

Water Technologies

Wallace & Tiernan® Flow Measurement Equipment

Arma-View® II Low Flow Armored Purgemeter

SIEMENS

The Arma-View® II type armored purgemeter is part of the Wallace & Tiernan® line of flow measurement equipment. It is designed for the measurement of low volume flows of aggressive chemicals. The strong meter construction provides reliable metering of gases and liquids at high pressure and temperature ratings.

Features

Easy Readability

State-of-the-art technology in a variable-area design provides easy visual readout. Standard scale calibrations are 0-100% or GPH. Optional direct reading scales are available.

True Magnetic Coupling

A powerful magnet encapsulated in the float forms a linkage with the follower magnets of the indicating mechanism. The indicator finds correct position in relationship to the float. Intelligent coupling between the float and follower prevent separation if sudden flow surges occur. Variations in flow are indicated on the calibrated scale.

Versatility and Convenience

Inlet and outlet connections are horizontally oriented. An optional inlet control valve provides smooth manual control of flow rate. The characterized valve stem helps assure dependable control.

Rugged Construction

The meter body is 316L stainless steel unibody construction. Except for O-rings and stop spring, all wetted parts, tube, float, and valve stem are 316L stainless steel. Viton® O-rings are the standard O-rings used. Buna-N, EPR, TFE, or Kalrez® O-rings are also available. The indicating mechanism is housed in an epoxy powder-coated, NEMA-4 housing.

Arma-View® II Low Flow Armored Purgemeter



Key Benefits:

- Reliable, low flow metering of gases or liquids at pressures to 1500 PSI and temperatures to 400°F
- Remote indication of flow rate via an optional 4-20mA electronic transmitter
- Optional, integral flow switch for remote alarm indication
- Precise flow rate control via an optional, characterized control valve
- FM approved configuration for hazardous areas
- Optional flow controllers to maintain constant flow even with pressure variations



Flow Controller

Optional Accessories

Versatile Flow Controller

An optional purge type flow controller is available. It is designed for the control of low-volume flows of aggressive chemicals in systems with varying pressures. This maintains constant flow regardless of pressure variations. The controller is offered in 316 SS construction, for inlet or outlet configurations. It can be assembled to the meter or as a stand alone in the process line. Controllers are available in standard and high-pressure versions. See literature number WT.570.100.000.UA.PS for additional information.

Maximum pressure: 350 PSIG standard version; 1000 PSIG high-pressure version
Maximum differential: 300 PSI between inlet and outlet pressures

Minimum pressure required: 6 PSIG for low and medium flow; 9 PSIG for high flow
Connection inlet/outlet: 1/4-inch NPT at 90° angle

Electronic Transmitter

An optional FM-approved explosion-proof transmitter provides accurate magnet angle detection to a 4-20mA industry standard analog output signal. Design features include Smart, microprocessor-based 2-wire 8-28Vdc field transmitter, microprocessor-controlled gain, adjustable low-cutoff, low-pass filter, electronics designed to meet CE requirements, and PC-interface with no external power required. Eleven-point calibration provides linearization and storage in non-volatile memory and provides accuracy better than 0.5%.



Electronic Transmitter

Flow Switch

A low-cost flow switch alarm is available as an accessory for use with the Arma-View® II purgometer. The switch mounts inside the meter housing and enables remote monitoring of either a high or low set point. Easily set switching point by removing the side cover of the meter and moving the pointer tip to the desired flow alarm set point. This compact, inexpensive switch gives a reliable high- or low-flow signal even under sudden flow surges.

There is an optional FM-approved, intrinsically safe switch for hazardous location with a power supply available.

Electrical Classification

Photo electric for general purpose.
Intrinsically Safe switch for hazardous Area Class I, Div 1, Haz. Group A, B, C, & D, when used with appropriate barrier.
Class II, Div 1 Haz. Group E, F, & G.

Supply Voltage

Photo electric switch: 30VDC or less
Intrinsically Safe: 24VDC (provided by barrier)

Repeatability

Intrinsically Safe Alarm: $\leq .0004$ in. of the set point
General Purpose Alarm: $\leq .0002$ in. of the set point

Flow Switch



Selection Procedure

a. Determine ordering number from table.

b. Specify fluid, specific gravity, and viscosity.

Basic Arrangement

5135M

5135M

Meter Capacity

Size	Water at STP		Air at STP	
	GPH	LPH	SCFH	SLPM
01	0.38	1.4	2.1	1
02	0.8	3	4.5	2.1
03	2.1	8	11.7	5.5
04	5	19	23.4	11
05	11	42	53.2	25
06	25	95	117	55

Valve Selection

Code	Description
X*	None
2	Inlet

*Choose "X" with optional controller.

O-Ring Selection

Code	Description
V	VITON (standard)
B	BUNA-N
E	EPR
K	KALREZ
T	TFE*

*TFE O-rings available only in meters with no valve or controller.

Flow Switch*

Code	Description
X	None
I	Intrinsically Safe
G	General Purpose

*Not available on units with optional Electronic Transmitter.

Controller Selection

Code	Description
X	None
I	Inlet (350 PSIG)
O	Outlet (350 PSIG)
H	Inlet (1000 PSIG)
P	Outlet (1000 PSIG)

IS Switch Barrier Input Voltage

Code	Description
X*	None
1	24 Volt DC
2	120 Volt AC
3	240 Volt AC

*Choose "X" with GP or No Flow Switch or Electronic Transmitter.

Scale Calibration

Code	Description
D	Standard % Air
B	Special Gas
U	Standard (GPH) Water
P	Standard % Water
I	Special Liquid

Identification Tag

Code	Description
X	None
1	Stainless Steel

Electronic Transmitter

Code	Description
X	None
6	Explosion-Proof Transmitter

Technical Data

Accuracy

Standard $\pm 5\%$ of full scale
Optional $\pm 3\%$ of full scale

Range

10:1

Pipe Connections

Horizontal 1/4" NPT at meter inlet and outlet.

Mounting

Suitable for in-line mounting.

Calibration

Standard scale calibrations are 0-100% or GPH water. Optional direct reading scales are available.

Scale length is 3 inches.

Capacities

Size code	Liquid service GPH (LPH)	Gas Service SCFH (SLPM)	Minimum Inlet Pressure (gas only) w/Valve
01	0.38 (1.4)	2.1 (1.0)	0.4 PSI
02	0.8 (3)	4.5 (2.1)	0.9 PSI
03	2.1 (8)	11.7 (5.5)	0.5 PSI
04	5 (19)	23.4 (11.0)	1.5 PSI
05	11 (42)	53.2 (25.0)	1.0 PSI
06	25 (95)	117 (55.0)	4 PSI

NOTE: Capacities are based on water at 70°F; air at STP.

Pressure and Temperature Limits

Meter with or without valve: 1500 PSI and fluid temp. of 400° F*

Meter with flow controller: 350 PSI and Fluid Temp. 300° F*

Meter with flow switch: 1500 PSI and fluid temp. of 180° F

*With proper O-ring material.

Temperature and pressure limits must not be exceeded under any conditions.

Shipping Weights

Meter only: 5 lbs

Meter with control valve: 5 lbs

Meter with a controller: 10 lbs

Dimensions

See WT.510.260.100.UA.CN through WT.510.260.106.UA.CN

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