Product-Info

Air flushing system

LSP1
made by systec

systec Controls
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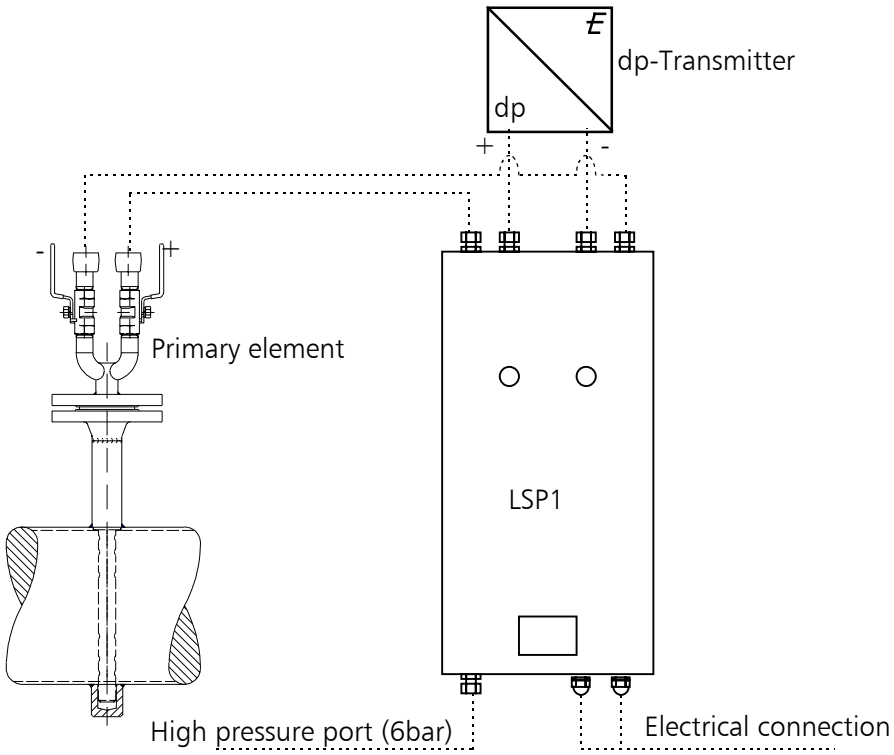
Description

Each systec Controls air-flushing system LSP can flush the absolute pressure pipes of one differential pressure measurement transmitter or of two pressure measurement transmitters individually.
In order to begin the flushing process the flushing system expects one control signal via a potential free contact.
You can also choose to start the flushing intervals by using an integrated timer.

Scheme



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Flushing sequence

Shut off/check-magnetic valves V1 and/or V2 shut off against measurement transmitters.

1. Magnetic valve V1 and V2 shut off-shut off valves left and right.

2. Main Three-way magnetic valve V5 opens.

3. Magnetic valve V3 opens, flushing of channel 1 begins.

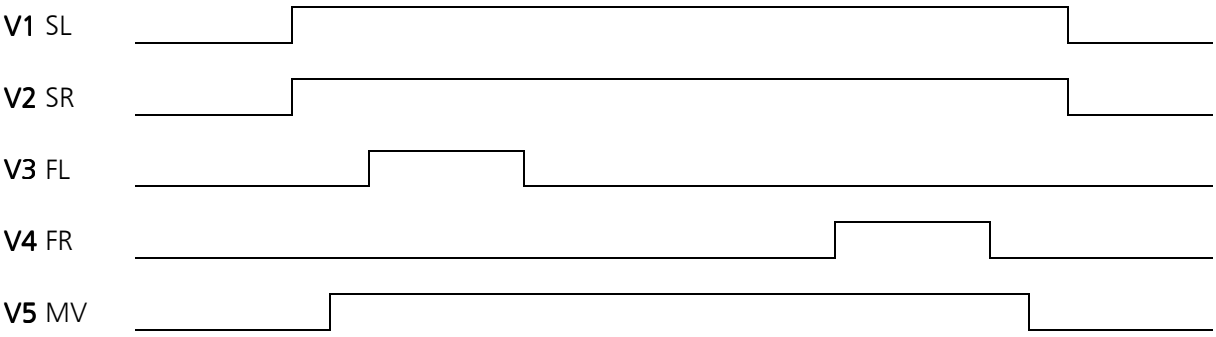
4. Flushing intervals adjustable through bridges, flushing period through ports.

5. Magnetic valve V3 shuts off and magnetic valve V4 opens and flushes like before channel 2.

6. Magnetic valve V4 shuts off.

7. Main three-way valve V5 shuts off and relaxes valves V3 and V4.

8. Shut off/check valves V1 and V2 open, measuring in operation again.



FD: Flushing period
SL: Shut off valve left
SR: Shut off valve right
FL: Flushing left
FR: Flushing right
MV: Main valve

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Setting of the flushing intervals through bridges:

Input SPS	Time period in hours
E 0.7	0,25
E 0.6	0,5
E 0.5	1
E 0.4	2
E 0.3	4
E 0.2	8
E 0.1	12
none	24

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Features of the LSP1

During the entire flushing green signalling lamp in the casing "FLUSHING IN PROCESS" indicate the flushing process.
The controlling of the flushing process is realised through a programmable control SPS and offers a variety of further options.

Although flushing can be done with pressures up to 6 bar/g, putting pressure on the pressure/differential pressure measurement transmitters unintentionally which would result indestruction or zero point deviation **-** is impossible because of the physical, mechanical and electrical construction.

The absolute pressure of the differential/pressure measurement transmitter left before the flushing process remains constant during the entire flushing process. A costly signalling-an- stopping device is not necessary but as option possible.

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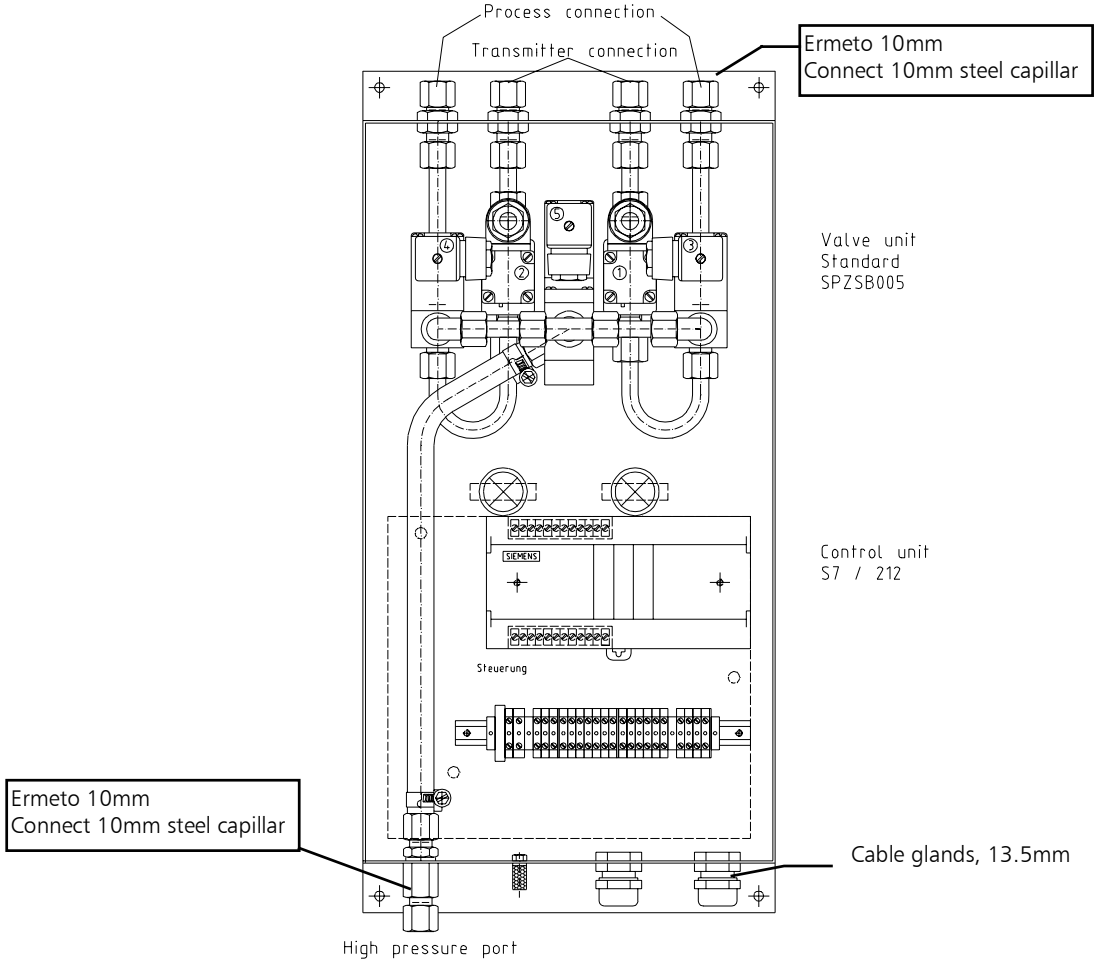
Connecting the LSP1

In order to connect the LSP1 to absolute pressure producers, differential pressure measurement transmitters and compressed air, cutting ring screws or hose pipes are available. These connections are identical and may be used for + or - (HI or LO). We recommend dry compressed air with a pressure of about 6 bar for flushing.

The standard connection geometry is 10 mm Ermeto cut ring for direct connection of OD 10mm steel capillaries. Additional parts are not needed. Special connectors are available on customer request.



Please refer to the wiring diagram for the electrical connections.

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Maintenance

The LSP1 is made of high-quality components and materials and maintenance-free despite the very high life expectancy of the system. Should nevertheless the necessity for maintenance and repair works occur, the valve unit may be removed easily.

Warning: *Before opening the appliance always unplug the unit. Maintenance and repair works have to be done by authorised personnel only.*

To remove the valve unit unplug all connection plugs and mark them; this will later help you to put the unit back together. If there is a stiff connection between the high-pressure port and the main valve, this pipe has to be removed first. Unscrew all of the five screws at the outside of the box and pull out the valve unit. Put it together in the reverse order. Make sure that all screws are airtight.