GLS Series Strainers

Bulletin SS01059E Issue/Rev. 0.4 (5/10)

Smith Meter® Line Accessories

The **Smith Meter® GLS Type Steel Strainers** are necessary to provide protection for metering systems against dirt and other foreign material. The large screen area and streamlined flow path minimize pressure drop. The sturdy basket can withstand a 3.3 bar differential pressure without bursting and is easily removed for cleaning.

Features

- **Streamlined Flow Path** – For lower pressure drop.
- **Large Screen Area** – For less frequent cleaning.
- **Separable Inner Basket** – For easy cleaning.

Standard Specifications

Design and Fabrication
Fabricated according to DIN / EN, AD 2000 specifications.

Temperature Range
-29°C to +65°C with Buna-N Sealing.

Body Material
Carbon steel to EN Standard.

Flanges
Carbon steel raised face according to DIN/EN or ANSI B16.5.

Supports
Three (3) legs are standard on models 240-350 Strainers.

Closure
Blind flange (type-B for models 10-170, as shown in the "Closures" section below).
Convexed-Blind Flange (for models 240-350).

Elastomer Seals
Buna-N.

Basket(s)
Stainless steel perforated plate 10 mm diameter holes on 13 mm staggered centers.
Multiple baskets are standard on Models 70-350 Strainers.

Model GLS-50-2-6-E

Air Vent
1/2" NPT plugged.

Differential Pressure Taps
1/2" NPT plugged.

Drain
1-1/2" NPT plugged, Model 10 to 50.
2" NPT plugged, Model 70 to 350.

Options

Temperature Range
-12° to +65°C with Viton sealing.

- **Temperatures/Sealings other than specified**
  Consult factory.
- **High Pressure Ranges**
  – (5) 64 bar/960 psi, consult factory.
  – (6) 100 bar/1,440 psi, consult factory.
- **Special Painting** – consult factory.
- **Swing-Arm Assist** – To aid in removal of blind flange covers without the need for lifting equipment (recommended for high pressure and/or large/heavy strainer covers).
- **Air Release Kit** – For static air elimination.
- **Differential Pressure Gauge Kit** – with isolation valves to monitor basket cleanliness.
- **Inner Liner** – Choice of 10, 20, 40, or 80 mesh stainless steel.

Selection Guide

Basic Meter (P.D./Turbine)	Normal Maximum Flow (Lpm)	Intermittent/Extended Maximum Flow (Lpm)	Model Designation* GLS	Inlet/Outlet Flange** (Std. Available)
ST-40 SC-13/C2 1/1/2" T.M. ST-75 2" T.M.	320 475 530 750 1,060	400 570 640 1,000 See next larger size vessel.	10	1-1/2"-2" - 2-1/2"
2" T.M. ST-160 SD30/SD3 E3	___ 1,200 1,200 1,600	1,285 1,600 1,500 1,900	20	2", 2-1/2", 3"
E4, PRIME 4 SF-60/F4 3" T.M.	1,600 2,250 2,460	2,250 2,750 3,030	30	3", 4", 6"
G6 4" T.M.	3,750 4,540	4,600 See next larger size vessel.	50	4", 6"
4" T.M. H8 LF6" T.M.	___ 6,080 6,830	5,565 N/A See next larger size vessel.	70	4", 6", 8"
LF6" T.M. JA10 JB10 6" T.M.	___ 9,170 12,330 10,580	8,500 N/A N/A See next larger size vessel.	110	6", 8", 10"
6" T.M. K12	___ 19,000	13,250 N/A	170	6", 8", 10", 12"
8" T.M.	19,920	24,420	240	8", 10", 12"
M16 10" T.M.	33,330 31,830	N/A See next larger size vessel.	350	10", 12", 16"

*Model/Type x 100 lpm denotes maximum design flow capacity of equipment for product viscosity 20 cP @ 20°C.
**Inlet and/or outlet flange sizes other than those listed, consult factory.

Basket(s)

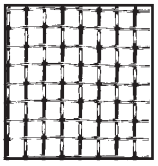
Outer Basket, Perforated Plate (Opening Size 10 mm / 0,394")

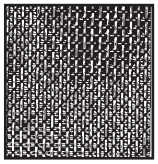
Model	Quantity	Basket Area (cm^2)	Percent Open Area
GLS-10	1	1 112	44,7
GLS-20	1	2 234	47,5
GLS-30	1	2 986	48,2
GLS-50	1	4 863	49,7
GLS-70	2	6 949	50,9
GLS-110	3	10 424	50,9
GLS-170	3	13 759	51,4
GLS-240	5	22 932	51,4
GLS-350	7	32 105	51,4

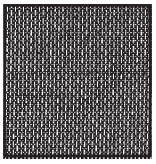
Permanent Inner Liner, Screen

Mesh	Opening Size, mm (inches)	Percent Open Area
10	2,0 (0,079)	61
20	1,0 (0,039)	61
40 (Std.)	0,4 (0,016)	42
80	0,2 (0,008)	38

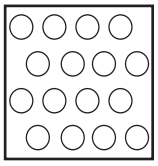
Screens shown actual size:


10 Mesh


20 Mesh


40 Mesh


80 Mesh


Perforated Plate

Modeling

Example: GLS — 110 — 2 — 04A — B — 40 — T0 — B — 00 — G0

Type of Equipment

GLS – "G" Line Strainer

GLS Model

010 – GLS-10 *
020 – GLS-20 *
030 – GLS-30 *
050 – GLS-50 *
070 – GLS-70
110 – GLS-110
170 – GLS-170
240 – GLS-240
350 – GLS-350

Working Pressure

1 – PN 10 or 150 PSI
2 – PN 16 or 232 PSI
3 – PN 25 or 362 PSI
4 – PN 40 or 580 PSI
5 – PN 64 or 928 PSI
6 – PN 100 or 1,440 PSI

Flange Size

02A 2" ANSI
25A 2.5" ANSI
03A 3" ANSI
04A 4" ANSI
06A 6" ANSI
08A 8" ANSI
10A 10" ANSI
12A 12" ANSI
16A 16" ANSI
02D DIN DN 50
25D DIN DN 65
03D DIN DN 80
04D DIN DN 100
06D DIN DN 150
08D DIN DN 200
10D DIN DN 250
12D DIN DN 300
16D DIN DN 400

Closure Style

B – Blind Flange
E – Blind Flange with Swing Arm Assist

Inner Liner Mesh Size

10 – 10 Mesh
20 – 20 Mesh
40 – 40 Mesh
80 – 80 Mesh

Elastomer Seals

see bulletin AB0A003E

Design Standards

see bulletin AB0A003E

Air Release Kit

00 – Not Required
R1 – RB Air Release Kit AVD-1 NPT Bu
R2 – RB Air Release Kit AVD-1 NPT Vi
R3 – RB Air Release Kit AVD-1 FLG Bu
R4 – RB Air Release Kit AVD-1 FLG Vi
R5 – RB Air Release Kit AVD-2 FLG Bu
R6 – RB Air Release Kit AVD-2 FLG Vi

U1 – UB Air Release Kit AVD-1 FLG Vi
U2 – UB Air Release Kit AVD-1 FLG Ch
U3 – UB Air Release Kit AVD-2 FLG Vi
U4 – UB Air Release Kit AVD-2 FLG Ch

*Bu = Buna; Ch = Chemraz; Vi = Viton

Miscellaneous Options

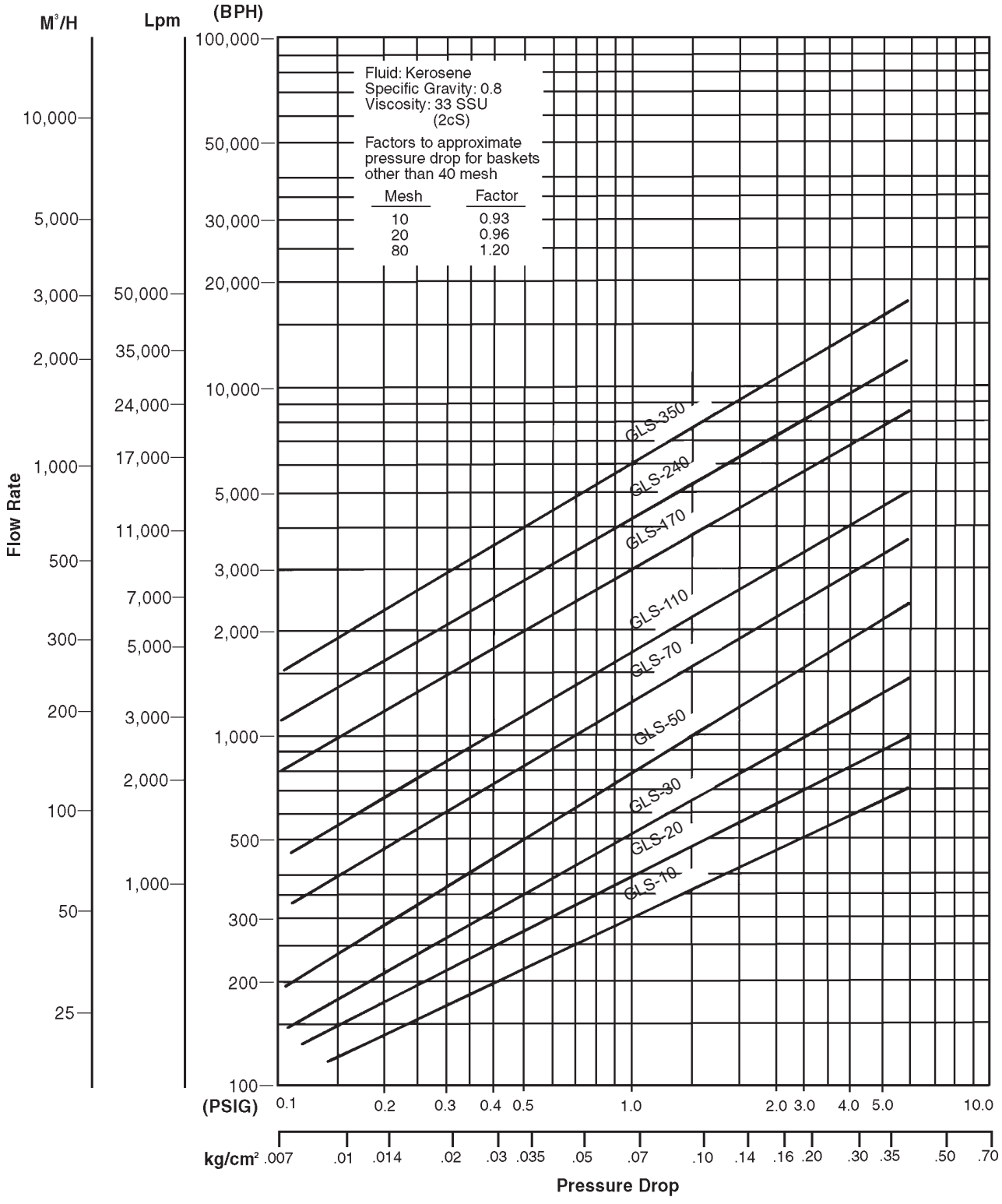
G0 – Not Required
G1 – Differential Pressure Gauge Bu
G2 – Differential Pressure Gauge Vi
G3 – Other Gauge

* **Note:** GLS-10...50 starts with pressure rating -2 = 16 bar (-1 n/a)

Pressure Drop

GLS Strainer

(Based on standard basket with 40 mesh liner.) Measured over the whole strainer (inlet and outlet nozzle).

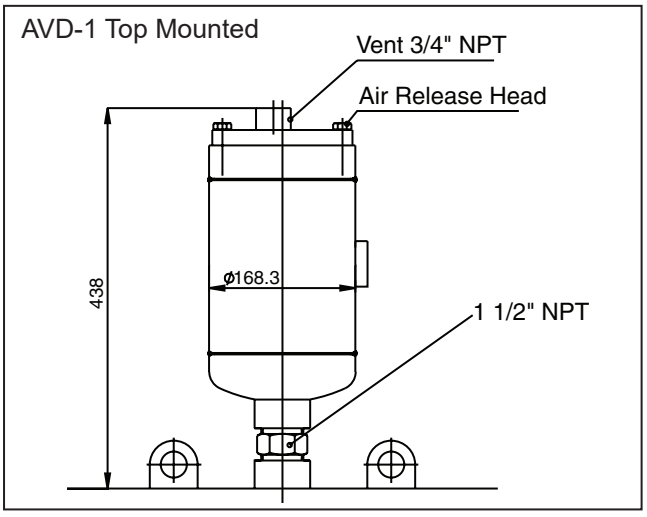


Accessories

Automatic Air Venting Devices

F1, F2 – AVD-1 with RB – Air Release Head
Maximum working pressure 19.7 bar (285 psi).

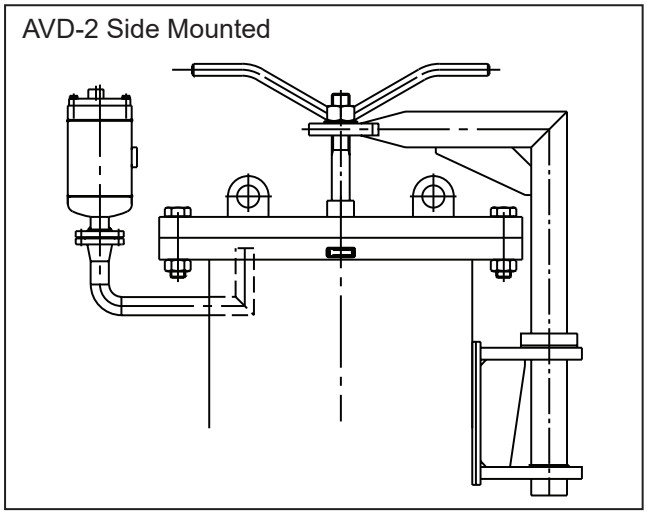
F3, F4 – AVD-1 with UB – Air Release Head
Maximum working pressure 50 bar (720 psi).



Top Mounted AVD with Coupling 1½" NPT or flanged

F5, F6 - AVD-2 with RB - Air Release Head
Maximum working pressure 19.7 bar (285 psi).

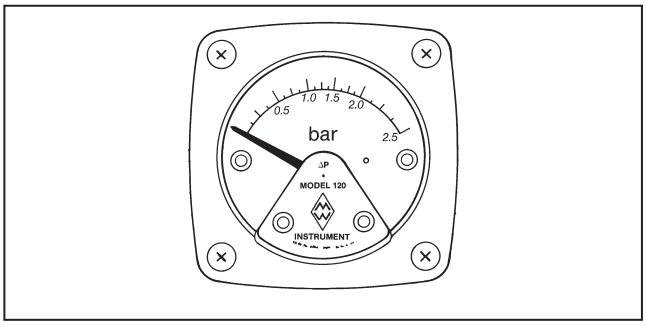
F7, F8 - AVD-2 with UB - Air Release Head
Maximum working pressure 50 bar (720 psi).



Side Mounted AVD with Flange Connection and Blind Flange with Swing Arm Assist

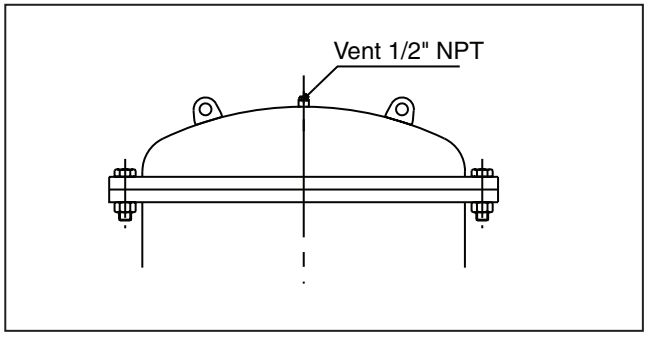
Differential Pressure Gauge Specifications

Type: Piston type ΔP – Gauge.
Maximum Working Pressure: 340 bar.
Scale: 0-2.5 bar, nominal diameter 63 mm.
Accuracy: ±2 - 3%.
Connections: 1/4" FNPT.
Seals: Buna-N, Viton, or PTFE[1].

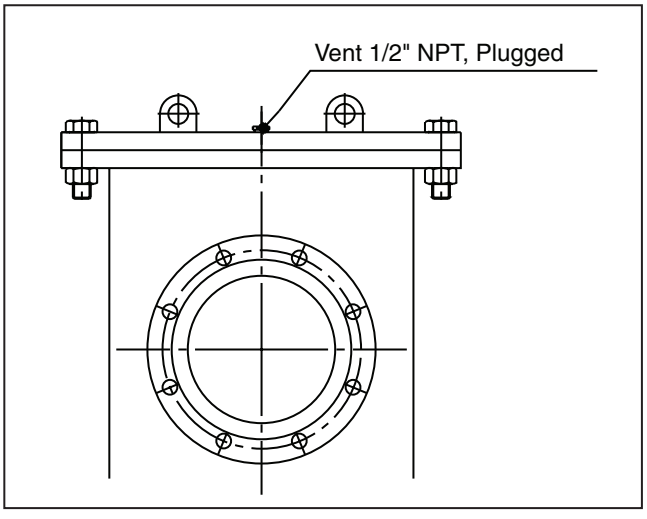


G1 – Differential Pressure Gauge

Closures



Convexed Blind Flange Closure Models 240-350

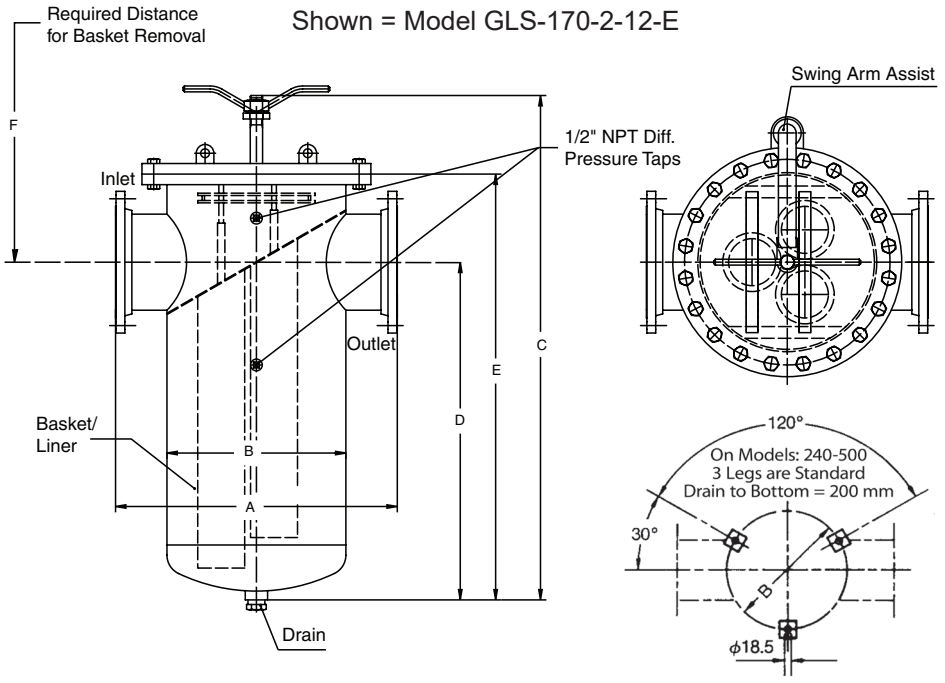


Flat Plate Blind Flange Closure Models 10-170 with Vent Connection 1/2" NPT Plugged

1 Polytetrafluoroethylene (PTFE).

Dimensions

Millimetres



Model GLS	A DIN/ASA	B	C	D	E	F	Flange Sizes	Basket(s)		Drain NPT
								Quantity	Length mm	
10	380	168	600	350	510	460	1,5"-2,5"	1	300	1-1/2"
20	450/500	219	770	520	680	610	2"-3"	1	450	1-1/2"
30	560/610	273	840	560	750	670	3"-4"	1	480	1-1/2"
50	650/700	356	995	700	900	800	4"-6"	1	600	1-1/2"
70	770/820	457	1,200	800	1,100	1,000	4"-8"	2	700	2"
110	850/900	508	1,200	800	1,100	1,000	6"-10"	3	700	2"
170	960	610	1,550	1,150	1,450	1,270	6"-12"	3	970	2"
240	1,100	660	1,960	1,150	1,500	1,320	8"-12"	5	970	2"
350	1,300	812	2,065	1,150	1,550	1,370	10"-16"	7	970	2"

*NPT threaded and plugged drains are standard. Piped and flanged drain connections available on request.

Approximate Net Weight (kg)

Model	10 Bar (-1)	16 Bar (-2)	25 Bar (-3)	40 Bar (-4)
10	N/A	59	66	80
20	N/A	75	84	98
30	N/A	100	114	145
50	N/A	171	200	300
70	210	228	265	420
110	295	325	385	590
170	360	400	500	785
240	400	480	590	862
350	556	670	840	1,150
500	Consult Factory			

Conversion Factors (bar/kPa/psi)

1 psi = 6,895 kPa	1 kPa = 0,145 psi
1 psi = 0,06895 bar	1 bar = 14,5 psi
1 bar = 100 kPa	1 kPa = 0,01 bar

March 2019 - Updated branding and contact information.

TechnipFMC.com

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TechnipFMC
FMC Technologies
Measurement Solutions, Inc.
13460 Lockwood Road
Building S01
Houston, Texas 77044 USA
P:+1 281.591.4000

USA Operation
1602 Wagner Avenue
Erie, Pennsylvania 16510 USA
P:+1 814.898.5000

Germany Operation
Smith Meter GmbH
Regentstrasse 1
25474 Ellerbek, Germany
P:+49 4101.304.0