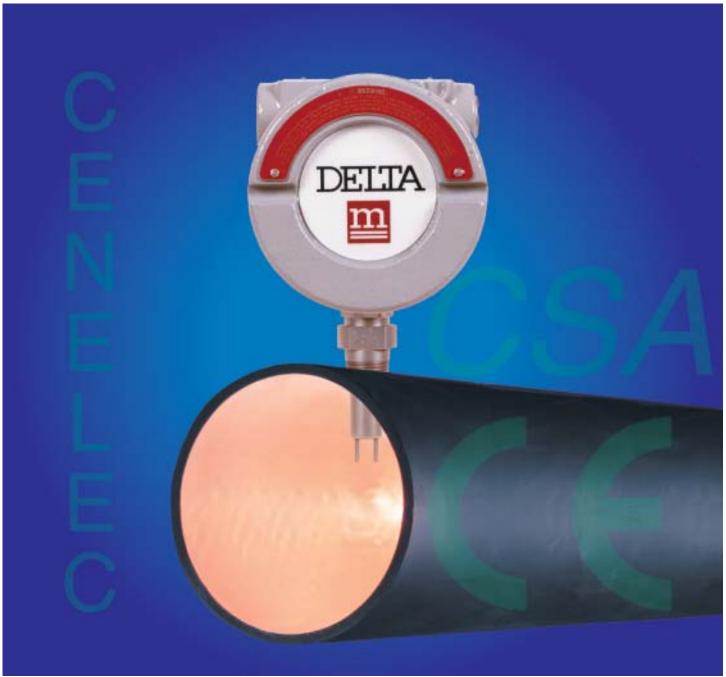


microtuf® MODEL FS4200 Single Channel Mass Flow



- Mass Flow Switch for the detection of the mass flow rate of liquids and gases.
- Wide operating temperature range -100°F to +850°F (-70°C to +458°C).
- Wide flow range of .01 to 5 feet per second (fps) in water and .1 to 500 fps in gases.
- Two year workmanship warranty.

- Free of all moving parts that can stick, coat or fail.
- Fast response time of .5 to 10 seconds depending on the media.
- Self heating sensor design improves repeatability. No separate heater to fail or slow response time.
- CE, CENELEC and CSA Approved.

MODEL FS4200

microtuf®

Single Channel Mass Flow Switch

SPECIFICATIONS

Sensor

Type:

Thermal Differential, Dual RTD Sensors

Process Connection:

Standard 0.75 inch MNPT

Optionally 0.5 inch and larger MNPT and various other process connections such as sanitary and flanges

Insertion Length:

Standard 2.0 inch

Optionally 0.5inch or greater

Operating Temperature Range:

Standard -100°F to 390°F (-70°C to +200°C)

Medium Temperature to +572°F (+300°C)

High Temperature to +850°F (+458°C)

Materials of Construction:

Standard 316L Series Stainless Steel

Optionally Hastelloy, Monel, Inconel and other exotic materials

Operating Pressure Range:

Standard to 3000 psia (207 bar)

Electronics

Power:

Standard 110VAC Optionally 220VAC, or 24VDC at 3 watts (No heater power required)

Operating Temperature Range:

Standard -40° F to $+140^{\circ}$ F (-40° C to $+60^{\circ}$ C)

Optionally remote electronics for use in medium and high temperature environments

Outputs:

DPDT Relay contacts rated at 5 amp, 250 VAC with fail safe capability

Self-Test:

Integral and Automatic during power up

Enclosure:

Explosion proof; NEMA 3, 4X, 7, and 9; CSA, FM, UL, CENELEC, and EECS approved

Instrument

Operating Range:

Adjustable Flow Rate (feet per second - fps), typical: 0.01 to 5.0 fps in water and 0.1 to 500 fps gases **Response**

Time:

Sensor response time 0.5 to 10 seconds media dependent **Stability:**

Drift < .5% from calibrated setpoint over a range of $\pm 50^{\circ}$ F. Temperature compensated throughout entire range

Repeatability:

±1% of setpoint

Approvals:

CE, CSA, CENELEC

Class 1 Div. 1 Groups B, C, & D

Model Number Selection Guide

Model
FS42CS-CSAApproved Switch
FS42CN - CENELEC Approved Switch
FS42NX - Non Explosion Proof Switch
Code - Process Connection
3A1 - 1.5 Inch Sanitary w/3A Stamp
075 - 0.75 inch MNPT (std)
050 - 0.50 inch MNPT
100 - 1 inch MNPT
RA1 - Raised face flange 150 # 1 inch
RA2 - Raised face flange 150 # 2 inch RB1 - Raised face flange 300 # 1 inch
RB2 - Raised face flange 300 # 2 inch
SPL - Special
Code - Sensor Material
S6-316L Stainless Steel (std)
S4 - 304 Stainless Steel
SL - 304L Stainless Steel
HB - Hastelloy B
HC - Hastelloy C
IO - Inconel 600
MN - Monel
A2 - Alloy 20
SM - Special Material
Code - Insertion Length
002.00 - 2.00 inch (std) 000.00 - 0.50" to 120.00" in .25"
000.00 - 0.30 to 120.00 in .23
Code - Power Input
110 - 110 VAC
220 - 220 VAC
24D - 24 VDC
Code - Configuration
LE-Local Electronics(std)
RE-Remote Electronics
Code - SpecialOption
00 - No Special Option
CB - Calibration req.
EN - Extended Neck
XW- X proof Window
VI- Variable Insertion
LT - Livetap
DS - Double Sided
MT - Medium Temp.
HT - High Temp.
RT - RTD Output TO-Thermocouple Out
CA - Additional Cable
CE - CE Approved
FS42NX - 075 - S6 - 002.00 -110- LE-00 Model Number

Form Number (DML 1011.01)