

# New Approved Switch



- 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 liquids and .1 to 500 fps in gases.
- Removable, plug in electronics.
- 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**<sup>®</sup>

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°F (-40°C to +60°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, 4, 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 liquids 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 ±50° 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 - CSA Approved 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 - Custom Length

Code - Power Input

110 - 110 VAC

220 - 220 VAC

24D - 24 VDC

Code - Configuration

LE - Local Electronics (std)

RE - Remote Electronics

Code - Special Option

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 1011.00)