

SupraFlo MFSF™

STEAMFLO™ METAL FLOW METER DATA SHEET



DESCRIPTION

SupraFlo MFSF SteamFlo Flow Meters are simple, accurate, meters for use in industrial steam applications. These meters measure flow to one percent accuracy. The wide flow range and small pressure drop makes this meter an excellent energy monitor. SupraFlo SteamFlo Flow Meters use an internal magnet to carry an external indicator in a non-wetted enclosure and are supplied with MFT™ 2-Wire Transmitters for digital flow rate and total indication. Additionally, these meters can be supplied with a high temperature indicator option for service up to 500°F.

FEATURES & BENEFITS

- All metal construction for high pressures & temperatures.
- Digital flow rate and total indication in lbs/hr or selected weight/time base.
- Non-contact sensor electronics.
- Electronic signal conditioning circuit.
- Proportional analog output is two-wire.
- Extended flow ranges averaging 30 to 1.
- No springs, cams, or seals to wear out.
- Pre-calibrated from factory for fast installation and start-up.
- Standard 1/2" to 4" female NPT connections or optional flanges. Pipe adapters may be used for other sizes without affecting accuracy.
- 360° rotation of display.
- Options include alarms and pressure gauge on meter.
- Economically priced.

TECHNOLOGY

SupraFlo™ MFSF SteamFlo Flow Meters are patented variable area flow meters using the volumetric principle of flow measurement. These SupraFlo™ meters consist of five main parts including the body/sight tube, core tube, float assembly, scale, and pitot tube. The meter is not a glass tapered tube, rather the media enters the meter vertically at the bottom inlet port and flows upward into the core tube. Then the media flows horizontally through the core tube slot and exits the meter through the side outlet port. During this process the media lifts the float assembly in the core tube in direct proportion to the rate of flow. There are no springs, cams, or dynamic seals to wear out.

The MFT™ Two-Wire Flow Transmitter displays flow rate and total flow on a digital LCD display. The MFT™ Flow Transmitter has an analog 4-20mA or 0-5, 0-10 VDC output to a remote display, PLC, Recorder, or other customer-supplied receiver.

Using a simple and rugged design, the MEMFlo SteamFlo Flow Meters measure to 1% accuracy.

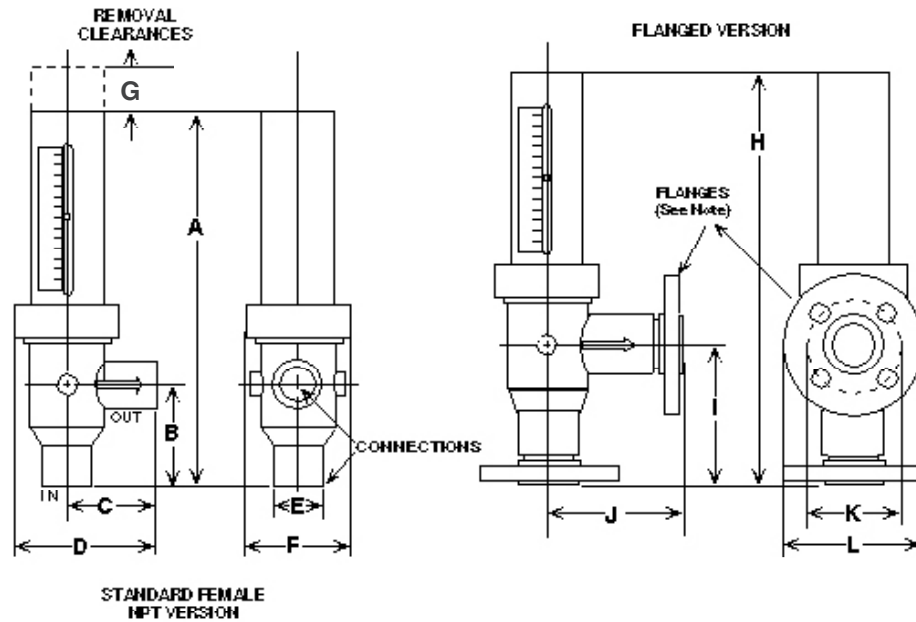
SPECIFICATIONS

| | | | |
|---------------------------|--|---------------------------------|--|
| Accuracy | ± 1% of 100% flow rate | Analog Outputs | 0-5 VDC and 0-10 VDC into 10,000 Ohms min. 4-20 mA into 1000 Ohms max. |
| Repeatability | 1/2" to 2": +/- 1/4% of indicated flow rate 2" to 4": +/- 1/2% of indicated flow rate | Circuit Protection | Reverse polarity and current limiting |
| Rangeability | 30 to 1 average | Transmission Distance | 0-20 mA limited by cable resistance 0-5 VDC 1000 feet (330m) max. 0-10 VDC 1000 feet (300m) max. |
| Materials | T-316 stainless steel (1/2" to 2" Small Body), NI Plated Steel with all stainless internals (2" to 4" Large Body) Geothermal EPR O-Ring, and Teflon-coated Alnico magnet. All stainless construction is optional for large body. | Isolation of Transmitter | Inherently isolated from the piping system |
| Pressure Rating | Up to 600 psig (41.37 BAR) | Display Operating Modes | Fixed or Toggle |
| Temperature Rating | Up to 600°F (315°C) [Pressure ratings decrease at higher temperatures] | Display | Rate & Total = 8 digit 0.70" high numeric and 8 digit 0.35" high alpha for units and menu. |
| Environmental | Humidity: 0-90% non-condensing | Temperature Drift | 500 ppm/°C (Max) |
| Power Requirements | 0-5 VDC Output 10-30 VDC @ 0.75 max. 0-10 VDC Output 12-30 VDC @ 0.75 max. 4-20 mA Output loop-powered, 30 VDC max. | Resolution | 1:4000 |
| Power Consumption | 25 mA max. | Enclosure Rating | Standard - NEMA 4 (IP67) Option - NEMA 7 |
| | | Transient Over-Voltages | Category 3, in accordance with IEC 64 |

Note: Please Consult Factory for Special Requirements

DIMENSIONS

Small Body

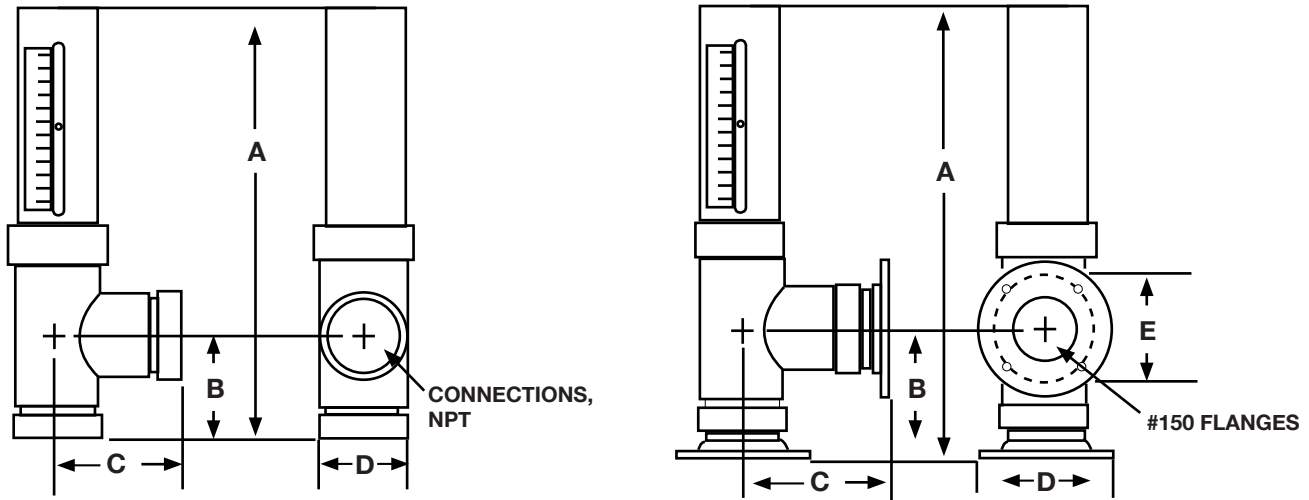


| BODY MATERIAL | A | B | C | D | E | F | G | Female NPT |
|---------------|-------|------|------|------|------|------|------|------------|
| All Stainless | 10.76 | 2.81 | 2.68 | 4.03 | 1.50 | 2.75 | 3.00 | Up to 3/4" |
| All Stainless | 15.64 | 4.53 | 3.71 | 5.70 | 2.48 | 4.01 | 5.00 | Up to 2" |

| BODY MATERIAL | H | I | J | K | L | 150lb Flange |
|---------------|-------|------|------|------|------|--------------|
| All Stainless | 11.64 | 5.92 | 3.56 | 2.75 | 3.88 | Up to 3/4" |
| All Stainless | 17.03 | 5.92 | 4.96 | 3.88 | 5.00 | Up to 2" |

Note: All dimensions are in inches, with a tolerance of ±0.03" on threaded models, ±0.20" on flanged units.

Large Body

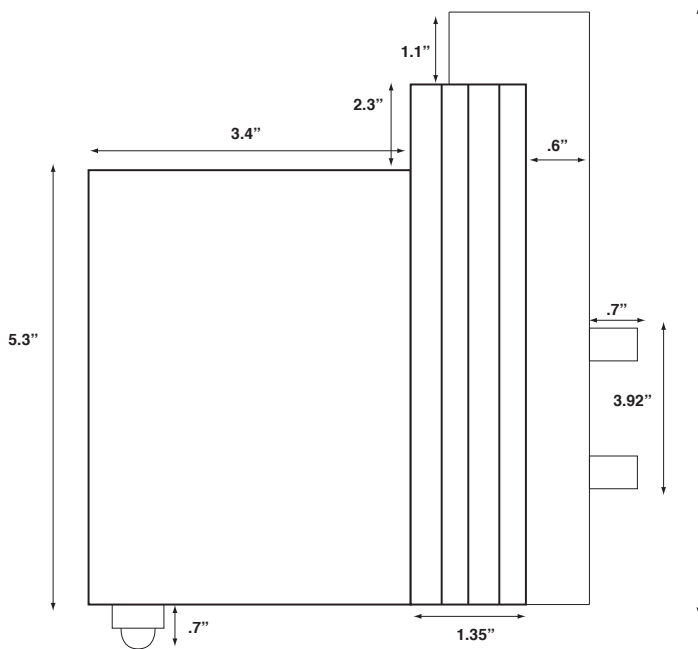


| BODY & SIGHT TUBE DESCRIPTION | A | B | C | D | E | Female NPT |
|-------------------------------|-------|------|------|------|----|------------|
| Stainless | 20.23 | 6.38 | 5.38 | 3.63 | NA | 2" |
| Stainless | 20.85 | 6.38 | 5.38 | 3.36 | NA | 2 1/2" |
| Stainless (150 GPM/1750 SCFM) | 22.35 | 7.50 | 6.00 | 4.25 | NA | 3" |
| Stainless (200 GPM/2300 SCFM) | 25.35 | 7.88 | 6.38 | 4.50 | NA | |
| Stainless | 26.85 | 8.63 | 7.13 | 5.56 | NA | 4" |

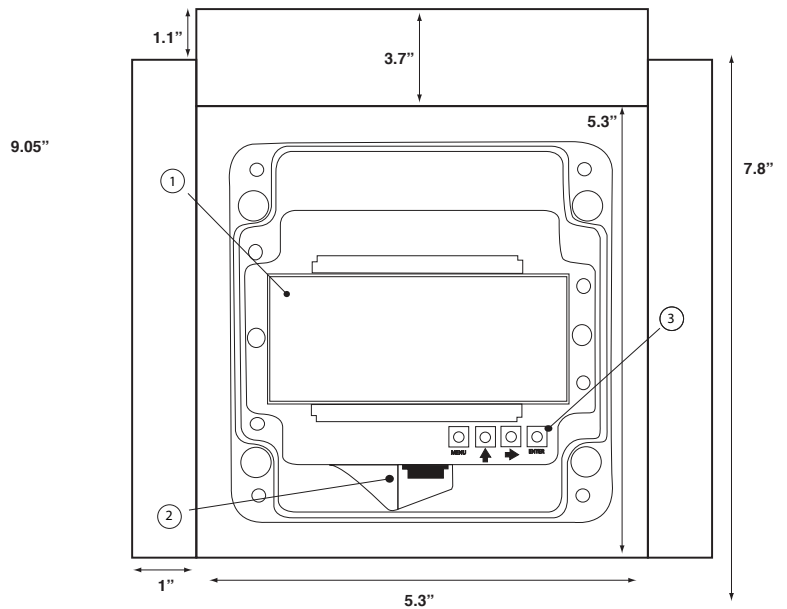
| BODY & SIGHT TUBE DESCRIPTION | A | B | C | D | E | 150lb Flange |
|-------------------------------|-------|------|------|------|------|--------------|
| Stainless | 20.73 | 6.28 | 6.88 | 6.00 | 4.75 | 2" |
| Stainless | 21.35 | 6.88 | 6.88 | 7.00 | 5.50 | 2 1/2" |
| Stainless (150 GPM/1750 SCFM) | 22.60 | 7.75 | 7.75 | 7.50 | 6.00 | 3" |
| Stainless (200 GPM/2300 SCFM) | 25.60 | 8.13 | 8.13 | 7.50 | 6.00 | |
| Stainless | 28.10 | 9.88 | 9.88 | 9.00 | 7.50 | 4" |

Note: All dimensions are in inches, $\pm 0.05"$. Subject to change without prior notice.

MFT DIMENSIONS



SIDE VIEW



FRONT VIEW

- 1) LC DISPLAY
- 2) RIBBON CABLE
- 3) ADJUSTMENT KEYS

Ordering Information

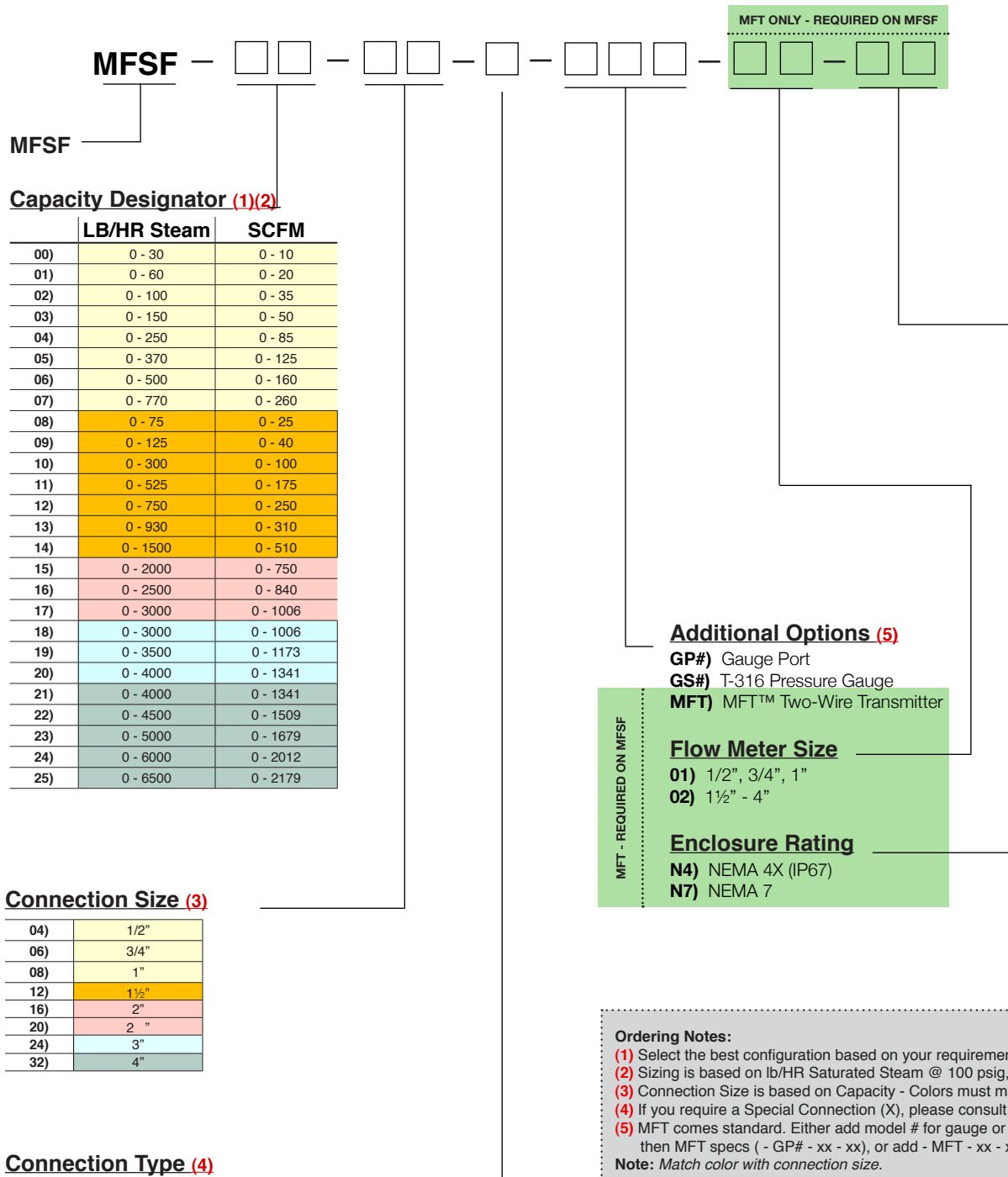
FLO-CORP MODEL NUMBER BUILDER

For Assistance Call **877.356.5463**

Use the diagram below, working from left to right to construct your FLO-CORP Model Number.
Simply match the category number to the corresponding box number.

Example: MFSF-15-16-T-MFT-02-N4

MEMFlo MFSF SteamFlo Flow Meter with 0-750 SCFM, 2" Connection Size, Female NPT Threaded Connection Type with NEMA 4X MFT Two-Wire Transmitter.



Capacity Designator (1)(2)

| | LB/HR Steam | SCFM |
|-----|-------------|----------|
| 00) | 0 - 30 | 0 - 10 |
| 01) | 0 - 60 | 0 - 20 |
| 02) | 0 - 100 | 0 - 35 |
| 03) | 0 - 150 | 0 - 50 |
| 04) | 0 - 250 | 0 - 85 |
| 05) | 0 - 370 | 0 - 125 |
| 06) | 0 - 500 | 0 - 160 |
| 07) | 0 - 770 | 0 - 260 |
| 08) | 0 - 75 | 0 - 25 |
| 09) | 0 - 125 | 0 - 40 |
| 10) | 0 - 300 | 0 - 100 |
| 11) | 0 - 525 | 0 - 175 |
| 12) | 0 - 750 | 0 - 250 |
| 13) | 0 - 930 | 0 - 310 |
| 14) | 0 - 1500 | 0 - 510 |
| 15) | 0 - 2000 | 0 - 750 |
| 16) | 0 - 2500 | 0 - 840 |
| 17) | 0 - 3000 | 0 - 1006 |
| 18) | 0 - 3000 | 0 - 1006 |
| 19) | 0 - 3500 | 0 - 1173 |
| 20) | 0 - 4000 | 0 - 1341 |
| 21) | 0 - 4000 | 0 - 1341 |
| 22) | 0 - 4500 | 0 - 1509 |
| 23) | 0 - 5000 | 0 - 1679 |
| 24) | 0 - 6000 | 0 - 2012 |
| 25) | 0 - 6500 | 0 - 2179 |

Connection Size (3)

| | |
|-----|--------|
| 04) | 1/2" |
| 06) | 3/4" |
| 08) | 1" |
| 12) | 1 1/2" |
| 16) | 2" |
| 20) | 2 " |
| 24) | 3" |
| 32) | 4" |

Connection Type (4)

- T) Female NPT Threaded
- F) ANSI 150lb Flange
- X) Special Connection

Additional Options (5)

- GP#) Gauge Port
- GS#) T-316 Pressure Gauge
- MFT) MFT™ Two-Wire Transmitter

Flow Meter Size

- 01) 1/2", 3/4", 1"
- 02) 1 1/2" - 4"

Enclosure Rating

- N4) NEMA 4X (IP67)
- N7) NEMA 7

MFT - REQUIRED ON MFSF

Ordering Notes:

- (1) Select the best configuration based on your requirements.
 - (2) Sizing is based on lb/HR Saturated Steam @ 100 psig, 338° F
 - (3) Connection Size is based on Capacity - Colors must match to ensure compatibility.
 - (4) If you require a Special Connection (X), please consult factory with your requirements.
 - (5) MFT comes standard. Either add model # for gauge or gauge port (if desired) and then MFT specs (- GP# - xx - xx), or add - MFT - xx - xx for no additional options.
- Note:** Match color with connection size.