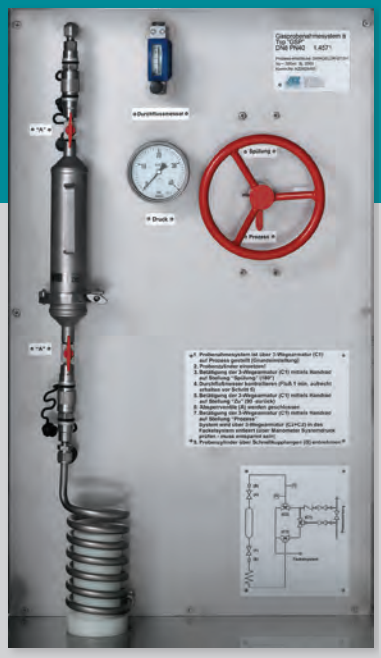
Type GSP / Type LGSP

Safe and simple sampling of gaseous media

for gas and liquid gas
sampling volume per operation:
0.6 / 1.3 / 2.1 US.cup

- **safe and contamination-free**

Class 150 - 600
Ventilation: internally back to system



Type GSP
Gas sampling system (sampling cylinder at control panel)

Type LGSP
Liquid gas sampling system (sampling container outsite of the control panel)

Design characteristics

- closed system
- representative, contamination free sample
- defined sampling quantity
- integrated system purge
- all components mounted on ready-to-install stainless steel plate
- bypass assembly

Options

- protection box (lockable, heatable)

Material

- valves, pipes and pressure cylinder made of stainless steel, other on request

Approvals

Pressure cylinder acc. to TPED (Transportable Pressure Equipment Directive) or DOT (US Department of Transportation)

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

Standard sample cylinder

Sample cylinders for gas and liquid gas

- cylinder volume 150, 300 or 500 cm^3, other on request
- material for cylinder, couplings and connections in Stainless steel (304L or 316L), other on request
- different pressure ratings, depending on the material and tempe-ratur load in the system or from media
- cylinder according TPED or other on request

Media: gas

Recommendation for filling

- fill gaseous media from top to bottom (to remove condensate)
- any increase in volume or pressure at ambient temperatures must be taken into account when calculating the necessary pressure rating of system or cylinder

Media: liquid gas

Recommendation for filling

- fill liquid gas from bottom to top (to discharge gases)

- filling pipe (length determines the size of the vapor volume)
- vapor space
- sampling volume
- cylinder volume = sampling volume + vapor space

Type GSP / Type LGSP
Type overview

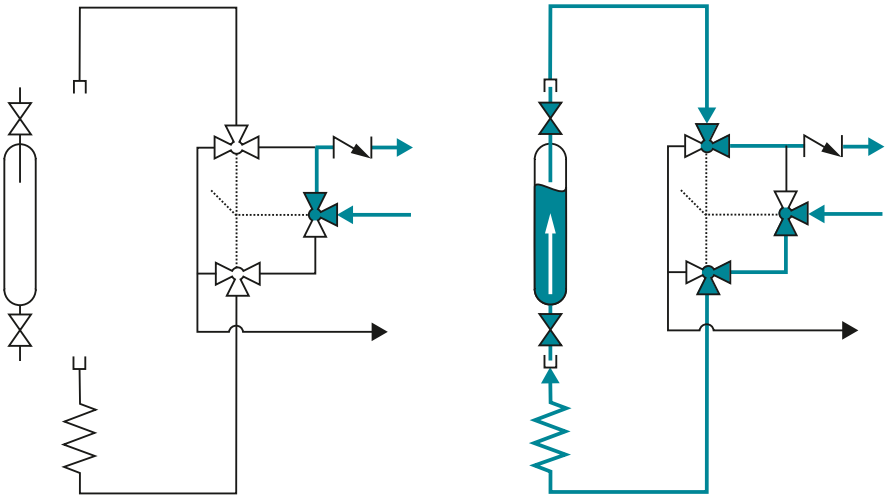
Functionality

Gas sample drawing with GSP

- the flushing of the complete, closed system incl. cylinderensures optimal collection of a representative, contamination-free sample
- safe sample drawing (leakage free / self-closing) with only one handwheel
- sampling cylinder can easily be removed by quick couplings and contamination-free sample quantity

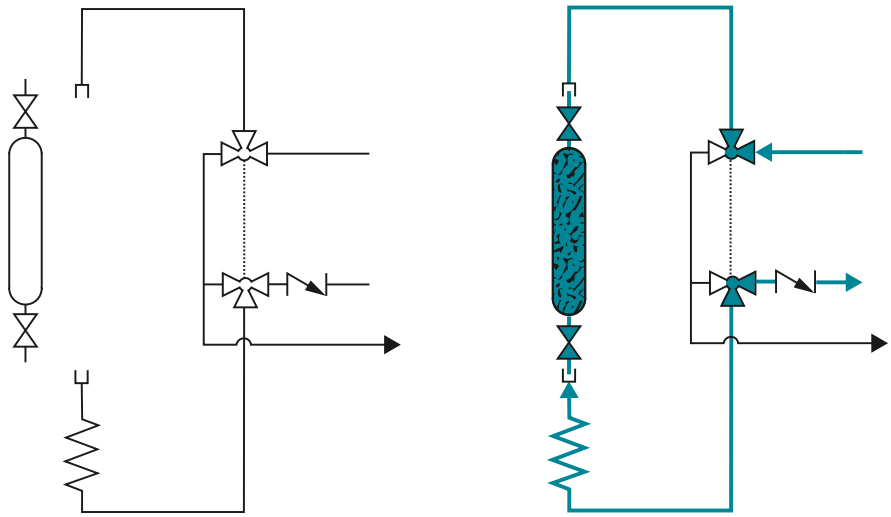
Design for continuous flow when not in use with three interconnected 3-way plug valves
type GSL-3 (gas)
type LGSP-3 (liquid gas)

- Example LGSP-3



Design for temporary flow with two interconnected 3-way plug valves
type GSL-2 (Gase)
type LGSP-2 (Flüssiggase)

- Example GSP-2



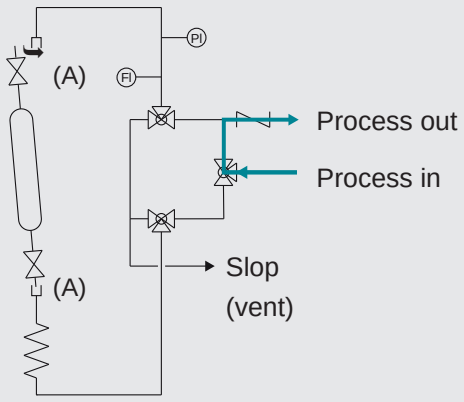
Example for sampling drawing with LGSP-3

1. Basic position

Handwheel position

PROCESS (0°)

- no-flow through system
- inserting of sample container
- open cylinder, shut-off valves (A)

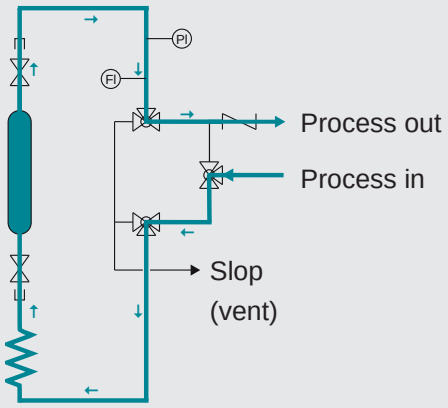


2. System purge

Handwheel position

PURGE (180°)

- purge system for a few minutes

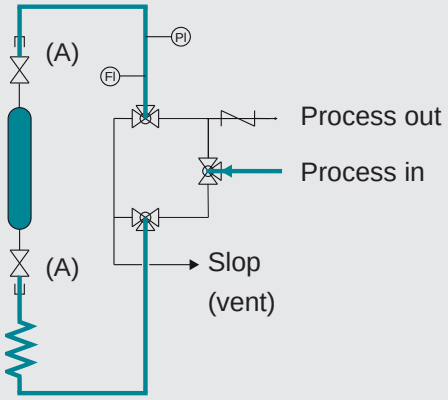


3. Closing

Handwheel position

CLOSE (90°)

- system isolated from process
- media contained
- sampling cylinder filled
- close cylinder, shut-off valves (A)



4. Depressurization & removal

Handwheel position

PROCESS (0°)

- no-flow through system
- depressurizatin of system via slop/flame
- open quick connects (B)
- remove sample cylinder