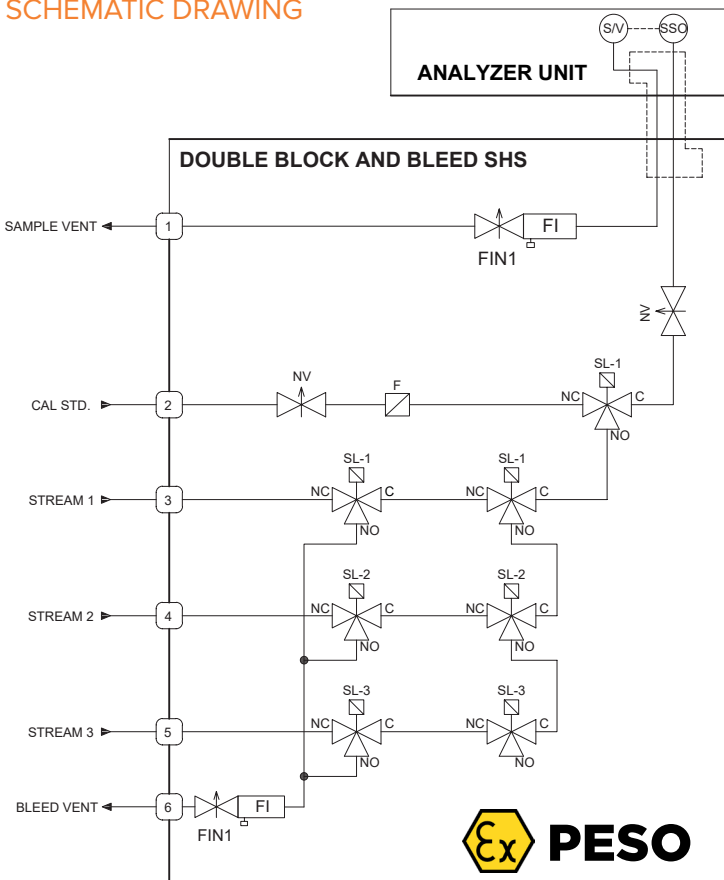


Double Block and Bleed System

DBB1

SCHEMATIC DRAWING



DESCRIPTION

ASPL Double block and bleed is a special design to ensure that cross stream contamination does not occur in multi-stream sample systems which is caused due to is leakages from switching valves and areas of unpurged tubing common to more than one stream.

As it can be seen in below diagram this design allows sample flow from the selected stream to pass through two valves enroute to the sample/calibration valve. The other streams are double blocked with two valves and leakages from valves at low pressure to escape out the bleed vent.

Hence here the purpose is now served by double block and bleed valve, firstly it will prevent contamination in all the streams and remove the trap gas/ liquid by means of the given bleed vent/drain.

Solution can be provided for gases and liquid application. In case of liquid contamination shall be connected to drain.

Switching valves shall be provided Electric operated solenoid valve or air operated valve.

Multi stream sample selection and calibration switching command shall be given by analyzer unit/control unit.

Sample fine filter and rota meters can be added to make it complete sample system as per customer specific requirements.

This improves the reliability of the system where precise measurement is highly required.

FEATURES

- » Avoid cross stream contamination
- » Applicable for both gas liquid
- » Equipped with both Rota meter and Filter
- » Used for critical process service

ADVANTAGES

- » High availability
- » Reliable
- » Precise measurement
- » Option available with Valves
- » CCOE and ATEX approved certification
- » This can work within harsh environment

APPLICATION

- » Used for critical process the system where precise measurement is highly required.
- » Application where cross stream contamination should not occur

WORKING

Stream-1 selection :

Selected stream energizes both the valves (SL-1-1 and SL-1-2) to allow sample flow from the normally closed port (N/C) to the common port (C) in both valves and then open port (NO) to Common port (C) in sample/calibration switching valve (CAL) then to the analyzer. Leakages from valves in other streams will be vented out.

Stream-2 selection :

Same as above

Stream-3 selection :

Same as above

Note : Electric powered contact or pneumatic command to be given from analyzer unit/control unit for switching valves.

ORDERING INFORMATION

DBB1																9
No of streams																
		0														2 Streams
		1														3 Streams
		2														Customized
MOC of wetted parts																
		0														SS 316
		1														SS 304
Application																
		0														Gas application
		1														Liquid application
Switching Valve types																
		0														Air operated
		1														Solenoid valve
Power supply for solenoid valves*																
		0														In case of AOV
		1														230V
		2														110V
		3														24V DC
Area classification for solenoid valves*																
		0														In case of AOV
		1														Zone-1 IIA/IIB
		2														Zone-1, IIC
		3														Zone-2 IIA/IIB
		4														Zone-2 IIC
Certification																
		0														No certification
		1														CCOE
		2														ATEX
Fine Filter -SS sintered																
		0														No filter
		1														2 micron
		2														Customized
Sample rota meter **																
		0														No rota meter
		1														2-20 CC/min
		2														Customized
Mounting																
		0														SS 304 plate (600mm x 600mm)
		1														SS 304 Box (600mm x 600mm x 300mm)
		2														Customized
Rota meter make																
		A														Axis approved vendor
		C														Customized

TECHNICAL SPECIFICATIONS

Mounting	Horizontal
Body Material	SS 316
Area Class	Suitable for Zone-1 IIA/IIB , Zone-1, IIC, Zone-2 IIA/IIB , Zone-2 IIC , Zone-2 IIC
Dimension	Refer Dimension Ordering information
Power Supply in case SOV	230V, 110V , 24V DC
Certification	Available with CCOE and ATEX
Connection	1/4” Tube fitting

ADDITIONAL ACCESSORIES

Description	Qty.
3/2- Way Air Operated Valve*	7 No.
3 Way Solenoid Valve*	7 No.
Filter*	1 No.
Flow Meter*	1 No.
Needle valve*	2 No.

Note : * As per Installation

Note: *Select 0 in case of AOV valves

**Sample rotameter shall be calibrated with air/water in case of Gas/Liquid service