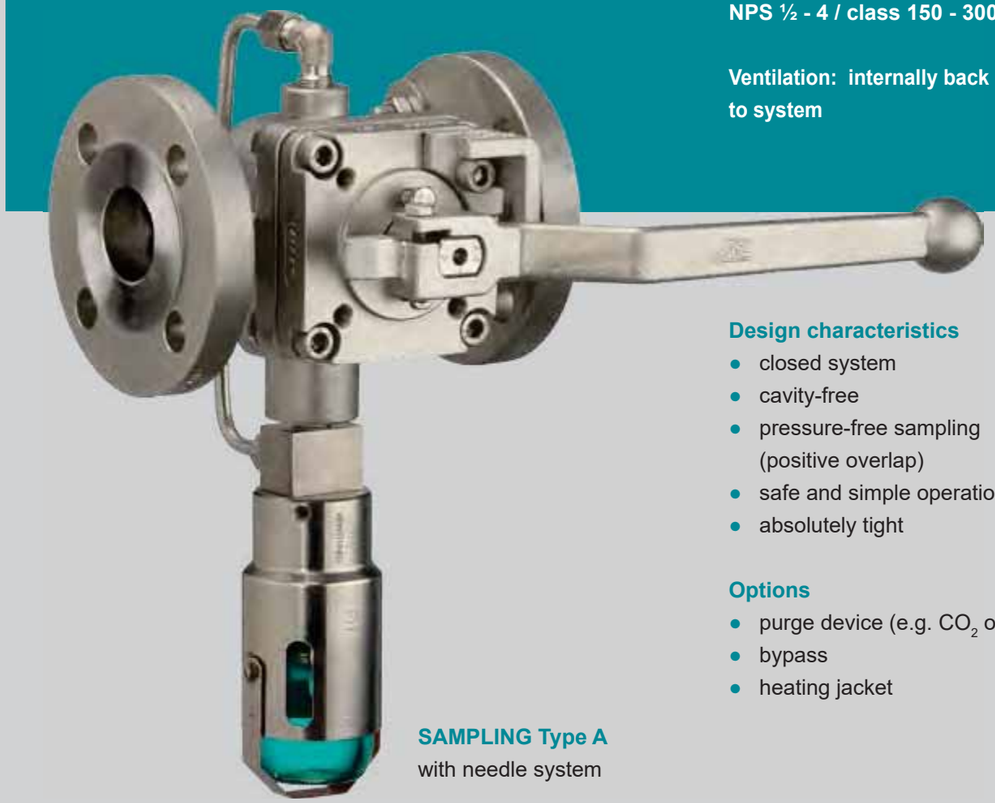
Type SAMPLING
specific defined representative sample quantity

for liquid media
Sampling volume / operation:
$V_{P\,min}$ 25 ml / $V_{P\,max}$ 405 ml

- **spilling eliminated and contamination free**

DN 15 - 100 / PN 10 - 40
NPS ½ - 4 / class 150 - 300

Ventilation: internally back to system

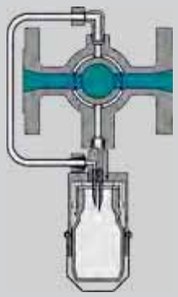


SAMPLING Type A
with needle system

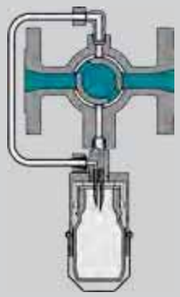
Design characteristics
- closed system
- cavity-free
- pressure-free sampling (positive overlap)
- safe and simple operation
- absolutely tight

Options
- purge device (e.g. CO_2 or N_2)
- bypass
- heating jacket

Functionality



circulation / filling the plug



pressure-free sampling (positive overlap)

sample drawing (ventilation: internally back to system)

Type overview / Supplementary equipment
with needle system / septum or PTFE adapter

HORIZONTAL

SAMPLING Type A

with needle system and septum for lab bottle

Actuation: hand lever, front

HORIZONTAL

Sampling Type B

with PTFE adapter for lab bottle alternative clamping bottle holder with bayonet fixing

Actuation: hand lever, front

Bypass

Type A and type B alternative with bypass (no product flow interruption)

VERTICAL

SAMPLING Type AV

with needle system and septum for lab bottle

Actuation: hand lever, front

VERTICAL

SAMPLING Type BV

with PTFE adapter for lab bottle alternative clamping bottle holder with bayonet fixinig

Actuation: hand lever, front

Purge device

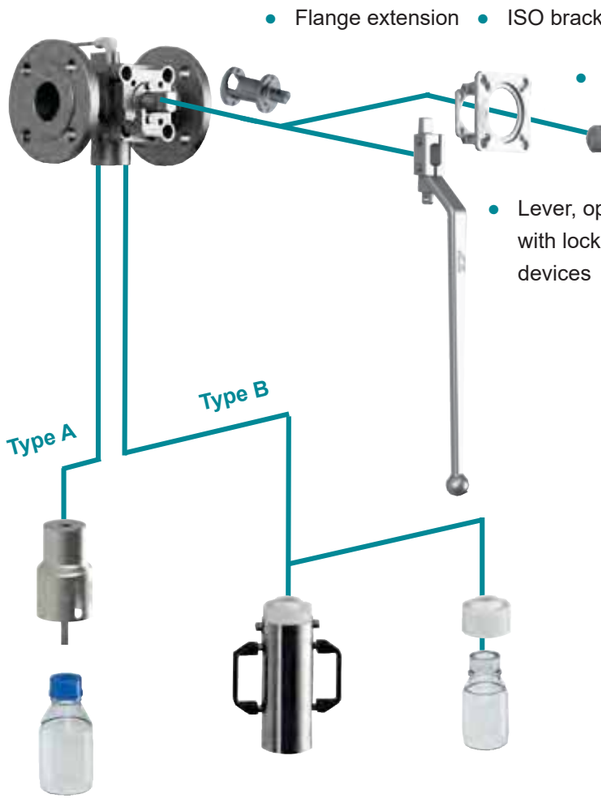
Type A and type B alternative with manual system purge

Actuation: hand lever, front

Type SAMPLING
Needle system / Operation

Needle system with septum

- process and ventilation needles pierce the PTFE / butyl septum
- after removal of the needles, the medium remains safely in the lab bottle



- Flange extension
- ISO bracket
- Cardanic coupling
- Lever, optional with locking devices
- Actuator
- Switch boxes or positioners
- Solenoid valve / Air jet

Needle system for lab bottles

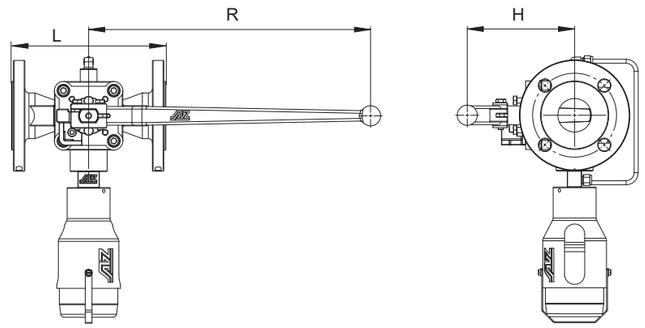
Clamping bottle

PTFE adapter with ISO thread

Shiftable positions for actuation

0° = circulation (basic position)
90° = sample drawing
0° = circulation

Type SAMPLING
Technical information

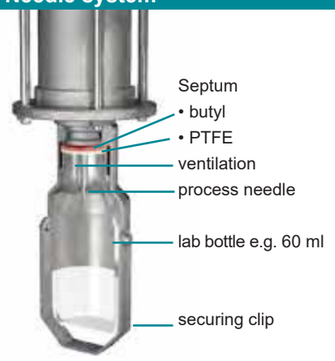
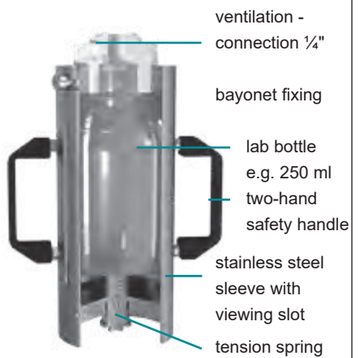


	DN	PN	L [mm]	R [mm]	H [mm]	plug sample volume V_P [ml] type A	plug sample volume V_P [ml] type B	process- / ventilation needle Ø [mm] type A	process- / ventilation needle Ø [mm] type B
EN 558	15	10-40	130	200	104	20 / 30 / 50	20 / 30 / 50	2 / 2	6 / 6
	25	10-40	160	200	104	30 / 50	30 / 50	2 / 2	6 / 6
	40	10-40	200	320	124	30 / 50	30 / 50	2 / 2	6 / 6
	50	10-40	230	420	159	30 / 50	30 / 50	2 / 2	6 / 6
	80	10-40	310	600	165	145	145	2 / 2	6 / 6
	100	10-40	350	600	165	405	405	2 / 2	6 / 6
	NPS	**Class**	**L [mm]**	**R [mm]**	**H [mm]**	**plug sample volume V_P [ml] type A**	**plug sample volume V_P [ml] type B**	**process- / ventilation needle Ø [mm] type A**	**process- / ventilation needle Ø [mm] type B**
ASME B16.10	½“	150	108	200	104	20 / 30 / 50	20 / 30 / 50	2 / 2	6 / 6
		300	140						
	1“	150	127	200	104	30 / 50	30 / 50	2 / 2	6 / 6
		300	165						
	1½“	150	165	320	124	30 / 50	30 / 50	2 / 2	6 / 6
		300	190						
	2“	150	178	420	159	30 / 50	30 / 50	2 / 2	6 / 6
		300	216						
	3“	150	203	600	165	145	145	2 / 2	6 / 6
		300	282						
	4“	150	229	600	165	405	405	2 / 2	6 / 6
		300	305						

Other nominal sizes and pressures > PN 40 / class 300 on request.
Some designs, sizes and/or configurations may be fitted with threaded flange holes.

Order Example: Sampling-A-DN25-PN40-1.4408 VP=30ml-VF=60ml
Sampling-A = type, DN25 = nominal size, PN40 = nominal pressure, 1.4408 = body material, V_P=30ml = sampling quantity, VF=60ml = bottle volume

Bottle connection designs

PTFE adapter	Needle system	Clamping bottle holder
		
for lab bottles with ISO thread GL32/45 or PP25/28GL32/45 oder PP25/28	for lab bottles with septum (consisting of butyl and PTFE diaphragm) Process needle and ventilation needle with bevel cut	bayonet fixing application for quick and simple replacement of the sampling container for insulated, splinter-protected insertion of the lab bottlesi
Application		
for liquids and solids-containg media (less toxic resp. polluted media)	for high-toxic liquid media	for hot, cold or less toxic or contaminated media (toxic / non toxic)
Ventilation		
external (¼“ connection at the PTFE adapter)	internal	external (¼“ connection at the PTFE adapter)
Bottle holder design		
threaded PTFE adapter	needle system (septum) with safety Stainless Steel bracket	Clamping bottle holder, with two-hand handle, bayonet fitting, Stainless Steel, PTFE adapter without thread, adaption of the lab bottle with internal spring
Outlet (internal diameter)		
Type CONTIFLOW I.D. = 20 mm PTFE drain nozzle Type CONTIFLOW-A I.D. = 20 mm PTFE drain nozzle	needle I.D. = 2 mm 	Type CONTIFLOW I.D. = 20 mm PTFE drain nozzle Type CONTIFLOW-A I.D. = 20 mm PTFE drain nozzle
Options		
• customer threaded PTFE adapter • perspex splinter-protection with bayonet fixing • flushing device e.g. for N_2 or steam • Modul for V_P 75 / 100 ml	• Side holes in the needles for minimized puncturing impact on septum • needle I.D. = 3 / 4 / 6 mm • flushing device e.g. for N_2 or steam • Modul for V_P 75 / 100 ml	• flushing device e.g. for N_2 or steam • Modul for V_P 75 / 100 ml

Bottle connection designs

DURAN® (clear glass)
DURAN® Pressure Plus+ (vacuum-capable and pressure tight)
DURAN® Protect (shatter protected)

50 ml 100 ml 250 ml 500 ml

Lab bottle with septum

100 ml 6o ml

Standard lab bottle	Bottle volume V_F [ml]	Packing unit [pieces]	Thread / cap size	Diameter [mm]	Height H [mm]
• **DURAN® (clear glass)** with plastic cap • **DURAN® Protect** (shatter protected) with plastic cap	50	10	GL 32	46	87
	100	10	GL 45	56	100
	250	10	GL 45	70	138
	500	10	GL 45	86	176
	1000	10	GL 45	101	225
• **DURAN® Pressure Plus+** (vacuum-capable up to 1 bar vacuum and pressure tight up to +1,5 bar)	100	10	GL 45	56	100
	250	10	GL 45	70	138
	500	10	GL 45	86	176
	1000	10	GL 45	101	225
• **Lab bottle with septum** (clear glass) with Aluminum cap and plastic cap	60	127	PP 25	39	93
	100	10	PP 28	52	97
	300	10	PP 28	65	151
	500	10	PP 28	77	178
	1000	10	PP 28	98	217

Individual lab bottle

- Stainless Steel bottle
- Aluminium bottle
- lab flask
- etc.

Individual bottle holder on request

Sample volume

- Standard sample volume 25 ml enough for laboratory tests
- no disposal of waste (saving of costs)
- optionally higher sample volume through repeating operations
- 50/75/100 ml sample volume available for certain executions