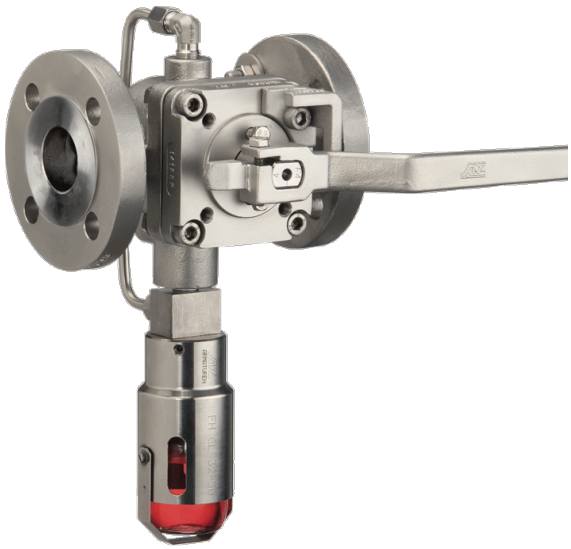
SAMPLING

Sampling System for Liquids

DIN-EN: DN 15 – 100 / PN 10 – 40
ASME: NPS ½“ – 4“ / class 150 – 300

PT range: -40 < T < 230°C, vacuum 10^{-8} mbar

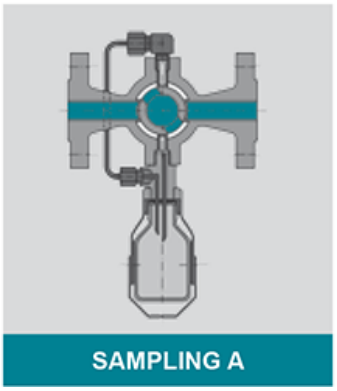


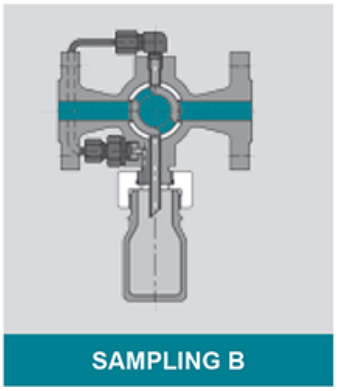
Design Features

Design Characteristics

- closed system
- cavity free
- spilling eliminated and contamination free
- specific defined representative sample quantity
- pressure free sampling (positive overlap)
- simple and fool safe operation
- absolutely tight
- utility model
- fugitive emmission resp. clean air act certified (TA – Luft 2002 approval)
- Directive 2014/68/EU

Standard Design

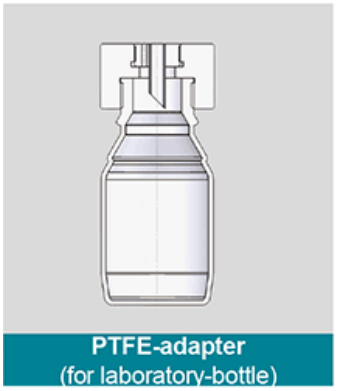


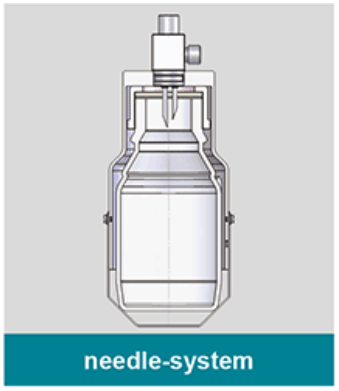


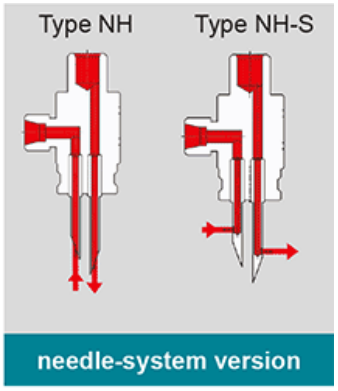
Standard Design	TYPE A	TYPE B
application	for high-toxic liquid media	for less toxic resp. polluted media
bottle connection	needle system and bottle protection	PTFE-adaptor
sample bottles	clear glass or SCHOTT-DURAN labaratory bottle with ISO-thread	clear glass or SCHOTT-DURAN labaratory bottle with ISO-thread
bottle volume(VF)	60, 100, 250, 500 ml	60, 100, 250, 500 ml
standard diaphragm (Septum)	rubber/ PTFE	-
temperature (Tmax)	230°C	230°C
Needle diameter	2, 4, 6 mm	6, 8, 10, 15 mm

Bottle connection

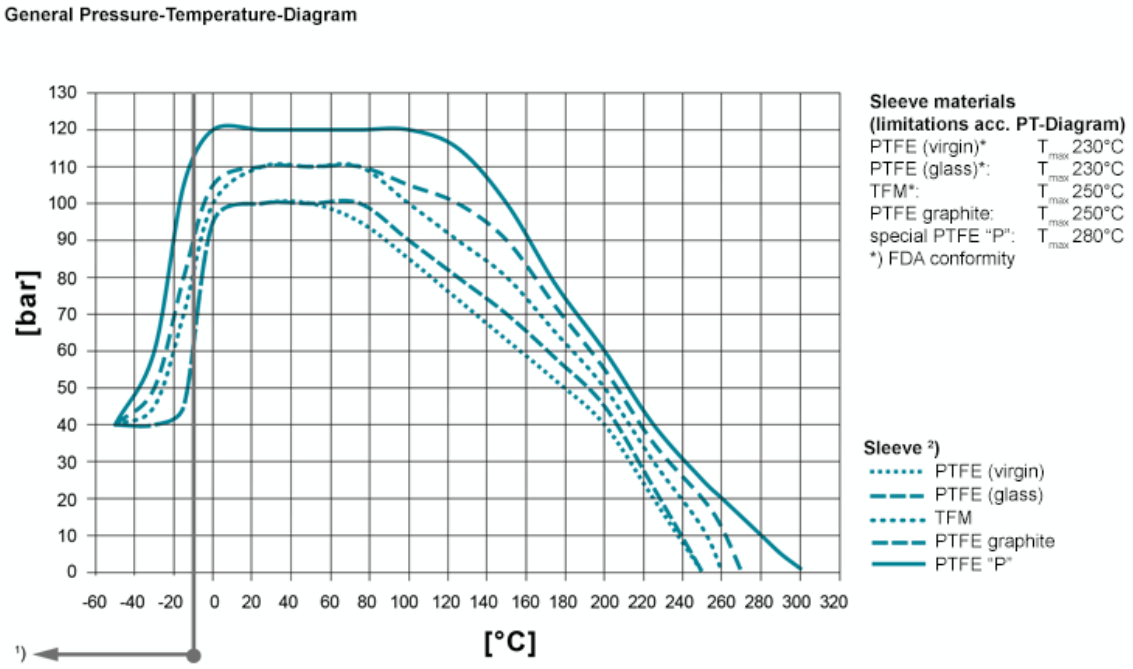
- PTFE-Adapter: for laboratory bottle with ISO-thread GL 32/45. Application: For less toxic resp. polluted media.
- Clamping Retainer: For fast and easy exchange of laboratory bottle, even for heated version.
- Needle system: closed needle system for laboratory bottle with septum (Butyl and PTFE). Needle System NH and NH-S with diverse internal diameter(2-6 mm). Application for high toxic resp. polluted media for spillnig eliminated an contamination free sampling.







PT-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

Lining materials(TRF + TRF-A)
- PFA, PFA-conductive, FEP

Sealing 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 [...]

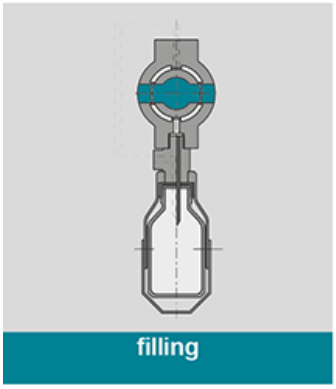
Firesafe safety sealing (API 607) for fluctuating temperatures
with 3x graphite packing (adjustable) for additional stem sealing; Tmax 280°C
Type FSN
read more [...]

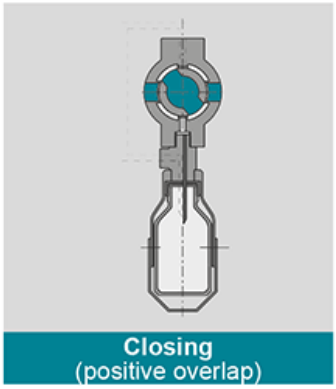
Firesafe safety sealing (API 607) for fluctuating temperatures
with 3x graphite packing (live loaded disc springs) for additional
stem sealing; Tmax 280°C
Type FSN-SL
read more [...]

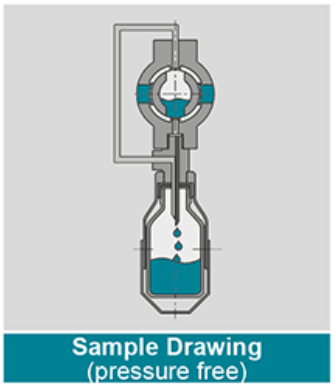
Chemical safety sealing for fluctuating temperatures
with 3x PTFE packing (adjustment) for additional stem sealing;
Tmax 230°C
Type CASN
read more [...]

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 [...]

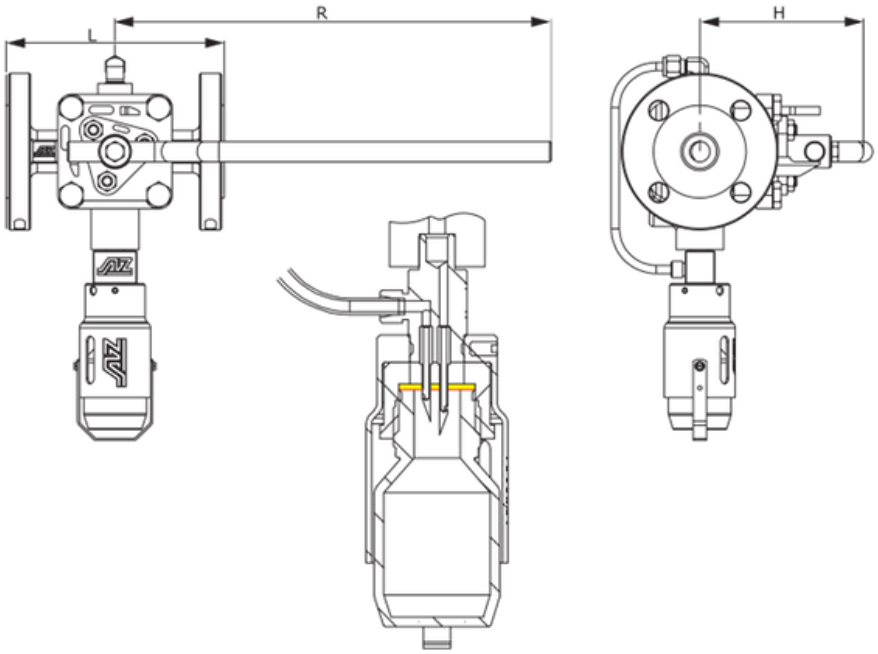
Port Forms





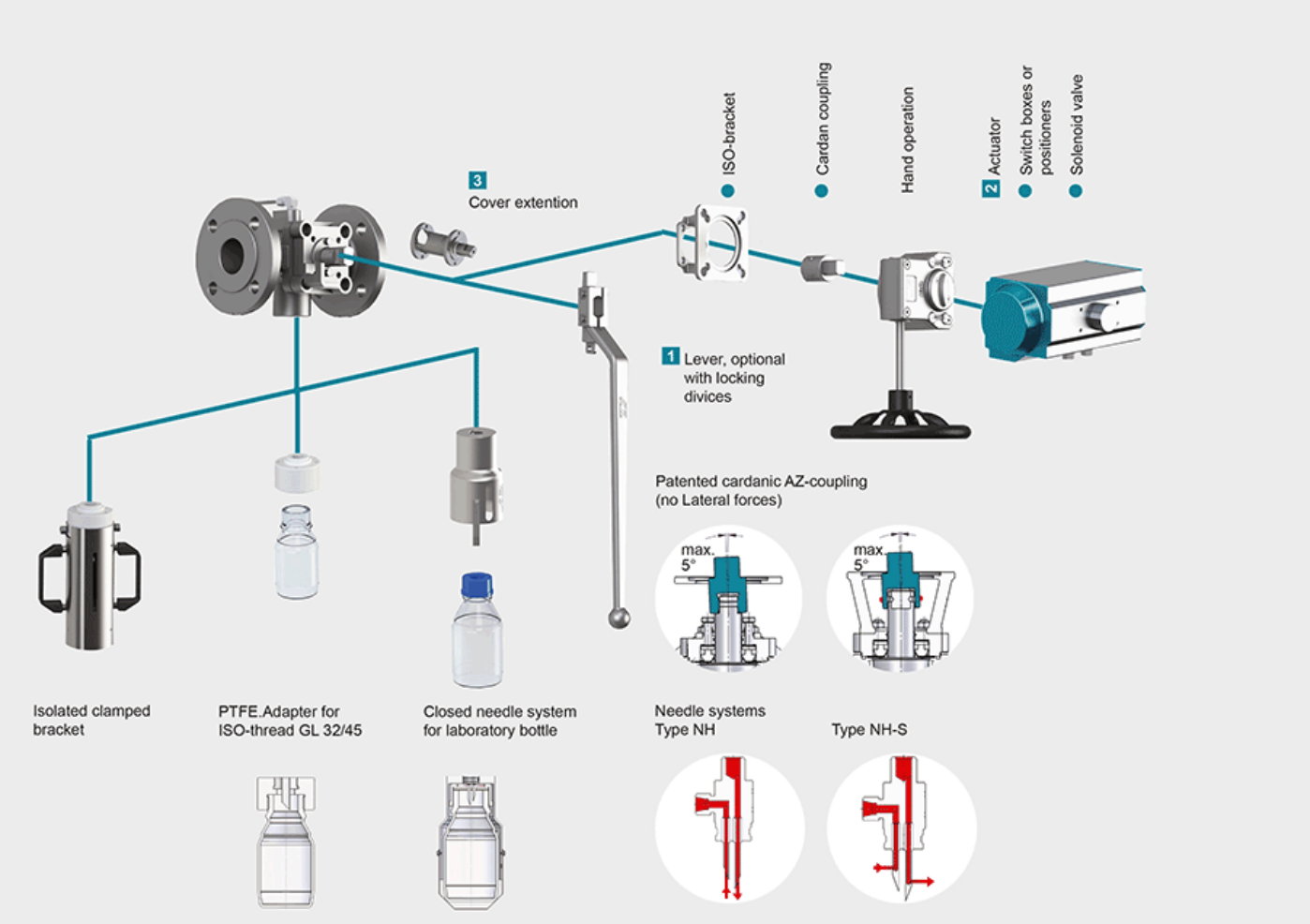


Dimensions



	DN	PN	L	R	H	sample quantity V_p [ml] Type A	sample quantity V_p [ml] Type B	Outf ow-/Ventilation Ø [mm] Type A	Outf ow-/Ventilation Ø [mm] Type B
DIN EN 1092/1 / 558-1	15	10-40	(160)	200	98	20 / 30 / 50	20 / 30 / 50	7 - 30	2 / 1,3
	25	10-40	160	200	104	30 / 50	30 / 50	7 - 30	2 / 1,3
	40	10-40	200	320	120	30 / 50	30 / 50	78 - 93	2 / 1,3
	50	10-40	230	420	140	30 / 50	30 / 50	78 - 93	2 / 1,3
	80	10-40	310	600	170	145	145	145 - 200	2 / 1,3
	100	10-40	350	600	170	405	405	405 - 530	2 / 1,3
	NPS	**Class**	**L**	**R**	**H**	sample quantity V_p [ml] Type A	sample quantity V_p [ml] Type B	Outf ow-/Ventilation Ø [mm] Type A	Outf ow-/Ventilation Ø [mm] Type B
ASME B 16.5 / 16.10	½"	150 300	108 139,7	200	98	20 / 30 / 50	20 / 30 / 50	7 - 30	2 / 1,3
	1"	150 300	127 165	200	104	30 / 50	30 / 50	7 - 30	2 / 1,3
	1½"	150 300	165 190,5	320	120	30 / 50	30 / 50	78 - 93	2 / 1,3
	2"	150 300	177,8 216	420	140	30 / 50	30 / 50	78 - 93	2 / 1,3
	3"	150 300	203,2 282,6	600	170	145	145	145 - 200	2 / 1,3
	4"	150 300	228,6 305	600	170	405	405	405 - 530	2 / 1,3

Actuation



1 Locking Devices

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

read more [...]

2 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211

read more [...]

3 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 [...]