

# VARIABLE AREA **FLOW METERS**

#### **ABOUT LAKE MONITORS:**

The Lake Monitors line of variable area and paddle wheel flow meters have been used in industrial applications around the world. This includes lubrication systems and cooling systems, as well as pneumatic and hydraulic systems, process control systems, and even gas and chemical applications.

#### State-of-the-Art Production

Variable Area flow meters from Lake Monitors have recently undergone a production re-design. Utilizing automated calibration software and a high-res vision system, our new proprietary calibration and scaling process records the unique flow profile of each meter during calibration. The integrated laser engraving system marks precise scale increments for a more accurate, custom-scaled meter.

#### **Excellent Customer Service**

LAKE Monitor products are built to order in our Oak Creek facility, and typically ship within 5 days from order placement. We also offer expedited service with 24-hour turn-around. We understand our customers often face tight installation deadlines so we do everything we can to take care of your needs. From fast turnaround to technical support, we have your back.

## **Meet or Beat Competitor Pricing**

LAKE prides itself on remaining competitively priced, and will do what is necessary to make sure our customers get the very best price in the market. When we realize material cost savings, we pass it along to you!

#### **Global Support**

With offices in the US, Europe, China and Singapore, we are strategically positioned to support our customers around the globe.



# VARIABLE AREA FLOW METERS



#### BASIC VARIABLE AREA FLOW METER

Ideal for monitoring pump performance and media flows through hydraulic circuits and cooling systems. Measuring Accuracy: ±2.0% of full scale over 10:1 turndown Repeatability: ±1% of full scale

Flow Ranges: 0.1-150 GPM (0.5-550 LPM)

Pressure Rating: Aluminum & brass: 3500 PSIG (240 Bar),

Stainless steel: 6000 PSIG (410 Bar)

**Temperature Rating:** 240°F (116°C)



# **BI-DIRECTIONAL FLOW METER**

Ideal for monitoring pump performance and media flows through hydraulic circuits and cooling systems.

Measuring Accuracy: ±4.0% of full scale over 10:1 turndown

Repeatability: ±1% of full scale

Flow Ranges: 0.5-100 GPM (2-350 LPM)

Pressure Rating: Aluminum & brass: 3500 PSIG (240 Bar),

Stainless steel: 6000 PSIG (410 Bar)

**Temperature Rating:** 240°F (116°C)



#### CASE DRAIN FLOW METER

Case Drain Flow Meter is a low cost alternative for monitoring pump performance and identifying required maintenance.

Measuring Accuracy: ±5.0% of full scale over 10:1 turndown

Repeatability: ±1% of full scale

Flow Range: 0.1-30 GPM (0.5-115 LPM)
Pressure Rating: 1000 PSIG (69 Bar)
Temperature Rating: 240°F (116°C)



## **CLEARVIEW FLOW METER**

The ClearView Flow Meter is an economical way to monitor municipal pressure water flows, observe case drain flows and verify pump outputs.

Measuring Accuracy: ±2.0% of full scale over 10:1 turndown

Repeatability: ±1% of full scale Flow Range: 1-30 GPM (5-110 LPM) Pressure Rating: 325 PSIG (22.4 Bar)

**Temperature Rating:** ClearView H<sub>2</sub>O: 200°F (93°C) (for water)

ClearView+: 250°F (121°C)



## FLOW RATE ALARM

Flow Rate Alarm ensures sufficient flows of coolants and lubricants in mobile hydraulic equipment and industrial process control. Measuring Accuracy: ±2.0% of full scale over 10:1 turndown

Repeatability: ±1% of full scale

Flow Range: 0.1-150 GPM (0.5-550 LPM) 2.0-1300 SCFM (1-600 SLPS)

**Pressure Ratings:** 

Liquids - Aluminum & brass monitors: 3500 PSIG (240 Bar)

Stainless steel: 6000 PSIG (410 Bar)

Air/Gas - Aluminum & brass: 600 PSIG (40 Bar)

Stainless steel: 1000 PSIG (69 Bar)

**Temperature Rating:** 185°F (85°C)



#### FLOW RATE TRANSMITTER

Flow Rate Transmitter is ideal for batching, industrial process control, mobile hydraulic equipment and computer / PLC controlled hydraulic system monitoring application

Measuring Accuracy: ±2.0% of full scale over 10:1 turndown

Repeatability: ±1% of full scale

Flow Ranges: 0.1-150 GPM (0.5-550 LPM) 2-1300 SCFM (1-600 SLPS)

**Pressure Ratings:** 

Liquids - Aluminum & brass: 3500 PSIG (240 Bar)

Stainless steel: 6000 PSIG (410 Bar)

Air/Gas - Aluminum & brass: 600 PSIG (40 Bar)

Stainless steel: 1000 PSIG (69 Bar)

**Temperature Rating:** 185°F (85°C)



#### PHOSPHATE ESTER FLOW METER

Phosphate Ester Flow Meter is compatible with aviation lubricants such as Skydrol®, and fire-retardant fluids such as Pydraul®, Fyrquil® and Houghton 900 series.

Measuring Accuracy: ±2% of full scale over 10:1 turndown

Repeatability: ±1% of full scale

Flow Range: 0.1-130 GPM (0.5-500 LPM)

Pressure Ratings: Aluminum & brass: 3500 PSIG (240 Bar)

Stainless steel: 6000 PSIG (410 Bar)

**Temperature Rating:** 240°F (116°C)



## HIGH TEMPERATURE FLOW METER

High Temperature Flow Meter enables flow monitoring of barrel heating fluids, thermal transfer fluids such as Syltherm® coolant flows, hydraulic circuits and sub-circuits.

Measuring Accuracy: ±1% over a 10:1 turndown

Repeatability: ±1% of full scale Flow Range: 0.1 to 7 GPM

Pressure Rating: up to 500 PSIG (34 Bar)
Temperature Rating: Up to 450°F (232°C)
Materials: Kynar® body with ceramic bearings



#### PNEUMATIC FLOW METER

Pneumatic Flow Meters are ideal for monitoring air compressor outputs, pneumatic tool air consumption and industrial gas flows. Measuring Accuracy: ±2.5% of full scale in the center third of

the measuring range; ±4% in upper and lower thirds

Flow Range: 2-1300 SCFM @ 100 PSIG (1-600 SLPS)

Pressure Ratings: Aluminum & brass: 600 PSIG (40 Bar)

Stainless steel: 1000 PSIG (69 Bar)

**Temperature Rating:** 240°F (116°C)



#### HYDRAULIC TEST ANALYZER FLOW METER

Hydraulic Test Analyzer is used to diagnose faults in hydraulic circuits, determine horsepower and test for component wear and cylinder leakages.

Measuring Accuracy: Flow: ±2% of full scale over 10:1 turndown

Pressure: ±2.5% of full scale
Temperature: ±2.5% of full scale

**Repeatability:** ±1% of full scale – all measurements

Flow Range: 0.1-150 GPM (0.5-550 LPM)

Pressure Ratings: Aluminum: 3000 PSIG (200 Bar)

Stainless Steel: 5000 PSIG (340 Bar)

**Temperature Rating:** 240°F (116°C)



## WTA — HYDRAULIC ANALYZER

WTA Series Hydraulic Analyzer is a simple compact design allows for simultaneous measurement of flow, pressure and temperature on Mobile Industrial & Agricultural industries.



Pressure: ±1.6% of full scale Temperature: ±5°F (2.5°C)

Flow Ranges: 2-32 GPM (10-120 lpm)

2-54 GPM (10-200 lpm)

Pressure Rating: 6000 PSIG (420 Bar)

**Temperature Rating Ambient:** 14 to 122°F (-10 to 50°C) **Fluid:** 68 to 176°F (20 to 80°C) continuous use. Intermittently

(< 10 minutes) up to 230°F (110°C).



## FLOWSTAT — PADDLE WHEEL FLOW METER

Lake FlowStat Paddle Wheel Flow Meter is perfect monitoring solution for chillers/cooling circuits, HVAC, medical equipment, batching and industrial process control applications. Measuring Accuracy: ±2% of full scale over 10:1 turndown

Repeatability: ±0.5% of full scale

**Flow Ranges:** 1/2" porting: 0.5–15 GPM 1/2 " porting low flow option: 0.25-4.5 GPM

3/4" - 1" porting: 1.5-50 GPM

Pressure Rating: Aluminum & brass: 3500 PSIG (240 Bar)

Stainless steel: 6000 PSIG (410 Bar)

**Temperature Rating:** 20 to 225°F (-6 to 107°C)

**Body Material:** Stainless Steel



## FLOWSTAT ES — PADDLE WHEEL FLOW METER

Economical monitoring solution for chillers/cooling circuits, HVAC, batching and industrial process control applications.

Measuring Accuracy: ±2% over a 10:1 turndown

**Repeatability:** ±0.5% of full scale **Flow Range:** 0.5 to 15 GPM

Optional low-flow adapter 0.25-4.5 GPM

Pressure Rating: up to 150 PSIG (10 Bar)

**Temperature Rating:** 20°F to 150°F (-6°C to 65°C)

**Body Material:** Plastic



## MX-9000 — PANEL METER

Ideal for any industrial flow measurement application where a simple, compact & easy-to-use remote flow monitor is required. Flow Display Options: Rate, total, limit, batch and ratio

Channels: Single or dual channel

**Batch Controller:** Stores up to 20 batch recipes

Output Options: Programmable Form C relay and 4-20 mA

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