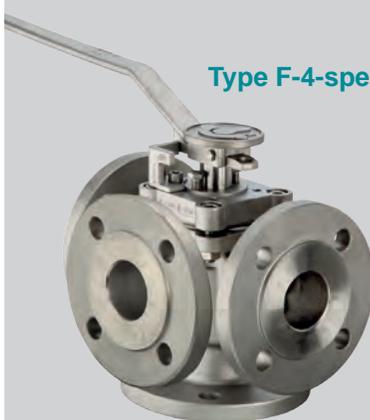


Type ISO-STANDARD F-4 / F-5

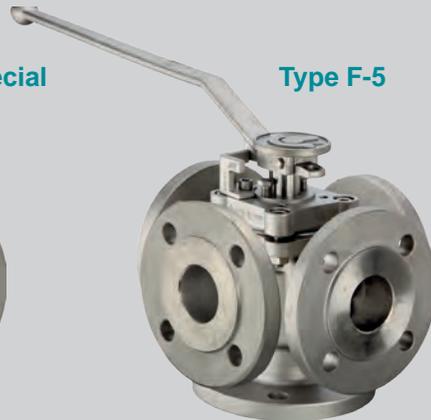
Multiport plug valve with standard design



Type F-4



Type F-4-special



Type F-5

- Flange connections
- 4-way up to 5-way

DN 15 - 600 / PN 10 - 40
NPS ½ - 24 / Class 150 - 300
(higher pressure: type HDS)
Range of application:
-76 < T < 446°F / 608°F
vacuum-capable

Advantages of multiport plug valves

- free of cavities
- no contamination with media deposits
- permanent internal sealing (Δp independent!)

Design characteristics

- mounting-flange for actuators acc. to ISO 5211
- easy accessible adjustment of the plug
- low fugitive emission in line with TA LUFT, ISO 15848 & API 641 requirements
- Fire-Safe - API 607 / ISO 10497
- SIL 3 certified

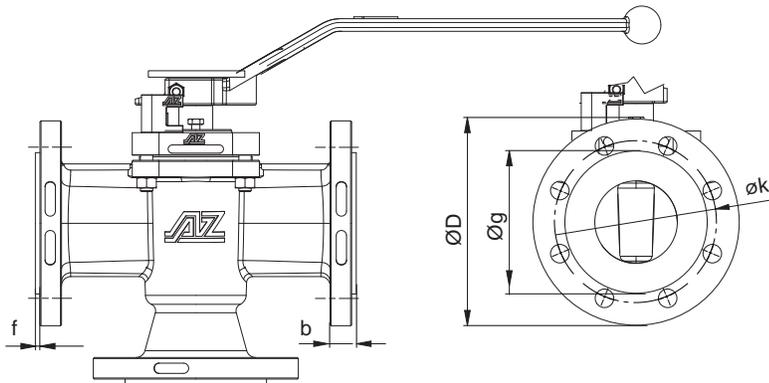
Options

- heating jacket
- oversize design
- flushing device
- FDA compliant
- painting
- oil and grease-free assembly



PT diagram, plug types, sealing systems, material selection: see catalog part ENGINEERING

Flange dimensions acc. to ASME

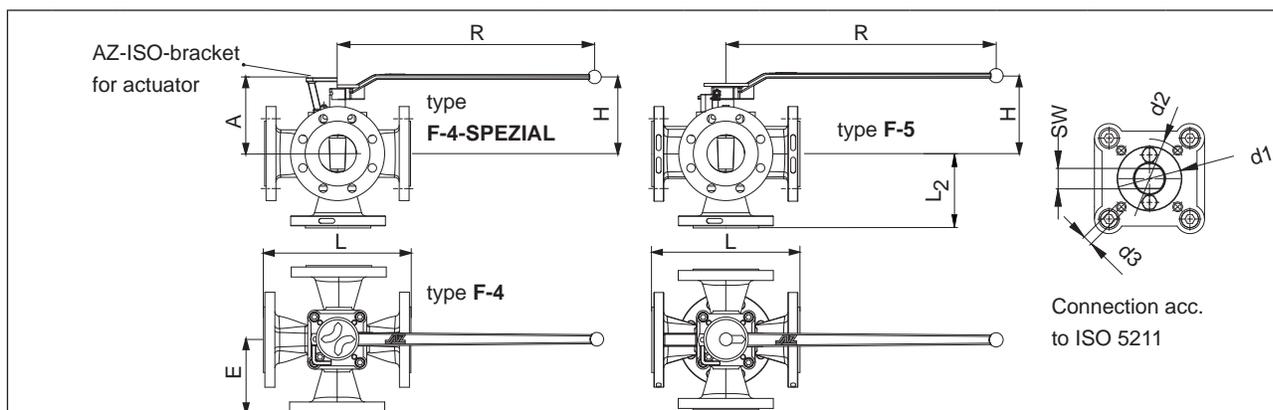


ASME B16.5	NPS Class	flange bore						
		øD	øk	no.	ø	øg	b	f
		[mm] [Inch]	[mm] [Inch]		[mm] [Inch]	[mm] [Inch]	[mm] [Inch]	[mm] [Inch]
1/2	150	90 3.54	60,3 2.37	4	15,7 5/8	34,9 1.37	10,0 0.39	2
	300	95 4.60	66,7 2.63	4	15,7 5/8	34,9 1.37	14,7 0.58	0.079
3/4	150	100 3.94	69,9 2.75	4	15,7 5/8	42,9 1.69	10,9 0.43	2
	300	115 7.10	82,6 3.25	4	19,1 3/4	42,9 1.69	16,3 0.64	0.079
1	150	110 7.90	79,4 3.13	4	15,7 5/8	50,8 2.00	11,6 0.46	2
	300	125 4.92	88,9 3.50	4	19,1 3/4	50,8 2.00	17,9 0.52	0.079
1 1/4	150	115 4.53	88,9 3.50	4	15,7 5/8	63,5 2.50	13,2 0.52	2
	300	135 5.31	98,4 3.87	4	19,1 3/4	63,5 2.50	19,5 0.77	0.079
1 1/2	150	125 4.92	98,4 3.87	4	15,7 7/8	73,0 2.87	14,7 0.58	2
	300	155 6.10	114,3 4.50	4	22,3 3/4	73,0 2.87	21,1 0.89	0.079
2	150	150 5.91	120,7 4.75	4	19,1 3/4	92,1 3.63	16,3 0.64	2
	300	165 6.50	127,0 5.00	8	19,1 3/4	92,1 3.63	22,7 0.89	0.079
2 1/2	150	180 7.09	139,7 5.50	4	19,1 3/4	104,8 4.13	17,9 0.70	2
	300	190 7.48	149,3 5.88	8	22,3 7/8	104,8 4.13	25,9 1.02	0.079
3	150	190 7.48	152,4 6.00	4	19,1 3/4	127,0 5.00	19,5 0.77	2
	300	210 8.27	168,3 6.63	8	22,3 7/8	127,0 5.00	29,0 1.14	0.079
4	150	230 9.06	190,5 7.50	8	19,1 3/4	157,2 6.19	24,3 0.96	2
	300	255 10.04	200,0 7.87	8	22,3 7/8	157,2 6.19	32,2 1.27	0.079
4S	150	230 9.06	190,5 7.50	8	19,1 3/4	157,2 6.19	24,3 0.96	2
	300	255 10.04	200,0 7.87	8	22,3 7/8	157,2 6.19	32,2 1.27	0.079

ASME B16.5	NPS Class	flange bore						
		øD	øk	no.	ø	øg	b	f
		[mm] [Inch]	[mm] [Inch]		[mm] [Inch]	[mm] [Inch]	[mm] [Inch]	[mm] [Inch]
5	150	255 10.04	215,9 8.50	8	22,3 7/8	185,7	24,3 0.96	2
	300	280 11.02	235,0 9.25	8	22,3 7/8	7.31	35,4 1.39	0.079
6	150	280 11.04	241,3 9.50	8	22,3 7/8	215,9	25,9 1.02	2
	300	320 12.06	269,9 10.63	12	22,3 7/8	8.50	37,0 1.46	0.079
8	150	345 13.58	298,5 11.75	8	22,3 7/8	269,9	29,0 1.14	2
	300	380 14.96	330,2 13.00	12	25,4 1	10,63	41,7 1.64	0.079
10	150	405 15.94	362,0 14.25	12	25,4 1	323,8	30,6 1.20	2
	300	445 17.52	387,4 15.25	16	28,4 1 1/8	12.75	48,1 1.89	0.079
12	150	485 19.09	431,8 17.00	12	25,4 1	381,0	32,2 1.27	2
	300	520 20.47	450,8 17.75	16	31,7 1 1/4	15.00	51,3 2.02	0.079
14	150	535 21.06	476,3 18.75	12	28,4 1 1/8	412,8	35,4 1.39	2
	300	585 23.03	514,4 20.25	20	31,7 1 1/4	16.25	54,4 2.14	0.079
16	150	595 23.43	539,8 21.25	16	28,4 1 1/8	469,9	37,0 1.46	2
	300	650 25.59	571,5 22.75	20	35,0 1 3/8	18.50	57,6 2.27	0.079
18	150	635 25.00	577,9 22.75	16	31,8 1 1/4	533,4	40,1 1.58	2
	300	710 27.95	628,6 24.75	24	35,0 1 3/8	21.00	60,8 2.39	0.079
20	150	700 27.56	635 25.00	20	31,8 1 1/4	584,2	43,3 1.70	2
	300	775 30.51	685,8 29.50	24	35,0 1 3/8	23.00	64 2.52	0.079
24	150	815 32.09	749,3 29.50	20	35,0 1 3/8	692,2	48,1 1.89	2
	300	915 36.02	812,8 32.00	24	41,1 1 5/8	27.25	70,3 2.77	0.079

Type F-4 / F-5 ISO-STANDARD

Technical information NPS ½ - 4S



NPS	Class	Dimensions					type	flange ISO 5211			SW	torque*	weight	K _{vs} **	C _v **	
		L	L ₂ /E	A	H	R		d1	d2	d3						
		[mm] [Inch]	[mm] [Inch]	[mm] [Inch]	[mm] [Inch]	[mm] [Inch]		[mm] [Inch]	[mm] [Inch]	[mm] [Inch]						
ASME B16.10 / ISO 5211	½	150	108	54	101	103	200	F05	35	50	M6	11	30	***	6	7
		300	140	70										3.98		
	¾	150	118	59	101	103	200	F05	35	50	M6	11	30	****	7	8
		300	152	76										3.98		
	1	150	127	64	107	109	200	F05	35	50	M6	11	30	***	8	9
		300	165	83										4.21		
	1½	150	165	82,5	119	125	320	F07	55	70	M8	14	80	***	29	34
		300	190	95										4.69		
	2	150	178	89	153	159	420	F07	55	70	M8	19	120	***	54	63
		300	216	108										6.00		
	2½	150	190	145	168	165	600	F10	70	102	M10	22	200	***	88	103
		300	283	142										6.61		
3	150	203	102	168	165	600	F10	70	102	M10	22	200	***	89	103	
	300	283	142										6.61			6.50
4S	150	228	152,5	183	180	600	F12	85	125	M12	22	300	***	170	197	
	300	305	171,5										7.20			7.09

*) manufacturer recommended sizing torque (incl. 100% safety)

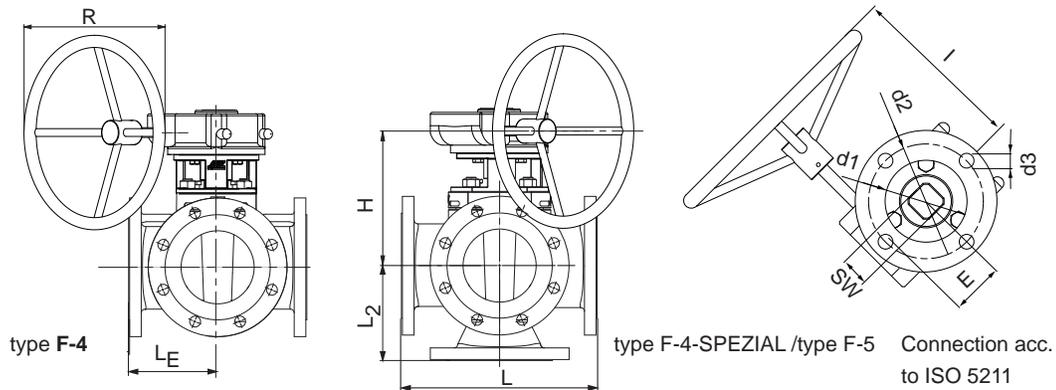
**) F-4 valid for LL4 form of the plug

***) on request

Some designs, sizes and/or configurations may be fitted with threaded flange holes.

Type F-4 / F-5 ISO-STANDARD

Technical information NPS 5 - 24



NPS Class											gear	flange	ISO 5211			SW	torque*	weight	K_{vs} **	C_v **
	L	L_2	L_E	E	R	H	I	(Pro-Gear)	type	d1	d2	d3		[Nm]	[kg]	[m ³ /h]	[US.gal/min]			
	[mm] [Inch]			[mm] [Inch]	[mm] [Inch]		[mm] [Inch]	[ft lb]	[lb]											
5	150	254	178	127											***					
	300	10.00	7.00	5.00	84	400	275	290	Q1500-S	F16	130	165	M20	36	900	79	282	329		
6	150	325	163	162	3.31	15.75	10.83	11.42							174					
	300	12.80	6.42	6.38																
8	150	267	191	133											***					
	300	10.50	7.50	5.25	84	400	275	290	Q1500-S	F16	130	165	M20	36	900	92	302	353		
10	150	403	216	201	3.31	15.75	10.83	11.42							203					
	300	15.87	8.50	7.91																
12	150	292	228	146											***					
	300	11.50	9.00	5.75	96,5	600	321	365	Q3000-S	F16	130	165	M20	36	1200	142	523	663		
14	150	419	254	209	3.80	23.62	12.64	14.37							313					
	300	16.50	10.00	8.23																
16	150	330	350	165											***					
	300	13.00	13.78	6.50	137,5	600	356	465	Q6500-S	F16	130	165	M20	46	1500	186	643	752		
18	150	457	***	228	5.41	23.62	14.02	18.31							410					
	300	18.00	***	9.00																
20	150	356	349	178											***					
	300	14.00	13.74	7.00	137,5	600	356	465	Q6500-S	F16	130	165	M20	46	1,106	196	1093	1280		
24	150	502	356	251	5.41	23.62	14.02	18.31							432					
	300	19.75	14.00	9.88																
28	150	550	***	***	137,5	600	460	465	Q6500-S	F25	200	254	M16	55	5500	***	***	***		
	300	21.65	***	***	5.41	23.62	18.11	18.31							4,057					
32	150	660	***	***	137,5	600	460	465	Q6500-S	F25	200	254	M16	55	5500	***	***	***		
	300	25.98	***	***	5.41	23.62	18.11	18.31							4,057					
36	150	864	***	***	180	600	485	520	Q12000-S	F25	200	254	M16	55	8000	***	***	***		
	300	34.00	***	***	7.09	23.62	19.09	20.48							8,900					
40	150	914	***	***	252,4	700	460	600	***	F25	200	254	M16	55	***	***	***			
	300	36.00	***	***	9.94	27.56	18.11	23.62							2.165					

*) manufacturer recommended sizing torque (incl. 100% safety)

**) F-4 valid for LL4 form of the plug

**) on request

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