

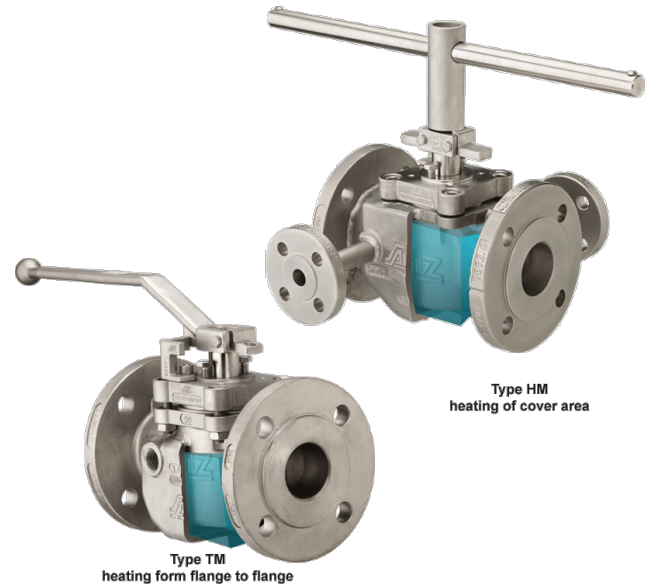
TM / HM

Plug valve with casted heating jacket

DIN-EN: DN 15 - 600 / PN 10 - 100

ASME: NPS ½" - 24" / class 150 - 600

PT range: $-30 < T < 230/280^{\circ}\text{C}$, vacuum 10-8 mbar



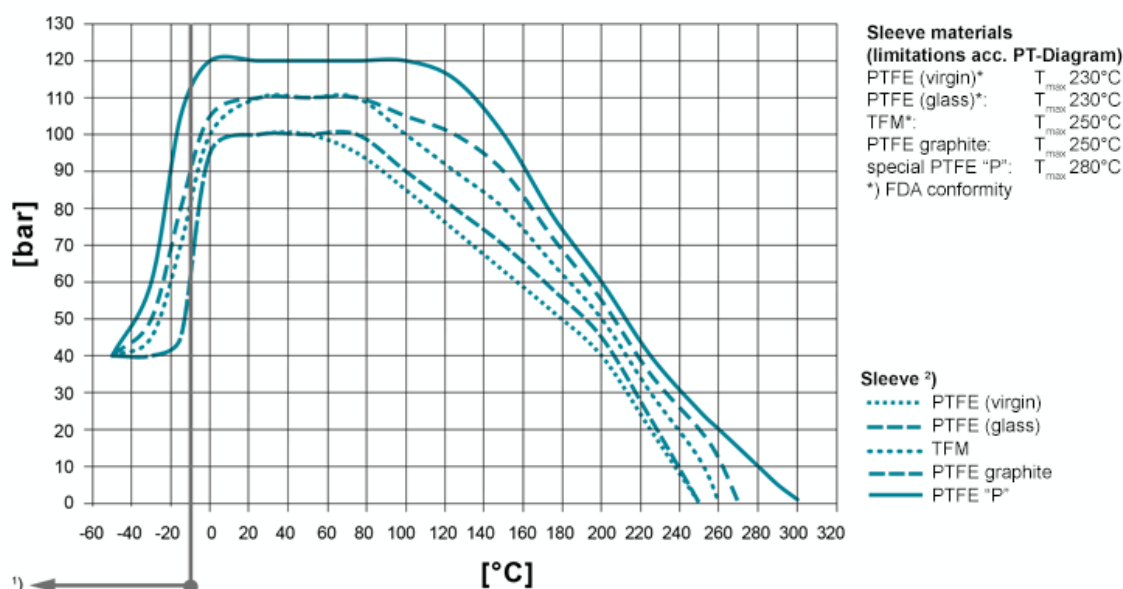
Design Features

Design Characteristics

- Heating from flange to flange
- heating of cover area (type HM)
- solid casted heating jacket
- solid casted connections for heating medium
- several heating jacket connections available (e. g. female threads / flanges / weld ends)
- available with drain connection for condensate (optional)
- oversize design (optional)
- available for almost all valve types (e. g. plug valves with weld ends, sample valves, fully lined valves, sight glasses etc.)

PT-Diagram

General Pressure-Temperature-Diagram



Operating temperatures < -30°C and > 220 °C have to be checked and approved by AZ according to the operating conditions. Besides the P/T value of the sleeve the limitations of the valve bodies also have to be considered. Please refer to the EN 12516-1 resp. ASME B16.34 in order to choose a proper pressure rating (PN/class). The shown values refer to austenitic stainless steel 1.4408 (A351 Gr. CF8M). 1) For operating temperatures below -10°C low temperature / austenitic steels are required.

2) Sleeve: There are different sleeve materials / compounds available.

Materials

Standard body materials

- Carbon Steel 1.0619, ASTM A216 WCB
- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8

Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352 **Standard plug materials**

- Stainless Steel 1.4408, ASTM A351 CF8M

Stainless Steel 1.4308, ASTM A351 CF8 **Special materials**

- Alloy
- Monel
- Nickel
- Zirconium
- Titan
- Tantal
- other materials on request

Sealning Systems

Standard sealing for all major applications;
 Tmax 230°C
Type STD
[read more \[...\]](#)

Firesafe sealing (API 607) with graphite
 packing for additional
 stem sealing; Tmax 230°C
Type FS
[read more \[...\]](#)

Chemical sealing to prevent fugitive emission
 of aggressive and toxic media
 with PTFE packing for additional stem sealing;
 T_{max} 230°C
Type CA
[read more \[...\]](#)

Firesafe safety sealing (API 607) for fluctuating
 temperatures
 with 3x graphite packing (adjustable) for additional
 stem sealing; Tmax 280°C
Type FSN
[read more \[...\]](#)

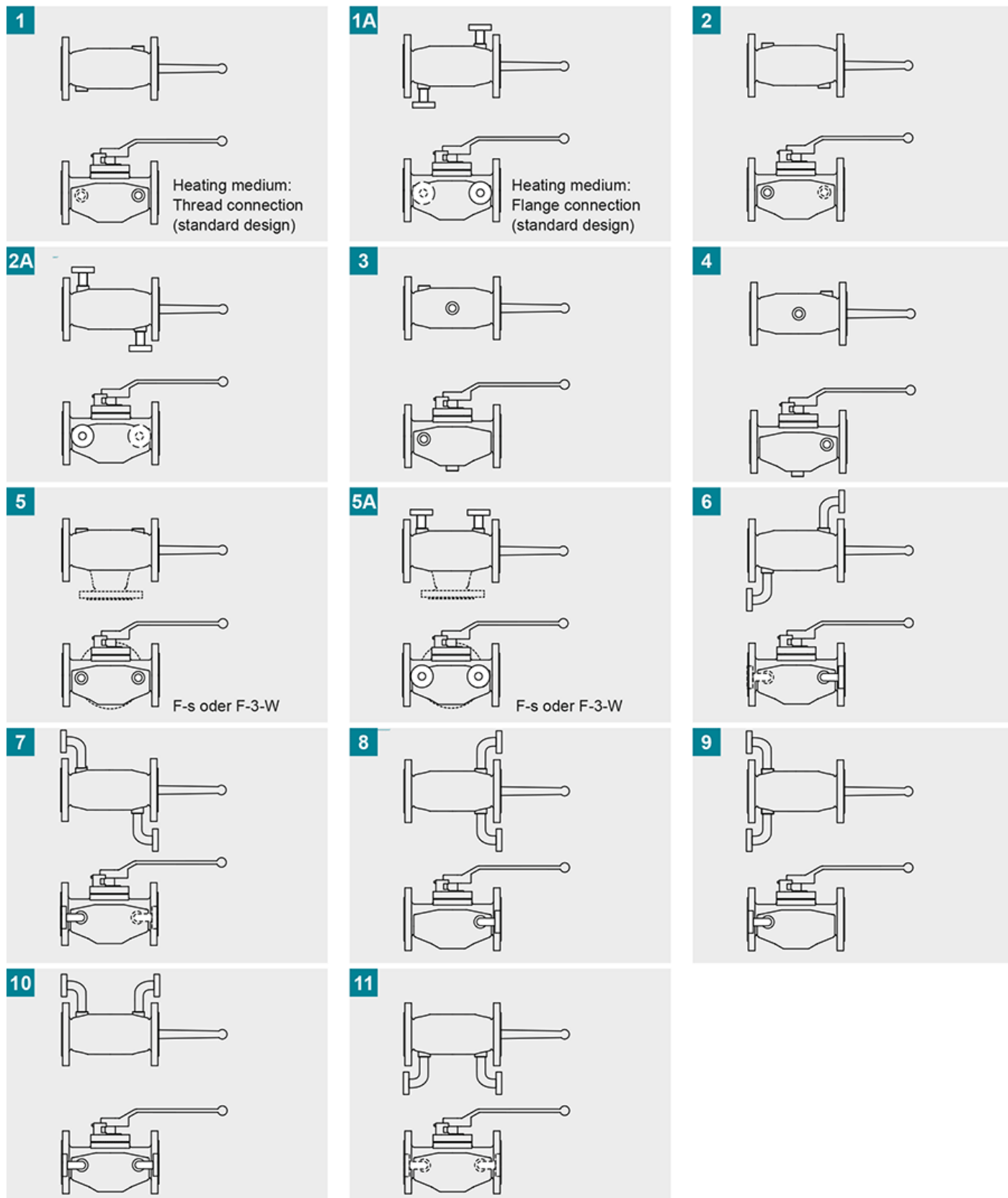
Firesafe safety sealing (API 607) for fluctuating
 temperatures
 with 3x graphite packing (live loaded disc springs) for
 additional
 stem sealing; Tmax 280°C
Type FSN-SL
[read more \[...\]](#)

Chemical safety sealing for fluctuating temperatures
 with 3x PTFE packing (adjustment) for additional stem
 sealing;
 Tmax 230°C
Type CASN
[read more \[...\]](#)

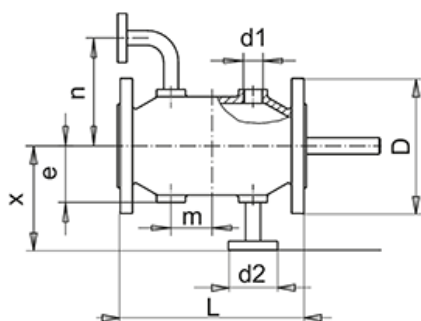
Chemical safety sealing for fluctuation temperatures
 with 3x PTFE packing (live loaded disc springs) for additional
 stem sealing; Tmax 230°C
Type CASN-SL
[read more \[...\]](#)

Connection Version

Standard	connection	version,	other	on	request
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Dimensions



$$n \text{ min} = \left(\frac{\phi D + \phi d2}{2} \right) + 5 \text{ [mm]}$$

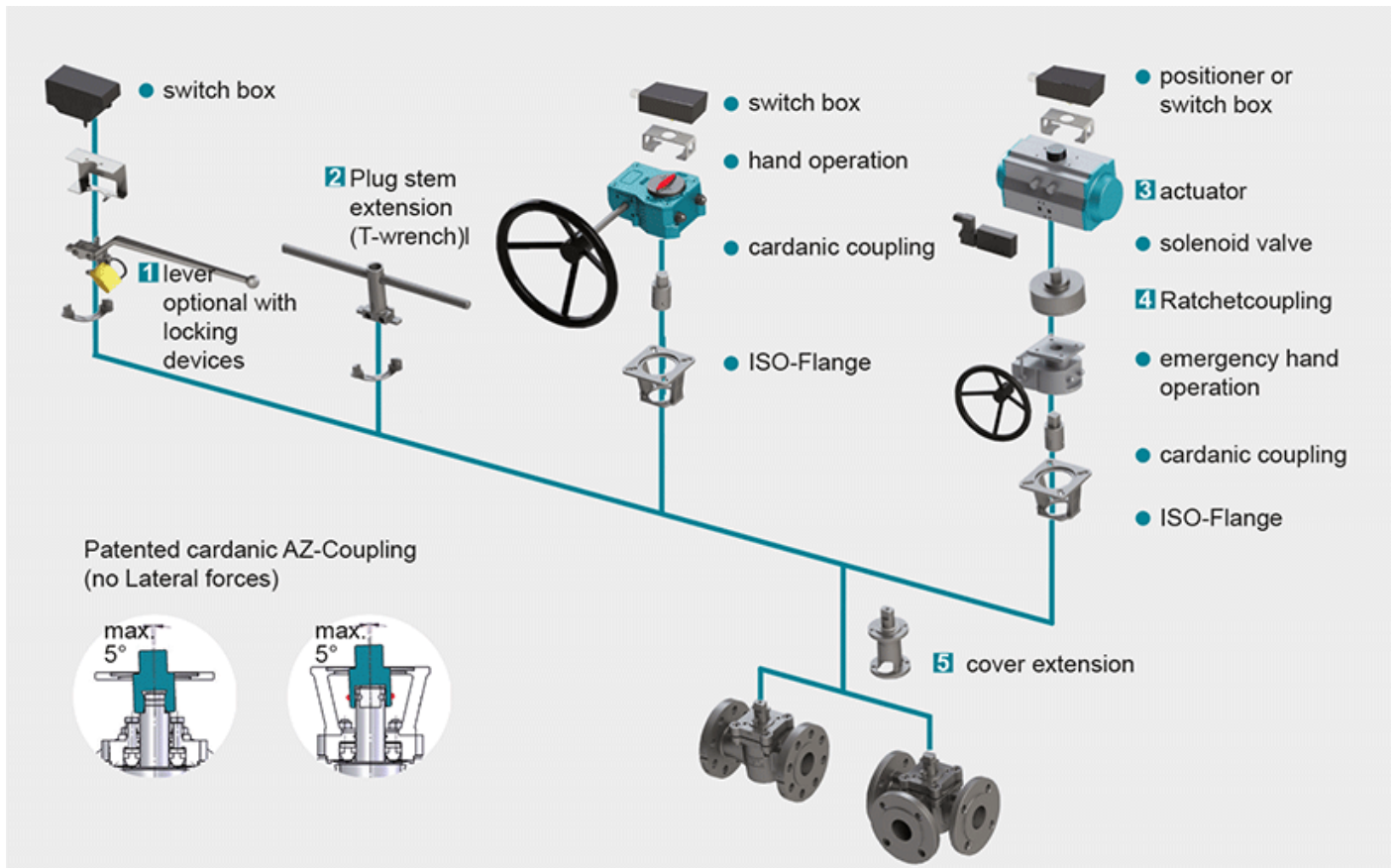
DIN	DN	15	15E	20E	25 **	25E	32	40	50	65	80	100	100S	125	150	200	250	300
	x	100	*	*	140	*	140	150	160	170	170	175	185	200	200	255	*	290
	m	25	*	*	30	*	32,5	45	50	87,5	90	110	110	75	86	90	*	90
	e	41	*	*	45	*	50	51	62	75	74	77	87,5	108	113	156	*	168
	d1	G 3/8"			G 1/2"			G 3/4"			G 1"							
	d2	DN 15																
	Enlarge	40	40	40	50	50	50	65	80	80	100	150	150	150	200	250	*	350
	L	130 200	130 200	150 200	160 230	160 230	180 230	200 290	230 310	290 310	310 350	350	350	325 350	350 400	400 450	*	500 550
	NPS	1/2"	3/4"	1" **	1 1/2"	2"	3"	4"	4"S	6"	8"	10"	12"	14"	16"	18"	20"	24"
	ANSI 150	x	90	90	90	100	110	125	125	140	185	205	215	*	*	*	*	*
m		0	0	15	30	35	40	45	40	50	45	65	*	*	*	*	*	*
e		40	40	45	53	60	74	72	93	106	128	165	*	*	*	*	*	*
d1		G 3/8"			G 1/2"			G 3/4"			G 1"							
d2		NPS 1/2"																
Enlarge		1 1/2"	1 1/2"	2"	3"	3"	4"	6"	6"	8"	10"	12"	*	*	*	*	*	*
L		108	117	127	165	178	203	229	229	267	292	330						
Class 150		165	165	178	203	203	229	267	267	292	330	356						
L		140	152	165	190	216	282	305	305	403	419	457	*	*	*	*	*	*
Class 300		190	190	216	282	282	305	403	403	419	457	502						

Enlarge: For flange enlarges, specify the desired face-to-face length "L", the values in bold are standard face-to-face lengths.

* further nominal sizes on request

** jacket connection DIN / ANSI 10/18 mm below valve centre line

Actuation



1 Locking Devices

Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor.

[read more \[...\]](#) 2 Plug stem extension

Solid construction in stainless steel with T-wrench, Standard extension 100 mm or 150 mm, non standard lengths are available on request

[read more \[...\]](#) 3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211

[read more \[...\]](#) NEW: Pneumatic actuator AIR GEAR for plug valves with high torque ≥ 150.000 Nm

[read more \[...\]](#) 4 Ratched coupling

To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90°

[read more \[...\]](#) 5 Cover extension

Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL

[read more \[...\]](#)