

Wallace & Tiernan® Flow Measurement Equipment Armored Purge Meters

Features

Resists Attack By Sulfides

The stainless steel and welds in Wallace & Tiernan® Armored Purge Meters conform to NACE Standard MR-01-75 covering hydrogen sulfide-resistant surfaces.

Accurate Gas Metering

A snubber on the float causes readings to steady out quickly, gives true readings down to atmospheric pressures.

Rugged Construction

316 stainless steel body with Buna N or TFE O-rings gives corrosion resistance and reliable operation to 1500 psi (10 bar) and 800°F (427°C) (600°F (316°C) with flow switch). A heavy stainless sheath encloses the scale tube, which is sealed at both ends by O-rings.

Built-In Backcheck

An O-ring at the top of the float seals against the seat to prevent backflow through the meter.

Easy To Clean

A port in the bottom of the meter body makes cleaning easy.

Change Floats or Scales

To change capacity, a different float is inserted without removing the meter from the line. Scale tubes carry gallon and percent scales. Either can be exposed by loosening a cap screw and turning the tube.

Powerful Magnetic Linkage

An indicating follower ring slides on the precision inside bore of the scale tube. This low friction travel and a powerful bond between the ring and the float magnet makes for immediate response to flow changes.

Key Benefits:

- Reduced maintenance cost without removing meter from service
- Stands up to extreme conditions with rugged construction
- Reliable long term performance in gas or liquid service
- Highly accurate and stable readings for precise measurement and control
- Easily adaptable to fit your exact needs with standard options



Armored Purge Meters

Product Sheet

Water Technologies

SIEMENS

Features (Cont'd)

Flow Switches

This compact option gives reliable high and/or low flow switching. The flow switch contains a powerful rotating magnet which responds linearly to float position. Its switches are long-life, hermetically sealed reed types. Almost frictionless rotation of the switch magnet and its powerful bond with the float magnet give a dependable magnetic coupling. Even under sudden flow surges, switching remains reliable.

The switch is available in hazardous-location (Series 5500) arrangement and is rated 10 amperes at 120 volts ac. No extensions, no interference with vertical piping. Switches, easily set to open or close on increasing or decreasing flow without removing alarm cover. A screwdriver adjustment sets each switch independently over 0-100% of flow range. Series 5500 Hazardous-location (as defined in Article 500, NEC) Flow Switch is UL Listed for Class I, Division 1 and 2, Group C and D and Class II, Division 1 and 2, Group E, F, and G.

Technical Data

Accuracy

10% of full scale.

Range

10 to 1.

Scales

1/2-inch meter has gph and percent scales; 3/4-inch meter has gpm and percent scales. Scale length is 1-1/4". Flow switches have percent scales.

Fluid Temperature-Pressure Ratings

With Buna N O-rings, 250° F; with TFE O-rings, 400° F. 1500 psi with all O-rings. These temperature and pressure limits must not be exceeded.

Write for WT.500.001.000.UA.CG, a detailed listing of meter compatibility with a wide range of fluids.

Weight and Shipping Weight

1/2-inch meter, 2 1/2 lb and 3 1/2 lb.

3/4-inch meter, 4 1/4 lb and 5 1/4 lb.

Materials of Construction

Body, 316 stainless; other wetted parts, 316 stainless; external parts, 303 and 304 stainless; scale tube, borosilicate glass; follower ring, 416 stainless; scale tube O-ring, silicone; body O-ring, Buna N or TFE.

Flow Switch Technical Data

Repeatability

0.6% of full scale

Electrical Ratings

Series 5500 Hazardous-location: two single-pole, double-throw- relays rated 10 amperes at 120 volts ac; coil supply is 120 volts ac, 50/60 Hz. temperature limits Ambient, -20° to 120° F (-29° to 49° C); fluid temperatures, 600° F (316° C), maximum.

Temperature Limits

Ambient, -20 to 120° F (-29° to 49° C); fluid temperatures, 600° F (316° C), maximum.

Actuating Time

Reed switch opens, in 1 millisecond.

Enclosures

Heavy cast aluminum with corrosion-resistant enamel finish.

Underwriters' Rating

Series 5500 Hazardous-location (as defined in Article 500, NEC) Flow Switch is UL Listed for Class 1, Division 1 and 2, Group C and D and Class II, Division 1 and 2, Group E, F, and G.

Weight

Hazardous-location, 6 lbs (2.7 kgs).

Dimensions

For complete dimensions please refer to literature:

WT.510.200.100.UA.CN

WT.510.200.102.UA.CN

WT.510.200.104.UA.CN

Selection Procedure & Ordering Procedure

Determine the capacity range, temperature and pressure capability, materials of construction and options required for each meter. (See Technical Data section for pressure and temperature limits.)

Note: For fluids with SP. GR. other than 1.0 or viscosity other than 1.0 CSS consult your local Wallace & Tiernan® Equipment Distributor.

Example

To order a 1/2" Metal-Body Armored Purge Meter with 316 stainless steel body, Buna N O-rings, 54 GPH water capacity, and hazardous-service flow switch with two switches, two relays; standard gph scale; no tag, ask for: **5120M1 2 1 13 H X L X**

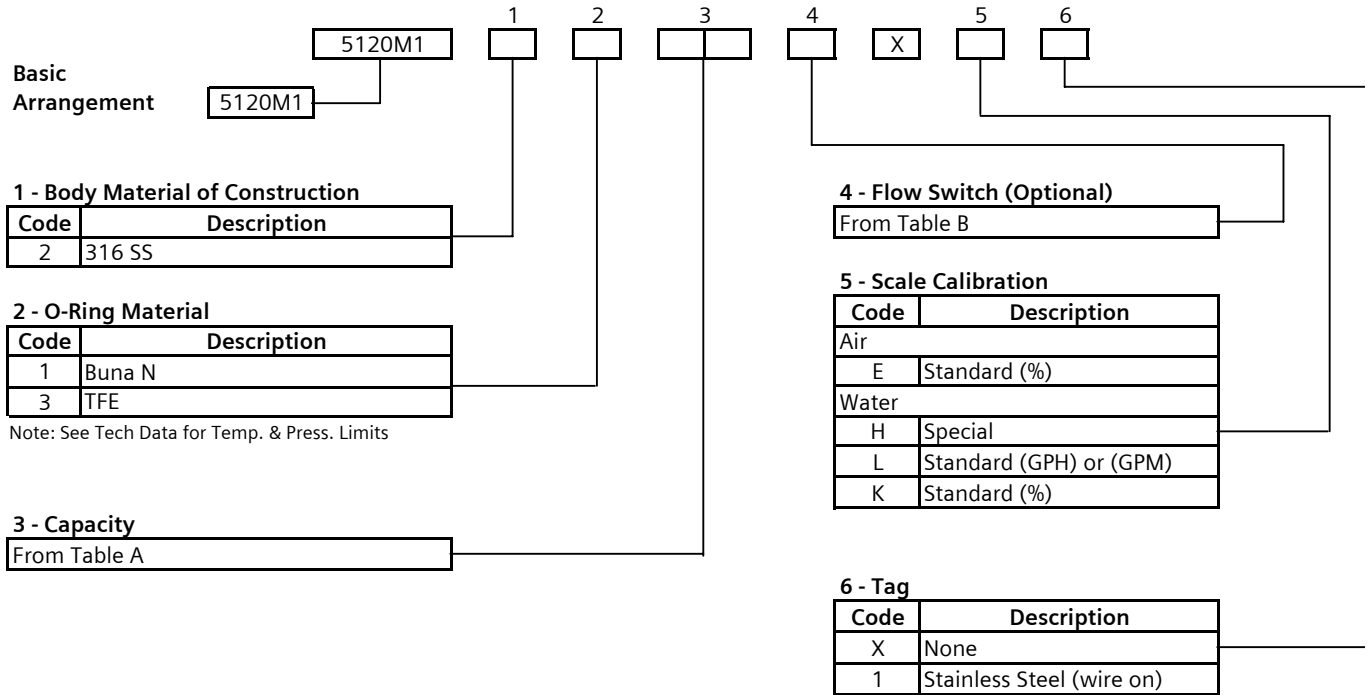


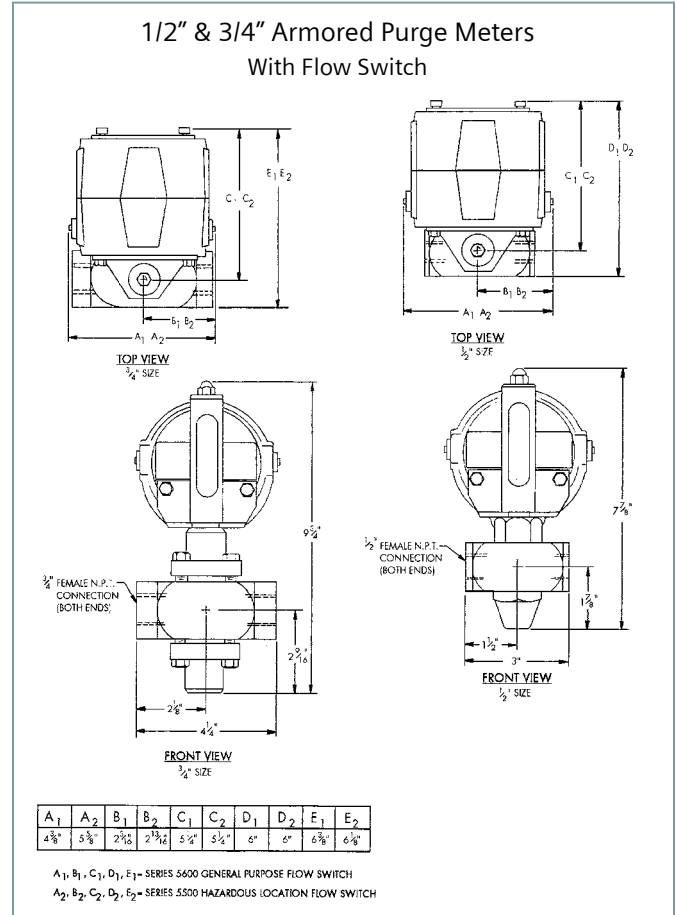
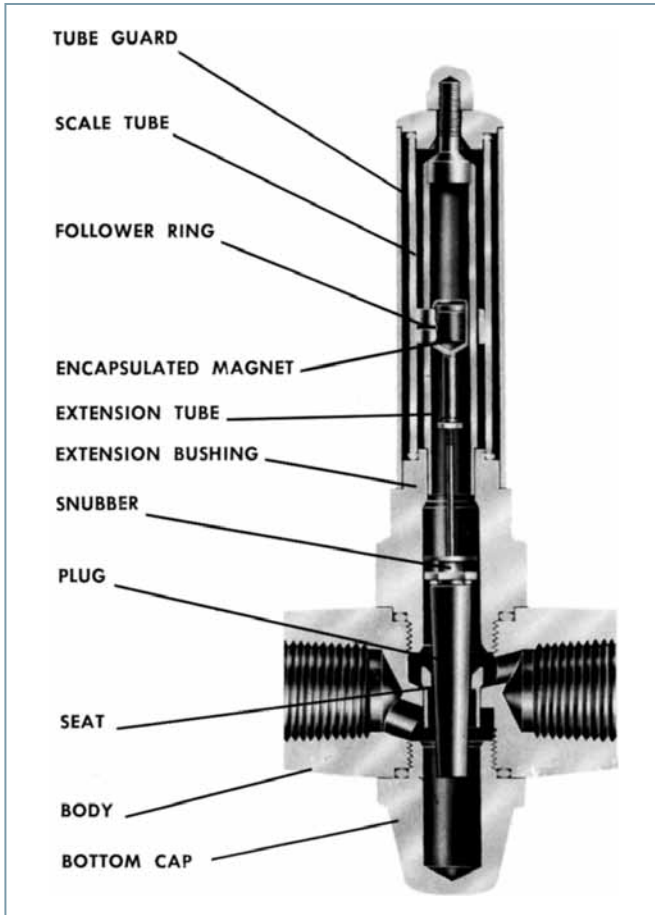
Table A - Ordering Numbers For Meter Capacity Without and With Flow Switch For Water and Air

Capacity				Pressure Drop in H ₂ O	Capacity Code
Without Flow Switch		With Flow Switch			
1/2 Inch Meter					
6 GPH	30* SCFH	8.0 GPH	39* SCFH	9	11
16 GPH	75 SCFH	17.5 GPH	76.5 SCFH	22	12
50 GPH	250 SCFH	54 GPH	260 SCFH	40	13
100 GPH	420 SCFH	105 GPH	462 SCFH	75	14
3/4 Inch Meter					
1.0 GPM	5.0* SCFM	1.03 GPM	5.0* SCFM	25	31
2.0 GPM	9.5* SCFM	2.04 GPM	9.5* SCFM	30	32
5.0 GPM	25 SCFM	5.3 GPM	24 SCFM	62	33
7.5 GPM	36 SCFM	7.7 GPM	36 SCFM	95	34
10.0 GPM	53 SCFM	10.3 GPM	53 SCFM	140	35

* Not recommended for gas service unless pressure exceeds 60 psig. Capacities based on water at 70° F air at STP.

Table B - Ordering Number For Flow Switch (Optional)

X	=	None
H	=	Haz. 2 Switches 2 Relays



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