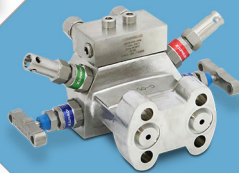
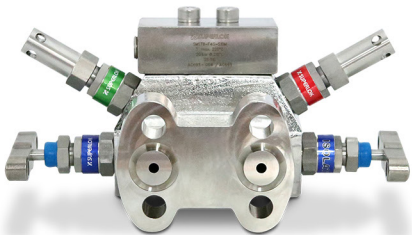
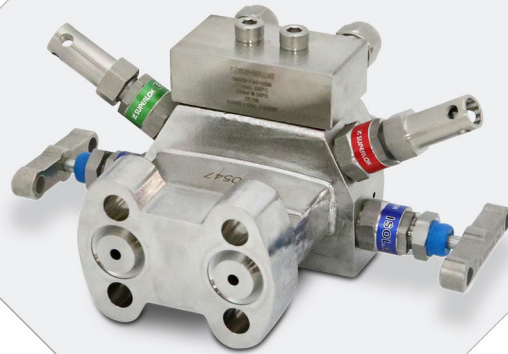
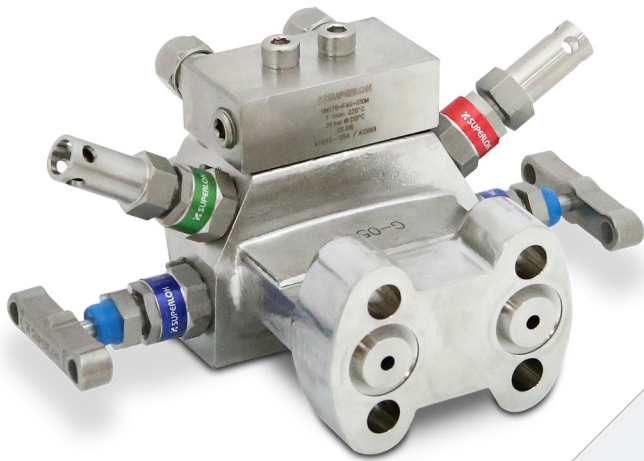


# Modular Mounting System



# Modular Mounting System

## Introduction

SUPERLOK Modular Mounting System provides substantial advantages by the simplest and most effective means to install Transmitters and Gauges.

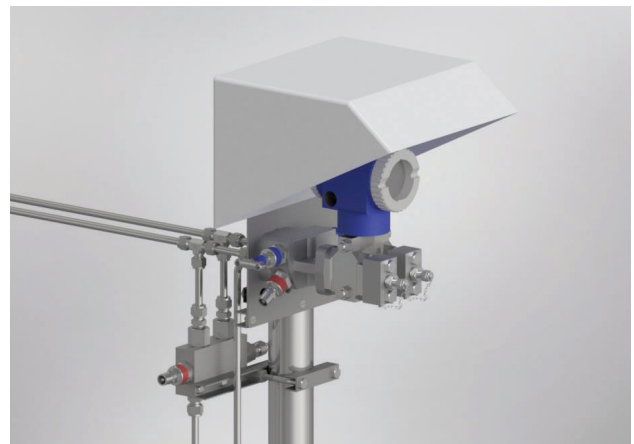
The Modular Mounting System are designed to be compatible with the Shell® MESC Specifications for Process Instrumentation.

The Modular Mounting System Components are designed to be used with Transmitters or Gauges for General Pressure and Differential Pressure Measurements.

All components benefit from a compact design, reduced installation costs and less potential leak points.

## The Modular Mounting System components are Manifolds with a choice of accessories like:

- Mounting Brackets
- Single & Double Vent Purge Blocks
- Steam Tracing Blocks
- Seal Pots
- Filling Connectors
- Blind Flanges
- Port Protectors
- Purge Orifice Nipple
- Protective Shades and Enclosures
- Anti-Tamper Keys
- Handle Locking



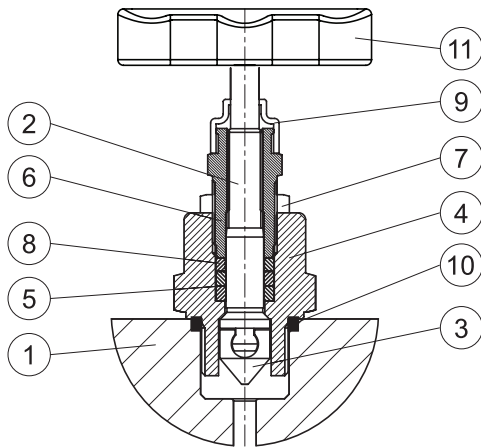
## Features

- A standard series of 2-valve and 4-valve manifolds is used for pressure and differential pressure measurement
- Inlet and vent connections are supplied G 1/4 female thread (DIN 3852 part 2)
- Instrument mounting face in accordance with DIN 19213
- Suitable for liquid and gas services
- Equalizing and vent valves are equipped with an Anti-Tamper facility
- PTFE and Graphite packings are available for all valve types
- Up to 414 bar (6,000 psi) @ 37°C (100°F) maximum working pressure
- 200°C (392°F) maximum working temperature for PTFE packing
- Body material : ASTM A182 F316 as a standard
- Bore size 5.0mm (0.197")

## Optional

- Special design to be used with Rosemount Coplanar flange transmitters
- Available in a variety of materials
- Sour gas service (NACE MR0175 / MR0103)
- Connections can be assembled with SUPERLOK tube fittings

## Bonnet Assembly



- Metal to metal seating arrangement
- T-bar operating handle for low torque function
- Back seated stem for blow out prevention
- Color coded dust cap for operating thread protection
- Pressure Rating up to 414 bar (6,000 psi) @ 37°C (100°F)
- Temperature up to 648°C (1200°F) with optional Graphite packing

## Materials of Construction

	MESC Code	Material Grade
1*	Body	A351 CF8M
2	Stem	A276-316
3*	Vee Tip	SS630
4*	Bonnet	A276-316
5*	Packing	PTFE Graphite (optional)
6	Packing Bolt	SS316
7	Lock Nut	SS316
8	Packing Gland	SS316
9	Dust Cap	NYLON
10	Bonnet Seal	PTFE
11	Handle	SS316

\* Wetted components

## Ordering Information

Example : **SM4M A - F4G - S6 - GR - M40**

1
2
3
4
5
6

### 1. Valve Series

- SM2M** = 2 -Valve Manifold
- SM4M** = 4 -Valve Manifold

### 2. Manifold Type

- A** = TYPE A (Double Isolation / Equalise / Vent Valve)
- B** = TYPE B (Double Isolation / Double Vent Valve)
- C** = TYPE C (Single Isolation / Vent Valve)
- D** = TYPE D (Single Isolation / Vent Valve)
- E** = TYPE E (Single Isolation / Vent Valve)
- F** = TYPE F (Single Isolation / Vent Valve)
- G** = TYPE G (Single Isolation / Vent Valve)

### 3. Process / Vent Connection

- F4G** = G 1/4 Female
- F4N** = NPT 1/4 Female

### 4. Size of SUPERLOK Tube Fitting

- (Blank)** = Without Compression Fitting
- S6** = 3/8"
- S10M** = 10mm

### 5. Packing

- (Blank)** = PTFE Packing (Standard)
- GR** = Graphite Packing

### 6. Body Material

- (Blank)** = 316 Stainless Steel
- M40** = Alloy 400

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.

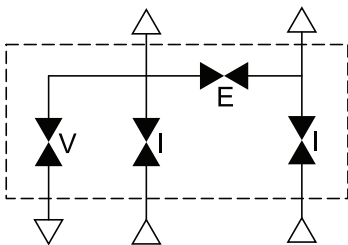
- Components can limit the pressure and temperature ranges of the valve. Please consult BMT (SUPERLOK) sales representative for your specific application.

# Manifold Types

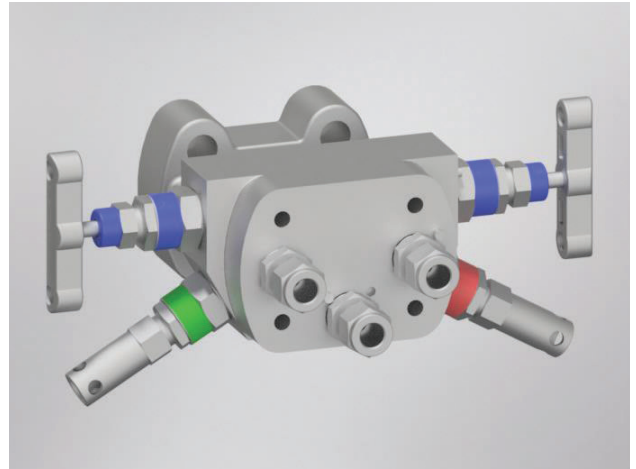
## 4 Valve Manifold - TYPE A

- 2 Isolation, 1 Vent, 1 Equalize valve
- Directly mounted on transmitter at a center distance of 54.0mm (2.125")
- Instrument Connection : FLANGED DIN 19213
- Process & Vent Connection : G1/4" BSPP Female ports
- Supplied 3/8" OD or 10mm OD SUPERLOK tube fittings in ports
- T-bar handle on isolating valves
- Anti-Tamper vent and equalize

Type	MESC Code	Part No.
A	MESC 60.98.56.205.1	SM4MA-F4G-S10M-MR
	MESC 60.98.56.207.1	SM4MA-F4G-S6-MR



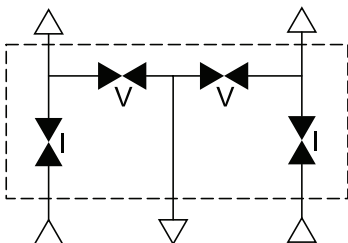
I : Isolating / E : Equalizing / V : Vent



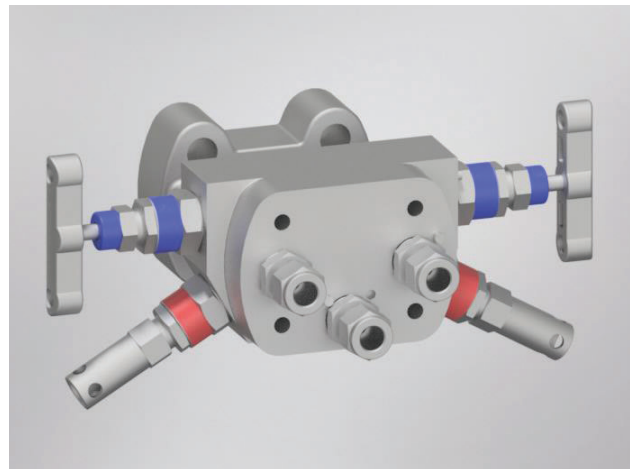
## 4 Valve Manifold - TYPE B

- 2 Isolation, 2 Vent valve
- Directly mounted on transmitter at a center distance of 54.0mm (2.125")
- Instrument Connection : FLANGED DIN 19213
- Process & Vent Connection : G1/4" BSPP Female ports
- Supplied 3/8" OD or 10mm OD SUPERLOK tube fittings in ports
- T-bar handle on isolating valves
- Anti-Tamper vent valves

Type	MESC Code	Part No.
B	MESC 60.98.56.215.1	SM4MB-F4G-S10M-MR
	MESC 60.98.56.217.1	SM4MB-F4G-S6-MR



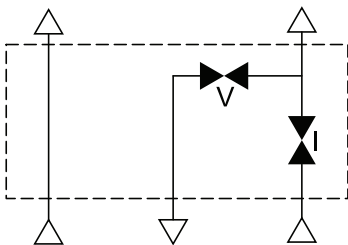
I : Isolating / V : Vent



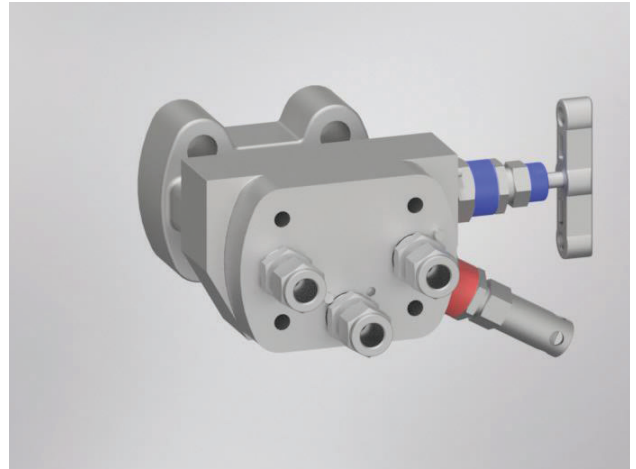
## 2 Valve Manifold - TYPE C

- 1 Isolation, 1 Vent valve
- Directly mounted on transmitter at a center distance of 54.0mm (2.125")
- Instrument Connection : FLANGED DIN 19213
- Process & Vent Connection : G1/4" BSPP Female ports
- Supplied 3/8" OD or 10mm OD SUPERLOK tube fittings in ports
- T-bar handle on isolating valve
- Anti-Tamper vent valve

Type	MESC Code	Part No.
C	MESC 60.98.56.225.1	SM2MC-F4G-S10M-MR
	MESC 60.98.56.227.1	SM2MC-F4G-S6-MR



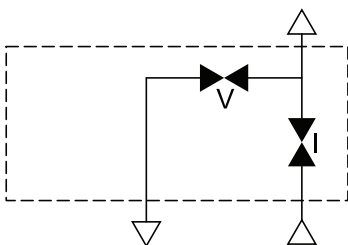
I : Isolating / V : Vent



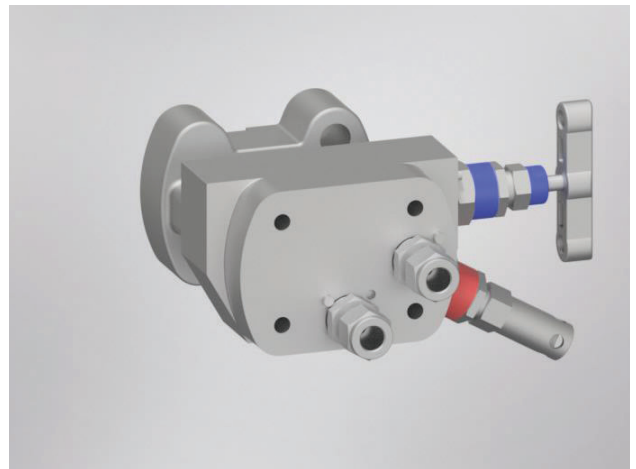
## 2 Valve Manifold - TYPE D

- 1 Isolation, 1 Vent valve
- Directly mounted on transmitter at a center distance of 54.0mm (2.125")
- Instrument Connection : FLANGED DIN 19213
- Process & Vent Connection : G1/4" BSPP Female ports
- Supplied 3/8" OD or 10mm OD SUPERLOK tube fittings in ports
- T-bar handle on isolating valve
- Anti-Tamper vent valve

Type	MESC Code	Part No.
D	MESC 60.98.56.235.1	SM2MD-F4G-S10M-MR
	MESC 60.98.56.237.1	SM2MD-F4G-S6-MR



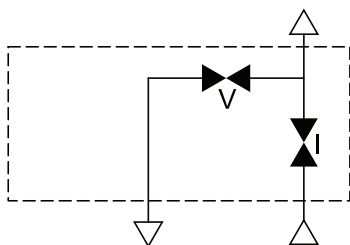
I : Isolating / V : Vent



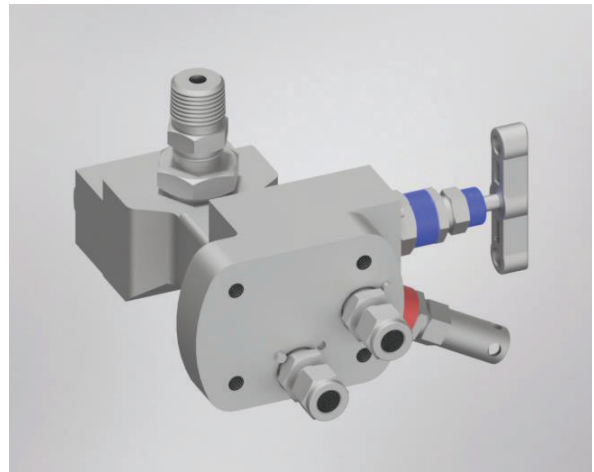
## 2 Valve Manifold - TYPE E

- 1 Isolation, 1 Vent valve
- Directly connected to transmitter or pressure gauges
- Instrument Connection : Swivel Gauge Adaptor 1/2" NPT Male
- Process & Vent Connection : G1/4" BSPP Female ports
- Supplied 3/8" OD or 10mm OD SUPERLOK tube fittings in ports
- T-bar handle on isolating valve
- Anti-Tamper vent valve
- Gauge adaptor integral with the manifold for 360 deg positioning

Type	MESC Code	Part No.
E	MESC 60.98.56.305.1	SM2ME-F4G-S10M-MR
	MESC 60.98.56.325.1	SM2ME-F4G-S6-MR



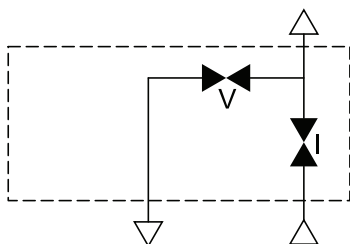
I : Isolating / V : Vent



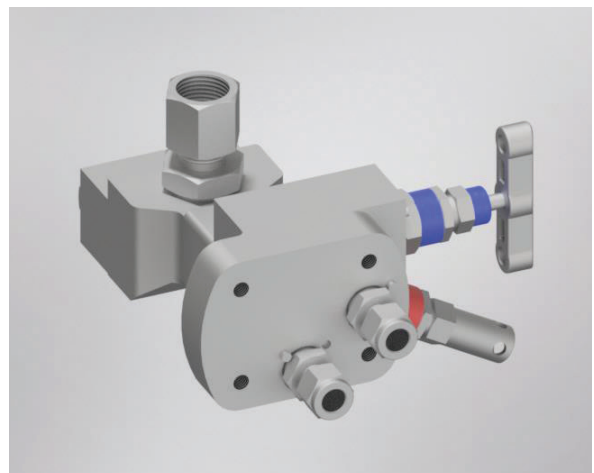
## 2 Valve Manifold - TYPE F

- 1 Isolation, 1 Vent valve
- Directly connected to transmitter or pressure gauges
- Instrument Connection : Swivel Gauge Adaptor 1/2" NPT Female
- Process & Vent Connection : G1/4" BSPP Female ports
- Supplied 3/8" OD or 10mm OD SUPERLOK tube fittings in ports
- T-bar handle on isolating valve
- Anti-Tamper vent valve
- Gauge adaptor integral with the manifold for 360 deg positioning

Type	MESC Code	Part No.
F	MESC 60.98.56.315.1	SM2MF-F4G-S10M-MR
	MESC 60.98.56.335.1	SM2MF-F4G-S6-MR

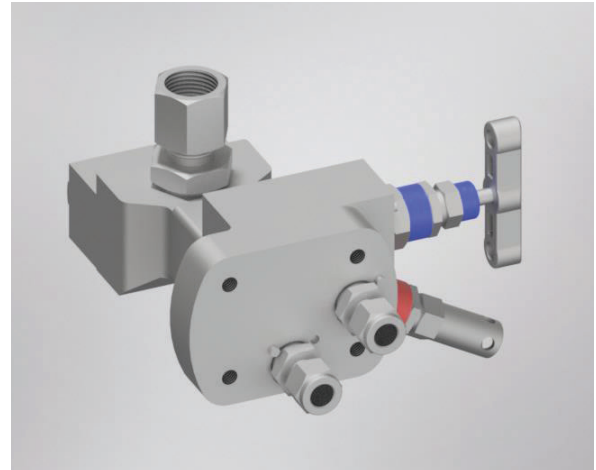


I : Isolating / V : Vent

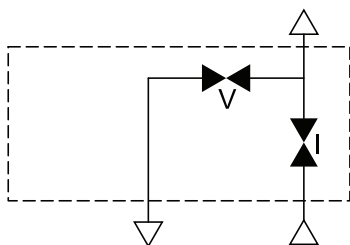


## 2 Valve Manifold - TYPE G

- 1 Isolation, 1 Vent valve
- Directly connected to transmitter or pressure gauges
- Instrument Connection : Swivel Gauge Adaptor G1/2" BSPP Female
- Process & Vent Connection : G1/4" BSPP Female ports
- Supplied 3/8" OD or 10mm OD SUPERLOK tube fittings in ports
- T-bar handle on isolating valve
- Anti-Tamper vent Valve
- Gauge adaptor integral with the manifold for 360 deg positioning



Type	MESC Code	Part No.
G	MESC 60.98.56.317.1	SM2MG-F4G-S10M-MR
	MESC 60.98.56.337.1	SM2MG-F4G-S6-MR



I : Isolating / V : Vent

## Accessories

### Mounting Bracket

- The mounting brackets are designed to ensure a simple and quick installation of manifolds with other accessories including the name plate.
- Suitable for mounting on 2" pipe stand
- Material : SS316

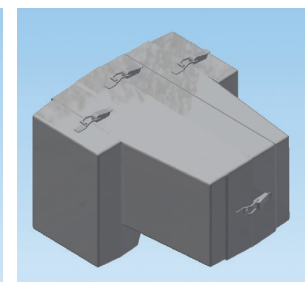
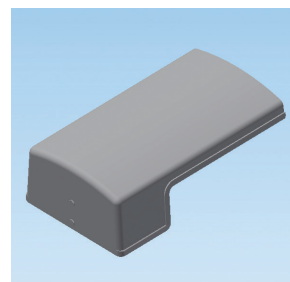
Type	MESC Code	Part No.
F	MESC 60.98.91.110.1	SMM-MP-A2
	MESC 60.98.91.120.1	SMM-MP-B2



### Protective Shades and Enclose

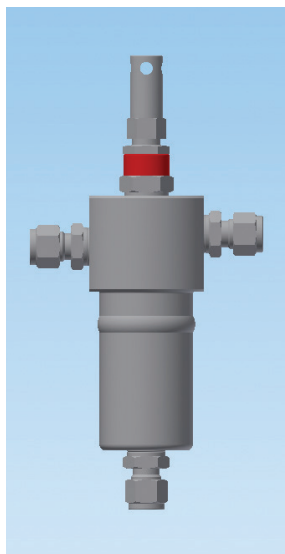
- The protective shades designed to protect the instrument from heavy rain and intensive sunlight.
- The enclose provide a complete enviromental protection of the system is exposed to low temperatures.

Description	MESC Code	Part No.
Protective Shade	MESC 60.98.91.205.1	SMM-PSA
Enclosure	MESC 60.98.91.305.1	SMM-PEA

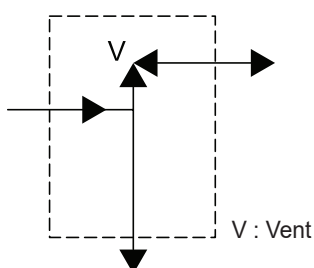


## Seal Pot

The seal pots are used for systems requiring an open seal such as high temperature, toxic or corrosive service. The seal pots are used in an immiscible seal fluid. The difference in density to the process media will provide a barrier in front of the manifold and instrument.



- Volume : 50 cm<sup>3</sup>
- Placement : If the seal pot is located below the orifice plate, a seal fluid with higher specific gravity than the process medium is required.  
If the seal pot is located above the orifice plate, a seal fluid with lower specific gravity is to be used.
- Connection part of process and vent : G 1/4 with gasket and closing pin
- Rating : Max. working pressure - 414 bar (6000 psi) @ 37°C (100°F)  
Max. working temperature - 450°C (842°F)



MESC Code	Part No.
MESC 60.98.70.510.1	SMSP-F4G-S10M-MR
MESC 60.98.70.600.1	SMSP-F4G-S8-MR
MESC 60.98.56.610.1	SMSP-F4G-S6-MR

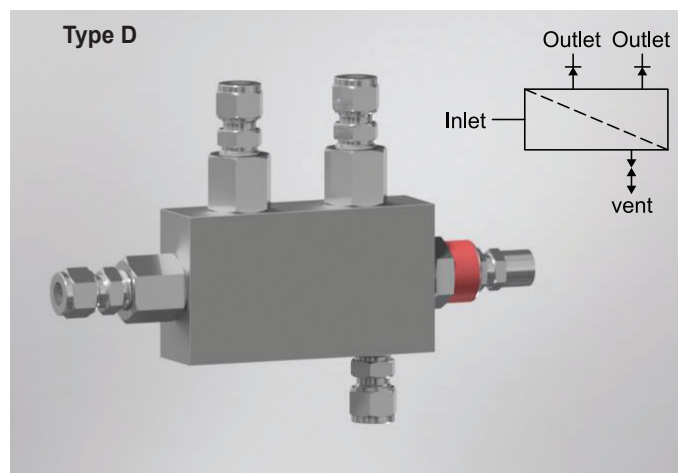
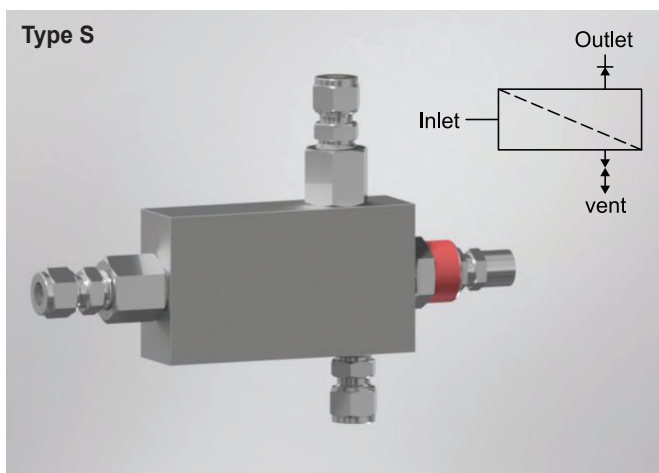
## Purge Block

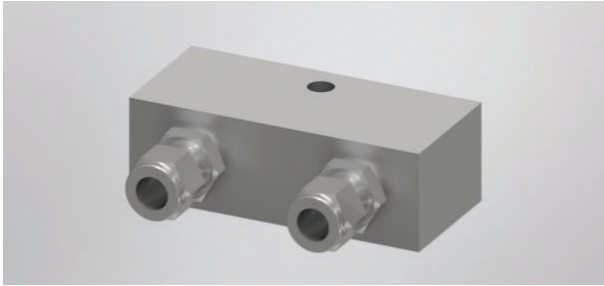
The single-vent is suitable for static pressure instrumentation applications.

The double-vent is suitable for differential pressure applications, and is designed to connect to impulse lines on 54.0mm (2.125") center.

- Inlet connection : Is provided with an integral filter
- Outlet connection : Are equipped with soft seated check valves
- Vent valve fitted with Anti-Tamper facility
- Max. working pressure : 414 bar (6000 psi) @ 37°C (100°F)
- Max. working temperature : 200°C (392°F) for PTFE packing  
550°C (1,022°F) for Graphite packing

Type	MESC Code	Part No.
S	MESC 60.98.70.210.1	SMSPB-F4G-S10M-MR
	MESC 60.98.70.310.1	SMSPB-F4G-S6-MR
D	MESC 60.98.70.220.1	SMDPB-F4G-S10M-MR
	MESC 60.98.70.320.1	SMDPB-F4G-S6-MR

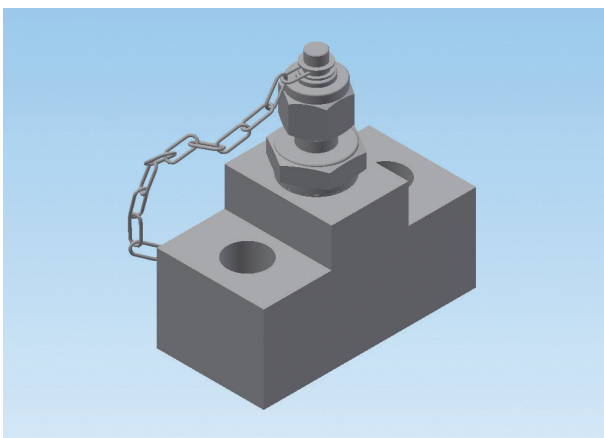




## Steam Tracing Block

- For use where heating of transmitter bodies and manifold is required
- Bolts directly to manifold body
- Pressure-temperature rating : 19.9 bar (290 psi) @ 210°C (410°F)

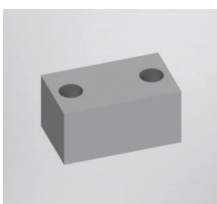
MESC Code	Part No.
MESC 60.98.70.010.1	SMSTB-F4G-S10M-MR
MESC 60.98.70.110.1	SMSTB-F4G-S6-MR



## Filling Connector

- The filling connectors are used if purge protection is required but no purge block is installed. The filling connector allows the system to be filled with purge medium through the instrument cavities. The filling connector has an integral check valve and is available with different connections.
- Max. working pressure :  
IEC - 414 bar (6000 psi) @ 37°C (100°F)  
DIN - 400 bar (5800 psi) @ 37°C (100°F)  
Max. working temperature : 200°C (392°F)

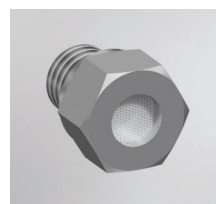
MESC Code	Part No.
MESC 60.98.90.106.1	SMFC-F4G-S6M
MESC 60.98.90.107.1	SMFC-F4G-S4-MR



## Blind Flange

The blind flange enables standard instrument flange connections to be blanked off as required.

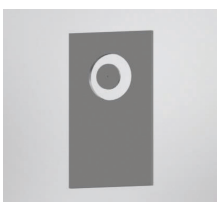
Part No.
SMBF



## Port Protector

Integral filter screen plug (G 1/4)

Part No.
SVP-4G-MR



## Purge Orifice Nipple

Orifice nipple and information tag tag supplied with 6mm, 10mm tubing (1/4" and 3/8")

Part No.
SMPON-10M-MR



## Anti-Tamper Key

Part No.
SMV-ATK



# BMT Co., Ltd.

## | Head Quarter & 1st Factory

(50568) 경상남도 양산시 산막공단남11길 35 (북정동)

35, Sanmakgongdannam 11-gil, Yangsan-si, Gyeongsangnam-do, 50568, South Korea

TEL: +82 55 783 1000 FAX: +82 55 783 1111

E-mail: superlok@superlok.com

## | 2nd Factory

(50568) 경상남도 양산시 산막공단남8길 29 (호계동)

29, Sanmakgongdannam 8-gil, Yangsan-si, Gyeongsangnam-do, 50568, South Korea

## Fittings & Valves

### INDUSTRIAL

Instrumentation Tube Fittings

i-Fitting®

Ball/Plug Valves

Double Block & Bleed Valves

Manifold/Gauge Valves

Globe/Needle Valves

Cryogenic Valves

Check/Relief/Excess Flow Valves

High Pressure Valves

### ULTRA HIGH PURITY

Weld & Metal Face Seal Fittings

Bend Fittings

Diaphragm Valves

Bellows Valves

Check Valves

Clean Ball Valves

Regulators

## Electric & Energy

### PRODUCT & SOLUTION

Compact Switchboard

Motor Control Center (MCC)

Smart Distribution Board

Energy Management System (EMS)

### COMPONENTS (BMT PATENTED)

*MCBS* (Molded Case Busbar System)

*MCPD* (Molded Case Power Distributor)

*Smart-eye* (AC/DC Meter)