For Sterile Sampling

Unique Sampling Valve - Single Seat

Concept
The Unique Sampling Valve is a single seat valve designed for sterilization before and after each sample. Valve body and connecting pieces are made of one piece of material to avoid cracks and welding pores.

Working principle
Sterilising: when the valve is closed, the channel between the valve ports is open for sterilisation. If using steam, a small pressure relief valve (optional) on the outlet is recommended. Sampling: when the valve is opened, the stem and the membrane seal are retracted, allowing liquid to pass.

Standard design
The valve consists of three parts, a valve body, an actuator and a membrane seal. The rubber membrane seal is placed on the stem of the actuator and works as a stretchable plug. The valve bodies and actuators are interchangeable. The single seat valve can be upgraded to a double seat valve by replacing the handle or actuator with an upgrade kit - see ordering leaflet for accessories.

TECHNICAL DATA

Temperature
Temperature range: . . . . . 1°C - 130°C
Max. sterilisation temperature, dry steam (2 bar) . . . . . 121°C

Steam must be dry, since condensate will damage the membrane seal. It is recommended that the membrane seal be changed every 100 samples/sterilisations or in accordance with working conditions or experience.

Pressure
Max. working pressure: . . . . . 600 kPa (6 bar)
Min. working pressure: . . . . . 0 kPa (0 bar)

PHYSICAL DATA

Materials
Valve body: 1.4404 (316L)
Actuator: . . . . . .301, 303, 316L, PA 6.6/black, PTFE
Membrane seal: . . . . . .EPDM, silicone

Authorized to carry the 3A symbol

Options

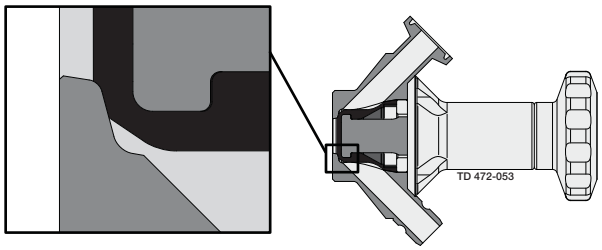
A. Horizontal tube saddle valve body
B. Vertical tube saddle valve body
C. Varivent valve body
D. Weld, Tri-Clamp, Quick or thread connections
E. For accessories, please see ordering leaflet

Note!

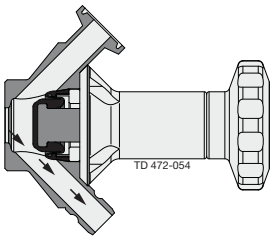
For further information, see also instruction ESE01605.

By using the standard accessories, aseptic sampling is possible. The accessories are designed to ensure the right conditions when sterilising (2 bar - 121°C). Heat insulating material is used to avoid burning.

Closed valve



Open valve



Closed valve: Sterilising

When the valve is closed, the channel between the valve ports is open for sterilisation. If using steam, a small pressure relief valve (optional) on the outlet is recommended.

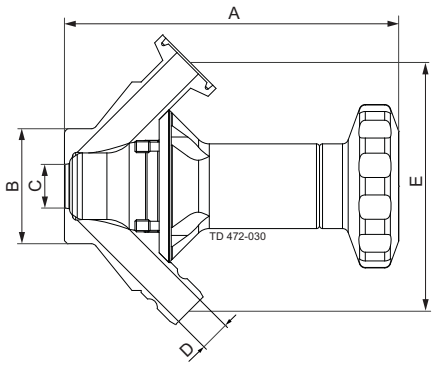


Fig. 1. Dimensions

Dimensions (mm)

Pos.	Size 4	Size 10
A	See Ordering Leaflet	See Ordering Leaflet
B	See Ordering Leaflet	See Ordering Leaflet
C	4	14
D	6	10
E	77	82

Valve	Viscosity (cP)
Size 4	0-100
Size 10	0-1000

Open valve: Sampling

When the valve is opened, the stem and the membrane seal are retracted, allowing liquid to pass. By using the standard accessories, aseptic sampling is possible. The accessories are designed to ensure the right conditions when sterilising (2 bar - 121ºC). Heat insulating material is used to avoid burning.

The valve is available in two sizes:

- Size 4 for low-viscosity products such as water, beer, wine and liquid milk.
- Size 10 for high-viscosity products such as fruit yoghurt, syrup and ice cream.

Valve bodies:
Tank (welding).
Collared tube (welding).
Tri-Clamp

Valve heads:
Handle (0-6 bar)
Handle, high pressure (6-10 bar)
Actuator (0-10 bar) air supply max. 8 (bar)

Optional
Horizontal tube saddle (welding)
Vertical tube saddle (welding)

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How to contact Alfa Laval
Contact details for all countries
are continually updated on our website.
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