



Portable Insertion Thermal Mass Flowmeter Series ATMF PRISM

GENERAL

The SMC ATMF-PRISM is a portable thermal dispersion flowmeter, utilizing the constant temperature difference method of measuring gas mass flow rate. The SMC Prism is the newest innovation in our product line, providing a portable battery operated thermal mass meter with extensive data logging capability. Designed to operate for up to 10 hours on a built-in rechargeable Lithium-ion battery, the insertion style portable ATMF-PRISM can measure and log gas flows through existing ports in pipes 2" and larger. The ergonomically designed Prism Portable can log in AUTO LOGGING Mode or MANUAL LOGGING Mode. AUTO Mode will capture a Flow data point every 10 seconds. MANUAL Mode will capture a Flow data point each time the SEL button is pressed and the display will flash as each point is captured. The data is stored in the portable unit for subsequent transferring to a file, and also displays the data visually. The ATMF-PRISM comes with software, an addresser, as well as an interconnect cable to handle all data transfers between the portable unit and a computer. The cable connection is made via a Mini-USB port. The ATMF Prism can be set up for up to 16 different calibrations or applications.

FEATURES

- Direct mass flow measurement of any gas with actual gas calibration
- Portability, with up to 10 Hours of rechargeable battery operation
- Data logging of gas mass flow rates with up to 3800 data points
- Up to 16 unique calibrations or applications can be programmed onto a handheld unit
- Easily transfers data into Excel spreadsheets
- Tracking of overall gas consumption over a turndown ratio of at least 100:1
- Graphical bar representing the flow rate
- LED display shows Flow, Temperature, Log#, Channel ID, Date & Time Stamps
- 8-character TAG IDs defining specific pipe locations
- No moving parts, and negligible pressure drop
- Configurable with Keypad or our Addresser software (included)

SPECIFICATION

- Process Connection : Threaded, Teflon ferrule or Ball valve
- Line size : > 50mm (2")
- Process temperature : 0 to +93°C (32 to 200 °F)
- Operating pressure : 35 barg (500 PSIG)
- Mass Velocity : 0.07 to 203 normal meters per second
- Flow units : Kg/hr., Kg/mn, Kg/s Lb.\hr., Lb./m Lb./s
NCMH, SCFM, NLPM, SLPM
Mt/s, F/mn, BTU/Hr., BTU/min
- Gas pressure effect : Minor; < ±20% of calibration pressure
- Gas temperature effect : 0.01%/°C
- Accuracy (and linearity) : ±[1% of Reading +(.5% FS)]
- Repeatability : ± 0.25% of Full Scale
- Turn down ratio : Over 100:1
- Response time : Less than one second
- Wetted materials : 316SS as per DIN 1.4571 (AISI 316 Ti)
- Housing protection : NEMA 4
- Display parameters : Numerical and graphic instant flow rate, temperature, time and date, pipe ID and log #



- weight : 1 kg
- Approvals : CE
- Data storage : Up to 3800 data points
- RAM Back-up : Lithium Battery
- Power requirements : Internal battery (10 hours) with a 12V charger
- Power Consumption : 2.5 Watts (SP), or less 6W other models
- NIST traceable calibration : Standard
- Self diagnostics functions : ADC, DAC,
Alarm relay for EMI impulse noise

Procedures to specify our insertion mass meters

**** Please contact Smartmeasurement local engineer****

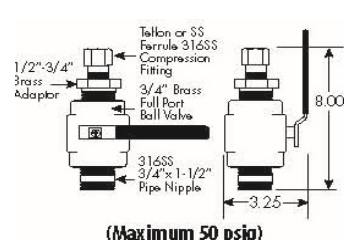
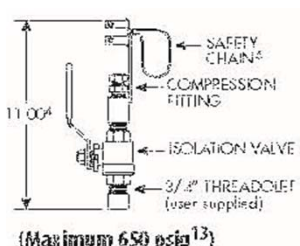
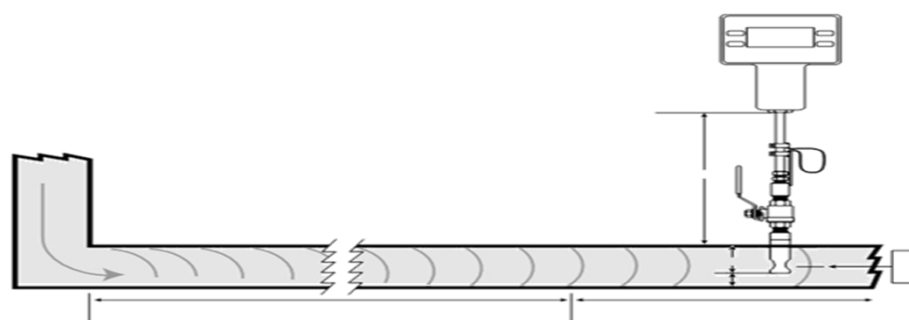
You also need to provide the following information:

Gas Composition	NIST certified calibration is done with actual or equivalent gas - gas type or mixture MUST be given
Full Scale Flow	Maximum and minimum flow rates and units MUST be provided
Line Size	Line size and connection MUST be provided (see selection guide below for options)
Gas Pressure and Temperature	Calibration is done at operating or maximum pressure and temperature
Electronics Temperature	Temperature of the environment surrounding the flowmeter's electronics.
Configuration	Indicate which channels (1-16) correspond to which gas

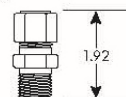
Model Selection Guide

ATMF-PRISM									
Example: ATMF-PRSIM-SID-050-3"-SCF05-1-AIR									
ATMF-PRISM	*	*	*	*	*	*		Description	
Integral	SID							Transmitter	
Cable Style (Remote)	SCD								
1/2" PROBE DIAMETER		050	Probe-Diameter						
Put insertion length in inches		##"	Insertion length						
1/2" TUBE X 1/2" COMPRESSION FITTING - SS FERRULE (>650 PSIG or 45BARG) -see below				SCF05				Mounting	
1/2" TUBE X 1/2" COMPRESSION FITTING - TEFLON FERRULE (>125 PSIG or 9 BARG) -see below				TCF05					
1/2" TUBE X 3/4" ISOLATION VALVE ASSEMBLY (650 PSGI or 45 barg) -see below				VL05					
1/2" TUBE X 3/4" ISOLATION VALVE ASSEMBLY (50 PSGI or 3.5 barg) -see below				VL05LP					
Number of Channels					1-16				Calibration
Gas type per channel i.e. (1air, 2air2, 3biogas,etc..)					Gas?				
Process Gas (Please indicate, gas type, flow rate, line size, pressure and temperature)							Process Data (T,P flow, etc.)		

Fittings and Connections



1/2" tube x 1/2" pipe fitting (shown, not to scale), is used for low pressure insertion applications to 125 psig. Also available in 3/4" tube x 3/4" pipe size.



SCD Cable Style (Remote)

