

# VARIO

## Samplingsystem for liquids, freely definable sample quantity

DIN-EN: DN 15 – 100 / PN 10 – 40

ASME: NPS ½" – 4" / class 150 – 300

PT range:  $-40 < T < 230^{\circ}\text{C}$ , vacuum  $10^{-8}$  mbar

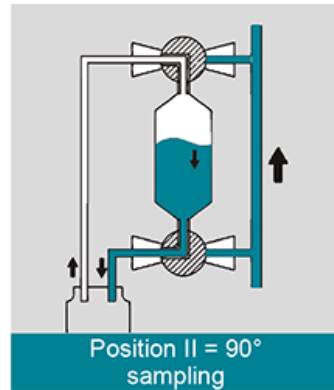
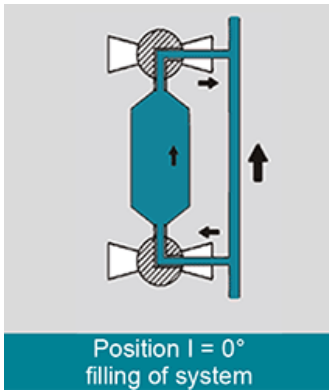


## Design Features

### Design Characteristics

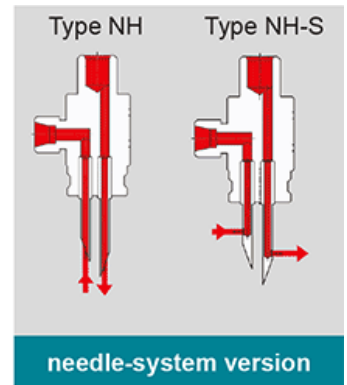
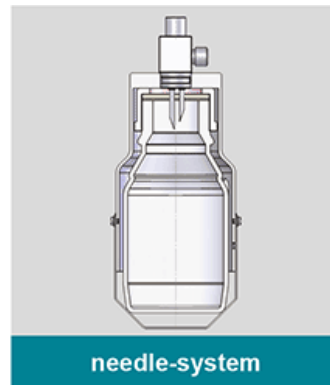
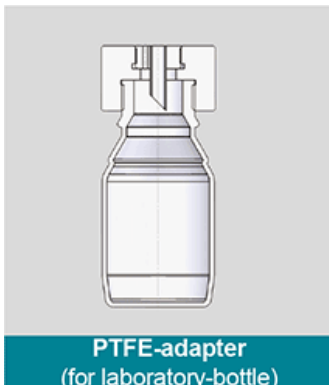
- closed system
- cavity free
- freely definable representative sample quantity
- pressure free sampling (positive overlap)
- spilling eliminated and contamination free
- simple and safe operation
- absolutely tight
- compact design
- multiple sampler combined
- fugitive emission resp. clean air act certified (TA – Luft 2002 approval)
- Directive 2014/68/EU

### Functional Principle



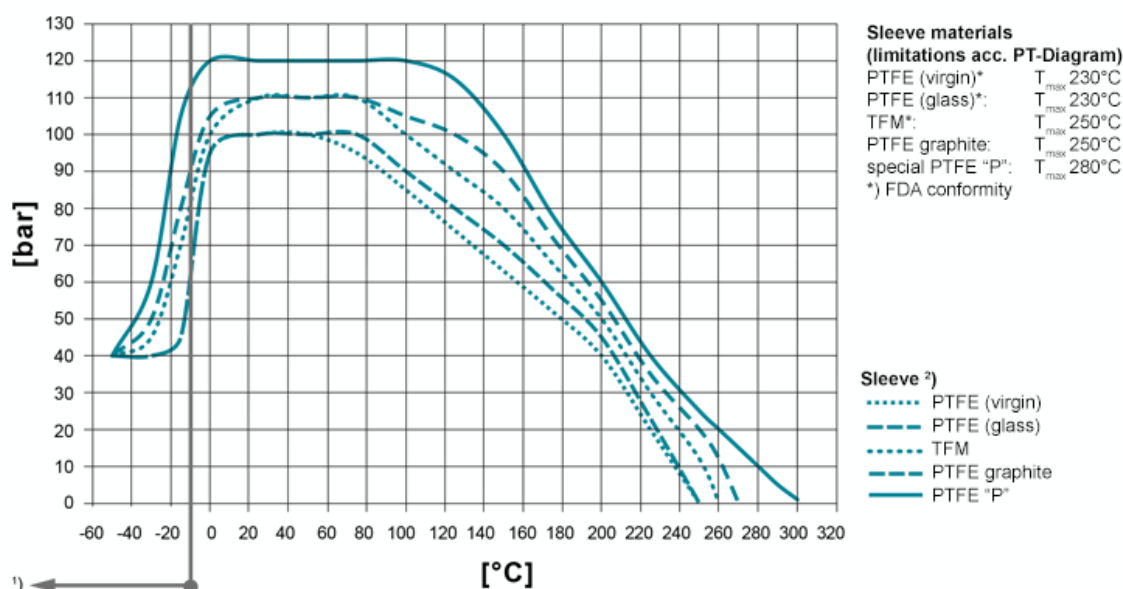
### Bottle connection

- 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 spillning eliminated an contamination free sampling.



### 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

## Sealing Systems

Standard sealing for all major applications;  
Tmax 230°C

### Type STD

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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<sub>max</sub> 230°C

### Type CA

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Firesafe safety sealing (API 607) for fluctuating  
temperatures  
with 3x graphite packing (adjustable) for additional  
stem sealing; Tmax 280°C

### Type FSN

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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

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Chemical safety sealing for fluctuating temperatures  
with 3x PTFE packing (adjustment) for additional stem  
sealing;  
Tmax 230°C

### Type CASN

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Chemical safety sealing for fluctuation temperatures  
with 3x PTFE packing (live loaded disc springs) for additional  
stem sealing; Tmax 230°C

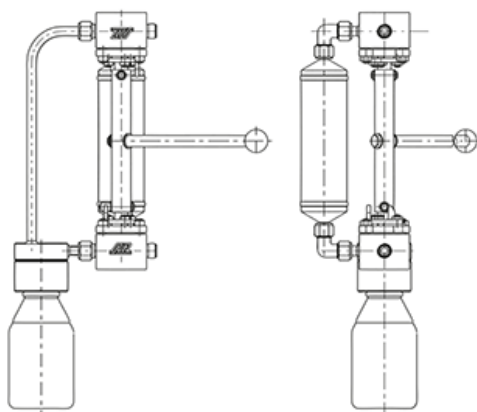
### Type CASN-SL

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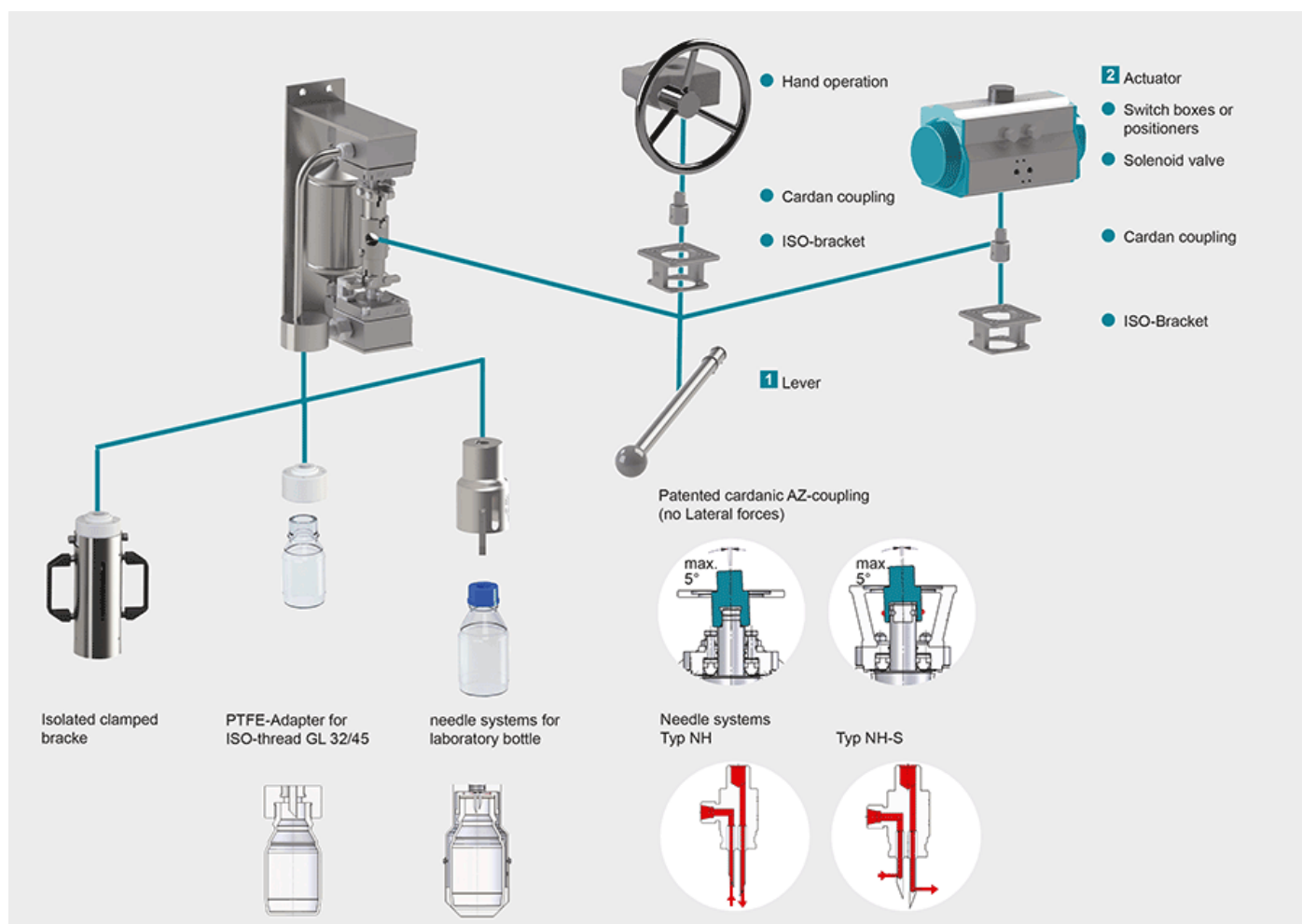
## Port Forms

on request

## Dimensions



## 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 \[...\]](#)