

Alfa Laval SB Membrane Sampling Valve

Sampling valves

Introduction

The Alfa Laval SB Membrane Sampling Valve is a hygienic valve that enables representative sampling of products from tanks and pipework under sterile conditions. It provides the high accuracy, exceptional repeatability and excellent reliability required for high-quality, cost-effective sampling.

Application

This hygienic sampling valve is suitable for use in the hygienic applications across the dairy, food, beverage, brewery and many other industries.

Benefits

- Hygienic and sterilizable to ensure hygienic sampling at low investment cost
- No sampling contamination risk due to effective Sterilization-in-Place before and after each sampling
- Flexible sampling methods: manual activation, manual with micro port for hypodermic needle, or pneumatic versions
- Safe, reliable sampling procedures

Standard design

The membrane sampling valve consists of a valve body, a membrane seal which works as a stretchable plug, and an actuator and/or handle to open and close the valve. To minimize the risk of contamination, the valve is sterilized in place using alcohol or steam. The membrane forms a seal directly against the product to ensure representative sampling and provide accurate, repeatable results without any risk of secondary contamination.

The valve is available in three different actuator designs:

- Manual - For manual activation
- Manual + Micro Port - For manual activation or sampling using a hypodermic needle to penetrate the membrane for sample taking
- Manual + Pneumatic - For manual or pneumatic activation when the valve is connected to pipes for automatic sampling

Supplied with pipe outlet connections, the valve is available with three different types of connection: tank, pipe and threaded.

All types are available for manual or pneumatic operation, or a combination of both. The two connections are hose pieces



designed as clip-on. The standard valve is equipped with one clip-on closing cap.

Working principle

Before opening the Alfa Laval SB Membrane Sampling Valve, the closing cap should be placed on the upper hose to avoid any product leaving the upper port. When the handle is turned to the horizontal position, the sample starts to flow through the lower outlet. When the handle is turned back to the vertical position, the valve shuts and the handle can be removed, if required. Samples can be taken using a special valve type with a micro port; removal of the red cap enables the insertion of a hypodermic needle through a central channel and into the membrane to take a sample with the valve in the shut position. After sampling, flush the valve with water or alcohol. The valve can be sterilized using alcohol or steam.

Technical Data

Temperature	
Temperature range:	1 °C - 130 °C 33.8 °F - 266 °F
Max sterilisation temperature dry steam (2 bar):	121 °C 249.8 °F

Steam must be dry, since condensate will damage the membrane seal.

Pressure	
Product pressure:	1000 kPa 145 PSI (10 bar)

Physical Data

Materials	
Valve body:	1.4404 (AISI 316L) with 3.1 cert.
Other metallic parts:	1.4307 (AISI 304L)
Membrane:	1 pcs. silicone and 1 pcs. EPDM supplied with valve

Accessories

See SB Membrane Sampling Valve Accessories ordering leaflet.

Special Versions

Instead of being clip-on type, the two outlets of the valve can be supplied with Swagelok. Other type is available on request.

The pneumatic valve can alternatively be supplied in a combined manual - pneumatic execution.

Please ask for separate information on the SCANDI BREW® Sampling system.

The valve body is available in the following constructions:

- Type T for direct welding into tank
- Type P for direct welding into pipe
- Type S for socket mounting. Valve body with male part in 3/8" BSP
- Other types are available on request, f.inst. 1/2" BSP, NW 10, NW 15

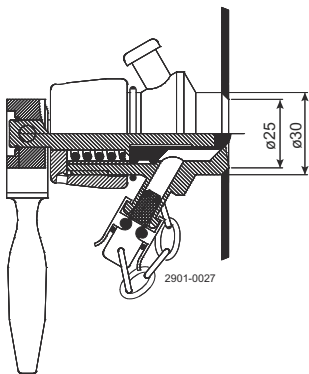


Figure 1. Type T

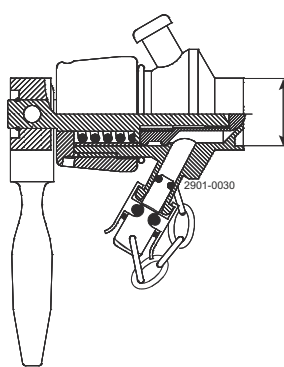


Figure 2. Type P

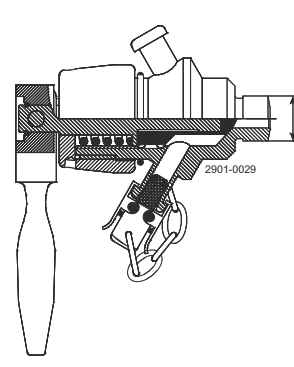
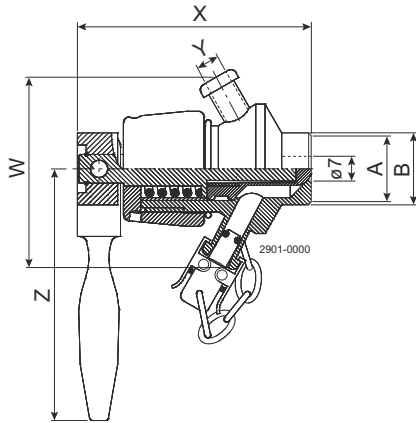


Figure 3. Type S

Dimensions (mm / inch)



mm / inch

	Type T	Type P 1"	Type P DN25	Type P ø12	Type S
A	ø25 / ø0.98	22.6 / 0.89	26 / 1.02	10 / 0.39	-
B	ø30 / ø1.18	25.0 / 0.98	29 / 1.14	12 / 0.47	3/8" BSP
X	81.0 / 3.19	82.5 / 3.25	82.5 / 3.25	-	94 / 3.70
Y	6.80 / 0.27	6.80 / 0.27	6.80 / 0.27	-	6.80 / 0.27
Z	87.5 / 3.44	87.5 / 3.44	87.5 / 3.44	-	87.5 / 3.44
W	65.2 / 2.57	65.2 / 2.57	65.2 / 2.57	-	65.2 / 2.57

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