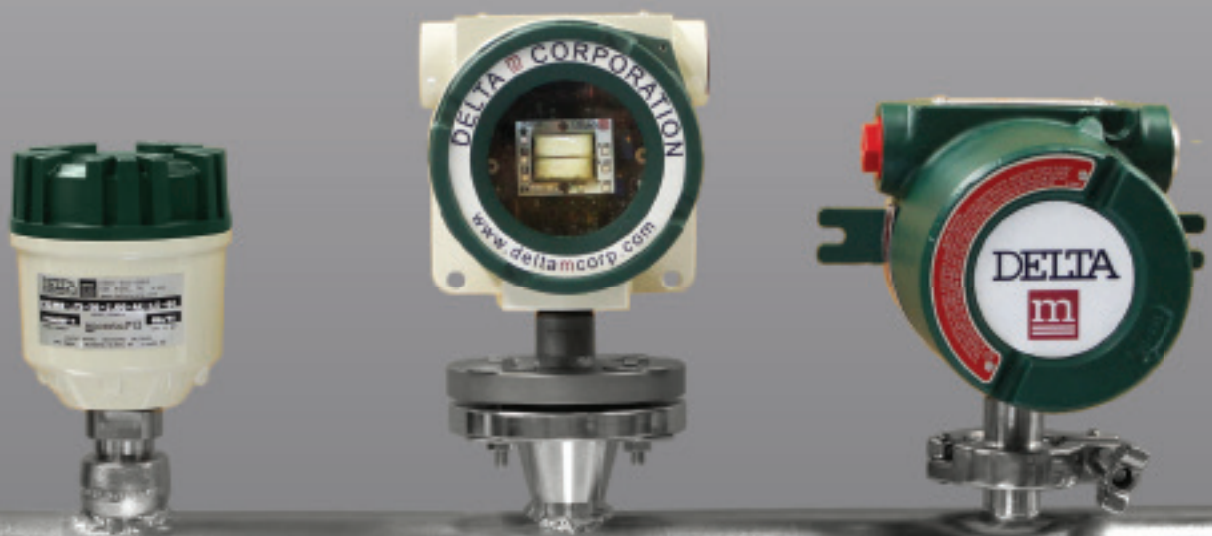




Repeatable. Reliable. Ready.

*Thermal Mass Flow and Point-Level
Detection & Measurement*

Meter & Switch PRODUCT BROCHURE



Tank & Railcar Loading Thermal Point-Level Switch

Asphalt/Pitch - Paraffin Wax
Hazardous Chemical - Petroleum
Crude - Ethanol - Shale Oil



Three models to choose from:



microtuf®II, microtuf® & VERSA-SWITCH®

Features

- Flexible Clamp Design - no slipping and easy to use
- Easily Adjustable Probe Measurement Height
- All welded sensor construction - rugged and durable
- Switch on level change of .03 inch - repeatable
- Fast response time - 0.1 to 1 second media dependent

Electronics

- Works with your favorite model:
microtuf®, microtuf®II & VERSA-SWITCH®
- Many power input options - 110VAC, 220VAC & 24VDC
- Failure alarm self diagnosing option available

Sensor

Physical Design:

Easy to clean shrouded design
32" Variable Sensor insertion
Wide variety of sensor alloys
Ceramic and Teflon coatings available

Temperature Rating:

Standard: To 390 °F (200 °C)
Optionally
Medium: To 570 °F (300 °C)
High: To 850 °F (458 °C)



microtuf® II LS1100 Series Economy Point-Level Switch

Sump Level Control - Tank Overflow Monitor
Dry Bulk Detection - Plastic Pellet/Nurdle Overflow

- » *New Smaller and Simpler Packaging*
- » *90-260VAC or 19-30VDC Operating Voltage*
- » *Sensor Quick Disconnects or Potted Cables*
- » *Custom Insertion Lengths up to 20ft*
- » *Switch on level change of .03 inch*
- » *Easy three-step calibration*



microtuf® LS3200 Series Basic Point-Level Switch

Truck and Railcar Loading - Immersion Heater Protection
Reactor/Vessel Charging - Tank Leak Detection

- » *CSA, Ex, CE, CENELEC, 3A, NEMA4x*
- » *Choose 110VAC, 220VAC or 24VDC Electronics*
- » *Multi-Point and Shrouded Options*
- » *Available in SS, Hastelloy, Titanium & More*
- » *Uniquely Welded Sensor Designs*
- » *Quick Response Time*



VERSA-SWITCH® VS5100 Series Premium Point-Level Switch

Steam Trap Level Control - Foam Control in Tanks
Water Detection in Fuel Tanks - Tank Liquid Agitation
Interface Detection

- » *User Selectable Power - 110/220VAC/24VDC*
- » *Optional Remote Electronics for easy setup*
- » *Wide operating temperature range up to 850F*
- » *2nd Channel for Detection of: 3 Phase Interface, Agitation, Temperature or Unit Diagnostics*
- » *Two year workmanship warranty*



VersaMassTer[®] AIR VM7000 Thermal Mass Flow Meter

Compressed Air - HVAC Applications - Compressor Controller
Combustion Air Monitoring - Process Air - Pneumatics



- » Pre-calibrated for air applications
- » Plug in and measure
- » Wide flow range-low flow sensitivity
- » Repeatable to +/- 0.5% at 12lbs/min
- » EASY to read 2.8" TFT color display
- » Most stable platinum RTD sensor
- » Sensor rated for 300°F, 480°F, or 650°F
- » Fast time response: 0.5-30 seconds
- » 4-20mA output w/ external loop power
- » On-board Isolated power supply
- » RS485, SPDT Relay, 0-1kHz pulse output

Features

- No moving parts - no mechanical failures
- Direct mass flow - no secondary measurements
- Low pressure drop - no restrictions
- Wide flow range - includes low flow
- All welded sensor construction - rugged and durable

Display Features

- EASY TO READ 2.8" TFT color
- Constant Data Update - Latest and most current data
- Selectable Variables - mass flow, total flow, temperature
- IR Interface Keypad - Through-the-window control



Sensor

Physical Design:

Shrouded for ruggedness
Fully Penetrated welds
Wide variety of sensor alloys

Temperature Rating:

Standard: To 300 °F (150 °C)
Optionally
Medium: To 480 °F (250 °C)
High: To 650 °F (350 °C)

Air Mass Flow Rate Range

Pipe Size (in)	Maximum Range	
	SCFM	Nm ³ /h
2	300	500
6	2,500	4,400
8	4,400	7,500
10	7,000	11,900
12	10,050	17,100
18	19,900	33,800
24	35,700	60,700

microtuf[®] II FS2100 Series Economy Mass Flow Switch

Cooling Water Flow - Flow Confirmation
Safety Shower Monitoring - Pump Protection

- » Economical Straight-forward Design
- » 90-260VAC or 19-30VDC Operating Voltage
- » Self heating sensor design improves repeatability
- » Built to fit your specific application
- » 1% Repeatability of Set-Point
- » Easy three-step calibration



microtuf[®] FS4200 Series Basic Mass Flow Switch

Heat Transfer Fluid Monitoring - Gas Purge Confirmation
Sanitary Cleaning System Monitor - Fire Suppression System
Analytical Sample Confirmation - Air Handling System Monitor

- » CSA, Ex, CE, CENELEC, 3A, NEMA4x
- » Choose 110VAC, 220VAC or 24VDC Electronics
- » Rugged and Reliable for any application
- » Available in SS, Hastelloy, Titanium & More
- » Wide selection of Standard or Custom sensor designs
- » Quick Response Time



VERSA-SWITCH[®] VS5100 Series Premium Mass Flow Switch

Dry Line Indication - Chemical Injection Monitor
Safety Relief Valve Monitor - Soot Blower Feed Water Monitor
Rotating Equipment Lubrication - Vapor Recovery Monitor
Gas Booster Monitor - Exhaust/Air Purge Monitor

- » User Selectable Power – 110/220VAC/24VDC
- » Optional Remote Electronics for easy setup
- » Nearly any Process Connection - Custom or Common
- » 2nd Channel for Detection of:
Dry Lines, Temperature or Unit Diagnostics
- » Two year workmanship warranty

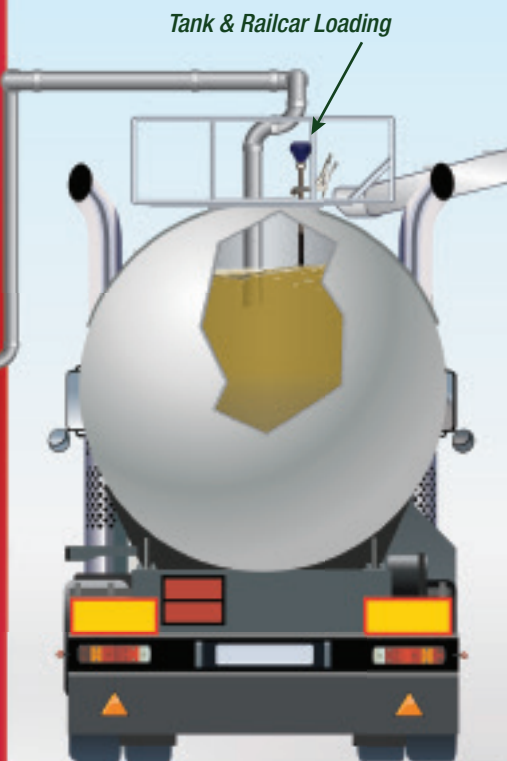
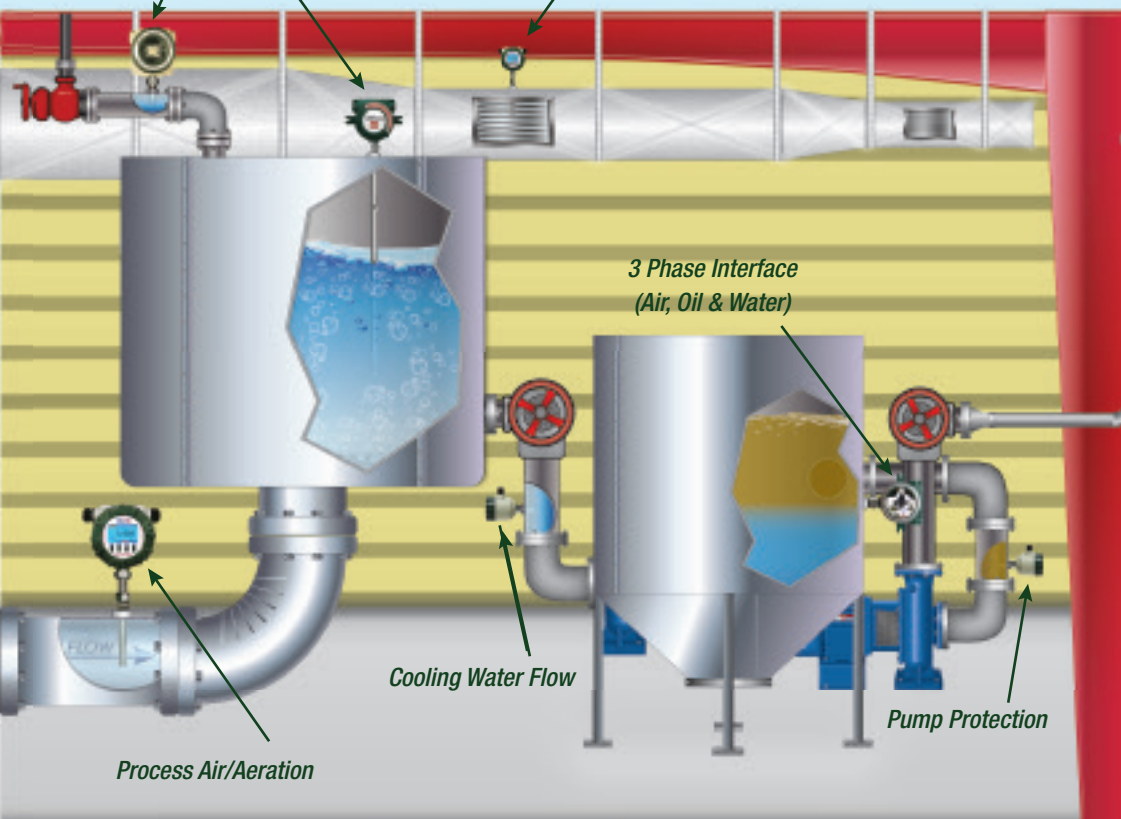


Flow Confirmation

Multi-Point Level

HVAC Air Monitoring

WHAT WILL YOU CONTROL?



What's Your Process Connection?



Ask how we can customize a sensor for your installation!

Level & Flow Switch Product Comparison Chart								
Product Class	Economy	Basic			Premium			
Product Series	microtuf® II	microtuf®			Versa-Switch®			
Level Product Model	LS11NX	LS32NX	LS32CS	LS32CN	LS51NX	LS51SC	VS51NX	VS5100
Flow Product Model	FS21NX	FS42NX	FS42CS	FS42CN	FS51NX	FS51SC	VS51NX	VS5100
	Product Features:							
Product Approvals	None	None	CSA	Cenelec	None	CSA	None	CSA
Number of Switch Channels	1	1	1	1	1	1	2	2
Number of Relays	1	1	1	1	1	1	2	2
Adjustable Time Delays	None				Yes			
Input Voltage Options	24VDC, 110VAC, or 220VAC Factory Fixed				24VDC, 110VAC, or 220VAC Field Selectable			
CE Filter Option	No	Yes			No			
Failure Alarm	—				—		Yes-2nd Ch.	
Dry Line Indication	—				—		Yes-2nd Ch.	
Second Flow Rate Set Point	—				—		Yes-2nd Ch.	
Agitation Detection	—				—		Yes-2nd Ch.	
Temperature Switch	—				—		Yes-2nd Ch.	