

Variable Area Flowmeters

Global Purgemaster

10A6100

- **High Strength Stainless Steel Body** - Rigid construction to maintain tube alignment and resistance to pipe strain.
- **"Snap-in" Tube Construction** - Minimizes the downtime needed to clean the meter tube or to change the meter range.
- **Optimum Variety** - Available in 1-1/2, 3, 5, and 10 inch scale lengths and end fitting materials of stainless steel and KYNAR®
- **Internal Back check** - Restricts back flow and draining of process fluid when metering tube is removed. (Not available with outlet control valve.)
- **Control Valve** - The optional control valve provides a smooth fine degree of adjustment.
- **Versatile Flow Controller** - The optional Differential Pressure Regulator is designed to give reliable flow control regardless of changes in upstream pressure.
- **Adjustable Alarms** - Single (min. or max.) or Dual (min. & max) alarm sensors are adjustable over the entire meter range.



Purgemaster™
Series 10A6100

PURGEMASTER™

The Purgemaster Purge Meters are low capacity variable area flowmeters for both liquid and gas with an excellent selection of material and scale lengths in a single product family design. They provide optimum flexibility with minimum component proliferation. The meter features a corrosion resistant, high strength stainless steel body, quick, easy snap-in tube construction and a safety tested operator protection shield.

The Purgemaster is ideal for such applications as the purging of control lines and instrument enclosures. Their use is easily extended into fluid sampling, liquid specific gravity, and level measurement and similar services.

Engineering Specifications

Performance:

Repeatability: 0.5% of full scale reading.

Accuracy:

ACCURACY STATEMENT
± Percent of Full Scale

Scale Length	Standard Accuracy	Optional Accuracy
1-1/2" (38 mm)	10%	4%
3" (75 mm)	10%	4%
5" (127 mm)	2%*	1%*
10" (250 mm)	2%	1%

* Except tube number FP-1/16-xx-G5 which have ±5% standard accuracy and ±2% optional accuracy.

Rangeability: 10 to 1 or greater

Operational Limits:

Ambient Temperature Limits:

32°F to 140°F (0°C to 60°C)

Minimum Temperature: 32°F (0°C)

Minimum Pressure: Full vacuum. If vacuum conditions require a control valve, it should be in the outlet fitting.

Maximum Process Temperature and Pressure: Temperature and pressure are interdependent but the listed combination limits must not be exceeded.

End Fitting Mat'l	Type Adaptor Mat'l	Max. Fluid Temp. °F (°C)	Maximum Fluid Pressure PSIG (kPa)			
			Operating Temperature °F (°C)			
			<100°F (38°C)	150°F (65°C)	200°F (93°C)	250°F (120°C)
316SS	316SS	250 (120)	250 (1724)	250 (1724)	250 (1724)	250 (1724)
316SS	KYNAR	200 (93)	250 (1724)	225 (1550)	200 (1380)	---
KYNAR	KYNAR	150 (65)	200 (1380)	150 (1034)	---	---

Materials of Construction:

Meter

Tube*: Borosilicate glass

Floats*: Refer to Capacity Tables (Table I, II, III, & IV)

End Fittings*: 316 stainless steel and KYNAR®

Tube Adaptor*: 316 stainless steel or KYNAR® with stainless end fittings, KYNAR® with Kynar end fittings

Tube Adaptor Spring*: 316 stainless steel with stainless steel end fittings, Hastelloy "C" with KYNAR® end fittings.

Float Stop*: 1-1/2 and 3 inch meters 316 stainless steel with stainless steel end fittings, Hastelloy "C" with KYNAR® end fittings; 5 and 10 inch meter - Teflon.

Tube Rest Gasket: Teflon

O-Ring*: Viton when stainless or KYNAR® end fittings are specified.

Optional: Butyl Rubber, Ethylene Propylene Rubber and Kalrez.®

Valve Stem*: Stainless steel with stainless fittings; KYNAR® tip over stainless steel (non-process wetted) with KYNAR® fittings.

Internal Back check*: Teflon

Body: 304 stainless steel

Shield: Polycarbonate

**Process wetted parts*

Caution

It is important that the process wetted parts materials are compatible with the process fluid. Meter damage, with potential resulting unsafe conditions, can occur if the wrong material is used. For example, VITON O-rings **MUST NEVER BE USED FOR AMMONIA SERVICE**

Warning

Operating the meter without the protection shield may result in operator bodily injury.

Connections: 1/4 inch NPT. Inlet and outlet fittings are horizontal and face back.

Mounting: In-line; wall or front of panel through mounting holes in back of the body; or rear of panel mounting.

Scale Length: 1-1/2, 3, 5, and 10 inch.

Scales (on tube): As indicated in capacity tables. (Optional metal scale for 5 and 10" rear panel mounting)

Differential Pressure Regulator¹

Body: 316 stainless steel

Diaphragm: Viton (with stainless body);
Buna-N (optional).

Ball Valve: 316 stainless steel

Springs: Type 316 stainless steel

Max Pressure: 200 psig (1380kPa) at 100°F (38°C)

Maximum Differential Pressure:
100 psi (690 kPa)

Pipe Connection:
1/4" NPT internal threads

Weight (Approximation)

Purge Meter Only

Scale Length	lb	Kg
1-1/2" (38 mm)	1.0	0.45
3" (75 mm)	1.0	0.45
5" (127 mm)	1.4	0.65
10" (250 mm)	1.8	0.80

Purge Meter with Regulator: Add 2-1/2 lb (1.15kg) to weights listed above.

Note 1: When combined with a 53R2110 Differential Pressure Regulator, the PURGEMASTER can control a flow of liquid or gas that is subject to varying line pressure. However, due to gas compressibility, the true value of mass flow rate of a gas can be measured only if the downstream pressure remains constant.

Alarms

Principle of operation

The ring sensors with a bistable switching action picks up the relay in the amplifier when the ball float reaches the trigger level and remains in that position, even if the float continues to move towards the alarm zone, thus leaving the trigger level. The relay will drop out as soon as the float crosses the trigger level from the opposite direction, and moves back from the alarm zone into the normal operating range. The actual float position - above or below the trigger level - is precisely indicated.

Explosion hazardous operation is feasible, since the ring sensor used is an intrinsically safe switch with intrinsically safe circuit. Due to the relatively short metering tube, type 10A6131 is suitable either as a minimum or a maximum alarm. Models 10A6132 or 10A6133 are recommended if both alarm operations are required.

Design Features

- Sensor height 14 mm, therefore only small coverage of the scale.
- Integrated clamp device directly to the meter body. No automatically adjustability during operation possible.

Alarm Specifications

Ring sensor

RC-10-14-N for 1/8 inch meter tubes,

RC-10-15-N for 1/4 inch meter tubes

Bistable Switching Action

FM Approved for

Class I, Div 1, Groups A, B, C and D;

Class II, Div 1, Groups E, F, and G

Class III, Div 1

Power supply requirements: 5 to 25 V dc

Load Current (current range): ≤ 0.01mA, ≥ .3 mA

Repeatability: ≤ 0.01 mm

Self Inductance: 100 µH

Self Capacitance: 150 nF

Ambient temp. limit: -14°F (-26° C) to 158°F (70°C)

Cable: 6 1/2 feet (2m) standard (max. 9800 feet (3000 m) possible)

Housing: Crastin, black

Protective Class: NEMA 4X/IP67

Weight: 150 g (approximate)

Switching amplifier

Type: Pepperl + Fuchs model (s) KFA 5
(6)-SR2-Ex.W

Contact rating: max. 250 VA, max. 2A

Supply Voltage: 120 Vac, 240 Vac, $\pm 15\%$,
45 - 65 Hz

Response Time: Energize approximately 20 ms,
De-energized approximately 20 ms

Output Type: Single Pole Double Throw (SPDT)

Ambient temp. limits: -4°F (-20°C) to $+140^{\circ}\text{F}$
(60°C)

Maximum Wire Size: 2.5 mm² (14 AWG)

Approvals: IP20; Hazardous field circuit EExia IIC
and FM Class I, Div. 1, Groups A to G. The KFA
relay amplifiers must be installed in the non-
hazardous area when connected to the RC-10
sensors.

Housing Material: Makrolon

Weight: 150 g. (5.2 oz.)

Ordering Information:

When ordering, please specify:

Complete model number.

Materials of construction (end fittings, regulator
body).

Maximum capacity and unit of flow.

Mounting.

Type of scale.

Accessories.

Operating conditions such as:

Fluid measured

Operating and maximum temperature

Operating and maximum pressure

Fluid density

Fluid viscosity

Typical Specifications

The purge meter shall have 304 stainless steel
body, (KYNAR®) (316 stainless steel) end fittings
and (Buna-N) (Viton) O-rings.¹

The metering tube shall be easily removable for
range change or cleaning without removing the
meter from the line or without the use of tools.

Meter scale length shall be (1-1/2 inches percent
only), (3 inches) (5 inches) (10 inches) with
(percent) (mm) (direct reading) scale inked directly
on the tube.

Flow rate shall be (range and units) of (fluid)
metered at (temperature and pressure). Maximum
temperature and pressure shall be (specify).

When integral control valve is required,² Add: an
integral (stainless steel) (KYNAR®) control valve
shall be provided.

When constant Differential Pressure Regulator is
required, Add: A stainless steel constant
Differential Pressure Regulator shall be provided to
maintain a constant flow rate with varying line
pressures.

¹ Viton O-rings with stainless steel and KYNAR® end fitting.

² Always required with Differential Pressure Regulator

Caution

Glass tubes are not recommended for either hot or
strong alkalis; fluorine, or hydrofluoric acid. Meter
tubes should be periodically inspected for signs of
wear. Erosion, stress cracks or nicks provide early
warning for tube replacement. With certain fluids,
the glass may erode unevenly so that wear is not
visibly noticeable. If wear is suspected, the tube
should be replaced.

1-1/2 INCH SCALE METER

Scales (On Tube)

Standard: Percentage or direct reading for water & air capacities listed in Table 1

Optional: Custom direct reading scales other than shown in Table 1

TABLE 1
1½" Scale Length Capacities (Maximum Flow Rates)

Tube Length (inches)	Tube Diameter (inches)	Tube	Tube Code	Float ¹	Float Code	Water cc/min	Air scc/min 14.7 psia & 70°F	Pressure Drop inches of water
1½	1/16	FP-1/16-08-1½	01	BG	A	0.8* #	65* #	1.2
				SA	C	1* #	95* #	1.3
				SS	D	4* #	180* #	1.7
1½	1/16	FP-1/16-30-1½	02	BG	A	7#	420#	1.5
				SA	C	13	560	1.7
				SS	D	22	900	2
1½	1/8	FP-1/8-21-1½	03	BG	A	38	2100	2
				SA	C	60	2600	3.5
				SS	D	120	4000	7.5
				CA	E	180	5400	
1½	5/32	FP-5/32-40-1½	04	BG	A	190	8000	14
				SS	D	450	15000	50
1½	1/4	FP-1/4-28-1½	05	SA	C	580	18000	
				SS	D	850*	28000*	100
1½	1/4	FP-1/4-41-1½	06	SS	D	1600*	48000*	210
				CA	E	2200*##	70000*##	475

* - Not available with 53RT 2110 constant flow differential pressure regulator.

- Specify low capacity valves for stainless steel end fittings. Specify standard capacity valves for KYNAR end fittings.

- Specify high capacity valves for stainless steel end fittings. Specify standard capacity for KYNAR end fittings.

¹ - Key to float nomenclature: BG = black glass, SA = sapphire, SS = stainless steel, CA = carbaloy

3 Inch Scale Meter

Scales (On Tube)

Standard: Percentage or direct reading for water & air capacities listed in Table 2

Optional: Custom direct reading scales other than shown in Table 2

TABLE 2
3" Scale Length Capacities (Maximum Flow Rates)

Tube Length (inches)	Tube Diameter (inches)	Tube	Tube Code	Float ¹	Float Code	Water cc/min	Air scc/min 14.7 psia & 70°F	Pressure Drop inches of water
3	1/8	FP-1/8-08-P3	07	BG	A	4.6	380	1.4
				SA	C	8.5	520	2.2
				SS	D	20	900	
				CA	E	34	1350	
				TA	F	36	1450	
3	1/8	FP-1/8-20-P3	08	BG	A	29	1600	2.5
				SA	C	48	2100	5
				SS	D	90	3200	
				CA	E	130	4400	
				TA	F	145	4800	
3	1/4	FP-1/4-15-P3	09	BG	A	150	7000	8.3
				SA	C	230	9000	25
				SS	D	400	13000	
				CA	E	580	18000	
3	1/4	FP-1/4-20-P3	10	BG	A	240	10500	18
				SA	C	360	13000	55
				SS	D	580	19000	
				CA	E	850	26000	
3	1/4	FP-1/4-41-G3	11	BG	A	500	21000	222 425
				SA	C	750	27000	
				SS	D	1250 *	40000 *	
				CA	E	1800 *	56000 *	
				TA	F	1900 *	58000 *	
3	1/4	FP-1/4-41-P3	12	BG	A	700	27000	
				SA	C	1000 *	34000 *	
				SS	D	1600 *	50000 *	
				CA	E	2200 *	65000 *	
				TA	F	2400 *	70000 *	

* - These capacities are not available with constant flow regulator

¹ - Key to float nomenclature: BG = black glass, SA = sapphire, SS = stainless steel, CA = carbaloy, TA = tantalum

² - Specify standard capacity valves for all capacities and all end fitting materials.

5 Inch Scale Meter

Scales (On Tube)

Standard: Percentage millimeter scales with standard water & air curves or direct reading for water & air capacities listed in Table 3

Optional: Custom direct reading scales other than shown in Table 3

TABLE 3
5" Scale Length Capacities (Maximum Flow Rates)

Tube Length (inches)	Tube Diameter (inches)	Tube	Tube Code	Float ¹	Float Code	Water cc/min	Air scc/min 14.7 psia & 70°F	Pressure Drop inches of water
5	1/16	FP-1/16-10-G5	13	BG SA SS CA TA	A C D E F	0.52 *# 1 *# 2.35 *# 4. *#7 5.2 *#	47 *# 74 *# 135 *# 225 *# 240 *#	
5	1/16	FP-1/16-12-G5	14	BG SA SS CA TA	A C D E F	0.96 *# 1.8 *# 4.1 *# 7.6 *# 8.4 *#	80 *# 120 *# 205 *# 320 *# 340 *#	
5	1/16	FP-1/16-16-G5	15	BG SA SS CA TA	A C D E F	1.7 *# 3.1 *# 7 *# 12 *# 13.5 *#	130 *# 190 *# 320 *# 490 *# 520 *#	
5	1/16	FP-1/16-20-G5	16	BG SA SS CA TA	A C D E F	2.6 *# 4.7 *# 10.4 *# 17.5 *# 19.5 *#	195 *# 280 *# 440 *# 660 *# 700 *#	
5	1/8	FP-1/8-08-G5	17	BG SA SS CA TA	A C D E F	6 # 10.8 # 20.5 33 35	390 # 540 # 820 1250 1350	1.3 1.5
5	1/8	FP-1/8-12-G5	18	BG SA SS CA TA	A C D E F	14 21.5 39 60 64	720 920 1450 2150 2250	1.5
5	1/8	FP-1/8-16-G5	19	BG SA SS CA TA	A C D E F	22.5 35 61 92 96	1080 1450 2150 3100 3300	1.9 2.2 3.4
5	1/8	FP-1/8-20-G5	20	BG SA SS CA TA	A C D E F	31 47 82 120 130	1450 1900 2900 4100 4400	4

5 Inch Scale Meter (continued)

Scales (On Tube)

Standard: Percentage millimeter scales with standard water & air curves or direct reading for water & air capacities listed in Table 3

Optional: Custom direct reading scales other than shown in Table 3

TABLE 3 (continued)
5" Scale Length Capacities (Maximum Flow Rates)

Tube Length (inches)	Tube Diameter (inches)	Tube	Tube Code	Float ¹	Float Code	Water cc/min	Air scc/min 14.7 psia & 70°F	Pressure Drop inches of water
5	1/8	FP-1/8-25-G5	21	BG	A	43	1950	2.5
				SA	C	64	2500	4.8
				SS	D	110	3800	
				CA	E	165	5400	
				TA	F	175	5600	
5	1/4	FP-1/4-10-G5	22	BG	A	88	4100	3.3
				CD	B	76	3800	3.3
				SA	C	130	5200	
				SS	D	230	7800	
				CA	E	340	11200	
5	1/4	FP-1/4-16-G5	23	TA	F	370	11704	6.7
				BG	A	170	7400	
				CD	B	150	7000	
				SA	C	250	9600	
				SS	D	420	14500	33
5	1/4	FP-1/4-20-G5	24	CA	E	620	20000	50
				TA	F	660	21000	
				BG	A	225	9600	
				CD	B	205	9200	
				SA	C	340	12500	12
5	1/4	FP-1/4-25-G5	25	SS	D	550	39 scfh	50
				CA	E	820	56 scfh	
				TA	F	880	58 scfh	
				BG	A	300	12600	
				CD	B	270	12000	18
5	1/4	FP-1/4-25-G5	25	SA	C	440	16000	71
				SS	D	720	50 scfh	
				CA	E	1060 *	70 scfh *	
				TA	F	1120 *	74 scfh *	
6	1/4	FP-1/4-40-G6	26	BG	A	570	49 scfh	56
				CD	B	560	54 scfh	
				SA	C	900	75 scfh	
				SS	D	1340 *	96 scfh *	
				CA	E	2000 *##	135 scfh *##	189
6	1/4	FP-1/4-40-G6	26	TA	F	2400 *##	160 scfh *##	385

* - Not available with 53RT 2110 constant flow differential pressure regulator.

- Specify low capacity valves for stainless steel end fittings & standard capacity valves for KYNAR end fittings.

- Specify high capacity valves for stainless steel fittings & standard capacity valves for KYNAR end fittings.

¹ - Key to float nomenclature: BG = black glass, SA = sapphire, SS = stainless steel, CA = carbaloy

10 Inch Scale Meter

Scales (On Tube)

Standard: Percentage millimeter scales with standard water & air curves or direct reading for water & air capacities listed in Table 4

Optional: Custom direct reading scales other than shown in Table 4

TABLE 4
10" Scale Length Capacities (Maximum Flow Rates)

Tube Length (inches)	Tube Diameter (inches)	Tube	Tube Code	Float ¹	Float Code	Water cc/min	Air scc/min 14.7 psia & 70°F	Pressure Drop inches of water
10	1/8	FP-1/8-077-G10	27	BG SA SS CA TA	A C D E F	6 # 10.4 # 21.2 34 36	365 # 510 # 1.7 scfh 2.6 scfh 2.7 scfh	1.5 1.8 2.2
10	1/8	FP-1/8-13.3-G10	28	BG SA SS CA TA	A C D E F	16.4 28 44 75 80	1.8 scfh 2.4 scfh 3.7 scfh 5.4 scfh 5.6 scfh	1.9 2.3 3
10	1/8	FP-1/8-32-G10	29	BG SA SS CA	A C D E	48.5 73 122 184	4.6 scfh 6 scfh 9.3 scfh 13.8 scfh	3.4 4.8 7.9 9
10	1/4	FP-1/4-10-G10	30	BG SA SS CA TA	A C D E F	91 140 240 365 380	9.2 scfh 122 scfh 18 scfh 25 scfh 26 scfh	2.6 18.4
10	1/4	FP-1/4-19-G10	31	BG SA SS CA TA	A C D E F	224 340 535 800 * 850 *	20 scfh 26 scfh 37.5 scfh 53.5 scfh * 56 scfh *	11.5 49 75
10	1/4	FP-1/4-40-G10	32	BG SA SS CA TA	A C D E F	590 900 * 1300 * 1880 *## 2400 *##	52.2 scfh 75 scfh * 92 scfh * 132 scfh *## 160 scfh *##	63 225 465

* - Not available with 53RT 2110 constant flow differential pressure regulator.

- Specify low capacity valves for stainless steel end fittings & standard capacity valves for KYNAR end fittings.

- Specify high capacity valves for all stainless steel fittings & standard capacity valves for KYNAR end fittings.

¹ - Key to float nomenclature: BG = black glass, SA = sapphire, SS = stainless steel, CA = carbaloy

Global Purgemaster		10A61
For quantity greater than 20 call		
1 : Process Connections		
1/4" NPT		3
2 : Meter Tube, Scale Length		
3" Scale		1
5" Scale		2
10" Scale		3
1-1/2" Scale		4
3 : Valve Location		
Without Valve		A
Outlet Valve, Std. Capacity		M
Inlet Valve, Std. Capacity		N
Outlet Valve, Low Capacity		C
Inlet Valve, Low Capacity		D
Outlet Valve, High Capacity		E
Inlet Valve, High Capacity		F
4 : Design Level		
Design Level		B
5 : Tube Size (Diameter)		
1/8"		1
1/4"	(Note: 1)	2
1/16" (Only with 1-1/2" and 5" length) (req's low capacity valve)	(Notes: 2, 3)	3
5/32" (Only with 1-1/2" length)	(Notes: 4, 1)	4
6 : Materials of Construction (Fittings/O-Rings/Adaptors)		
316SS/Viton/SS		B
Kynar/Viton/Kynar (not available with Regulator)	(Note: 5)	D
316SS/Buna/SS (not available with Regulator)		E
Kynar/Buna/Kynar (not available with Regulator)	(Note: 5)	G
316SS/Viton/Kynar		H
316SS/Buna/Kynar (not available with Regulator)		J
316SS/EPR/SS (not available with Regulator)		L
316SS/KALREZ/SS (not available with Regulator)		M
Special		Z
7 : Mounting (Meter & Regulator)		
In-Line (Pipe)		1
Wall Mount (Regulator only)		2
Rear Panel Mount		3
Front Panel Mount		4
8 : Regulator		
No Regulator	(Note: 6)	X
Stainless Steel	(Notes: 7, 8)	A
9 : Alarm Ring Sensor (Must use metallic floats, SS or CA)		
Not Required		00
Minimum Alarm	(Notes: 9, 10)	10
Maximum Alarm	(Notes: 9, 10)	20
Min. and Max. Alarm (5 and 10" Tubes Only)	(Notes: 11, 10)	30
Modified for Alarms without Sensor or Relay	(Notes: 9, 10)	90
10 : Connection Accessories		
Not Required		A

10A61

Code

11 : ABB Logo Tag

ABB LogoTag	A
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12 : Language (Tags & Tube) - English

English	E
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13 : Alarm Relay (Power Requirements)

Not Required		X
110 Vac (Single Alarm)	(Note: 12)	3
110 Vac (Dual Alarm)	(Note: 13)	3
220 Vac (Single Alarm)	(Note: 12)	4
220 Vac (Dual Alarm)	(Note: 13)	4

14 : External Metal Scale (Rear Panel Mount, 5 & 10" Only)

Not Required		B
Required	(Notes: 11, 14, 15, 16)	C

15 : Scales

Direct Reading (Standard Water Scales listed in Capacity Tables)		A
Direct Reading (Standard Air Scales listed in Capacity Tables)		B
Percent Scales		C
Millimeter	(Note: 11)	D
Direct Reading Non-Standard Scales		E

16 : Float Material Code

Black Glass (BG)	(Note: 14)	A
Constant Density (CD)	(Notes: 17, 14)	B
Saphire (SA)	(Note: 14)	C
Stainless Steel (SS)		D
Carboloy (CA)		E
Tantalum (TA)	(Note: 14)	F

10A61

Code

17 : Tube Code - Refer to Capacity Tables I, II, III, IV in 10A6100 Data Sheet

FP-1/16-08-1 1/2	(Notes: 18, 4, 19, 20)	01
FP-1/16-30-1 1/2	(Notes: 4, 19, 20)	02
FP-1/8-21-1 1/2	(Notes: 4, 19, 21)	03
FP-5/32-40-1 1/2	(Notes: 4, 19, 22)	04
FP-1/4-28-1 1/2	(Notes: 23, 4, 19, 24)	05
FP-1/4-41-1 1/2	(Notes: 25, 4, 19, 26)	06
FP-1/8-08-P3	(Notes: 27, 28, 29)	07
FP-1/8-20-P3	(Notes: 27, 28, 29)	08
FP-1/4-15-P3	(Notes: 27, 21, 17)	09
FP-1/4-20-P3	(Notes: 27, 21, 17)	10
FP-1/4-41-G3	(Notes: 30, 27, 28, 17)	11
FP-1/4-41-P3	(Notes: 31, 27, 28, 17)	12
FP-1/16-10-G5	(Notes: 32, 33, 28, 34)	13
FP-1/16-12-G5	(Notes: 32, 33, 28, 34)	14
FP-1/6-16-G5	(Notes: 32, 33, 28, 34)	15
FP-1/16-20-G5	(Notes: 32, 33, 28, 34)	16
FP-1/8-08-G5	(Notes: 33, 28, 29)	17
FP-1/8-12-G5	(Notes: 33, 28, 29)	18
FP-1/8-16-G5	(Notes: 33, 28, 29)	19
FP-1/8-20-G5	(Notes: 33, 28, 29)	20
FP-1/8-25-G5	(Notes: 33, 28, 29)	21
FP-1/4-10-G5	(Notes: 33, 17)	22
FP-1/4-16-G5	(Notes: 33, 17)	23
FP-1/4-20-G5	(Notes: 33, 17)	24
FP-1/4-25-G5	(Notes: 35, 33, 17)	25
FP-1/4-40-G6	(Notes: 30, 33, 17)	26
FP-1/8-077-G10	(Notes: 36, 28, 29)	27
FP-1/8-13.3-G10	(Notes: 36, 28, 29)	28
FP-1/8-32-G10	(Notes: 36, 21, 29)	29
FP-1/4-10-G10	(Notes: 36, 28, 17)	30
FP-1/4-19-G10	(Notes: 35, 36, 28, 17)	31
FP-1/4-40-G10	(Notes: 31, 36, 28, 17)	32

Additional Ordering Code

18 : Calibration Includes Certificate of Calibration

Standard; uncalibrated accuracy	C1
Calibrated Accuracy; Liquids at 1 cts. Viscosity	C2
Calibrated Accuracy; Liquids at viscosity up to 100 cts.	C3
Calibrated Accuracy; Gas Service	C6

19 : Preparation Procedure

Oxygen cleaning per ABB 3BUJ980096	P1
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20 : Certificates

Certificate of Conformance; per order	D1
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21 : Material Certifications

Material Certifications; "typicals", per material	M1
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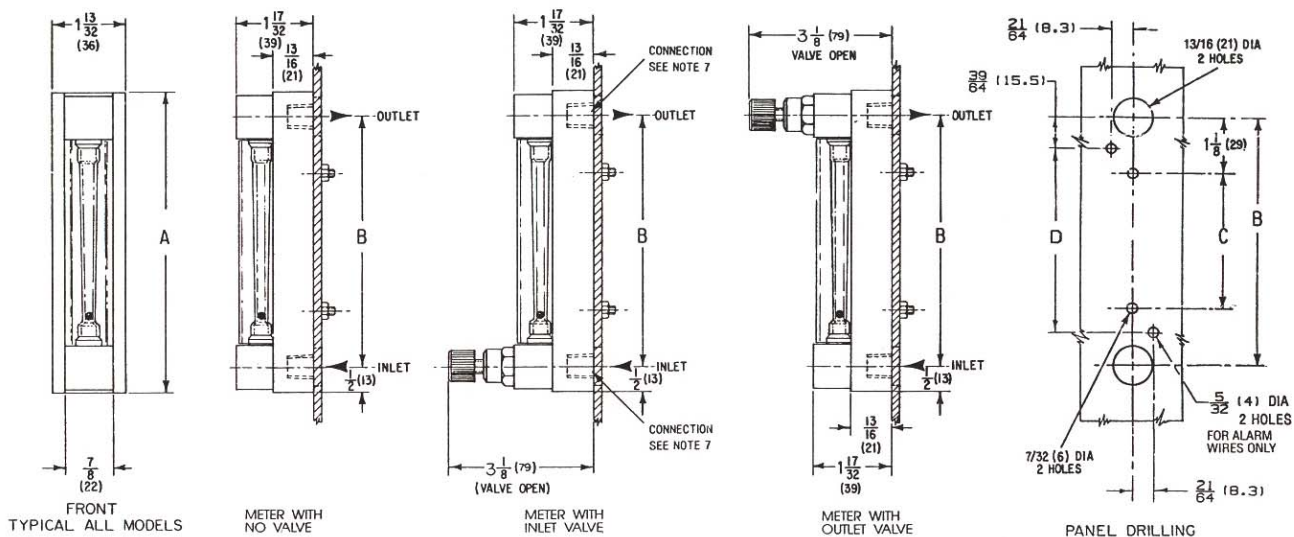
22 : Pressure Test

Hydrostatic pressure test; 1/8 In. ... 1/2 In. diameter	H1
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23 : Tags

Stainless Steel Tags (wired on) per meter	T1
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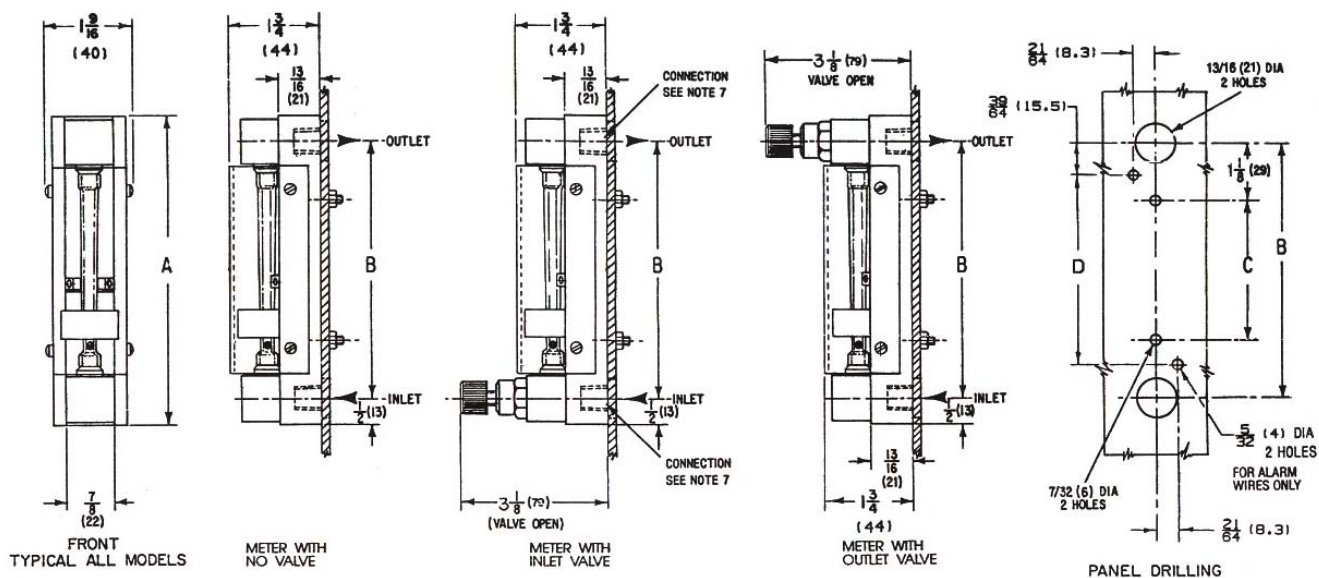
- Note 1: Not available with Valve Location code C, D
Note 2: Not available with Valve Location code M, N, E, F
Note 3: Not available with Meter Tube, Scale Length code 1, 3
Note 4: Not available with Meter Tube, Scale Length code 1, 2, 3
Note 5: Not available with Valve Location code C, D, E, F
Note 6: Not available with Mounting (Meter & Regulator) code 2
Note 7: Not available with Materials of Construction (Fittings/O-Rings/Adaptors) code D, E, G, J, L, M
Note 8: Not available with Tube Size (Diameter) code 3
Note 9: Not available with Meter Tube, Scale Length code 4
Note 10: Not available with Tube Size (Diameter) code 3, 4
Note 11: Not available with Meter Tube, Scale Length code 1, 4
Note 12: Not available with Alarm Ring Sensor (Must use metallic floats, SS or CA) code 00, 30, 90
Note 13: Not available with Alarm Ring Sensor (Must use metallic floats, SS or CA) code 00, 10, 20, 90
Note 14: Not available with Alarm Ring Sensor (Must use metallic floats, SS or CA) code 10, 20, 30, 90
Note 15: Not available with Alarm Relay (Power Requirements) code 3, 4
Note 16: Not available with Mounting (Meter & Regulator) code 1, 2, 4
Note 17: Not available with Tube Size (Diameter) code 1, 3, 4
Note 18: Not available with Float Material Code code A, C, D and Regulator code A
Note 19: Not available with Scales code A, B, D
Note 20: Not available with Float Material Code code B, E, F
Note 21: Not available with Float Material Code code B, F
Note 22: Not available with Float Material Code code B, C, E, F
Note 23: Not available with Float Material Code code D and Regulator code A
Note 24: Not available with Float Material Code code A, B, E, F
Note 25: Not available with Float Material Code code D, E and Regulator code A
Note 26: Not available with Float Material Code code A, B, C, F
Note 27: Not available with Meter Tube, Scale Length code 2, 3, 4
Note 28: Not available with Float Material Code code B
Note 29: Not available with Tube Size (Diameter) code 2, 3, 4
Note 30: Not available with Float Material Code code D, E, F and Regulator code A
Note 31: Not available with Float Material Code code C, D, E, F and Regulator code A
Note 32: Not available with Float Material Code code A, C, D, E, F and Regulator code A
Note 33: Not available with Meter Tube, Scale Length code 1, 3, 4
Note 34: Not available with Tube Size (Diameter) code 1, 2, 4
Note 35: Not available with Float Material Code code E, F and Regulator code A
Note 36: Not available with Meter Tube, Scale Length code 1, 2, 4



Note:

1. Dimensions are in inches, unless otherwise specified.
2. Dimensions in parentheses () are in millimeters.
3. All dimensions subject to manufacturing tolerance of $\pm 1/8$ inch (3mm) unless otherwise specified.
4. Dimensions guaranteed only if this print is certified.
5. To panel mount meter, white background must be removed to gain access to holes in backplate. Use #8 flat head screws.
6. This drawing is third angle projection as shown.
7. Connections are available in 1/4 NPT.

NOM Scale Length		A		B		C		D	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1.5	38	4-3/4	121	3-23/32	94	1-15/32	37	---	---
3	76	5-15/16	151	4-15/16	125	2-11/16	68	3-23/32	94
5	127	10-3/8	264	9-3/8	238	7-1/8	181	8-5/32	207
10	254	14-13/16	376	13-13/16	351	11-9/16	294	12-19/32	320

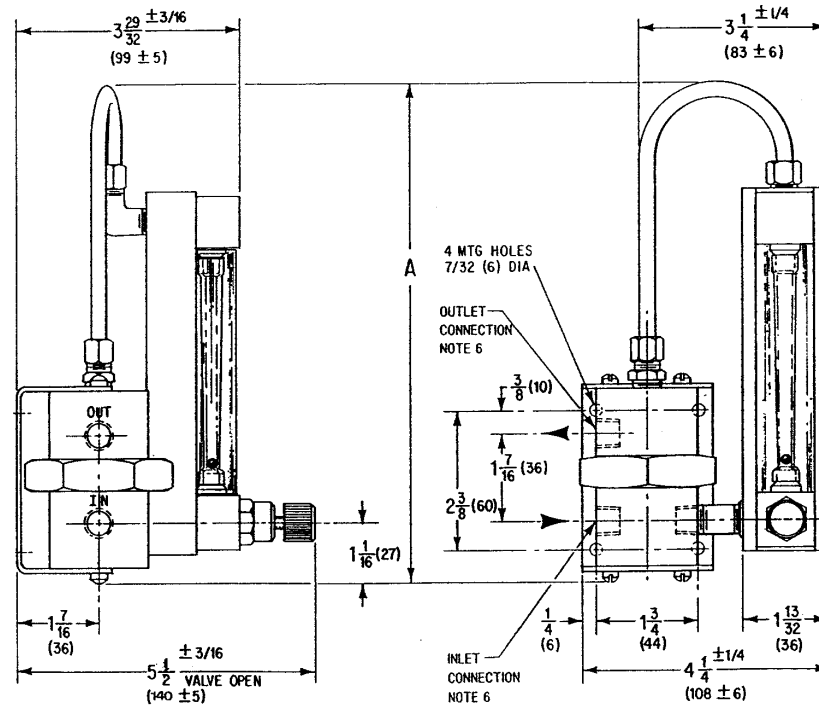


Note:

1. Dimensions are in inches, unless otherwise specified.
2. Dimensions in parentheses () are in millimeters.
3. All dimensions subject to manufacturing tolerance of $\pm 1/8$ inch (3mm) unless otherwise specified.
4. Dimensions guaranteed only if this print is certified.
5. To panel mount meter, white background must be removed to gain access to holes in backplate. Use #8 flat head screws.
6. This drawing is third angle projection as shown.
7. Connections are available in 1/4 NPT.

NOM Scale Length		A		B		C		D	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
3	76	5-15/16	151	4-15/16	125	2-11/16	68	3-23/32	94
5	127	10-3/8	264	9-3/8	238	7-1/8	181	8-5/32	207
10	254	14-13/16	376	13-13/16	351	11-9/16	294	12-19/32	320

FIGURE 3
WALL MOUNT PURGEMASTER WITH REGULATOR



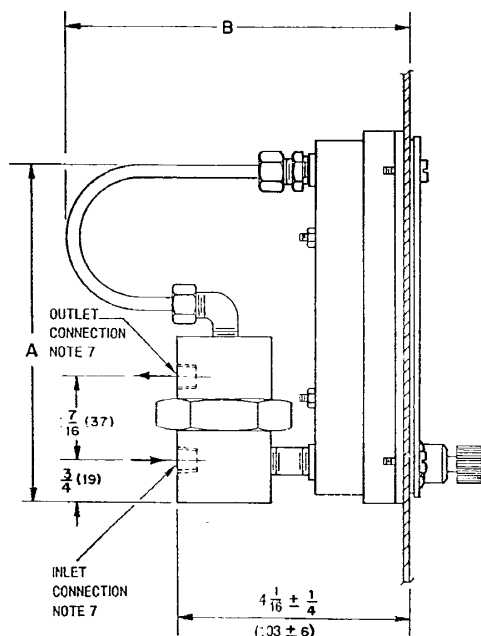
Dwg. No: OD-10-2713

NOM Scale Length		A	
Inch	mm	Inch	mm
1-1/2	38	7-1/2	190
3	76	8-7/8	225
5	127	13-5/16	338
10	254	17-3/4	451

Notes:

1. Dimensions are in inches, unless otherwise specified.
2. Dimensions in parentheses () are in millimeters.
3. All dimensions subject to manufacturing tolerance of $\pm 1/8$ inch (3mm), unless otherwise specified.
4. Dimensions guaranteed only if this print is certified.
5. For outline dimensions of meter, see dwg. no. C-OD-10-2711 & OD-10-2750.
6. Connections are available in 1/4 NPT.

FIGURE 4
REAR PANEL MOUNT PURGEMASTER WITH REGULATOR



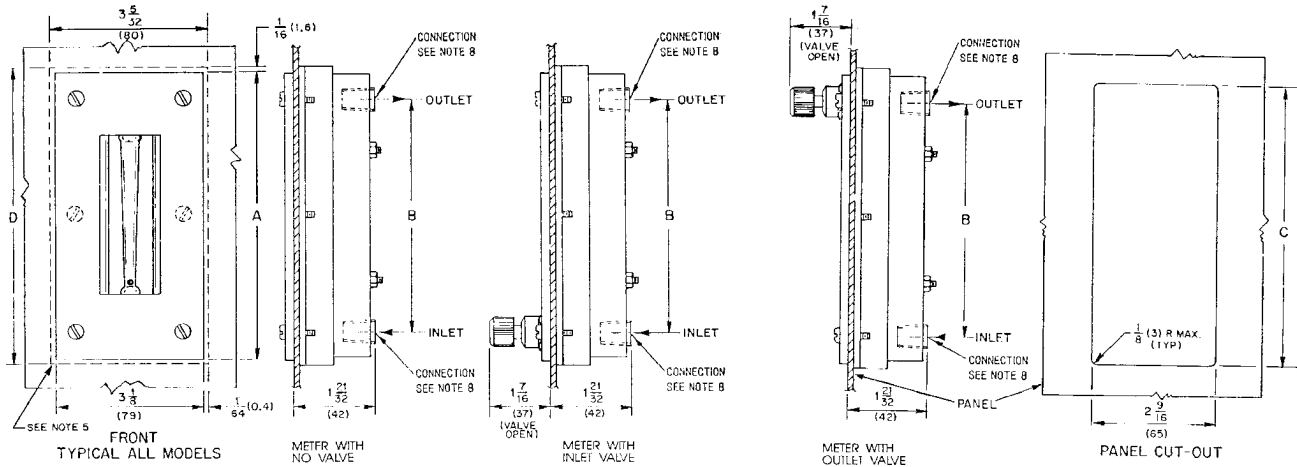
Dwg. No: OD-10-2716

NOM Scale Length		A		B	
Inch	mm	Inch	mm	Inch	mm
1-1/2	38	5-7/8	149	5-7/8±1/4	149±6
3	76	5-7/8	149	5-7/8±1/4	149±6
5	127	10-1/4	260	4-21/32±1/4	118±6
10	254	14-11/16	373	4-21/32±1/4	188±6

Notes:

1. Dimensions are in inches, unless otherwise specified.
2. Dimensions in parentheses () are in millimeters.
3. All dimensions subject to manufacturing tolerance of $\pm 1/8$ inch (3mm), unless otherwise specified.
4. Dimensions guaranteed only if this print is certified.
5. For outline dimensions of meter and panel cut-out, see dwg. no. OD-10-2715.
6. Panel hardware for max 5/16 panel.
7. Connections are available in 1/4 NPT

FIGURE 5
REAR PANEL MOUNTING OF PURGEMASTER



Nom Scale Length		A		B		C		D	
Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1-1/2	38	4-31/32	126	3-23/32	94	4-27/32	123	5-3/32	129
3	76	6-3/16	157	4-15/16	125	6-1/16	154	6-5/16	160
5	127	10-5/8	270	8-3/8	238	10-1/2	267	10-3/4	273
10	254	15-1/16	383	13-13/16	351	14-15/16	379	15-3/16	386

Notes:

1. Dimensions are in inches, unless otherwise specified.
2. Dimensions in parentheses () are in millimeters.
3. All dimensions subject to manufacturing tolerance of $\pm 1/8$ inch (3mm), unless otherwise specified.
4. Dimensions guaranteed only if this print is certified.
5. Dotted line indicates rear of panel clearance requirements.
6. Panel hardware for max 5/16 panel.
7. This drawing is third angle projection as shown.
8. Connections are available in 1/4 NPT.

FIGURE 6
ALARM RING SENSOR

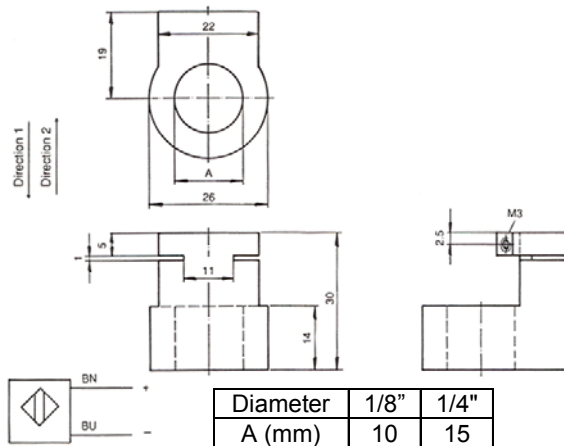


FIGURE 7
ALARM, SWITCHING AMPLIFIER

