

## MS-6 CHEMICAL FEED FLOWMETER

Low Flow Chemical Flowmeter, Patent Pending Design

4-20 mA and pulse outputs

NEMA 4X (IP66) Washdown

Process Control Features

Less than 1 PSI Pressure Drop

High Turn Down Ratio

NSF Listed Std. 61

5 Year Warranty

Large 3.5" Backlit Display



**NEMA 4X**

Sold and serviced exclusively by highly skilled, factory authorized technicians.



Liquid applications

Multiple Patents Pending in USA and UK



### Applications:

- Flow verification
- Chemical metering
- Fluid metering
- Ultra-pure water
- Polymer feed

### Features:

- Inline pipe fittings for easy installation
- Configurable via Blue-Central<sup>®</sup> desktop software
- Isolated 4-20 mA output - fully configurable
- 0-10000Hz Pulse output - fully configurable
- User configurable flow rate and total set-point triggers
- Flow-rate readings as low as 10 mL/min
- Included wetted end fittings allow for more than 14 inlet and outlet configurations
- True unions for ease of maintenance
- Wetted components constructed out of PVDF and PEEK
- Process control via configurable solid state relay, which can be configured to close or open trigger at a flow-rate or to flow total for batching operation
- Large 3.5" backlit LCD display.

# CHEMICAL FEED FLOWMETER

## Engineering and Technical Data

### Specifications:

#### General Operation

##### Compatible Fluid Types

Acoustically conductive fluids with less than 50,000 ppm particulates or bubbles

##### Pre-Calibrated Chemical Profiles

Water  
Aqueous Ammonia  
Ammonium Hydroxide  
Ferric Chloride 40%  
Sodium Bisulfite 40%  
Sodium Hypochlorite 12.5%  
Sodium Permanganate  
Hydrofluorosilicic Acid 25%  
Ammonium Sulfate 10%

#### Wetted Materials

##### Transducer

PEEK

##### Body

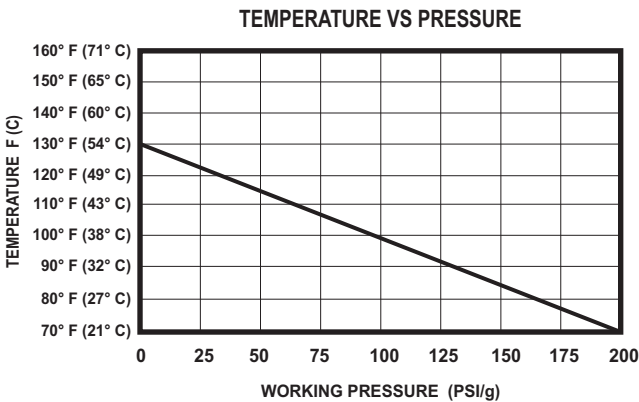
PVDF & PEEK

##### O-Rings

TFE/P  
EP

##### Fittings (Included)

PVDF 1/2" I.D. Barb  
PVDF 1/2" I.D. Barb Elbow  
PVDF 1/2" M/NPT  
PVDF 1/2" M/NPT Elbow  
PVC 1/2" Slip



#### Electronics/Hardware

##### SPU (Signal Processing Unit):

###### Enclosure

NEMA 4X (IP66) Polycarbonate, SS hardware.  
Dimensions: 10.02H x Ø3.79 inches (254.5H x Ø96.1 mm)  
Weight 1.5 lb. (.68 Kg.)

###### Power Requirements

5 VDC; 5 watts maximum

###### Environmental Conditions

Operating temp: 14°F to 104°F (-10°C to 40°C)  
Storage: -40°F to 158°F (-40°C to 70°C)  
Relative humidity: 0% - 90%

###### Display

Type: Liquid Crystal Display  
Backlight: White LED backlight

###### Software Language

English

###### Volume Units

Independently configurable Rate and Total units in: U.S. Gallons, Liters, or Milliliters.

###### Time Units

Seconds, minutes, hours, days.

###### Flow Rate Averaging

Selectable: 1, 4, 8, 16, and 32 seconds.

###### Data Outputs

- Isolated 4-20 mA output - fully configurable
- 0-10000 Hz Pulse output - fully configurable

###### Process Control

One Solid State Relay

Load capacity: 24VDC, 100mA max (ex. supplied)

- Configure to flow rate for high/low/range rate trigger. Programmable release values enable auto release or manual latching operation.
- Configure to flow total for automatically triggered, timed batch operations for proportional feed applications.

###### Power Supply (user configurable)

Includes each of the following:

- U.S. Transformer, 115VAC 60HZ / 5VDC, NEMA 5/15 plug
- Europe Transformer, 230VAC 50HZ / 5VDC, CEE 7/11 plug
- Australia / New Zealand Transformer, 240VAC 50HZ / 5VDC, AS 3112 plug
- U.K. Transformer, 230VAC 50Z / 5VDC, BS 1363/A plug

#### Blue-Central® Software

##### Compatible Operating Systems

Windows 7, 8, and 10  
Mac (OSX 10.11/10.12/10.13)

##### Computer Connector

USB-C (USB-A to USB-C cable included)

##### Software Features

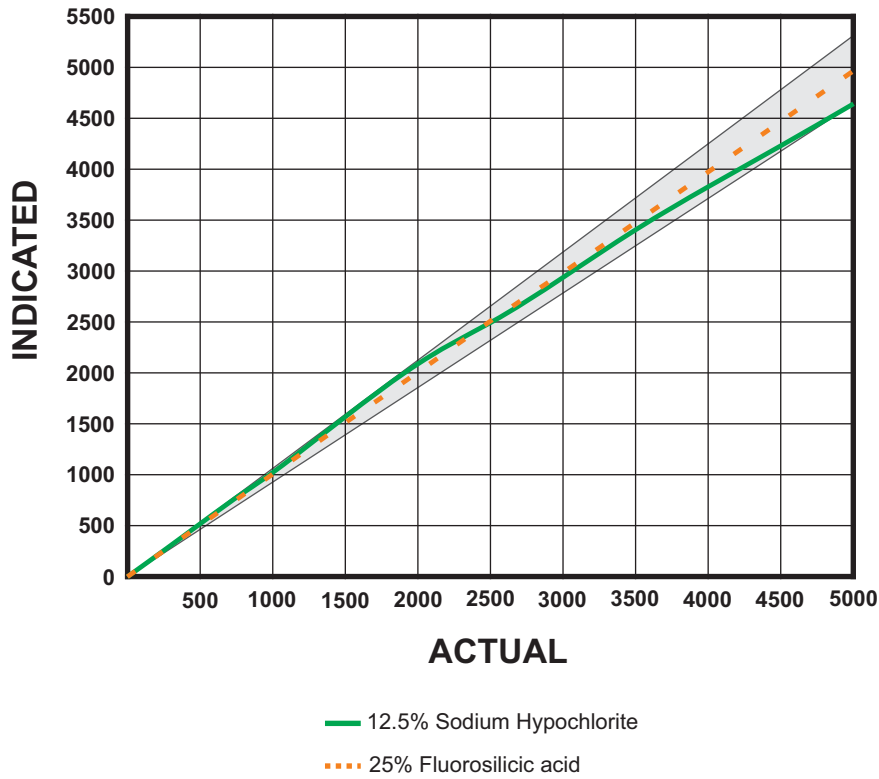
- Configurable 4-20mA, Pulse Output, Frequency Output, Solid State Relay Set-Point
- Monitor flow rate in real time
- Monitor total volume in real time
- Monitor meter diagnostics
- Field Upgradable Firmware
- Factory Resettable

# CHEMICAL FEED FLOWMETER

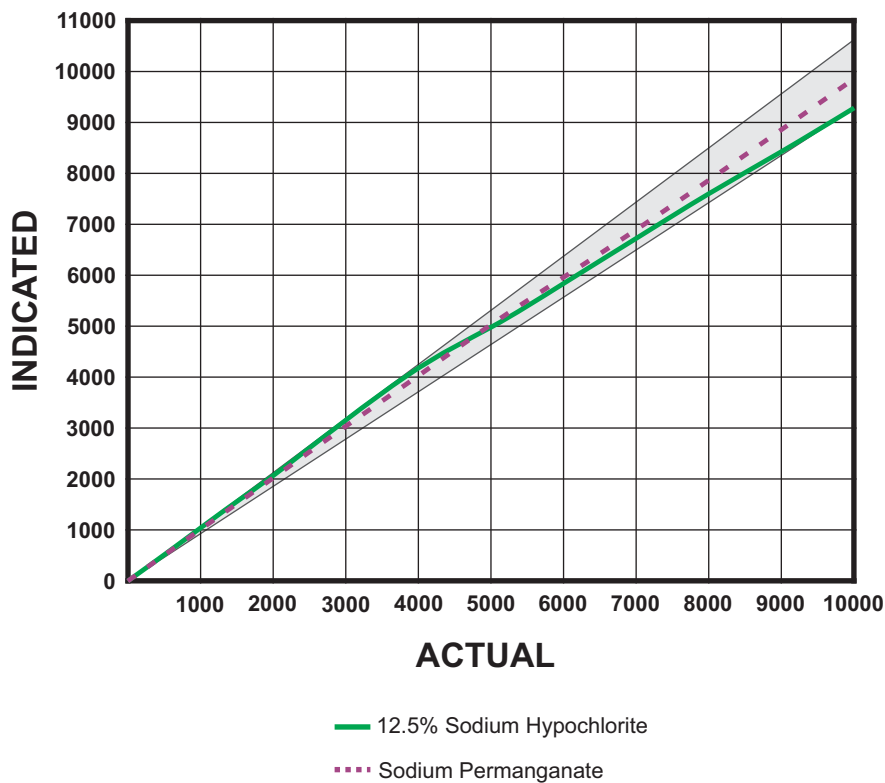
## Engineering and Technical Data

### Accuracy Charts:

#### MS-61 ACCURACY RANGE



#### MS-62 ACCURACY RANGE

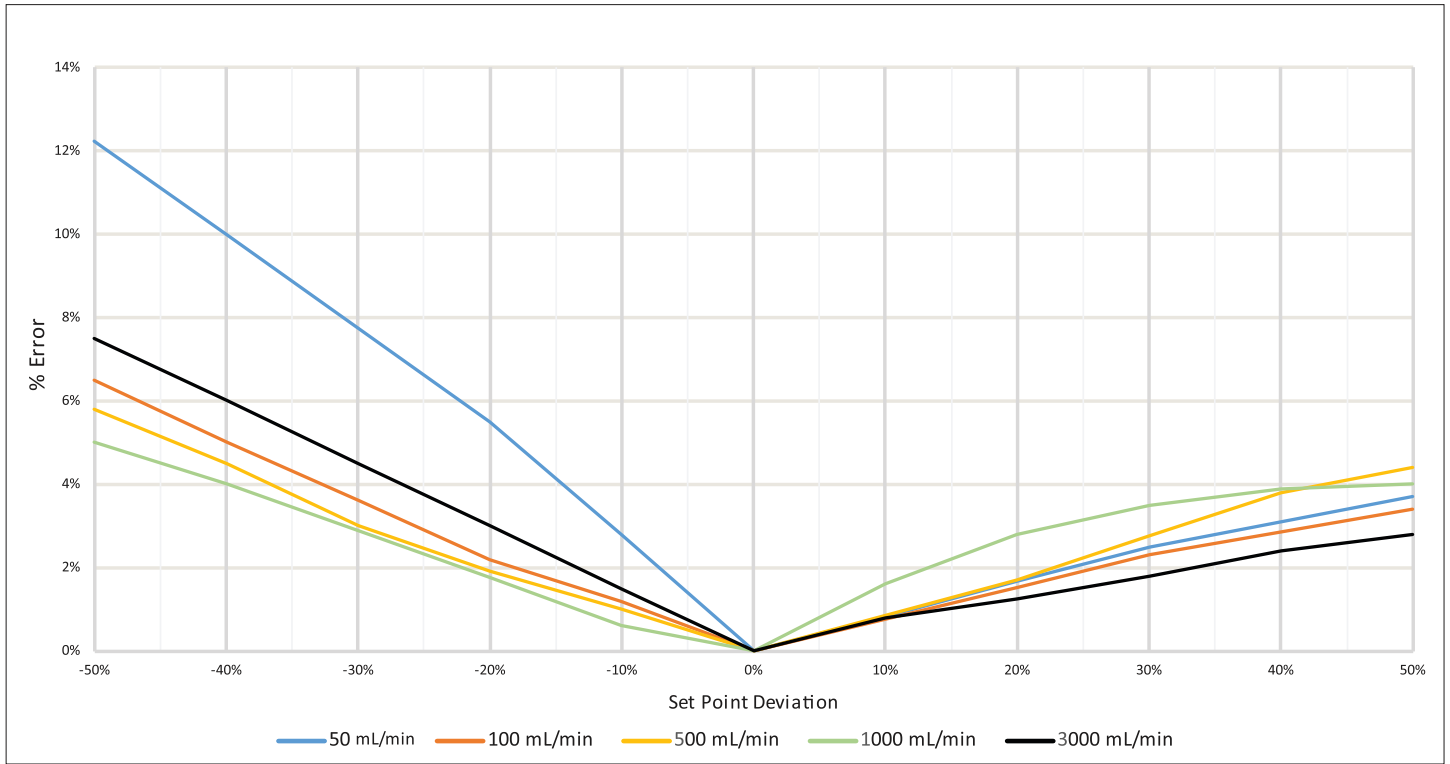


# CHEMICAL FEED FLOWMETER

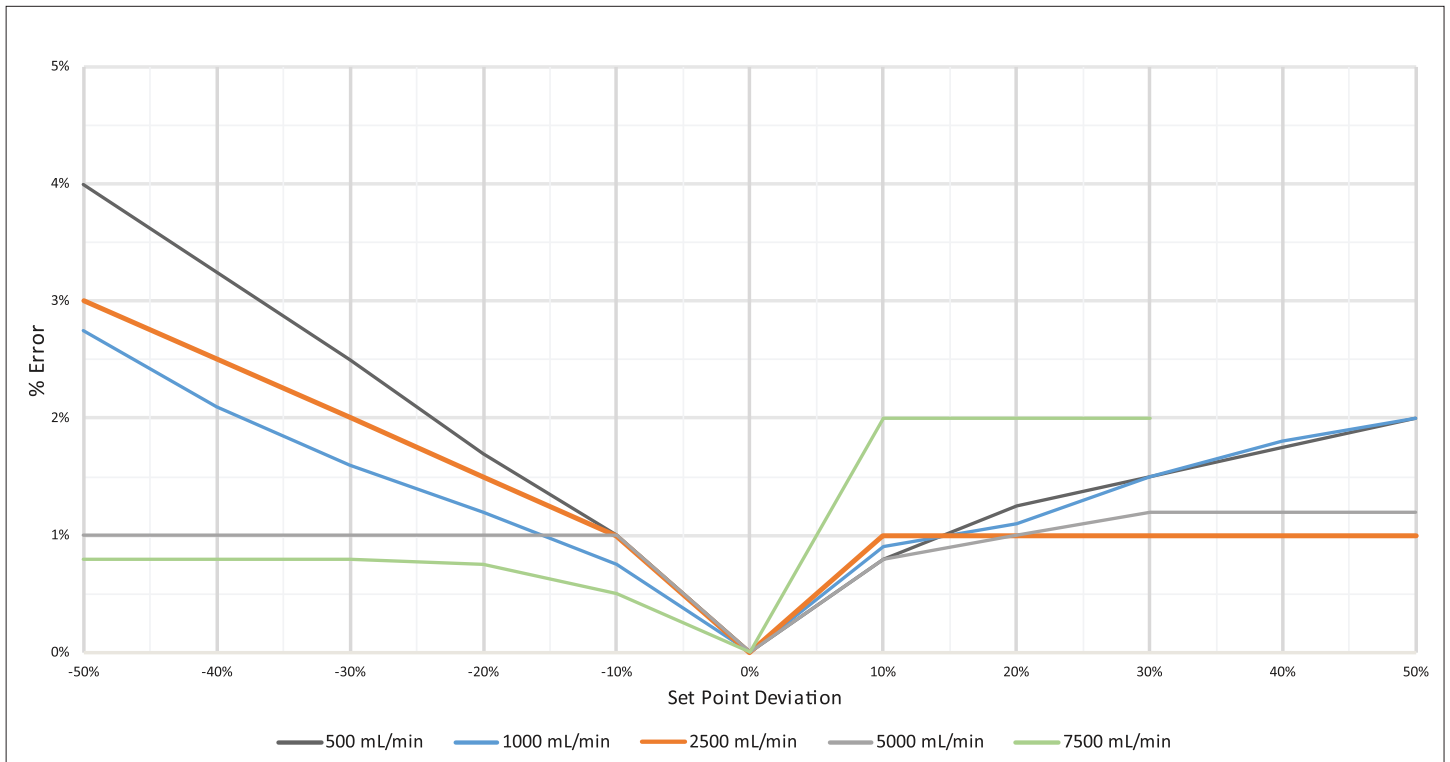
## Engineering and Technical Data

### Digital Drawdown\* Accuracy Charts:

#### MS-61 DIGITAL DRAWDOWN ACCURACY



#### MS-62 DIGITAL DRAWDOWN ACCURACY

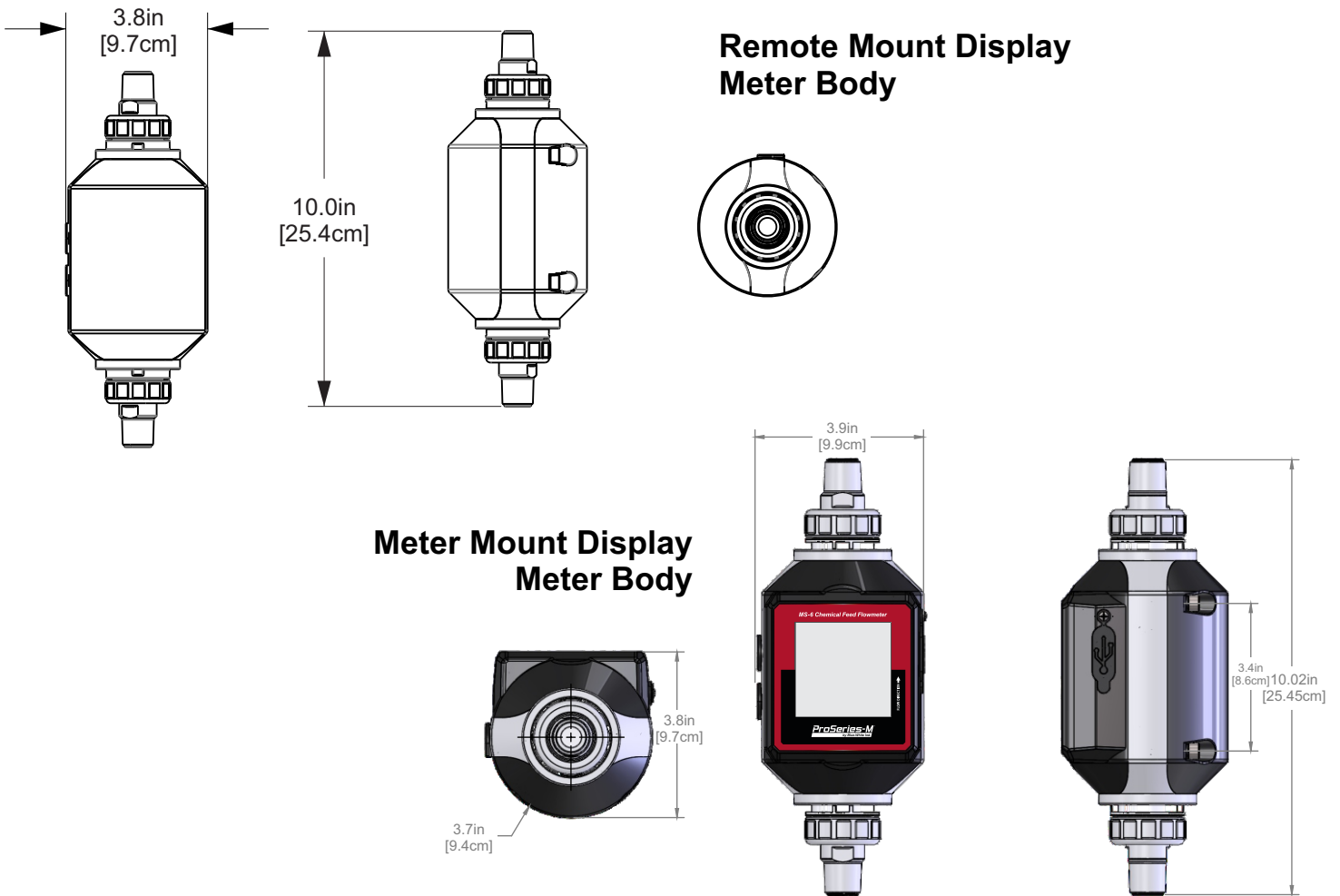


\*Note: Digital Drawdown allows the user to increase the accuracy of the meter at a targeted feed rate.

# CHEMICAL FEED FLOWMETER

## Engineering and Technical Data

### Dimensions:



### Installation Requirements:

**1. Mounting Direction can cause inaccuracies!**

Meter must be installed in a vertical plane with fluid flowing in an upward direction to ensure accuracy.

**2. Vibration and heavy loads will damage the meter!**

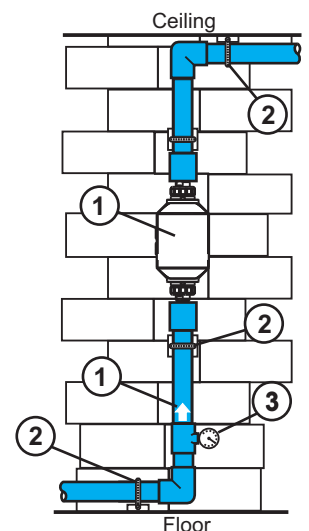
Wall, floor and ceiling mounts and supports must be carefully aligned with the meter body and sturdy enough to support the plumbing and prevent vibration. Never allow the meter to support the weight of related piping.

**3. High pressures and temperatures will damage the meter!**

The maximum acceptable temperature and pressure is interdependent. The maximum acceptable working pressure is dependant on the actual fluid temperature. The maximum acceptable fluid temperature is dependant on the actual working pressure. (see Temperature Vs. Pressure chart).

**4. Strainer Recommended!**

1/32" mesh strainer is recommended to be installed at the inlet of the meter. This will keep particles from entering the meter that could cause inaccurate readings. Blue-White mesh strainer part number: (90008-425).



# CHEMICAL FEED FLOWMETER

## Engineering and Technical Data

### Model Number Matrix:

Chem meter Model Number	
<b>MS-6</b>	MS-6 Chemical Feed Flowmeter
<b>Flow Range</b>	
<b>1</b>	10-5000 mL/min (0.158-79.2 GPH)
<b>2</b>	100-10000 mL/min (1.58 -158.5 GPH)
<b>Display options</b>	
<b>1</b>	Remote Mount Display
<b>2</b>	Meter Mount Display
<b>Elastomer Material (O-Rings)</b>	
<b>V</b>	TFE/P
<b>E</b>	EP
<b>meter Fittings</b>	
<b>X</b>	Standard Equipment - Includes 1/2" I.D. Barb Fittings (Straight & Elbow Adapters), 1/2" MPT Fittings (Straight and Elbow Adapters), 1/2" PVC Slip Male Adapters.

### Display Options:



MS-6\*1

Remote Mount Display

MS-6\*2

Meter Mount Display

# Ti SALES

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www.tisales.com

MS - 6 | 1 | 2 | V | X | Sample Model Number