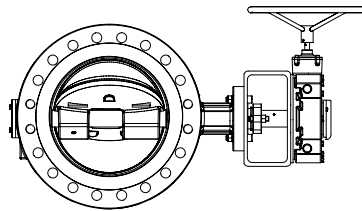


ARI-ZETRIX® - Fig. 016 - Double flanged process valve with metallic sealing - Triple offset
 ARI-ZETRIX® - Fig. 018 - Fully lugged process valve with metallic sealing - Triple offset
 ARI-ZETRIX® - Fig. 019 - Butt weld ended process valve with metallic sealing - Triple offset

ARI-ZETRIX®
with worm gear

- Self-locking
- With variable adjustment



Gear alignment A (standard)

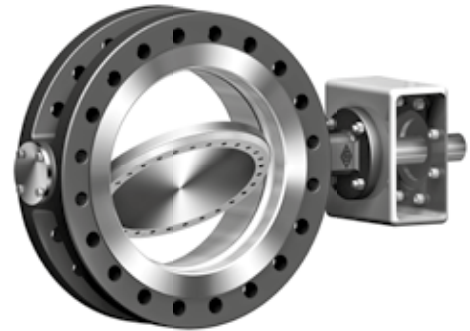
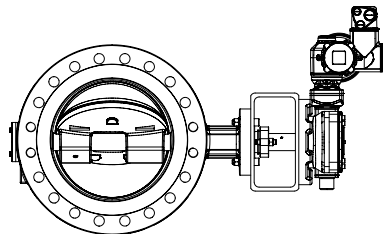


Fig. 016 -
ARI-ZETRIX® double flange

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ARI-ZETRIX®
with electric rotary actuator
Auma or PS Automation

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



Actuator alignment A (standard)

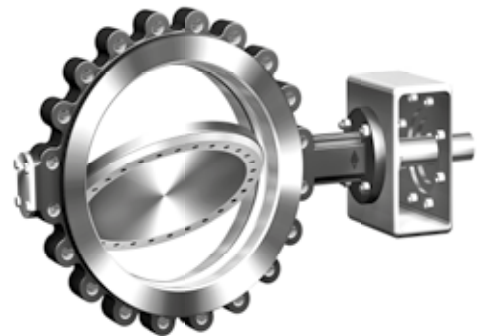
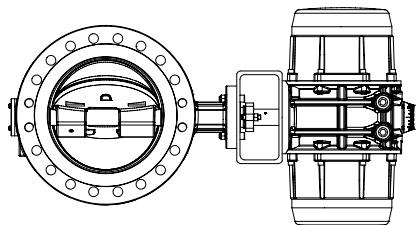


Fig. 018 -
ARI-ZETRIX® threaded flanged

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ARI-ZETRIX®
with pneumatic actuator



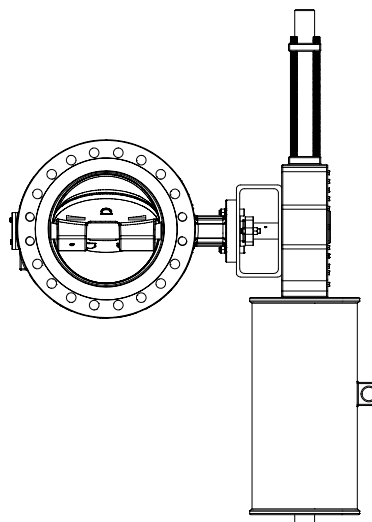
Actuator alignment A (standard)



Fig. 019 -
ARI-ZETRIX® butt weld ends

on request

ARI-ZETRIX®
with hydraulic actuator



Actuator alignment A (standard) on request

Features:

- Double flange, threaded flange and butt weld ends design
- Cast steel / stainless steel body / high temperature cast steel, 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 10497 / API 607
- SIL
- Bidirektional
- ATEX
- NACE (optional)
- Packing acc. to EN ISO 15848-1/ TA-Luft (optional)

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

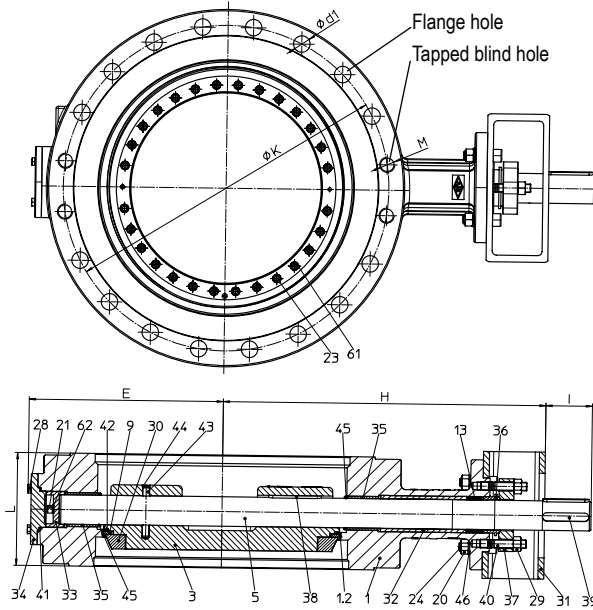


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
30.016	PN 6	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
31.016	PN 10	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
32.016	PN 16	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
34.016	PN 25	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
35.016	PN 40	1.0619+N	DN 80-1200	1.0619+N	1.4021+QT
50.016	PN 6	1.4408	DN 80-1200	1.4408	1.4542
51.016	PN 10	1.4408	DN 80-1200	1.4408	1.4542
52.016	PN 16	1.4408	DN 80-1200	1.4408	1.4542
54.016	PN 25	1.4408	DN 80-1200	1.4408	1.4542
55.016	PN 40	1.4408	DN 80-1200	1.4408	1.4542
80.016	PN 6	1.7357	DN 80-600	1.7357	1.4980
81.016	PN 10	1.7357	DN 80-600	1.7357	1.4980
82.016	PN 16	1.7357	DN 80-600	1.7357	1.4980
84.016	PN 25	1.7357	DN 80-600	1.7357	1.4980
85.016	PN 40	1.7357	DN 80-600	1.7357	1.4980

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

Optional: Face-to-face dimension series, 1, 14 and 15 in steel in temperature range -10 °C to +450 °C on request (refer to page 5)

Sealing element (Pos.9):	
• Graphite / 1.4462	-60 °C to 400 °C
• Graphite / 1.4845	400 °C to 450 °C
• Graphite / 2.4851	450 °C to 550 °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 16)

Parts					
Pos.	Sp.p.	Description	Fig. 30./31./32./34./35.016	Fig. 50./51./52./54./55.016	Fig.80./81./82./84./84.016
1		Body	1.0619+N	1.4408	1.7357
1.2		Seat	Stellite 21		
3		Disc	1.0619+N	1.4408	1.7357
5		Stem	1.4021+QT / > 400 °C: 1.4980	1.4542 / > 300 °C: 1.4980	1.4980
9	x	Lamellar seal ring	Graphite / 1.4462 > 400 °C: Graphite / 1.4845	Graphite / 1.4462	Graphite / 1.4462 400-450 °C: Graphite / 1.4845 >450 °C: Graphite / 2.4851
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		1.7218
21		Hexagon socket screw	A4-70 / >400 °C: SA193-B8M2	A4-70	1.4986
23		Hexagon socket screw	A4-70 / >400 °C: SA193-B8M2	A4-70	1.4986
24		Hexagon screw	8.8-A2B		1.7218
28		Hexagon screw	A2-70 / >400 °C: SA193-B8M2	A2-70	1.4986
29		Hexagon nut	A4-70 / >400 °C: SA194-8M		1.4980
30		Retaining ring	1.0425 (nickel plated)	1.4301	1.7335
31		Mounting bracket	1.0576 (galvanized)		
32		Distance bushing	1.4301		
33		Axial bearing	1.4021+QT (hardened)	1.4301 (hardened)	
34		Bottom flange	1.0460 (hardened)	1.4301 (hardened)	
35		Bushing	1.4021+QT (hardened)	1.4301 (hardened)	
36		Packing bushing	1.4301		
37		Packing box flange	≤ DN 600, PN 6-40 and DN 700-800, PN 6-10: 1.4408 > DN 600 (except DN 700-800, PN 6-10): 1.4301		
38 / 39		Parallel key	A4		1.4980
40		Stud	A4-70 / >400 °C: SA193-B8M2		1.4980
41	x	Spiral wounded gasket	Graphite / 1.4541		
42	x	Spiral wounded gasket	Graphite / 2.4819		
43		Parallel pin	A4-70		1.4980
44		Retaining ring	1.4122+QT		2.4669
45		Packing ring	Graphite webbing		
46		Spring ring	FST-A2B		-
46		Wedge-lock Washers	A4		2.4668
61 / 62		Wedge-lock Washers	A4		2.4668
↳ 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
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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	1169	2430
	PN16	Fig. 32.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	779	1039	1250	2958
	PN25	Fig. 34.016	(kg)	33	44	65	65	80	98	131	175	236	281	454	530	875	1192	1517	3277
	PN40	Fig. 35.016	(kg)	33	44	65	65	90	105	182	260	345	365	523	832	1181	1668	2033	4241
1.4408	PN6/10	Fig. 50./51.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	725	958	1181	2454
	PN16	Fig. 52.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	786	1049	1262	2987
	PN25	Fig. 54.016	(kg)	35	46	68	68	84	103	136	180	242	309	460	537	883	1204	1532	3309
	PN40	Fig. 55.016	(kg)	35	46	68	68	96	110	187	265	352	402	529	841	1192	1684	2053	4283

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

acc. to manufacturers 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	450 °C ¹⁾
1.0619+N	6	(bar)	4	6	5,38	5,2	5	4,5	4,1	3,8	3,5	1,9
1.0619+N	10	(bar)	7,5	10	9,2	8,8	8,3	7,6	6,9	6,4	5,9	3,2
1.0619+N	16	(bar)	12	16		15,3	14	13	11	10,2	9,5	5,2
1.0619+N	25	(bar)	18,7	25		23,9	22	20	17,2	16	14,8	8,2
1.0619+N	40	(bar)	30	40		38,1	35	32	28	25,7	23,8	13,1

¹⁾ see parts list

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)	6	6	5,4	5	4,7	4,4	4,2	4,1
1.4408	10	(bar)	10	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

acc. to DIN EN 1092-1	PN		-60 °C to <-10 °C	-10 °C to 300 °C	350 °C	400 °C	450 °C	500 °C	520 °C	530 °C	550 °C
1.7357	6	(bar)	4	6	5,7	5,4	5	3,9	2,6	2,2	1,4
1.7357	10	(bar)	7,5	10	9,5	9	8,4	6,5	4,4	3,7	2,3
1.7357	16	(bar)	12	16	15,2	14,4	13,4	10,4	7,1	5,9	3,7
1.7357	25	(bar)	18,7	25	23,8	22,5	21	16,3	11,1	9,2	5,8
1.7357	40	(bar)	30	40	38	36	33,7	26	17,9	14,8	9,3



ARI-ZETRIX® series 1
(Welded construction)



ARI-ZETRIX® series 13
(Standard, cast housing)



ARI-ZETRIX® series 14
(Welded construction)



ARI-ZETRIX® series 15
(Welded construction)

Parts			
Pos.	Sp.p.	Description	Fig. 30./31./32./34./35.016
1		Body	1.0619+N / 1.0460 / 1.0345
1.2		Seat	Stellit 21

DN	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
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Face-to-face dimension series 1, 14 & 15																		
L Series 1 ¹⁾	(mm)	310	350	400	480	600	730	850	980	1100	1200	1250	1450	-	-	-	-	-
L Series 13 (standard)	(mm)	114	127	140	140	152	165	178	190	216	222	229	267	292	318	330	410	470
L Series 14	(mm)	180	190	200	210	230	250	270	290	310	330	350	390	430 ¹⁾	-	-	-	-
L Series 15	(mm)	280	300	325	350	400	450	500	550	600	650	700	800	900 ¹⁾	-	-	-	-

¹⁾ on request

Weights for series 1, 14, 15 on request

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

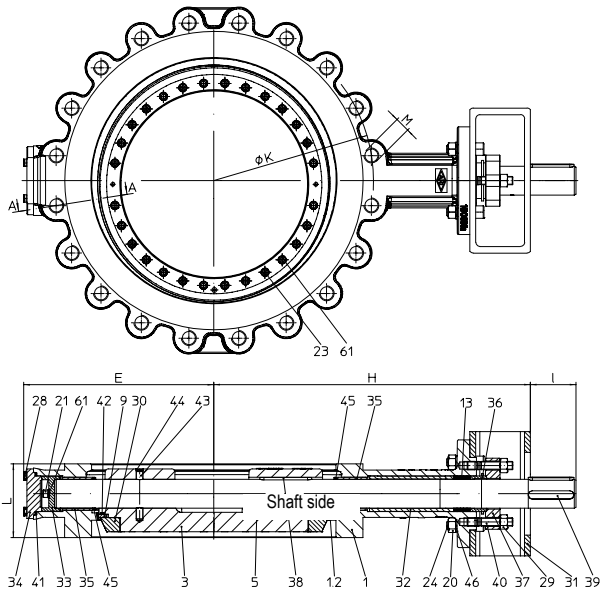


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
30.018	PN 6	on request			
31.018	PN 10	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
32.018	PN 16	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
34.018	PN 25	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
35.018	PN 40	1.0619+N	DN 80-600	1.0619+N	1.4021+QT
50.018	PN 6	on request			
51.018	PN 10	1.4408	DN 80-600	1.4408	1.4542
52.018	PN 16	1.4408	DN 80-600	1.4408	1.4542
54.018	PN 25	1.4408	DN 80-600	1.4408	1.4542
55.018	PN 40	1.4408	DN 80-600	1.4408	1.4542
80.018	PN 6	on request			
81.018	PN 10	1.7357	DN 80-600	1.7357	1.4980
82.018	PN 16	1.7357	DN 80-600	1.7357	1.4980
84.018	PN 25	1.7357	DN 80-600	1.7357	1.4980
85.018	PN 40	1.7357	DN 80-600	1.7357	1.4980

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

Sealing element (Pos.9):	
• Graphite / 1.4462	-60 °C to 400 °C
• Graphite / 1.4845	400 °C to 450 °C
• Graphite / 2.4851	450 °C to 550 °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 16)

Parts					
Pos.	Sp.p.	Description	Fig. 31./32./34./35.018	Fig. 51./52./54./55.018	Fig. 81./82./84./85.018
1		Body	1.0619+N	1.4408	1.7357
1.2		Seat	Stellit 21		
3		Disc	1.0619+N	1.4408	1.7357
5		Stem	1.4021+QT / > 400 °C: 1.4980	1.4542 / > 300 °C: 1.4980	1.4980
9	x	Lamellar seal ring	Graphite / 1.4462 / > 400 °C: Graphite / 1.4845		Graphite / 1.4462 400-450 °C: Graphite / 1.4845 >450 °C: Graphite / 2.4851
13	x	Packing unit	Graphite		
20		Hexagon nut	8 - A2B		1.7218
21		Hexagon socket screw	A4-70 / >400 °C: SA193-B8M2	A4-70	1.4986
23		Hexagon socket screw	A4-70 / >400 °C: SA193-B8M2	A4-70	1.4986
24		Hexagon screw	8.8-A2B		1.7218
28		Hexagon screw	A2-70 / >400 °C: SA193-B8M2	A2-70	1.4986
29		Hexagon nut	A4-70 / >400 °C: SA194-8M		1.4980
30		Retaining ring	1.0425 (nickel plated)	1.4301	1.7335
31		Mounting bracket	1.0576 (galvanized)		
32		Distance bushing	1.4301		
33		Axial bearing	1.4021+QT (hardened)	1.4301 (hardened)	
34		Bottom flange	< DN 250: 1.0425 (hardened) ≥ DN 250: 1.0460 (hardened)	1.4301 (hardened)	
35		Bushing	1.4021+QT (hardened)	1.4301 (hardened)	
36		Packing bushing	1.4301		
37		Packing box flange	≤ DN 600, PN 6-40 and DN 700-800, PN 6-10: 1.4408 > DN 600 (except DN 700-800, PN 6-10): 1.4301		
38 / 39		Parallel key	A4		1.4980
40		Stud	A4-70 / >400 °C: SA193-B8M2		1.4980
41	x	Spiral wounded gasket (≥ DN 250)	Graphite / 1.4541		
42	x	Spiral wounded gasket	Graphite / 2.4819		
43		Parallel pin	A4-70		1.4980
44		Retaining ring	1.4122+QT		2.4669
45		Packing ring	Graphite webbing		
46		Spring ring	FST-A2B		-
46		Wedge-lock Washers	A4		2.4668
61 / 62		Wedge-lock Washers	A4		2.4668

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															
PN 10 / PN 16 / PN 25	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	
PN 40	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															
PN 10	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		
PN 16	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		
PN 25	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		
PN 40	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		

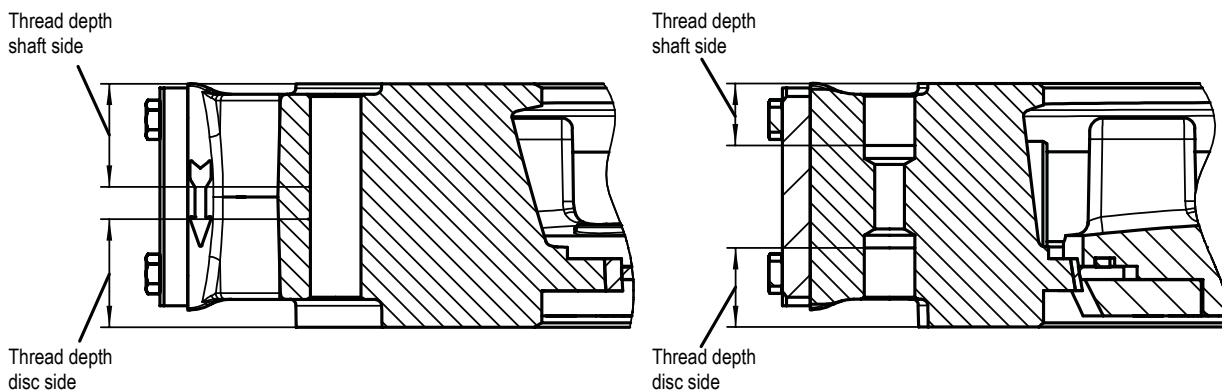
¹⁾ Tapped through hole ²⁾ Tapped blind hole

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





DN	80	100	125	150	200	250	300	350	400	450	500	600
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Weights for threaded flanged process valve														
1.0619+N / 1.7357	PN 10 / PN 16 / PN 25	(kg)	24	29	41	45	64	74	121	152	192	221	416	446
	PN 40	(kg)	24	29	41	45	64	82	148	246	317	355	494	778
1.4408	PN 10 / PN 16 / PN 25	(kg)	26	31	42	47	68	78	128	158	198	244	422	458
	PN 40	(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.												
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acc. to manufacturers 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	450 °C ¹⁾
1.0619+N	6	(bar)	4	6	5,38	5,2	5	4,5	4,1	3,8	3,5	1,9
1.0619+N	10	(bar)	7,5	10	9,2	8,8	8,3	7,6	6,9	6,4	5,9	3,2
1.0619+N	16	(bar)	12	16		15,3	14	13	11	10,2	9,5	5,2
1.0619+N	25	(bar)	18,7	25		23,9	22	20	17,2	16	14,8	8,2
1.0619+N	40	(bar)	30	40		38,1	35	32	28	25,7	23,8	13,1

¹⁾ see parts list

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)	6	6	5,4	5	4,7	4,4	4,2	4,1
1.4408	10	(bar)	10	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

acc. to DIN EN 1092-1	PN		-60 °C to <-10 °C	-10 °C to 300 °C	350 °C	400 °C	450 °C	500 °C	520 °C	530 °C	550 °C
1.7357	6	(bar)	4	6	5,7	5,4	5	3,9	2,6	2,2	1,4
1.7357	10	(bar)	7,5	10	9,5	9	8,4	6,5	4,4	3,7	2,3
1.7357	16	(bar)	12	16	15,2	14,4	13,4	10,4	7,1	5,9	3,7
1.7357	25	(bar)	18,7	25	23,2	22,5	21	16,3	11,1	9,2	5,8
1.7357	40	(bar)	30	40	38	36	33,7	26	17,9	14,8	9,3



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

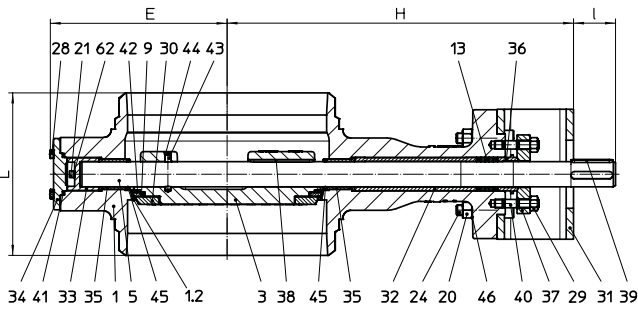
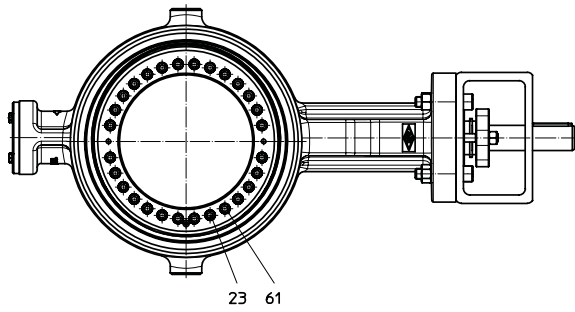


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
31.019 ¹⁾	PN 6 - PN 10	1.0619+N	DN 80-800	1.0619+N	1.4021+QT
32.019 ¹⁾	PN 16	1.0619+N	DN 80-800	1.0619+N	1.4021+QT
34.019	PN 25	1.0619+N	DN 80-800	1.0619+N	1.4021+QT
35.019	PN 40	1.0619+N	DN 80-800	1.0619+N	1.4021+QT

¹⁾ Sales item (in order confirmation) via 34.019 for DN 80-600

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

Sealing element:	
• Graphite / 1.4462	-60 °C to 400 °C
• Graphite / 1.4845	400 °C to 450 °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 16)

Parts			
Pos.	Sp.p.	Description	Fig. 31./32./34./35.019
1		Body	1.0619+N
1.2		Seat	Stellit 21
3		Disc	1.0619+N
5		Stem	1.4021+QT / > 400 °C: 1.4980
9	x	Lamellar seal ring	Graphite / 1.4462 / > 400 °C: 1.4845
13	x	Packing unit	Graphite
20		Hexagon nut	8 - A2B
21		Hexagon socket screw	A4-70 / > 400 °C: SA193-B8M2
23		Hexagon socket screw	A4-70 / > 400 °C: SA193-B8M2
24		Hexagon screw	8.8-A2B
28		Hexagon screw	A2-70 / > 400 °C: SA193-B8M2
29		Hexagon nut	A4-70 / > 400 °C: SA194-8M
30		Retaining ring	1.0425(nickel plated)
31		Mounting bracket	1.0576 (galvanized)
32		Distance bushing	1.4301
33		Axial bearing	1.4021+QT (hardened)
34		Bottom flange	1.0460 (hardened)
35		Bushing	1.4021+QT (hardened)
36		Packing bushing	1.4301
37		Packing box flange	≤ DN 600, PN 6-40 and DN 700-800, PN 6-10: 1.4408 / > DN 600 (except DN 700-800, PN 6-10): 1.4301
38 / 39		Parallel key	A4
40		Stud	A4-70 / > 400 °C: SA193-B8M2
41	x	Spiral wounded gasket	Graphite / 1.4541
42	x	Spiral wounded gasket	Graphite / 2.4819
43		Parallel pin	A4-70
44		Retaining ring	1.4122+QT
45		Packing ring	Graphite webbing
46		Spring ring	FST-A2B
46		Wedge-lock Washers	A4
61 / 62		Wedge-lock Washers	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
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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	430	470
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Dimensions

PN 6 - PN 10	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	941
	E	(mm)	131	154	188	188	211	240	268	306	338	380	393	460	538	616
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	110	120

PN 16	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	940
	E	(mm)	131	154	188	188	211	240	268	306	338	380	393	460	538	616
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	120

PN 25	H	(mm)	292	288	344	344	371	498	552	588	662	661	712	763	838	896
	E	(mm)	131	154	188	188	211	240	268	306	338	380	393	460	538	618
	I	(mm)	45	45	55	55	55	55	65	65	80	80	110	110	120	165

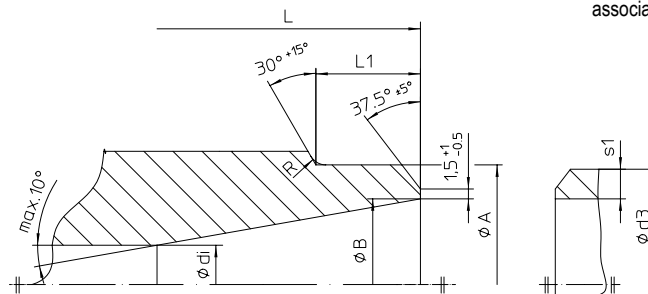
PN 40	H	(mm)	292	288	344	344	400	575	601	636	661	681	762	819	868	997
	E	(mm)	131	154	188	188	226	252	285	317	361	406	417	496	475	649
	I	(mm)	45	45	55	55	65	80	80	110	110	110	130	130	165	200

Butt weld ends according to EN12627

ØA	(mm)	91	117	144	172	223	278	329	362	413	464	516	619	721	825
ØB	(mm)	80,9	104,3	130,7	157,1	204,9	257	307,9	338	384,4	437	486	585	682,6	781
Ødi	(mm)	80	104,3	128	152	200	250	296	331	380	437	480	581	682,6	781
L1 (similar picture 4)	(mm)	12	14	18	20	20	25	33	45	45	33	40	40	48	48
Ød3	(mm)	88,9	114,3	139,7	168,3	219,1	273	323,9	355,6	406,4	457	508	610	711	813
s1	(mm)	4	5	4,5	5,6	7,1	8	8	8,8	11	10	11	12,5	14,2	16,0

- 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: 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	700	800
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Weights for butt weld ended process valve

1.0619+N	PN 6-10	Fig. 31.019	(kg)	22	26	36	38	52	67	92	110	161	195	356	420	698	994
	PN 16	Fig. 32.019	(kg)	22	26	36	38	52	67	92	110	161	195	356	420	767	1095
	PN 25	Fig. 34.019	(kg)	22	26	36	38	52	67	92	110	161	195	356	420	728	1018
	PN 40	Fig. 35.019	(kg)	22	26	36	38	59	78	113	165	208	256	371	577	815	1226

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

aacc. to manufacturers standard	PN	(bar)	-60 °C to <-10 °C	-10 °C to 50 °C	120 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400 °C	450 °C ¹⁾
1.0619+N	6	(bar)	on request	6	5,38	5,2	5	4,5	4,1	3,8	3,5	1,9
1.0619+N	10	(bar)	on request	10	9,2	8,8	8,3	7,6	6,9	6,4	5,9	3,2
1.0619+N	16	(bar)	12	16	15,3	14	13	11	10,2	9,5	5,2	
1.0619+N	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	8,2	
1.0619+N	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	13,1	

¹⁾ see parts list

ZETRIX® process valve with worm gear

Type: Rotork AB

- With variable adjustment
- Self-locking
- Fire-safe (FS)

Mark on shaft for valve OPEN to CLOSE positions.

The SHUT-position can be adjusted to $\pm 5^\circ$ by a limit stopper screw.

Parts			
Pos.	Sp.p	Description	Fig. 30./ 31./ 32./ 34./ 35.016; 50./ 51./ 52./ 54./ 55.016 / 80./ 81./ 82./ 84./ 85.016; 30./ 31./ 32./ 34./ 35.018; 50./ 51./ 52./ 54./ 55.018 / 80./ 81./ 82./ 84./ 85.018; 30./ 31./ 32./ 34./35.019
31		Mounting bracket	1.0576 (galvanized)
500		Worm gear	
L Spare parts			

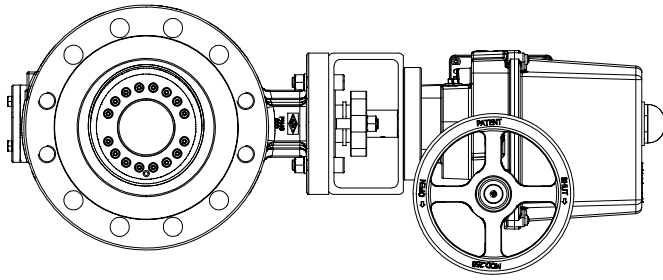
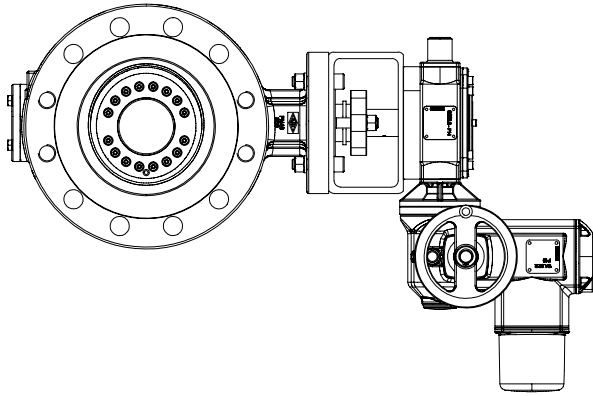
DN	80	100	125	150	200	250	300	350	400	450	500	600	700-1200
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Dimensions															
PN 6 / PN 10 / PN 16 / PN 25	H1 (to middle of valve)	(mm)	395	395	585	585	612	739	844	880	960	1109	1017	1068	on request
	P2	(mm)	217	217	297	297	297	285	305	305	346	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	AB880 FS	AB880 FS	AB880 FS	AB1250 FS	AB1250 FS	AB1950 PR4 FS	AB1950 PR4 FS	

PN 40	H1 (to middle of valve)	(mm)	395	395	585	585	692	873	899	941	966	986	1071	1128	on request
	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 with gear																
1.0619+N / 1.7357	PN 6/10/16/25	Fig. 31./32./34.016 81./82./84.016	(kg)	37	48	73	73	88	111	146	190	263	303	495	575	on request
	PN 40	Fig. 35./85.016	(kg)	37	48	73	73	105	120	209	301	390	441	607	916	
	PN 6/10/16/25	Fig. 31./32./34.018 81./82./84.018	(kg)	28	33	49	53	72	79	136	167	219	249	457	491	
	PN 40	Fig. 35./85.018	(kg)	28	33	49	53	79	82	175	287	362	412	578	862	
	PN 25	Fig. 34.019	(kg)	26	30	44	46	60	80	102	120	174	208	393	457	
	PN 40	Fig. 35.019	(kg)	26	30	44	46	69	91	126	178	245	293	446	652	
1.4408	PN 6/10/16/25	Fig. 51./52./54.016	(kg)	39	50	76	76	92	116	151	195	269	309	501	582	
	PN 40	Fig. 55.016	(kg)	39	50	76	76	111	125	214	306	397	458	613	925	
	PN 6/10/16/25	Fig. 51./52./54.018	(kg)	30	35	50	55	76	83	166	173	225	265	463	503	
	PN 40	Fig. 55.018	(kg)	30	35	50	55	84	86	179	291	369	443	534	871	

ZETRIX® process valve with electric rotary actuator



Type: Auma (further makes on request)

- for temporary service S2-15 min.
(or control: Auma S4 25%, Schiebel S4 40%)
- Enclosure IP67
- Temperature guard in the motor
- Heating

Voltages:

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

Accessories:

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

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

Type: PS Automation PSQ AMS

- Operating modes: S2-30 min, S4 50% ED@ 25°C
- Enclosure IP67
- with integrated positioner

Voltages:

- 3Ph 400 V 50 Hz, 1Ph 230 VAC, 24 VAC/DC
- Other voltages on request

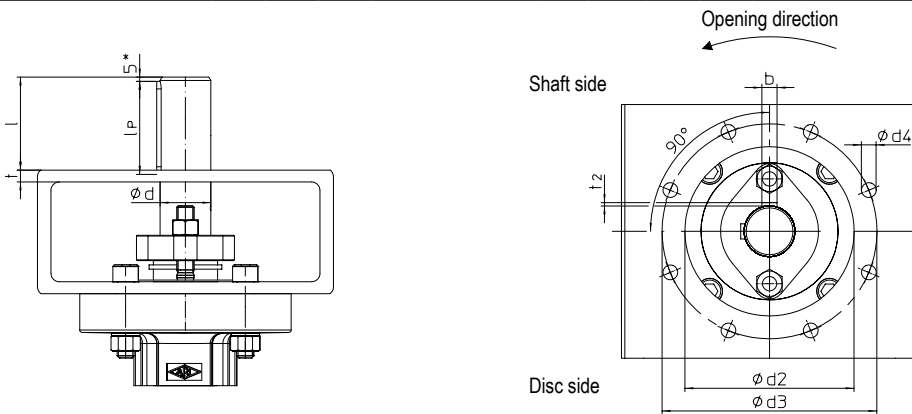
Accessories:

- Two travel limit switch (2WE)
 - Power failure protection / fail-safe via supercapacitor (PSCP)
 - Fieldbus
 - Local control (PSC.2)
- (For more options, see the actuator data sheets)

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

Actuator allocation on request

Connection with 2 parallel keys 90° rotated (standard)



* For DN 80 the dimension is 4 mm

The valve is closed in this position

PN 6 / PN 10

DN	80	100	125 (Fig.018)	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			
n x Ø d4 (number x hole-Ø) (mm)	4 x 11		4 x 13					4 x 17		4 x 21		8 x 17			8 x 21			8 x 33	
Ø d2 (inside diameter) (mm)	70		85					100		130		200			230			260	
Ø d3 (screw-hole circle diameter) (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		50		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	
t (mounting bracket wall thickness) (mm)			8							12					14			22	

PN 16

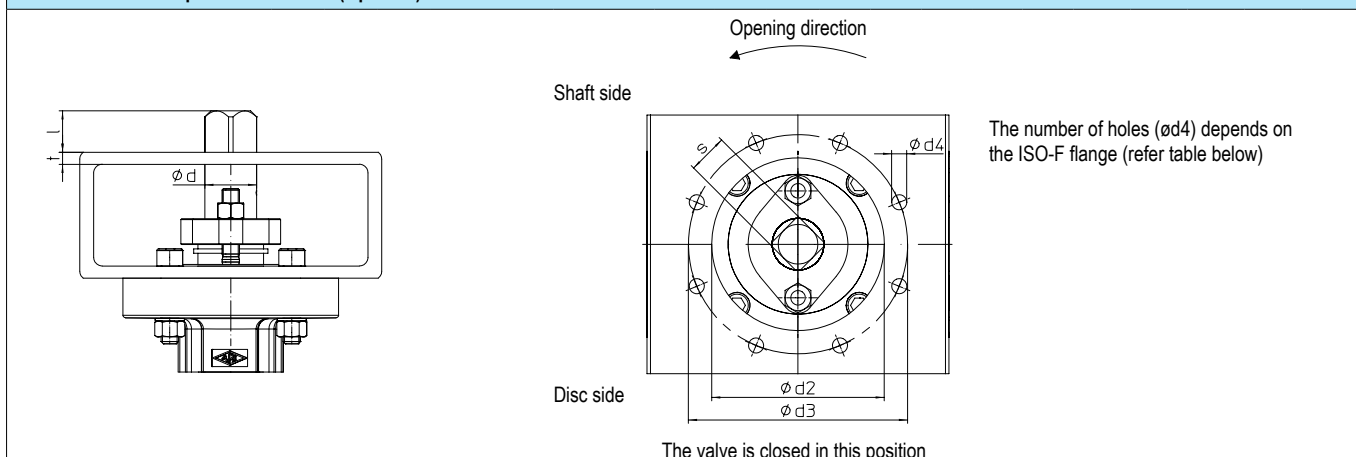
DN	80	100	125 (Fig.018)	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200		
Connection EN ISO 5211	F10		F12					F14		F16		F25			F30			F35	F40	
Ø d (stem diameter) (mm)	22	28		36			42		48	50	60	70	98	110	120	130	160			
n x Ø d4 (number x hole-Ø) (mm)	4 x 11		4 x 13					4 x 17		4 x 21		8 x 17			8 x 21			8 x 33	8 x 39	
Ø d2 (inside diameter) (mm)	70		85					100		130		200			230			260	300	
Ø d3 (screw-hole circle diameter) (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		50		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 (mounting bracket wall thickness) (mm)			8							12					14			22		27

PN 25

DN	80	100	125 (Fig.018)	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			
n x Ø d4 (number x hole-Ø) (mm)	4 x 11		4 x 13					4 x 17		4 x 21		4 x 17			8 x 21	8 x 33			8 x 39	
Ø d2 (inside diameter) (mm)	70		85					100		130		200			230			260	300	
Ø d3 (screw-hole circle diameter) (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		50		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 (mounting bracket wall thickness) (mm)			8							12					14			22		27

PN 40

DN	80	100	125 (Fig.018)	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		
n x Ø d4 (number x hole-Ø) (mm)	4 x 11		4 x 13					4 x 17		4 x 21		8 x 17			8 x 21			8 x 33	8 x 39		12 x 39	
Ø d2 (inside diameter) (mm)	70		85					100		130		200			230			260	300		370	
Ø d3 (screw-hole circle diameter) (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		50		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 (mounting bracket wall thickness) (mm)			8							12					14			22			27	37

Connection with 4 square EN ISO 5211 (Optional)

PN 6 / PN 10

DN	80	100	125 (Fig. 018)	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	
n x Ø d4 (number x hole-Ø)	(mm)	4 x 11		4 x 13				4 x 17		4 x 21		8 x 17			8 x 21		8 x 33		
Ø d2 (inside diameter)	(mm)	70		85			100		130		200			230		260			
Ø d3 (screw-hole circle diameter)	(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 (mounting bracket wall thickness)	(mm)	8						12		14				22					

PN 16

DN	80	100	125 (Fig. 018)	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 (number x hole-Ø)	(mm)	4 x 11		4 x 13				4 x 17		4 x 21		8 x 17			8 x 21		8 x 33		8 x 39
Ø d2 (inside diameter)	(mm)	70		85			100		130		200			230		260		300	
Ø d3 (screw-hole circle diameter)	(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 (mounting bracket wall thickness)	(mm)	8						12		14				22		27			

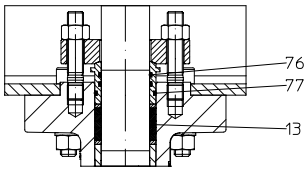
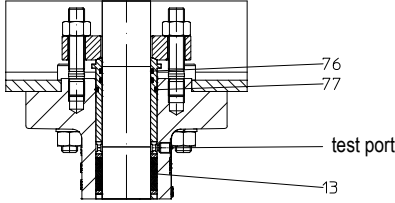
PN 25

DN	80	100	125 (Fig. 018)	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 (number x hole-Ø)	(mm)	4 x 11		4 x 13				4 x 17		4 x 21		8 x 17			8 x 21		8 x 33		8 x 39
Ø d2 (inside diameter)	(mm)	70		85			100		130		200			230		260		300	
Ø d3 (screw-hole circle diameter)	(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 (mounting bracket wall thickness)	(mm)	8						12		14				22		27			

PN 40

DN	80	100	125 (Fig. 018)	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 (number x hole-Ø)	(mm)	4 x 11		4 x 13				4 x 17		4 x 21		8 x 17			8 x 21		8 x 33		8 x 39		12 x 39
Ø d2 (inside diameter)	(mm)	70		85			100		130		200			230		260		300		370	
Ø d3 (screw-hole circle diameter)	(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 (mounting bracket wall thickness)	(mm)	8						12		14				22		27		37			

Options
<ul style="list-style-type: none"> - Design acc. to EN ISO 15848-1 - Design acc. to EN ISO 15848-1/ TA-Luft add. secondary sealing (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 / NACE MR 0175 (on request) - Additional pick-up on the stem with inductive limit switches (OPEN / CLOSE) - Special materials (z.B. Duplex 1.4470) on request - Stainless steel internal parts

Options:
<ul style="list-style-type: none"> - Design acc. to EN ISO 15848-1 - TA-Luft with add. secondary sealing (O-Ring)
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Graphite EN ISO 15848-1 with O-Rings</p> </div> <div style="text-align: center;">  <p>Graphite EN ISO 15848-1 with O-Rings and test port</p> </div> <div style="flex: 1;"> <ul style="list-style-type: none"> 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) </div> </div>

O-Rings			
Pos.	Material	Temperature range ¹⁾	Applications (Examples)
76 / 77	Tetrafluoroethylene / Propylene (FEPM)	-15 °C to +300 °C	Thermal oil / hydrocarbons, ammonia, hydrogen, 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	Cryogenic applications, ammonia

¹⁾ Temperature range may be smaller owing to other limiting components / operating conditions

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 (Face-to-face dimension series 13)*																			
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	

*There is no difference between disc outside-diameter and face-to-face for series 1 and 15

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	700	800
B	(mm)	--	--	--	--	--	--	9	23	37	59	69	99	139	170	
D	(mm)	--	--	--	--	--	--	87	161	215	292	327	424	541	636	

