



# Instrumentation Products

Modular Mounting System



# Product Overview

## Product Overview

Schneider's Modular Mounting System (MMS) provides substantial advantages by the simplest and most effective means to install Transmitters and Gauges. The MMS series are designed to be compatible with the Shell® MESC specifications for Process Instrumentation.



## MMS Main Components

- Instrument Monoflange
- Manifolds

## Features

The MMS 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.

- Inlet and Vent connections are supplied G 1/4 parallel threaded acc. to DIN 3852 part 2
- Suitable for Liquid and Gas Service
- Connections can be assembled with Tube Fittings
- Fully self-draining
- Up to 438 bar (6350 PSI) maximum working pressure
- Equalize and Vent Valves are equipped with an Anti-Tamper facility
- Wide choice of Manifold Configurations to suit your application

## Options

- Special Design to be used with Rosemount® Coplanar™ style Pressure / Differential Pressure Transmitters
- NACE (sour gas service)
- Wide range of Exotic Materials on request
- Special Connections on request
- Choice of Accessories:
  - Mounting Brackets
  - Steam Tracing Blocks
  - Electrical Heaters
  - Single and Double Vent Purge Blocks
  - Seal Pots
  - Filling Connectors
  - Blind Flanges
  - Heaters
  - Protective Shades and Enclosures
  - Test Boxes
  - Anti-Tamper Key

## Cross Reference | Referring to the Global MESC Code

MESC CODE	DESCRIPTION	VENT	SCHNEIDER P/N	PAGE	
MESC 60.98.55.200.1	Instrument Monoflange 1/2" 150-600 Type G	G 1/4-F	SMA-GLN-SG00	4 - 5	
MESC 60.98.55.210.1	Instrument Monoflange 1/2" 900-2500 Type G	G 1/4-F	SMA-GHN-SG00		
MESC 60.98.55.220.1	Instrument Monoflange 1/2" 150-600 Type G	G 1/4-F	SMA-GLG-SG00		
MESC 60.98.55.230.1	Instrument Monoflange 1/2" 900-2500 Type G	G 1/4-F	SMA-GHG-SG00		
MESC 60.98.55.300.1	Instrument Monoflange 1/2" 150-600 Type S	G 1/4-F	SMA-SLN-SG00		
MESC 60.98.55.310.1	Instrument Monoflange 1/2" 900-2500 Type S	G 1/4-F	SMA-SHN-SG00		
MESC 60.98.55.320.1	Instrument Monoflange 1/2" 150-600 Type S	G 1/4-F	SMA-SLG-SG00		
MESC 60.98.55.330.1	Instrument Monoflange 1/2" 900-2500 Type S	G 1/4-F	SMA-SHG-SG00		
MESC 60.98.56.205.1	4 Valve Manifold Type A	10mm *	SBA-AA0-SGS3	6 - 7	
MESC 60.98.56.207.1		3/8" *	SBA-AA0-SGS8		
MESC 60.98.56.215.1	4 Valve Manifold Type B	10mm *	SBA-BA0-SGS3		
MESC 60.98.56.217.1		3/8" *	SBA-BA0-SGS8		
MESC 60.98.56.225.1	2 Valve Manifold Type C	10mm *	SBA-CA0-SGS3		
MESC 60.98.56.227.1		3/8" *	SBA-CA0-SGS8		
MESC 60.98.56.235.1	2 Valve Manifold Type D	10mm *	SBA-DA0-SGS3		
MESC 60.98.56.237.1		3/8" *	SBA-DA0-SGS8		
MESC 60.98.56.305.1	2 Valve Manifold Type E	10mm *	SBA-EA0-SGS3		
MESC 60.98.56.325.1		3/8" *	SBA-EA0-SGS8		
MESC 60.98.56.315.1	2 Valve Manifold Type F	10mm *	SBA-FA0-SGS3		
MESC 60.98.56.335.1		3/8" *	SBA-FA0-SGS8		
MESC 60.98.56.317.1	2 Valve Manifold Type G	10mm *	SBA-GA0-SGS3		
MESC 60.98.56.337.1		3/8" *	SBA-GA0-SGS8		
MESC 60.98.91.105.1	Mounting Bracket A1		SAM-A1		8
MESC 60.98.91.110.1	Mounting Bracket A2		SAM-A2		
MESC 60.98.91.118.1	Mounting Bracket B1		SAM-B1		
MESC 60.98.91.120.1	Mounting Bracket B2		SAM-B2		
MESC 60.98.70.210.1	Single Vent Purge Block Type S	10mm *	SVA-S00-SG03	9	
MESC 60.98.70.310.1		3/8" *	SVA-S00-SGS8		
MESC 60.98.70.220.1	Double Vent Purge Block Type D	10mm *	SVA-D00-SGS3		
MESC 60.98.70.320.1		3/8" *	SVA-D00-SGS8		
MESC 60.98.70.510.1	Seal Pot	10mm *	SSB-000-SGS3	10	
MESC 60.98.70.600.1		1/2" *	SSB-000-SGS9		
MESC 60.98.70.610.1		3/8" *	SSB-000-SGS8		
MESC 60.98.70.010.1	Steam Tracing Block	10mm *	SAS-000-SGS3	11	
MESC 60.98.70.110.1		3/8" *	SAS-000-SGS8		
MESC 60.98.70.050.1	Electrical Heater		SAE		
MESC 60.98.90.106.1	Filling Connector 6mm		SAF-A00-SPS1	12	
MESC 60.98.90.107.1	Filling Connector 1/4"		SAF-A00-SPS7		
	Blind Flange		SAG-A00-S000	13	
	Port Protector		SAD-G20-S		
	Anti-Tamper T-Handle		SAT	14	
MESC 60.98.91.205.1	Protective Shade Synthetic		SAP-PA0	15	
	Protective Shade SST		SAP-PS0		
MESC 60.98.91.305.1	Enclosure Fiberglass		SAP-EA0		
	Test Box		SAB		

\* Compression Fitting

# Instrument Monoflange SM

## Product Description

The SM Instrument Monoflange is an Isolate / Vent Gauge Block for Pressure Gauges or Transmitters using screwed connections. The gauge connection is equipped with a Swivel Gauge Adaptor which enables the easy positioning of the gauge in any direction through 360°. It is suitable for Horizontal or Vertical flange mounting and can be assembled directly to the primary isolation valve.

## Rating

Maximum working pressure:  
100 bar @ 38°C (LPR 150-600 lbs)  
438 bar @ 38°C (HPR 900-2500 lbs)

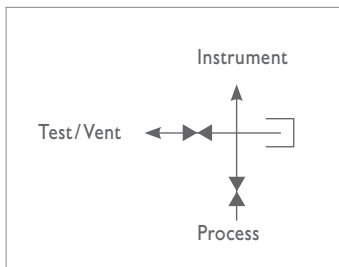
Maximum working temperature: 200°C

## Connections

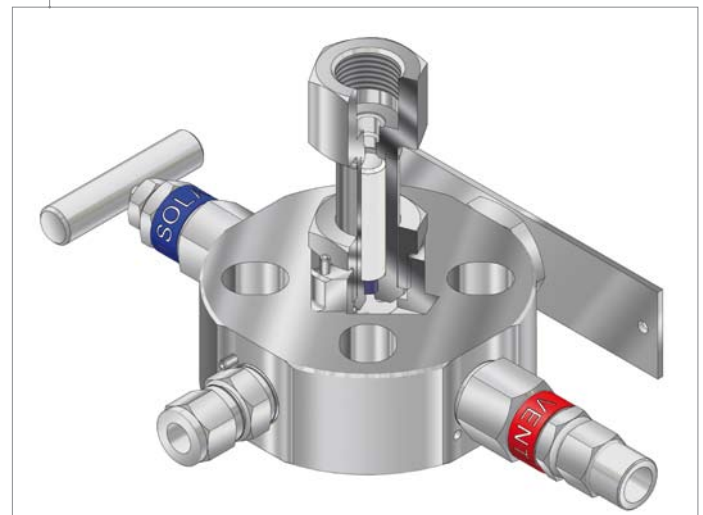
Instrument:  
Swivel Gauge Adaptor with 1/2 NPT and G 1/2 female threads available. It can be supplied as an Integral Syphon type.

Process:  
1/2" flange acc. to ASME B16.5  
Available as LPR (150-600 lbs) and  
HPR (900-2500 lbs) RF smooth finish

Vent:  
G 1/4 Female  
Can be equipped with Compression Fittings



Instrument Monoflange Type G



Instrument Monoflange Type S

## Standard Monoflanges

MESC CODE	DESCRIPTION	VENT	SCHNEIDER P/N
MESC 60.98.55.200.1	Instrument Monoflange 1/2" 150 – 600 Type G	G 1/4-F	SMA-GLN-SG00
MESC 60.98.55.210.1	Instrument Monoflange 1/2" 900 – 2500 Type G	G 1/4-F	SMA-GHN-SG00
MESC 60.98.55.220.1	Instrument Monoflange 1/2" 150 – 600 Type G	G 1/4-F	SMA-GLG-SG00
MESC 60.98.55.230.1	Instrument Monoflange 1/2" 900 – 2500 Type G	G 1/4-F	SMA-GHG-SG00
MESC 60.98.55.300.1	Instrument Monoflange 1/2" 150 – 600 Type S	G 1/4-F	SMA-SLN-SG00
MESC 60.98.55.310.1	Instrument Monoflange 1/2" 900 – 2500 Type S	G 1/4-F	SMA-SHN-SG00
MESC 60.98.55.320.1	Instrument Monoflange 1/2" 150 – 600 Type S	G 1/4-F	SMA-SLG-SG00
MESC 60.98.55.330.1	Instrument Monoflange 1/2" 900 – 2500 Type S	G 1/4-F	SMA-SHG-SG00

**Ordering Information** | Referring to Instrument Monoflange SM

	1 2	3	4	5	6	7	8	9	10	11	12	13	14
	S	M	A	-	G	L	G	-	S	G	0	0	
<b>INSTRUMENT MONOFLANGE</b>													
<b>PACKING</b>													
A	PTFE												
B	Graphite												
<b>TYPE</b>													
G	Swivel Gauge Adaptor												
S	Swivel Gauge Adaptor with Integral Syphon												
<b>PRESSURE RATING</b>													
L	LPR (150, 300, 600 lbs)												
H	HPR (900, 1500, 2500 lbs)												
<b>THREAD</b>													
G	G1/2 Female												
N	1/2NPT Female												
<b>MATERIAL</b>													
S	316 SST												
H	Alloy C-276												
M	Alloy 400												
<b>VENT CONNECTION</b>													
G	G1/4 Female												
B	1/4NPT Female												
<b>COMPRESSION FITTING</b>													
0	Without Compression Fitting												
A	A-Lok®												
G	Gyrolok®												
S	Swagelok®												
<b>SIZE OF COMPRESSION FITTING</b>													
0	Without Compression Fitting												
3	10 mm												
4	12 mm												
8	3/8"												
9	1/2"												
<b>OPTIONS (if applicable)</b>													
B	Oxygen Service												
N	NACE/Sour Gas Service												
T	Anti Tamper Key												
<b>ADDITIONAL OPTION (if applicable)</b>													
0	No additional Option												

# Manifold SB

## Product Description

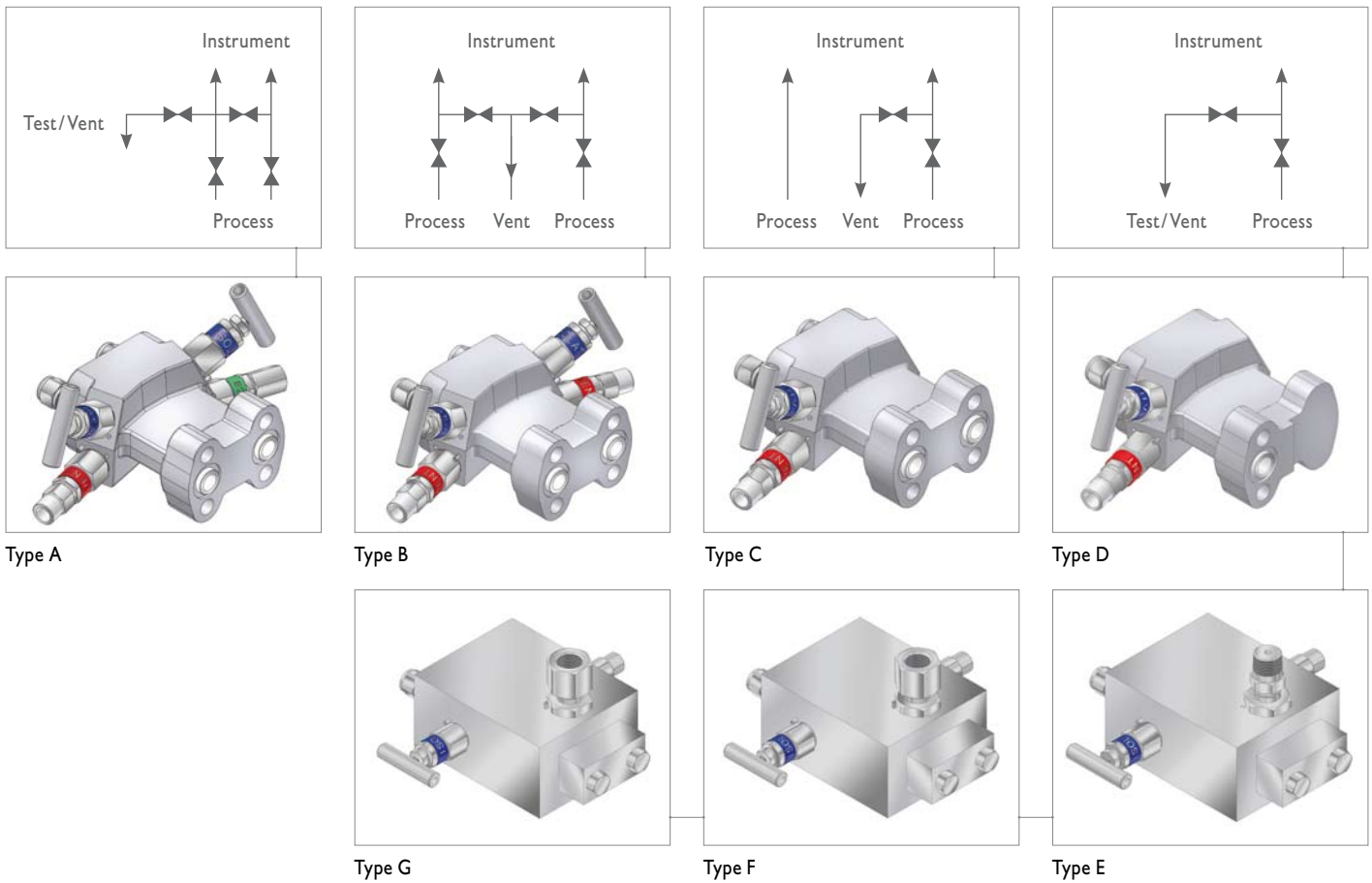
The SB Manifold can be assembled directly to a standard Mounting Plate, eliminating the need for extra Mounting Accessories and reducing pipe work on site. The SB Manifolds can also be supplied with a wide Choice of Accessories.

## Rating

Maximum working pressure: 413 bar @ 38°C

Maximum working temperature:

- 200°C for PTFE packing
- 550°C for graphite packing



## Different Types for Different Applications

Type	MESC CODE	DESCRIPTION	VENT	SCHNEIDER P/N
A	MESC 60.98.56.205.1	<b>4 Valve Manifold</b>	10 mm *	SBA-AA0-SGS3
	MESC 60.98.56.207.1	For general applications	3/8" *	SBA-AA0-SGS8
B	MESC 60.98.56.215.1	<b>4 Valve Manifold</b>	10 mm *	SBA-BA0-SGS3
	MESC 60.98.56.217.1	For applications where contamination of process steam is not permitted	3/8" *	SBA-BA0-SGS8
C	MESC 60.98.56.225.1	<b>2 Valve Manifold</b>	10 mm *	SBA-CA0-SGS3
	MESC 60.98.56.227.1	For Pressure applications and level measurements on atmospheric tanks	3/8" *	SBA-CA0-SGS8
D	MESC 60.98.56.235.1	<b>2 Valve Manifold</b>	10 mm *	SBA-DA0-SGS3
	MESC 60.98.56.237.1	For pressure transmitters of the differential body design	3/8" *	SBA-DA0-SGS8
E	MESC 60.98.56.305.1	<b>2 Valve Manifold</b>	10 mm *	SBA-EA0-SGS3
	MESC 60.98.56.325.1	For pressure transmitters using screwed connection	3/8" *	SBA-EA0-SGS8
F	MESC 60.98.56.315.1	<b>2 Valve Manifold</b>	10 mm *	SBA-FA0-SGS3
	MESC 60.98.56.335.1	For pressure transmitters using screwed connection	3/8" *	SBA-FA0-SGS8
G	MESC 60.98.56.317.1	<b>2 Valve Manifold</b>	10 mm *	SBA-GA0-SGS3
	MESC 60.98.56.337.1	For pressure transmitters using screwed connection	3/8" *	SBA-GA0-SGS8

\* Compression Fitting

## Ordering Information | Manifold SB

	1 2	3	4	5	6	7	8	9	10	11	12	13	14
	S B	A	-	A	A	0	-	S	G	S	3		
<b>MANIFOLD</b>													
<b>PACKING</b>													
A	PTFE												
B	Graphite (only if field 6 = C)												
<b>TYPE</b>													
A	Double Isolate/Equalize / Vent (General)												
B	Double Isolate / Vent (Anti-Contamination)												
C	Single Isolate / Vent (DP)												
D	Single Isolate / Vent (Pressure, DP design)												
E	Single Isolate / Vent (1/2 NPT Male)												
F	Single Isolate / Vent (1/2 NPT Female)												
G	Single Isolate / Vent (G 1/2 Female)												
<b>TRANSMITTER CONNECTION</b>													
A	DIN 19213 part 2 rev. 1980 or threaded												
B	Integral for Rosemount 3051®												
C	DIN EN / IEC 61518 - Type A												
<b>MATERIAL</b>													
S	316 SST												
H	Alloy C-276												
M	Alloy 400												
<b>PROCESS / VENT CONNECTION</b>													
G	G 1/4 Female / G 1/4 Female												
B	1/2 NPT Female / 1/4 NPT Female												
C	1/4 NPT Female / 1/4 NPT Female												
<b>COMPRESSION FITTING</b>													
0	Without Compression Fitting												
A	A-Lok®												
G	Gyrolok®												
S	Swagelok®												
<b>SIZE OF COMPRESSION FITTING</b>													
0	Without Compression Fitting												
3	10 mm												
4	12 mm												
8	3/8"												
9	1/2"												
<b>OPTIONS (if applicable)</b>													
B	Oxygen Service												
N	NACE / Sour Gas Service												
T	Anti Tamper Key												
<b>ADDITIONAL OPTION (if applicable)</b>													
0	No additional Option												

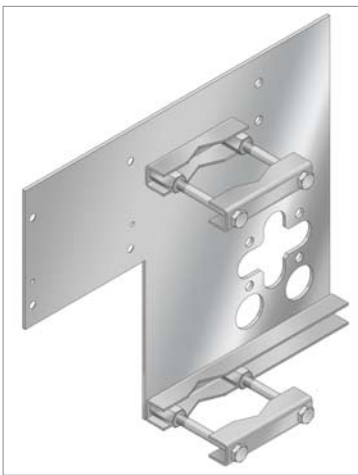
# Mounting Bracket SAM

## Product Description

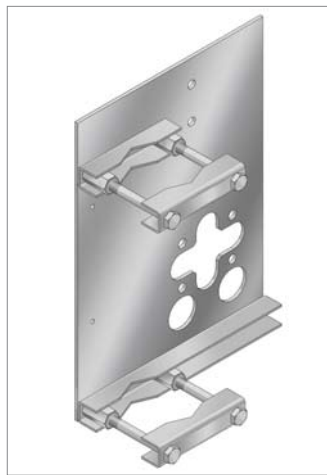
The SAM Mounting Brackets are designed to ensure a Simple and Quick Installation of Manifolds with other Accessories including the Nameplate.

There are four different types of Mounting Brackets available. The brackets are made of 316 SST and are designed to be assembled to a 2" Pipestand.

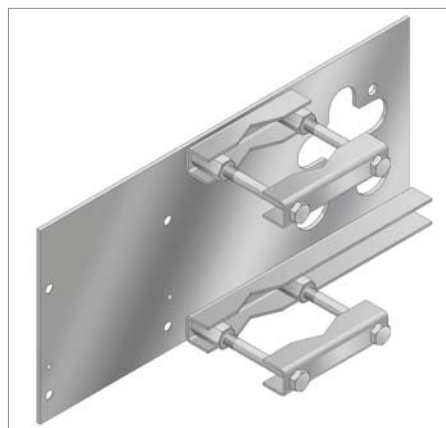
Type A is used, if a Protective Shade is required.



SAM-A1



SAM-A2



SAM-B1



SAM-B2

## Ordering Code

MESC CODE	DESCRIPTION	SCHNEIDER P/N
MESC 60.98.91.105.1	Mounting Bracket A1	SAM-A1
MESC 60.98.91.110.1	Mounting Bracket A2	SAM-A2
MESC 60.98.91.118.1	Mounting Bracket B1	SAM-B1
MESC 60.98.91.120.1	Mounting Bracket B2	SAM-B2



## Product Description

The SVA Purge Blocks have two main applications:

- Purge protection of the instrument using a purge medium to keep the process away from the instrument by maintaining a higher pressure than the process medium.
- To provide a sensing medium for differential pressure instruments on level indication services.

There are two Vent Purge Blocks available, the Double Vent Purge Block SVA-D for differential pressure application and the Single Vent Purge Block SVA-S for static pressure applications.

## Rating

Maximum working pressure: 413 bar @ 38°C

Maximum working temperature:

- 200°C for PTFE packing
- 550°C for graphite packing

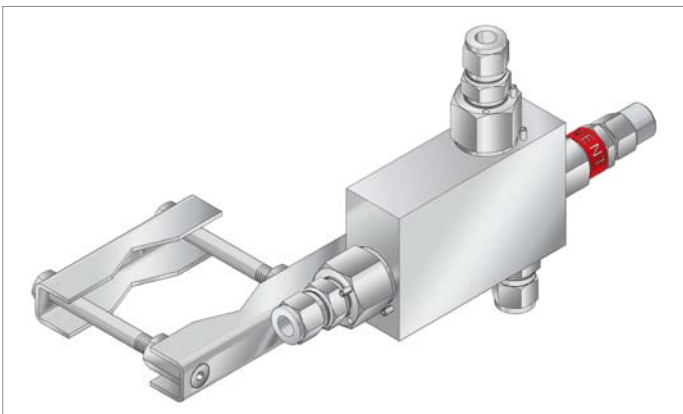
## Connections

Outlets:

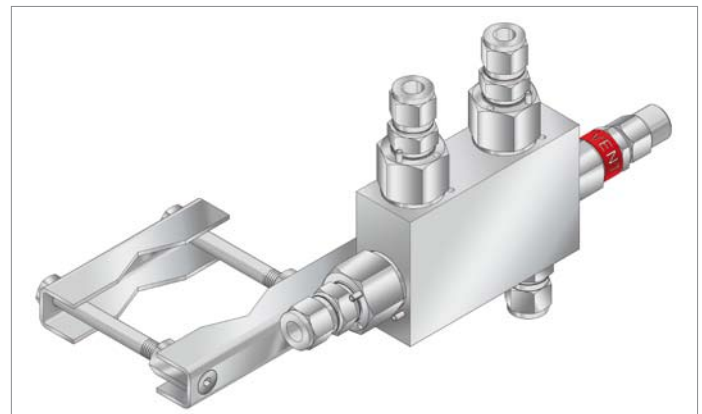
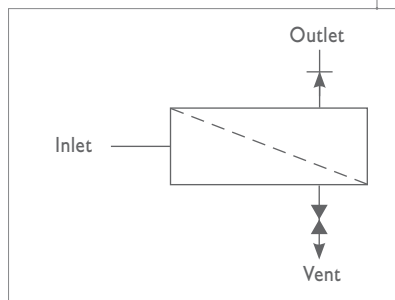
Are equipped with Soft-Seated Check Valves

Inlet:

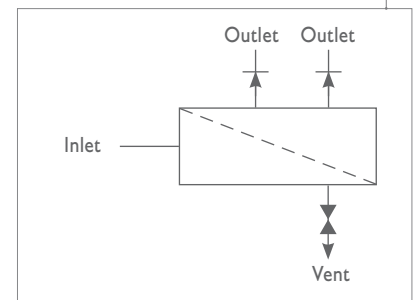
Is provided with an Integral Filter



SVA-S00-SGS3  
Single



SVA-D00-SGS3  
Double



## Ordering Code

MESC CODE	DESCRIPTION	VENT	SCHNEIDER P/N	Ordering Code, Field 3 & 9 - 14
MESC 60.98.70.210.1	Single Vent Purge Block / Type S	10mm *	SVA-S00-SGS3	See page 7
MESC 60.98.70.310.1		3/8" *	SVA-S00-SGS8	
MESC 60.98.70.220.1	Double Vent Purge Block / Type D	10mm *	SVA-D00-SGS3	
MESC 60.98.70.320.1		3/8" *	SVA-D00-SGS8	

\* Compression Fitting

# Seal Pot SSB

## Product Description

The Seal Pot SSB is used for systems requiring an open seal such as high temperature, toxic or corrosive service. The Seal Pot is used with an Immiscible Seal Fluid. The difference in density to the process media will provide a barrier in front of the Manifold and Instrument.

## Rating

Maximum working pressure: 413 bar @ 38°C  
Maximum working temperature: 450°C

## Placement

Seal Pot is located below the Orifice plate:  
A Seal Fluid with higher specific gravity than the Process Medium is to be used.

Seal Pot is located above the Orifice plate:  
A Seal Fluid with lower specific gravity is to be used.

## Volume

Approx. 50 cm<sup>3</sup>



## Ordering Code

MESC CODE	DESCRIPTION	VENT	SCHNEIDER P/N
MESC 60.98.70.510.1	Seal Pot	10 mm *	SSB-000-SGS3
MESC 60.98.70.600.1		1/2" *	SSB-000-SGS9
MESC 60.98.70.610.1		3/8" *	SSB-000-SGS8

\* Compression Fitting

## Ordering Information | Seal Pot SSB & Steam Heating SAS

1	2	3	4	5	6	7	8	9	10	11	12	13	14
S	S	B	-	0	0	0	-	S	G	S	3		
S	A	S											

MATERIAL	
S	316 SST
H	Alloy C-276
M	Alloy 400
PROCESS / VENT CONNECTION	
G	G 1/4 Female / G 1/4 Female
C	1/4 NPT Female / 1/4 NPT Female
COMPRESSION FITTING	
0	Without Compression Fitting
A	A-Lok®
G	Gyrolok®
S	Swagelok®
SIZE OF COMPRESSION FITTING	
0	Without Compression Fitting
3	10 mm
4	12 mm
8	3/8"
9	1/2"
OPTIONS (if applicable)	
B	Oxygen Service
N	NACE / Sour Gas Service
T	Anti Tamper Key
ADDITIONAL OPTION (if applicable)	
0	No additional Option

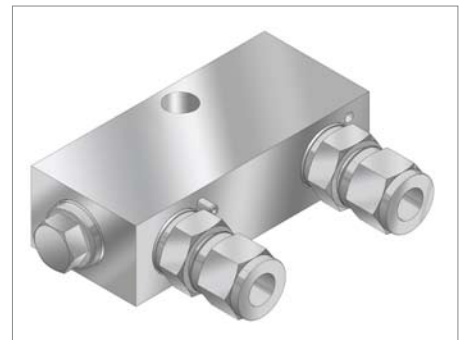
## Product Description

The SAS Steam Tracing Block & SAE Electrical Heating are used to provide Frost Protection and to maintain Process Temperatures given that the heaters are mounted directly to the Manifold which ensures efficient Heat Transfer to the Manifold and Transmitter Body.

### Steam Heating SAS

Steam Heating is provided through a separate stainless steel Steam Block which is mounted directly to the Manifold with one stainless steel M8 Mounting Bolt.

The Connection to the Steam Line is provided by two G 1/4 Female Ports equipped with Tube Fittings.



### Electrical Heating SAE

Conduction Heating with self-limiting output characteristic, supplied with cable length of 1m. Is directly mounted to the Manifold with one stainless steel M8 Mounting Bolt.

Material: Aluminium (sea water resistant)  
 Size: 90 x 40 x 30mm  
 Voltage: 110V – 265V  
 Rating: 50W  
 Type of Protection: IP68, NEMA 4X  
 Explosion Proof: II 2 GD EEx d IIC T4  
 Certificate No. (PTB): 02 ATEX 1116 X



## Ordering Code

MESC CODE	DESCRIPTION	VENT	SCHNEIDER P/N	Ordering Code, Field 4 – 14
MESC 60.98.70.010.1	Steam Tracing Block	10mm *	SAS-000-SGS3	See page 10
MESC 60.98.70.110.1		3/8" *	SAS-000-SGS8	
MESC 60.98.70.050.1	Electrical Heater		SAE	

\* Compression Fitting

# Filling Connector SAF

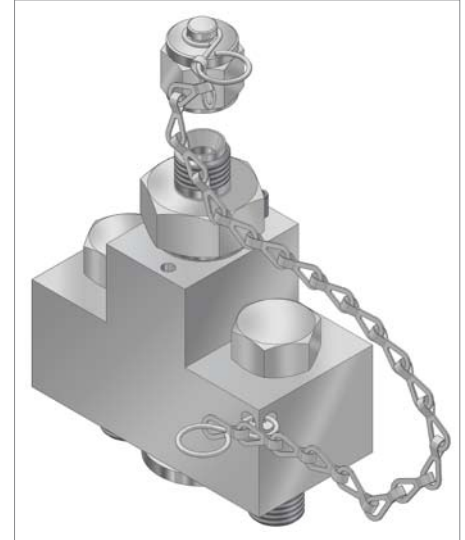
## Product Description

The SAF Filling Connector is 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.

## Rating

Maximum working pressure: 413 bar @ 38°C

Maximum working temperature: 200°C



## Ordering Code

MESC CODE	DESCRIPTION	SCHNEIDER P/N
MESC 60.98.90.106.1	Filling Connector 6mm	SAF-A00-SPS1
MESC 60.98.90.107.1	Filling Connector 1/4"	SAF-A00-SPS7

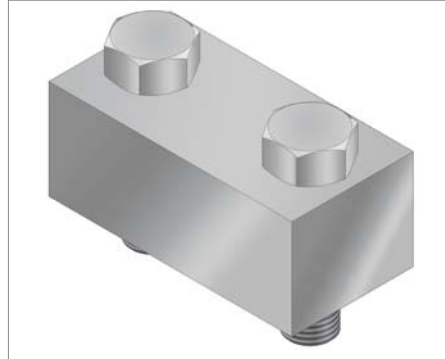
## Ordering Information | Filling Connector SAF

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	S	A	F	-	A	0	0	-	S	P	S	1		
<b>FILLING CONNECTOR</b>														
<b>MATERIAL SEALING WASHER</b>														
A	PTFE													
B	Graphite													
<b>MATERIAL</b>														
S	316 SST													
H	Alloy C-276													
M	Alloy 400													
<b>CONNECTION</b>														
P	Cap with Chain													
<b>CONNECTION TYPE</b>														
S	Swagelok®													
<b>SIZE OF CONNECTION</b>														
1	6 mm													
7	1/4"													
<b>OPTIONS (if applicable)</b>														
B	Oxygen Service													
N	NACE / Sour Gas Service													
<b>ADDITIONAL OPTION (if applicable)</b>														
0	No additional Option													

# Blind Flange SAG

## Product Description

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



## Ordering Information | Blind Flange SAG

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	S	A	G	-	A	0	0	-	S	0	0	0		
<b>BLIND FLANGE</b>														
<b>MATERIAL SEALING WASHER</b>														
A	PTFE													
B	Graphite													
<b>MATERIAL</b>														
S	316 SST													
H	Alloy C-276													
M	Alloy 400													
<b>OPTIONS (if applicable)</b>														
B	Oxygen Service													
N	NACE / Sour Gas Service													
<b>ADDITIONAL OPTION (if applicable)</b>														
0	No additional Option													

# Port Protector SAD + Anti-Tamper T-Handle SAT

## Product Description

The Port Protector prevents the ingress of Bugs and Dirt.



## Ordering Information | Port Protector SAD

		1	2	3	4	5	6	7	8	9
		S	A	D	-	G	2	0	-	S
<b>PORT PROTECTOR</b>										
<b>THREAD</b>										
G	G									
N	NPT									
<b>THREAD SIZE</b>										
2	1/4									
4	1/2									
<b>MATERIAL</b>										
S	316 SST									
H	Alloy C-276									
M	Alloy 400									

## Product Description

Removable T-Handle to operate the Anti-Tamper Vent Valves.



## Ordering Code

SCHNEIDER P/N

SAT

# Protective Shade & Enclosure SAP + Test Box SAB

## Product Description

The Protective Shade SAP-P was designed to Protect the Instrument from Heavy Rain and Intensive Sunlight.

The Enclosure provides a Complete Environmental Protection of the Manifold and the Instrument Body. This is mainly used if the System is exposed to Low Temperatures.

## Ordering Code

MESC CODE	DESCRIPTION	SCHNEIDER P/N
MESC 60.98.91.205.1	Protective Shade G.R.P. antistatic	SAP-PA0
	Protective Shade SST	SAP-PS0
MESC 60.98.91.305.1	Enclosure G.R.P. antistatic	SAP-EA0



SAP-PA0  
Protective Shade



SAP-PS0  
Protective Shade



SAP-EA0  
Enclosure

## Product Description

The Test Box SAB is mounted to the back of the standard Mounting Plate, providing transmitter signal and on-site test connection.

## Ordering Code

SCHNEIDER P/N

SAB



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Plant 1 in Nordheim

Plant 2 in Nordheim | Plant in Romania