - Triple offset

ARI-ZETRIX® - Fig. 019 - Butt weld ended process valve with metallic sealing - Triple offset

ARI-ZETRIX®

with worm gear

- Self-locking
- With variable adjustment

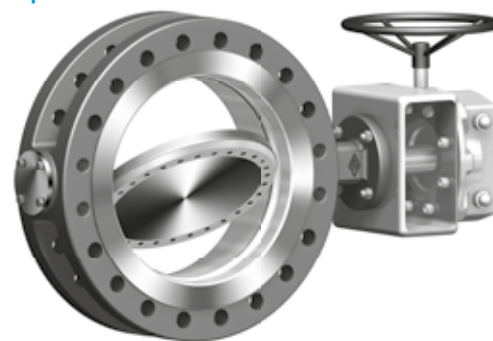
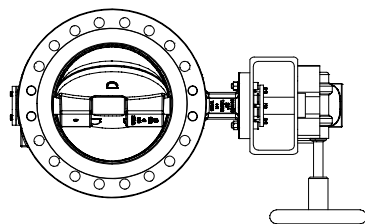


Fig. 016 -
ARI-ZETRIX® double flange

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ARI-ZETRIX®

with electric rotary actuator Auma or Schiebel

- For temporary service S2-15 min.
(or control: Auma S4 25%,
Schiebel S4 40%)
- 400V 50Hz (optional: 230V 50Hz)
- Enclosure IP 67

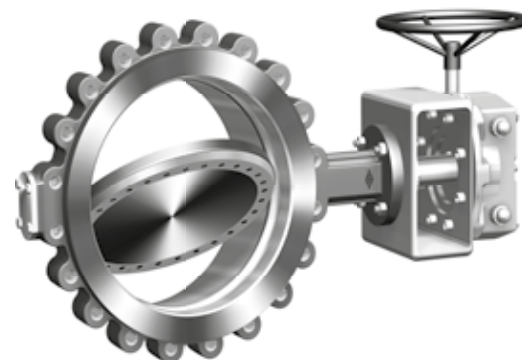
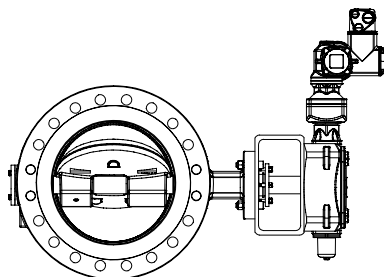


Fig. 018 -
ARI-ZETRIX® threaded flanged

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ARI-ZETRIX®

with pneumatic actuator

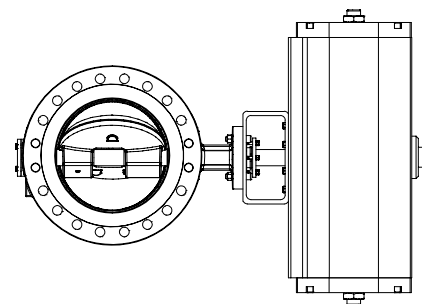
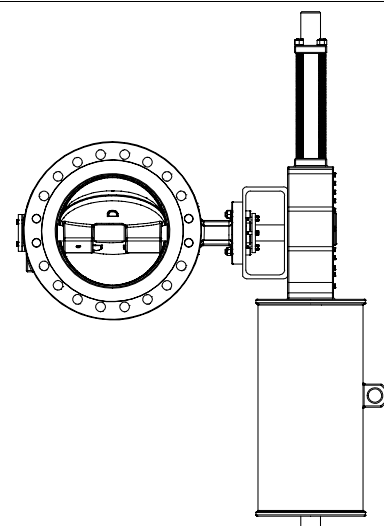


Fig. 019 -
ARI-ZETRIX® butt weld ends

on request

ARI-ZETRIX®

with hydraulic actuator



on request

Features:

- Double flange, threaded flange and butt weld ends design
- Cast steel / stainless steel body, one-piece
- Triple offset construction:
Rotary movement (90°) without wear or friction
- Metallic sealing
- Stellite seat (Stellite® 21)
- Continuous stem, hardened bearings
with graphite protector ring
- Blow-out protected stem (optional: acc. to API 609)
- Vacuum-tight
- Firesafe acc. to ISO 10479 / API 607
- ATEX
- SIL
- NACE (optional)
- Packing acc. to EN ISO 15848-1/ TA-Luft (optional)

Double flanged process valve - Triple offset (Cast steel, Stainless steel)

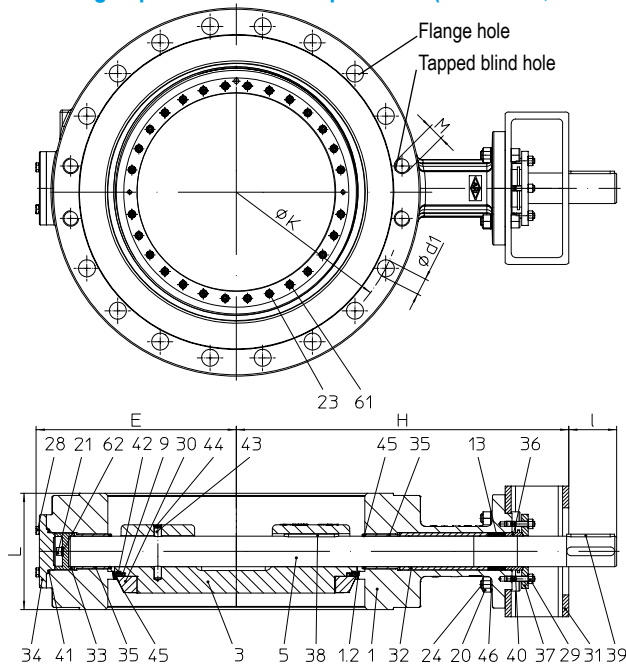


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
30.016	PN 6	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
31.016	PN10	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
32.016	PN16	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
34.016	PN25	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
35.016	PN40	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
50.016	PN 6	1.4408	DN 80-1200	1.4408	1.4542
51.016	PN10	1.4408	DN 80-1200	1.4408	1.4542
52.016	PN16	1.4408	DN 80-1200	1.4408	1.4542
54.016	PN25	1.4408	DN 80-1200	1.4408	1.4542
55.016	PN40	1.4408	DN 80-1200	1.4408	1.4542

Face-to-face dimension series 13 acc. to DIN EN 558 / ISO 5752 / API 609 (short pattern)

Face-to-face dimension series 14 and 15 acc. to DIN EN 558 / ISO 5752 on request

Sealing element:

• Graphite / X2CrNiMoN22-5-3, 1.4462 -60°C to 400°C

Max. differential pressure:

• = Nominal pressure

Actuation arrangement:

- Worm gear
- Electric actuator
- Pneumatic actuator
- Hydraulic actuator

Test:

Sealing leakage test: • DIN EN 12266-1 Leakage rate A

Options on request (refer to page 13)

Parts					
Pos.	Sp.p.	Description	Fig. 30. / 31. / 32. / 34. / 35.016		Fig. 50. / 51. / 52. / 54. / 55.016
1		Body	GP240GH+N, 1.0619+N		GX5CrNiMo19-11-2, 1.4408
1.2		Seat	Stellit 21		
3		Disc	GP240GH+N, 1.0619+N		GX5CrNiMo19-11-2, 1.4408
5		Stem	X20Cr13+QT, 1.4021+QT		X5CrNiCuNb16-4, 1.4542 - max. 300°C (1.4980 - max. 400°C on request)
9	x	Lamellar seal ring	Graphite / X2CrNiMoN22-5-3, 1.4462		
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		
21		Cheese head screw	A4-70		
23		Cheese head screw	A4-70		
24		Cheese head screw	8.8-A2B		
28		Hexagon screw	A2-70		
29		Hexagon nut	A4-70		
30		Retaining ring	P265 GH, 1.0425 (nickel plated)		X5CrNi18-10, 1.4301
31		Console	S355J2H, 1.0576 (galvanized)		
32		Distance bush	X5CrNi18-10, 1.4301		
33		Axial bearing	X20Cr13+QT, 1.4021+QT (hardened)		X5CrNi18-10, 1.4301 (hardened)
34		Bottom flange	P250 GH, 1.0460		X5CrNi18-10, 1.4301
35		Bushing	X20Cr13+QT, 1.4021+QT (hardened)		X5CrNi18-10, 1.4301 (hardened)
36		Bushing	X5CrNi18-10, 1.4301		
37		Packing box flange	≤ DN 600, PN 6-40 and DN700-800, PN 6-10: GX5CrNiMo19-11-2, 1.4408 / > DN 600 (except DN700-800, PN 6-10): X5CrNi18-10, 1.4301		
38 / 39		Parallel key	A4		
40		Stud	A4-70		
41	x	Spiral wound gasket	Graphite / X6CrNiTi18-10, 1.4541		
42	x	Spiral wound gasket	Graphite / Hastelloy C276, 2.4819		
43		Parallel pin	A4-70		
44		Retaining ring	X39CrMo17-1+QT, 1.4122+QT		
45		Packing ring	Graphite webbing		
46		Spring ring	FST-A2B		
61 / 62		Lock washer pair	A4		
	L Spare parts				

Information / restriction of technical rules need to be observed!

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview).

DN			80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	
Face-to-face dimension series 13 acc. to DIN EN 558 / ISO 5752 / API 609 Cat. B (short pattern)																				
L			(mm)	114	127	140	140	152	165	178	190	216	222	229	267	292	318	330	410	470
Face-to-face dimension series 14 and 15 acc. to DIN EN 558 / ISO 5752 on request																				
Dimensions																				
PN6 / PN10	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	839	940	1043	1051	1190	
	E	(mm)	127	150	184	185	204	239	267	305	337	380	392	460	539	616	666	728	867	
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	110	120	120	120	162	
PN16	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	941	1043	1064	1244	
	E	(mm)	127	150	184	185	204	239	267	305	337	380	392	460	538	618	671	732	875	
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	120	120	165	200	
PN25	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	896	998	1064	1244	
	E	(mm)	127	150	184	185	204	239	267	305	337	380	392	460	538	618	673	732	875	
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	165	165	165	200	
PN40	H	(mm)	292	288	344	344	400	575	601	636	661	681	762	819	868	997	1093	1155	1284	
	E	(mm)	127	150	184	185	215	251	285	317	361	406	416	496	575	649	713	793	949	
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130	165	200	200	200	280	
DN			80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	
Standard-flange dimensions / Hexagon screw (Quantity, Thread, Length) per side																				
PN6	Flange hole	ØK	(mm)	150	170	200	225	280	335	395	445	495	550	600	705	810	920	1020	1120	1340
		n x Ød1	(mm)	--	--	4x18	4x18	4x18	8x18	8x22	8x22	12x22	16x22	16x22	16x26	20x26	20x30	20x30	24x30	28x33
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M27	M27	M27	M30
		Number ¹⁾	(n)	--	--	4	4	4	8	8	8	12	16	16	16	20	20	20	24	28
		Length ¹⁾	(mm)	--	--	90	90	90	100	100	100	100	110	110	120	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Length ²⁾	(mm)	40	40	40	50	50	50	50	50	50	60	60	70	*	*	*	*	*
PN10	Flange hole	ØK	(mm)	160	180	210	240	295	350	400	460	515	565	620	725	840	950	1050	1160	1380
		n x Ød1	(mm)	4x18	4x18	4x18	4x22	4x22	8x22	8x22	12x22	12x26	16x26	16x26	16x30	20x30	20x33	24x33	24x36	28x39
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M24	M27	M27	M30	M30	M33	M36
		Number ¹⁾	(n)	4	4	4	4	4	8	8	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	80	80	90	90	90	100	100	100	100	110	110	120	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Length ²⁾	(mm)	40	40	40	50	50	50	50	50	50	60	60	70	*	*	*	*	*
PN16	Flange hole	ØK	(mm)	160	180	210	240	295	355	410	470	525	585	650	770	840	950	1050	1170	1390
		n x Ød1	(mm)	4x18	4x18	4x18	4x22	8x22	8x26	8x26	12x26	12x30	16x30	16x33	16x36	20x36	20x39	24x39	24x42	28x48
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M16	M16	M20	M20	M24	M24	M24	M27	M27	M30	M33	M33	M36	M36	M39	M45
		Number ¹⁾	(n)	4	4	4	4	8	8	8	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	80	80	90	90	90	100	100	110	110	120	130	150	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Length ²⁾	(mm)	40	40	40	50	50	50	60	60	60	70	80	90	*	*	*	*	*
PN25	Flange hole	ØK	(mm)	160	190	220	250	310	370	430	490	550	600	660	770	875	990	1090	1210	1420
		n x Ød1	(mm)	4x18	4x22	4x26	4x26	8x26	8x30	12x30	12x33	12x36	16x36	16x36	16x39	20x42	20x48	24x48	24x56	28x56
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M20	M24	M24	M24	M27	M27	M30	M33	M33	M33	M36	M39	M45	M45	M52	M52
		Number ¹⁾	(n)	4	4	4	4	8	8	12	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	90	95	95	95	100	110	110	120	130	130	140	180	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Length ²⁾	(mm)	50	50	60	60	60	60	60	70	80	80	90	100	*	*	*	*	*
PN40	Flange hole	ØK	(mm)	160	190	220	250	320	385	450	510	585	610	670	795	900	1030	1140	1250	1460
		n x Ød1	(mm)	4x18	4x22	4x26	4x26	8x30	8x33	12x33	12x36	12x39	16x39	16x42	16x48	20x48	20x56	24x56	24x56	28x62
		Number of threads (M)	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Screw	Thread ^{1) 2)}	(mm)	M16	M20	M24	M24	M27	M30	M30	M33	M36	M36	M39	M45	M45	M52	M52	M52	M56
		Number ¹⁾	(n)	4	4	4	4	8	8	12	12	12	16	16	16	20	20	24	24	28
		Length ¹⁾	(mm)	90	95	95	95	105	120	130	140	150	160	170	200	*	*	*	*	*
		Number ²⁾	(n)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Length ²⁾	(mm)	50	50	60	60	70	70	80	80	90	100	100	120	*	*	*	*	*
¹⁾ Hexagon screws / studs for flange holes																				
²⁾ Hexagon screws for tapped blind hole																				
³⁾ To be checked / determined by the customer																				
Thread pitch of blind holes acc. to DIN 13-1:1999-11																				

¹⁾ Hexagon screws / studs for flange holes
Thread pitch of blind holes acc. to DIN 13-1:1999-11

²⁾ Hexagon screws for tapped blind hole

³⁾ To be checked / determined by the customer

DN	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
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Weights for double flanged process valve (series 13)																	
1.0619+N	PN6/10	Fig. 30./31.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	718	949
	PN16	Fig. 32.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	779	1039
	PN25	Fig. 34.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	875	1192
	PN40	Fig. 35.016	(kg)	33	44	65	65	90	105	182	260	345	365	523	832	1181	1668
1.4408	PN6/10	Fig. 50./51.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	725	958
	PN16	Fig. 52.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	786	1049
	PN25	Fig. 54.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	883	1204
	PN40	Fig. 55.016	(kg)	35	46	68	68	96	110	187	265	352	402	529	841	1192	1684

Pressure-temperature-ratings	Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.
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acc. to manuf. standard	PN		-60°C to <-10°C	-10°C to 50 °C	120 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400°C
1.0619+N	6	(bar)	on request	6	5,38	5,2	5	4,5	4,1	3,8	3,5
1.0619+N	10	(bar)	on request	10	9,2	8,8	8,3	7,6	6,9	6,4	5,9
1.0619+N	16	(bar)	12	16		15,3	14	13	11	10,2	9,5
1.0619+N	25	(bar)	18,7	25		23,9	22	20	17,2	16	14,8
1.0619+N	40	(bar)	30	40		38,1	35	32	28	25,7	23,8

acc. to DIN EN 1092-1	PN		-60°C to <-10°C	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	6	(bar)	on request	6	5,4	5	4,7	4,4	4,2	4,1
1.4408	10	(bar)	on request	10	9	8,4	7,9	7,4	7,1	6,8
1.4408	16	(bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9
1.4408	25	(bar)	25	25	22,7	21	19,8	18,5	17,8	17,1
1.4408	40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4

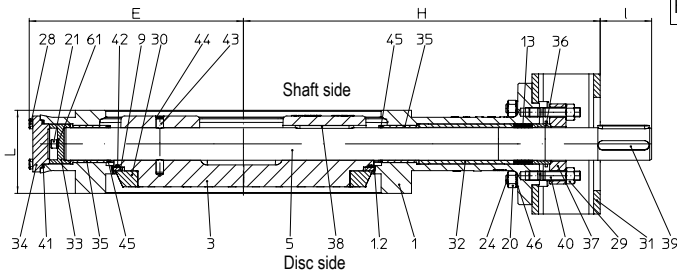
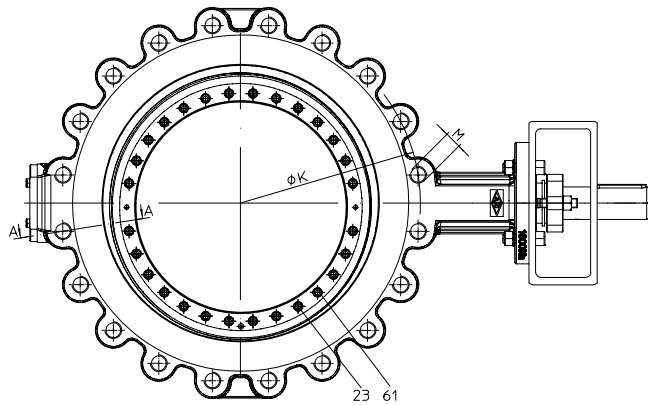
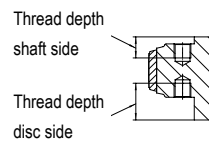
Threaded flange process valve - Triple offset (Cast steel, Stainless steel)


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
30.018	PN 6	on request			
31.018	PN10	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
32.018	PN16	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
34.018	PN25	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
35.018	PN40	1.0619+N	DN 80-600	1.0619+N	1.4021+QT

50.018	PN 6	on request			
51.018	PN10	1.4408	DN 80-600	1.4408	1.4542
52.018	PN16	1.4408	DN 80-600	1.4408	1.4542
54.018	PN25	1.4408	DN 80-600	1.4408	1.4542
55.018	PN40	1.4408	DN 80-600	1.4408	1.4542

Face-to-face dimension series 16 acc. to DIN EN 558 / ISO 5752

A-A


Sealing element:

• Graphite / X2CrNiMoN22-5-3, 1.4462 -60°C to 400°C

Max. differential pressure:

• = Nominal pressure

Actuation arrangement:

- Worm gear
- Electric actuator
- Pneumatic actuator
- Hydraulic actuator

Test:

Sealing leakage test: • DIN EN 12266-1 Leakage rate A

Options on request (refer to page 13)

Parts					
Pos.	Sp.p.	Description	Fig. 31. / 32. / 34. / 35.018		Fig. 51. / 52. / 54. / 55.018
1		Body	GP240GH+N, 1.0619+N		GX5CrNiMo19-11-2, 1.4408
1.2		Seat	Stellit 21		
3		Disc	GP240GH+N, 1.0619+N		GX5CrNiMo19-11-2, 1.4408
5		Stem	X20Cr13+QT, 1.4021+QT		X5CrNiCuNb16-4, 1.4542 - max. 300°C (1.4980 - max. 400°C on request)
9	x	Lamellar seal ring	Graphite / X2CrNiMoN22-5-3, 1.4462		
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		
21		Cheese head screw	A4-70		
23		Cheese head screw	A4-70		
24		Cheese head screw	8.8-A2B		
28		Hexagon screw	A2-70		
29		Hexagon nut	A4-70		
30		Retaining ring	P265 GH, 1.0425 (nickel plated)		X5CrNi18-10, 1.4301
31		Console	S355J2H, 1.0576 (galvanized)		
32		Distance bush	X5CrNi18-10, 1.4301		
33		Axial bearing	X20Cr13+QT, 1.4021+QT (hardened)		X5CrNi18-10, 1.4301 (hardened)
34		Bottom flange	< DN 250: P265 GH, 1.0425 ≥ DN 250: P250 GH, 1.0460		X5CrNi18-10, 1.4301
35		Bushing	X20Cr13+QT, 1.4021+QT (hardened)		X5CrNi18-10, 1.4301 (hardened)
36		Bushing	X5CrNi18-10, 1.4301		
37		Packing box flange	GX5CrNiMo19-11-2, 1.4408		
38 / 39		Parallel key	A4		
40		Stud	A4-70		
41	x	Spiral wounded gasket (≥ DN 250)	Graphite / X6CrNiTi18-10, 1.4541		
42	x	Spiral wounded gasket	Graphite / Hastelloy C276, 2.4819		
43		Parallel pin	A4-70		
44		Retaining ring	X39CrMo17-1+QT, 1.4122+QT		
45		Packing ring	Graphite webbing		
46		Spring ring	FST-A2B		
61 / 62		Lock washer pair	A4		
	L Spare parts				

Information / restriction of technical rules need to be observed!

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview).

DN			80	100	125	150	200	250	300	350	400	450	500	600	
Face-to-face dimension series 16 acc. to DIN EN 558 / ISO 5752															
L			(mm)	64	64	71	76	89	114	114	127	140	152	152	178
Dimensions															
PN10 / PN16 / PN25	H	(mm)	292	288	334	344	371	498	552	588	662	661	712	763	
	E	(mm)	131	154	189	188	211	240	268	306	338	380	393	460	
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	
PN40	H	(mm)	292	288	334	344	400	575	601	636	661	681	762	819	
	E	(mm)	131	154	189	188	226	252	285	317	361	406	417	496	
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130	
Standard-flange dimensions / Threads (Dimensions, Quantity, Screw depth) per side															
PN10	Flange hole	ØK	(mm)	160	180	210	240	295	350	400	460	515	565	620	725
		Total number of threads (M)	(n)	8	8	8	8	8	12	12	16	16	20	20	20
		Thread ^{1) 2)}	(mm)	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M24	M27
	Screw	Number ¹⁾	(n)	8	8	8	8	4	12	12	16	16	16	16	16
		Thread depth disc side ¹⁾	(mm)	30	30	30	35	40	50	50	60	65	70	70	85
		Thread depth shaft side ¹⁾	(mm)	30	30	30	35	40	50	50	60	65	70	70	85
		Number ²⁾	(n)	-	-	-	-	4	-	-	-	-	4	4	4
		Thread depth disc side ²⁾	(mm)	-	-	-	-	35	-	-	-	-	56	52	79
		Thread depth shaft side ²⁾	(mm)	-	-	-	-	24	-	-	-	-	56	37	45
PN16	Flange hole	ØK	(mm)	160	180	210	240	295	355	410	470	525	585	650	770
		Total number of threads (M)	(n)	8	8	8	8	12	12	12	16	16	20	20	20
		Thread ^{1) 2)}	(mm)	M16	M16	M16	M20	M20	M24	M24	M24	M27	M27	M30	M33
	Screw	Number ¹⁾	(n)	8	8	8	8	8	12	12	16	16	16	16	16
		Thread depth disc side ¹⁾	(mm)	30	30	30	35	40	50	50	60	65	70	67	103
		Thread depth shaft side ¹⁾	(mm)	30	30	30	35	40	50	50	60	65	70	52	65
		Number ²⁾	(n)	-	-	-	-	4	-	-	-	-	4	4	4
		Thread depth disc side ²⁾	(mm)	-	-	-	-	34	-	-	-	-	50	52	79
		Thread depth shaft side ²⁾	(mm)	-	-	-	-	24	-	-	-	-	50	37	45
PN25	Flange hole	ØK	(mm)	160	190	220	250	310	370	430	490	550	600	660	770
		Total number of threads (M)	(n)	8	8	8	8	12	12	16	16	16	20	20	20
		Thread ^{1) 2)}	(mm)	M16	M20	M24	M24	M24	M27	M27	M30	M33	M33	M33	M36
	Screw	Number ¹⁾	(n)	8	8	8	8	8	12	12	12	16	16	16	16
		Thread depth disc side ¹⁾	(mm)	30	30	30	35	40	50	50	58	68	73	72	103
		Thread depth shaft side ¹⁾	(mm)	30	30	30	35	40	50	50	58	68	73	57	69
		Number ²⁾	(n)	-	-	-	-	4	-	4	4	-	4	4	4
		Thread depth disc side ²⁾	(mm)	-	-	-	-	33	-	37	43	-	51	52	79
		Thread depth shaft side ²⁾	(mm)	-	-	-	-	22	-	29	43	-	51	37	45
PN40	Flange hole	ØK	(mm)	160	190	220	250	320	385	450	510	585	610	670	795
		Total number of threads (M)	(n)	8	8	8	8	12	12	16	16	16	20	20	20
		Thread ^{1) 2)}	(mm)	M16	M20	M24	M24	M27	M30	M30	M33	M36	M36	M39	M45
	Screw	Number ¹⁾	(n)	8	8	8	8	8	12	12	12	12	16	16	16
		Thread depth disc side ¹⁾	(mm)	30	30	30	35	40	57	56	55	69	60	70	88
		Thread depth shaft side ¹⁾	(mm)	30	30	30	35	40	51	50	54	61	60	64	79
		Number ²⁾	(n)	-	-	-	-	4	-	4	4	4	4	4	4
		Thread depth disc side ²⁾	(mm)	-	-	-	-	29	-	32	33	48	39	40	53
		Thread depth shaft side ²⁾	(mm)	-	-	-	-	22	-	26	32	40	39	34	44

¹⁾ Tapped through hole ²⁾ Tapped blind hole

Caution: Thread sizes ≥ M30 are not tapped all the way through

Thread pitch acc. to DIN 13-1

Thread depth is measured from flange face

Compliant with DIN EN 593 by ensuring effective thread depth of 1xD or 0,67xD

Weights for threaded flanged process valve

1.0619+N	PN10/16/25	Fig. 31./32./34.018	(kg)	24	29	41	45	64	74	121	152	192	221	416	446
	PN40	Fig. 35.018	(kg)	24	29	41	45	64	82	148	246	317	355	494	778
1.4408	PN10/16/25	Fig. 51./52./54.018	(kg)	26	31	42	47	68	78	128	158	198	244	422	458
	PN40	Fig. 55.018	(kg)	26	31	42	47	69	86	152	250	324	393	450	787

Pressure-temperature-ratings

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

acc. to manuf. standard	PN		-60°C to <-10°C	-10°C to 50 °C	120 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400°C
1.0619+N	6	(bar)	on request	6	5,38	5,2	5	4,5	4,1	3,8	3,5
1.0619+N	10	(bar)	on request	10	9,2	8,8	8,3	7,6	6,9	6,4	5,9
1.0619+N	16	(bar)	12	16	15,3	14	13	11	10,2	9,5	
1.0619+N	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	
1.0619+N	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	

acc. to DIN EN 1092-1	PN		-60°C to <-10°C	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	6	(bar)	on request	6	5,4	5	4,7	4,4	4,2	4,1
1.4408	10	(bar)	on request	10	9	8,4	7,9	7,4	7,1	6,8
1.4408	16	(bar)	16	16	14,5	13,4	12,7	11,8	11,4	10,9
1.4408	25	(bar)	25	25	22,7	21	19,8	18,5	17,8	17,1
1.4408	40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4

Butt weld ended process valve - Triple offset (Cast steel)

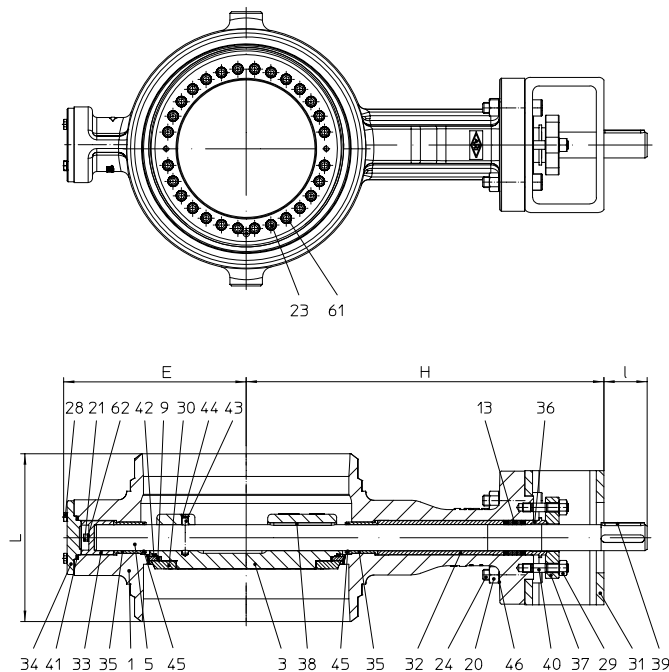


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
34.019	PN 6 - PN25	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
35.019	PN40	1.0619+N	DN 80-600	1.0619+N	1.4021+QT

Face-to-face dimension series 14 acc. to DIN EN 12982

Sealing element:	
• Graphite / X2CrNiMoN22-5-3, 1.4462	-60°C to 400°C
Max. differential pressure:	
• = Nominal pressure	

Actuation arrangement:	
• Worm gear	• Pneumatic actuator
• Electric actuator	• Hydraulic actuator
Test:	
Sealing leakage test:	• DIN EN 12266-1 Leakage rate A

Options on request (refer to page 13)

Parts			
Pos.	Sp.p.	Description	Fig. 34./35.019
1		Body	GP240GH+N, 1.0619+N
1.2		Seat	Stellit 21
3		Disc	GP240GH+N, 1.0619+N
5		Stem	X20Cr13+QT, 1.4021+QT
9	x	Lamellar seal ring	Graphite / X2CrNiMoN22-5-3, 1.4462
13	x	Packing unit	Graphit
20		Hexagon nut	8 - A2B
21		Cheese head screw	A4-70
23		Cheese head screw	A4-70
24		Cheese head screw	8.8-A2B
28		Hexagon screw	A2-70
29		Hexagon nut	A4-70
30		Retaining ring	P265 GH, 1.0425 (nickel plated)
31		Console	S355J2H, 1.0576 (galvanized)
32		Distance bush	X5CrNi18-10, 1.4301
33		Axial bearing	X20Cr13+QT, 1.4021+QT (hardened)
34		Bottom flange	P250 GH, 1.0460
35		Bushing	X20Cr13+QT, 1.4021+QT (hardened)
36		Bushing	X5CrNi18-10, 1.4301
37		Packing box flange	GX5CrNiMo19-11-2, 1.4408
38 / 39		Parallel key	A4
40		Stud	A4-70
41	x	Spiral wound gasket	Graphite / X6CrNiTi18-10, 1.4541
42	x	Spiral wound gasket	Graphite / Hastelloy C276, 2.4819
43		Parallel pin	A4-70
44		Retaining ring	X39CrMo17-1+QT, 1.4122+QT
45		Packing ring	Graphite webbing
46		Spring ring	FST-A2B
61 / 62		Lock washer pair	A4
L Spare parts			

Information / restriction of technical rules need to be observed!

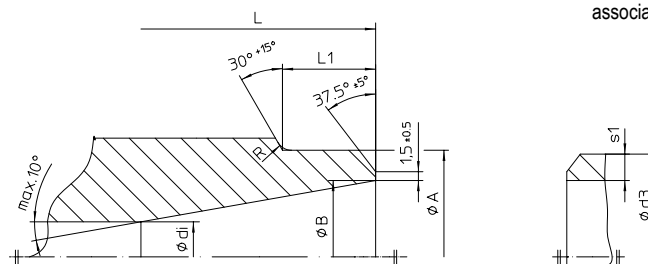
The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview).

DN			80	100	125	150	200	250	300	350	400	450	500	600
Face-to-face dimension series 14 acc. to DIN EN 12982														
L		(mm)	180	190	200	210	230	250	270	290	310	330	350	390
Dimensions														
PN 6 - PN25	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763
	E	(mm)	131	154	188	188	211	240	268	306	338	380	393	460
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110
PN40	H	(mm)	292	288	344	344	400	575	601	636	661	681	762	819
	E	(mm)	131	154	188	188	226	252	285	317	361	406	417	496
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130
Butt weld ends according to EN12627														
ØA		(mm)	91	117	144	172	223	278	329	362	413	464	516	619
ØB		(mm)	80,9	104,3	130,7	157,1	204,9	257	307,9	338	384,4	437	486	585
Ødi		(mm)	80	104,3	128	152	200	250	296	331	380	437	480	581
L1 (similar picture 4)		(mm)	12	14	18	20	20	25	33	45	45	33	40	40
Ød3		(mm)	88,9	114,3	139,7	168,3	219,1	273	323,9	355,6	406,4	457	508	610
s1		(mm)	4	5	4,5	5,6	7,1	8	8	8,8	11	10	11	12,5

- DIN EN 12627 picture 4
- Joint preparation acc. to - DIN EN ISO 9692-1 / DIN 2559-2
- Customer specific tube wall thickness acc. to ISO 4200
- Shoed ends (on request)
- Further, customer-specific dimensions on request

Edge shaping acc. to DIN EN ISO 5817

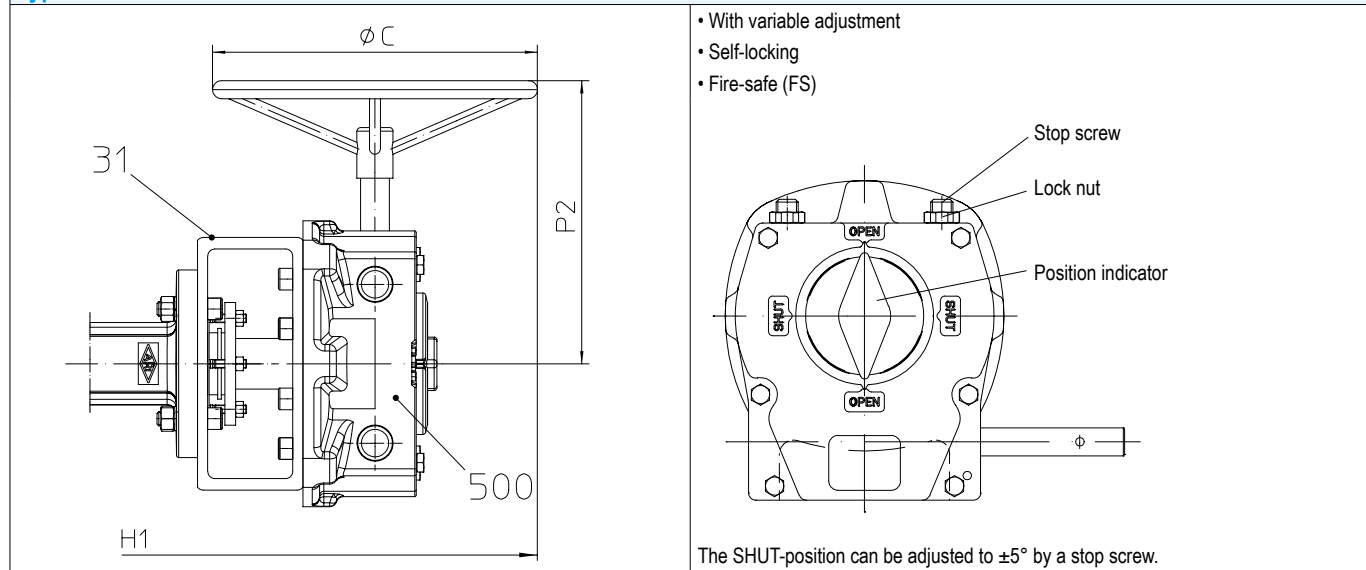


associated pipe dimensions: Ød3; s1

Our welded valve products are manufactured using the following materials: GP240GH, 1.0619+N

Based on our experience we recommend electric welding process for connecting valves or strainers with tubes or with each other													
Lime based electrodes with an appropriate composite material should be used as filler material for welding.													
Gas welding should be avoided.													
Due to the different material composition and material thickness of valves and tubes, gas welding is more susceptible to produce faults than electric welding (hardness cracks, coarse-grained structure).													

DN				80	100	125	150	200	250	300	350	400	450	500	600
Weights for butt weld ended process valve															
1.0619+N	PN 6 - PN25	Fig. 34.019	(kg)	22	26	36	38	52	67	92	110	161	195	356	420
	PN40	Fig. 35.019	(kg)	22	26	36	38	59	78	113	165	208	256	371	577
Pressure-temperature-ratings				Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.											
acc. to manuf. standard	PN			-60°C to <-10°C	-10°C to 50 °C	120 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400°C			
1.0619+N	6 - 25	(bar)		18,7	25		23,9	22	20	17,2	16	14,8			
1.0619+N	40	(bar)		30	40		38,1	35	32	28	25,7	23,8			

ZETRIX® process valve with worm gear
Typ: AB


Parts			
Pos.	Ers.	Description	Fig. 30./31./ 32./ 34./ 35.016; 50./51./ 52./ 54./ 55.016 ; 30./31./ 32./ 34./ 35.018; 50./51./ 52./ 54./ 55.018 ; 30./31./ 32./ 34./ 35.019
31		Console	S355J2H, 1.0576 (zinc coated)
500		Worm gear	
	L Spare parts		

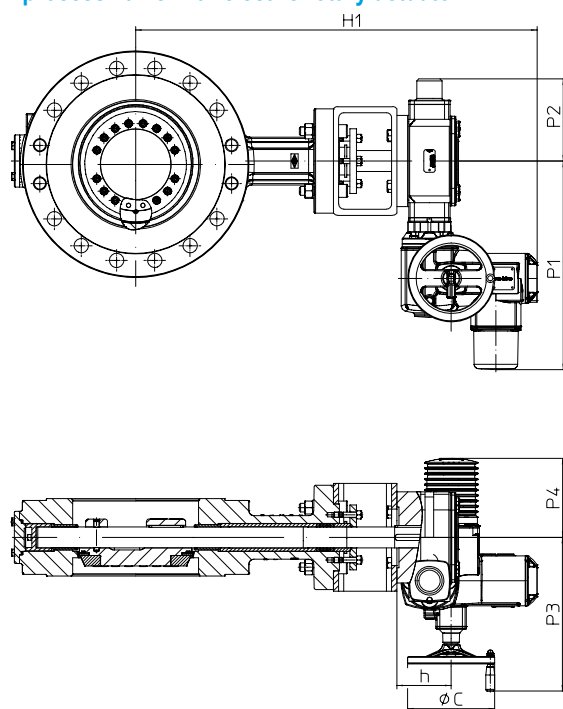
DN	80	100	125	150	200	250	300	350	400	450	500	600	700-1200
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Abmessungen														
PN6 / PN10 / PN16 / PN25	H1 (to middle of valve)	(mm)	395	395	585	585	612	739	844	880	960	1109	1017	1068
	P2	(mm)	217	217	297	297	297	297	305	305	346	346	417	417
	ØC	(mm)	150	150	400	400	400	400	500	500	500	500	500	500
	Type of gear		AB210 FS	AB215 FS	AB550 FS	AB550 FS	AB550 FS	AB550 FS	AB880 FS	AB880 FS	AB1250 FS	AB1250 FS	AB1950 PR4 FS	AB1950 PR4 FS

PN40	H1 (to middle of valve)	(mm)	395	395	585	585	692	873	899	941	966	986	1071	1128
	P2	(mm)	217	217	297	297	305	346	346	417	417	417	470	470
	ØC	(mm)	150	150	400	400	500	500	500	500	500	500	500	500
	Type of gear		AB210 FS	AB215 FS	AB550 FS	AB550 FS	AB880 FS	AB1250 FS	AB1250 FS	AB1950 PR4 FS	AB1950 PR4 FS	AB1950 PR4 FS	AB6800 PR4 FS	AB6800 PR6 FS

Weights																
1.0619+N	PN6/10/16/25	Fig. 30./31./32./34.016 with gear	(kg)	37	48	73	73	88	106	146	190	263	303	495	575	on request
	PN40	Fig. 35.016 mit Getriebe	(kg)	37	48	73	73	105	120	209	301	390	441	607	916	
	PN6/10/16/25	Fig. 30./31./32./34.018 with gear	(kg)	28	33	49	53	72	74	136	167	219	249	457	491	
	PN40	Fig. 35.018 with gear	(kg)	28	33	49	53	79	82	175	287	362	412	578	862	
	PN25	Fig. 34.019 with gear	(kg)	26	30	44	46	60	75	102	120	174	208	393	457	
	PN40	Fig. 35.019 with gear	(kg)	26	30	44	46	69	91	126	178	245	293	446	652	
1.4408	PN6/10/16/25	Fig. 50./51./52./54.016 with gear	(kg)	39	50	76	76	92	111	151	195	269	309	501	582	
	PN40	Fig. 55.016 with gear	(kg)	39	50	76	76	111	125	214	306	397	458	613	925	
	PN6/10/16/25	Fig. 50./51./52./54.018 with gear	(kg)	30	35	50	55	76	78	166	173	225	265	463	503	
	PN40	Fig. 55.018 with gear	(kg)	30	35	50	55	84	86	179	291	369	443	534	871	

ZETRIX® process valve with electric rotary actuator



Actuator allocation on request

Type: Auma or Schiebel (further actuator types on request)

- for temporary service S2-15 min.
(or control: Auma S4 25%, Schiebel S4 40%)
- Enclosure IP 67
- Temperature guard in the motor
- Heating

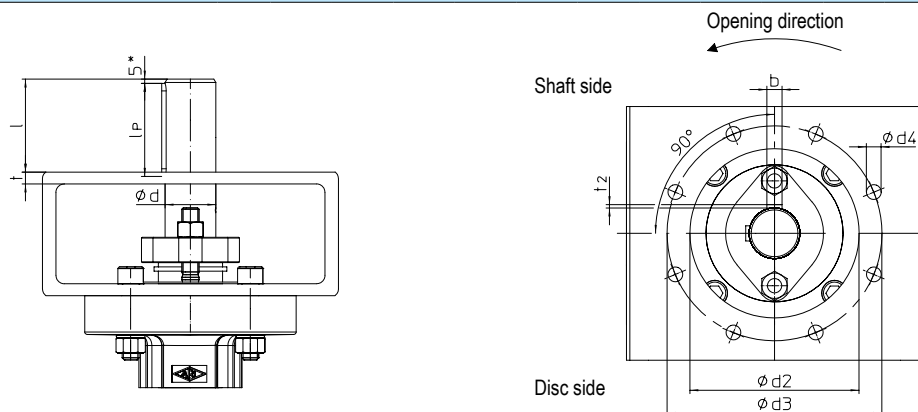
Voltages:

- 400V 50Hz (230V 50Hz)
- Other voltages on request

Accessories:

- Travel switch
- Potentiometer
- Auma Matic
- Valve positioner 0-10V / 4-20mA
- Position-transmitter

For connection refer to terminal connection in the operating instructions of the actuator!

Connection with 2 parallel keys 90° rotated


* For DN80 the dimension is 4 mm

The valve is closed in this position

PN6 / PN10

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Connection EN ISO 5211		F10		F12				F14		F16		F25			F30			F35
Ø d (stem diameter)	(mm)	22	28	36				42		48	50	60	70	80		98	110	130
Ø d4 (hole-Ø)	(mm)	11		13				17		21		17			21			33
Ø d2 (inside-Ø)	(mm)	70		85				100		130		200			230			260
Ø d3 (screw-hole circle)	(mm)	102		125				140		165		254			298			356
l (bare stem length)	(mm)	45		55				65		80		110			120			165
lp (parallel key length)	(mm)	45		56				63		80		110			125		140	180
b (parallel key width)	(mm)	6	8	10				12		14		18	20	22	28		32	
t2 (parallel key depth)	(mm)	2,8	3,3					3,8		4,4	4,9	5,4		6,4		7,4		7,4
t (console wall thickness)	(mm)	8					12		14						22			

PN16

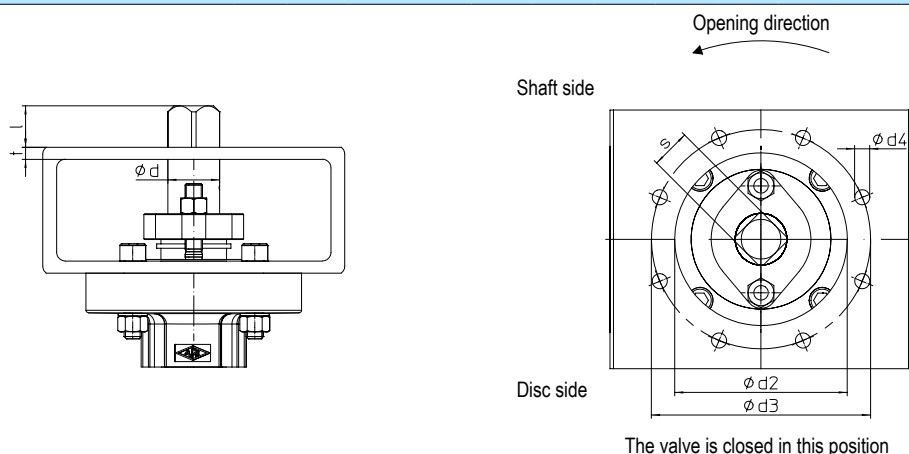
DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Connection EN ISO 5211		F10		F12				F14		F16		F25			F30			F35 F40
Ø d (stem diameter)	(mm)	22	28	36				42		48	50	60	70	98	110	120	130	160
Ø d4 (hole-Ø)	(mm)	11		13				17		21		17			21			33 39
Ø d2 (inside-Ø)	(mm)	70		85				100		130		200			230			260 300
Ø d3 (screw-hole circle)	(mm)	102		125				140		165		254			298			356 406
l (bare stem length)	(mm)	45		55				65		80		110			120			165 200
lp (parallel key length)	(mm)	45		56				63		80		110			140	160	180	220
b (parallel key width)	(mm)	6	8	10				12		14		18	20	28		32		40
t2 (parallel key depth)	(mm)	2,8	3,3					3,8		4,4	4,9	6,4		7,4		9,4		9,4
t (console wall thickness)	(mm)	8					12		14						22		27	

PN25

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Connection EN ISO 5211		F10		F12				F14		F16		F25		F30	F35			F40
Ø d (stem diameter)	(mm)	22	28	36				42		48	50	60	70	98	110	120	130	160
Ø d4 (hole-Ø)	(mm)	11		13				17		21		17		21	33			39
Ø d2 (inside-Ø)	(mm)	70		85				100		130		200		230	260			300
Ø d3 (screw-hole circle)	(mm)	102		125				140		165		254		298	356			406
l (bare stem length)	(mm)	45		55				65		80		110		120	165			200
lp (parallel key length)	(mm)	45		56				63		80		110		140	160		180	220
b (parallel key width)	(mm)	6	8	10				12		14		18	20	28		32		40
t2 (parallel key depth)	(mm)	2,8	3,3						3,8		4,4	4,9	6,4		7,4		9,4	
t (console wall thickness)	(mm)	8								12		14				22		27

PN40

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	
Connection EN ISO 5211		F10		F12		F14	F16		F25			F30		F35	F40			F48	
Ø d (stem diameter)	(mm)	22	28	36		42		48	60			70	80	110	120	145	160	190	
Ø d4 (hole-Ø)	(mm)	11		13		17	21		17			21		33	39				
Ø d2 (inside-Ø)	(mm)	70		85		100	130		200			230		260	300			370	
Ø d3 (screw-hole circle)	(mm)	102		125		140	165		254			298		356	406			483	
l (bare stem length)	(mm)	45		55		65	80		110			130		165	200			280	
lp (parallel key length)	(mm)	45		56		63	80		110			125		180	200	220		280	
b (parallel key width)	(mm)	6	8	10		12		14	18			20	22	28	32	36	40	45	
t2 (parallel key depth)	(mm)	2,8	3,3					3,8		4,4		4,9	5,4	6,4	7,4	8,4	9,4	10,4	
t (console wall thickness)	(mm)	8					12		14					22		27			37

Connection with 4 square EN ISO 5211 (Optional)

PN6 / PN10

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Connection EN ISO 5211		F10		F12				F14		F16		F25			F30			F35
Ø d (stem diameter)	(mm)	22	28	36			42		48	50	60	70	80		98	110	130	
Ø d4 (hole-Ø)	(mm)	11		13			17		21		17			21			33	
Ø d2 (inside-Ø)	(mm)	70		85			100		130		200			230			260	
Ø d3 (screw-hole circle)	(mm)	102		125			140		165		254			298			356	
l (bare stem length)	(mm)	19	24	29			38				48	57	57		on request			
s (width across flats)	(mm)	17	22	27			36				46	55	55					
t (console wall thickness)	(mm)	8							12			14						22

PN16

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Anschluss EN ISO 5211		F10		F12				F14		F16		F25		F30			F35	F40
Ø d (stem diameter)	(mm)	22	28	36				42		48	50	60	70	98	110	120	130	160
Ø d4 (hole-Ø)	(mm)	11		13				17		21		17		21			33	39
Ø d2 (inside-Ø)	(mm)	70		85				100		130		200		230			260	300
Ø d3 (screw-hole circle)	(mm)	102		125				140		165		254		298			356	406
l (bare stem length)	(mm)	19	24	29				38				48	57	on request				
s (width across flats)	(mm)	17	22	27				36				46	55					
t (console wall thickness)	(mm)	8							12			14					22	27

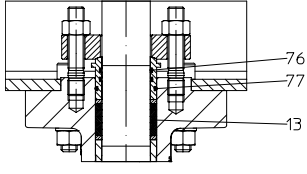
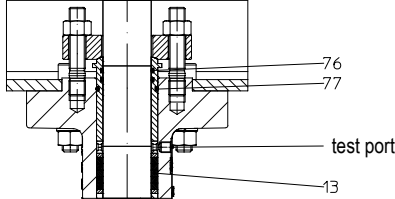
PN25

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Anschluss EN ISO 5211		F10		F12				F14		F16		F25		F30	F35			F40
Ø d (stem diameter)	(mm)	22	28	36				42		48	50	60	70	98	110	120	130	160
Ø d4 (hole-Ø)	(mm)	11		13				17		21		17		21	33			39
Ø d2 (inside-Ø)	(mm)	70		85				100		130		200		230	260			300
Ø d3 (screw-hole circle)	(mm)	102		125				140		165		254		298	356			406
l (bare stem length)	(mm)	19	24	29				38				48	57	on request				
s (width across flats)	(mm)	17	22	27				36				46	55					
t (console wall thickness)	(mm)	8								12		14						

PN40

DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Anschluss EN ISO 5211		F10		F12		F14	F16		F25			F30		F35	F40			F48
Ø d (stem diameter)	(mm)	22	28	36		42		48	60			70	80	110	120	145	160	190
Ø d4 (hole-Ø)	(mm)	11		13		17	21		17			21		33	39			
Ø d2 (inside-Ø)	(mm)	70		85		100	130		200			230		260	300			370
Ø d3 (screw-hole circle)	(mm)	102		125		140	165		254			298		356	406			483
l (bare stem length)	(mm)	19	24	29		38		48			57		on request					
s (width across flats)	(mm)	17	22	27		36		46			55							
t (console wall thickness)	(mm)	8				12		14				22						

Options
- Design acc. to EN ISO 15848-1/ TA-Luft (add. secondary sealing possible with O-rings) - Threaded joint, f. ex. 1/4" with screw connection on the stem extension and/or on the bottom flange (e.g. Test-, buffer-, flushing port) - Full metal sealing ring in 1.4571 for special applications - Blow-out protected stem acc. to API 609 - Sealing against toxic media (on request) - Heating jacket (on request) - Cavity free design (on request) - Design acc. to NACE MR 0103 (on request)

Option: Design acc. to EN ISO 15848-1 / TA-Luft with secondary sealing (O-Ring)	
 Graphite EN ISO 15848-1 with O-Rings	 Graphite EN ISO 15848-1 with O-Rings and test port • For critical media (f.ex. Thermal oil, steams...) • „Double“ security due to secondary sealing (Pos. 76/77) • Leakage monitoring due to test port (Information required when ordering)

O-Rings			
Pos.	Material	Temperature range ¹⁾	Applications (Examples)
76 / 77	Tetrafluoroethylene (FEPM)	-15 °C to +300 °C	Thermal oil / Hydrocarbons, hot water, steam, ammonia, sour gas, amine, Methanol
	Special compound (XTR-F)	-15 °C to +350 °C	Thermal oil, most aggressive media (strong acids/bases)
	Fluorocarbon - rubber (FKM)	-60 °C to +230 °C	Cryogenic applications, concentrated acids, hydrocarbons
	Ethylene-Propylene-Diene-Rubber (EPDM)	-60 °C to +200 °C	Hot water, steam, cryogenic applications, ammonia
¹⁾ May be lower by other components			

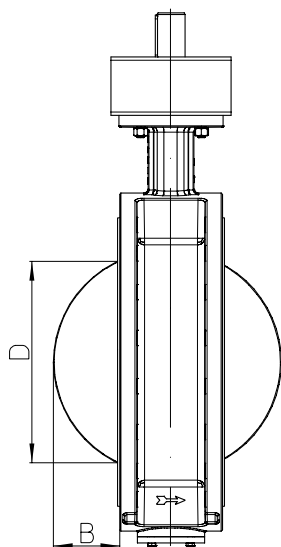
For the correct design of the O-rings, the operating conditions must be stated before ordering.

Kvs-value / Zeta-value (Fig. 016, 018, 019)																			
DN			80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
PN6/10	Kvs-value	(m³/h)	100	190	345	515	1245	2110	3195	4230	5650	8165	9260	13520	27800	39569	45914	57885	80980
	Zeta-value	--	6,54	4,42	3,28	3,05	1,65	1,40	1,27	1,34	1,28	0,98	1,16	1,13	0,47	0,42	0,49	0,47	0,50
PN16/25	Kvs-value	(m³/h)	100	190	345	515	1245	2110	3195	4230	5650	8165	9260	13520	25350	34408	39850	49495	69740
	Zeta-value	--	6,54	4,42	3,28	3,05	1,65	1,40	1,27	1,34	1,28	0,98	1,16	1,13	0,59	0,55	0,65	0,65	0,68
PN40	Kvs-value	(m³/h)	100	190	345	515	1020	1940	2915	3765	5090	7312	8235	12445	23240	29920	37208	44422	62025
	Zeta-value	--	6,54	4,42	3,28	3,05	2,46	1,66	1,52	1,69	1,58	1,23	1,47	1,34	0,71	0,73	0,75	0,81	0,86

Difference between disc outside-diameter and face-to-face for double flange design																		
DN		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
B	(mm)	--	--	--	--	28,5	43,5	57,5	77	87,4	113	132,5	165,5	208	245	283	285	351
D	(mm)	--	--	--	--	123,3	169,3	209,6	261,3	301,6	373	411	503	614	715	797	854	1034

Difference between disc outside-diameter and face-to-face for threaded flange design													
DN		80	100	125	150	200	250	300	350	400	450	500	600
B	(mm)	9	21	27	38	60	69	89	105	127	148	171	213
D	(mm)	43	73,5	91	118	168,5	204	247,5	292,5	342,5	403	444	542

Difference between disc outside-diameter and face-to-face for butt weld ends design													
DN		80	100	125	150	200	250	300	350	400	450	500	600
B	(mm)	--	--	--	--	--	--	9	23	37	59	69	99
D	(mm)	--	--	--	--	--	--	87	161	215	292	327	424



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Contents:

Module ARI-process valve ZETRIX-calculation

- Sizing of flow quantity Kv, volume flow Q, pressure drop p, sound level; Selecting the valve size with given capacity; Selection of the actuator.
- Calculation of torque for actuators in flow from shaft side and flow from disc side, as well as dynamic torque curves to show the maximum value and the opening angle at which it is reached.

Media:

Integrated media-data bank (more than 160 media) with conditions:

- Vapours / gases
- Steam (saturated and superheated)
- Liquids

Special features:

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number.
- Direct output or calculation and product data in PDF format.
- Product data could be taken for a direct order.
- SI- and ANSI-units with direct conversion to another data bank.
- Settings with over pressure or absolute pressure.
- All ARI valves are integrated in a data bank.
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PC's necessary).
- Extensive catalogue extending over several product groups.

System Requirements:

Windows operating systems, Linux, etc.



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