

DATE: 10/04/2015

INTRODUCING SOME GREAT NEW PRODUCTS FROM OUR DWYER INSTRUMENTS RANGE:



DWYER INSTRUMENTS, INC

## DWYER<sup>®</sup> MOBILE APPS

**>> Air Velocity and Flow Calculator**  
Easily convert pressure to air velocity or air velocity to air volume. The calculator also includes air density factors from humidity levels and is available in English or metric units. **Download** for FREE in the iTunes<sup>®</sup> and Google play<sup>™</sup> Stores or calculate using the web-based version.

**>> Mobile Meter<sup>®</sup> Software App**  
Now is the time to replace your handheld meters with your phone! **Download** the Mobile Meter<sup>®</sup> Software App to wirelessly measure and log differential pressure, air velocity, volumetric air flow, temperature and humidity. Available for iOS<sup>®</sup> and Android<sup>®</sup> devices for FREE in the iTunes<sup>®</sup> and Google play<sup>™</sup> Stores.

**>> Catalog Apps**  
Currently available for download are four Dwyer Catalog Apps: the **2015 Instrumentation and Controls**, the **Building Automation**, the **Proximity<sup>®</sup> Valve Position**, and the **Valves and Controls**. All catalogs are available as FREE downloads in the iTunes<sup>®</sup> and Google play<sup>™</sup> Stores. Designed for the iPad<sup>®</sup>, iPhone<sup>®</sup>, or any Android<sup>®</sup> mobile device, one can search and gather all of the information they may need about a product instantaneously. **Download** the catalog to your device and view it anytime.

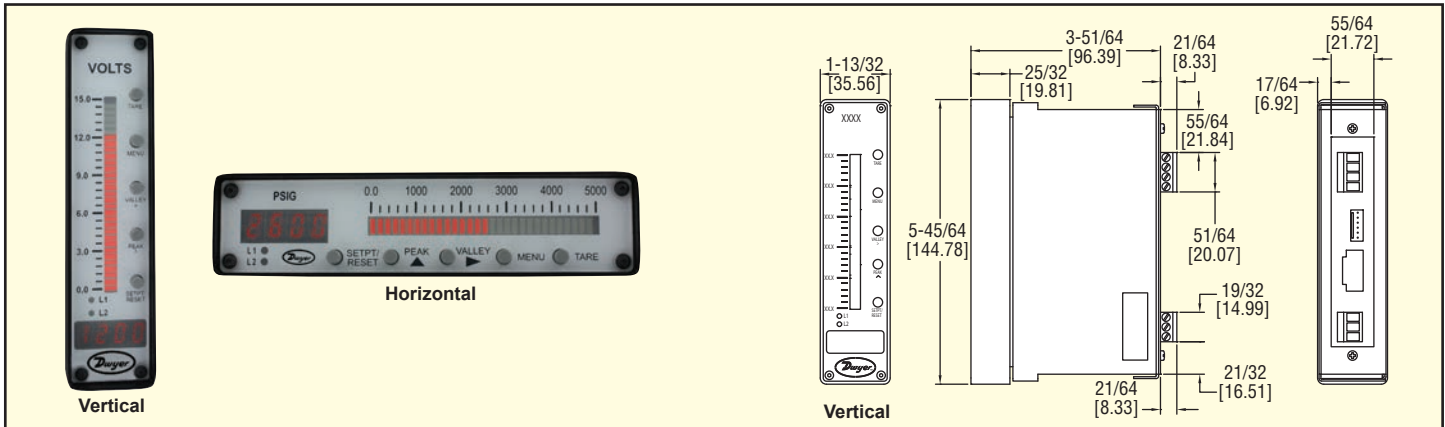
Download on **iTunes** | ANDROID APP ON **Google play** |



Series  
BGM

# Bar Graph Meter

Clear Relative Position & High Resolution In One



The Series BGM Digital Bar Graph Meter is extremely durable and can replace a wide range of analog meters. The 4-digit display will significantly reduce the potential for human error in reading by eliminating errors commonly produced by the viewing angle when reading analog meters. This series has a key pad that allows for easy access of features without complex menu structures. With the combined ability to create a wide range of custom faceplate and the optional NEMA 4X bezel, the Series BGM can be used in a variety of applications. The LED bar graph adds a visual indicator of the measured value so that it can be visually analyzed, preventing accidents or system failures from happening.

### SPECIFICATIONS

**Inputs:** 0 to ±10 VDC or 4 to 20 mA.

**Accuracy:** ±0.05% FS.

**Power Requirements:** 120 VAC 50/60 Hz, 5 to 12 VDC, or 10 to 30 VDC model dependent.

**Power Consumption:**

- 120 VAC: 2.4 W @ 20 mA max;
- 5 to 12 VDC: 1.2 W @ 100 mA max;
- 10 to 30 VDC: 1.5 W @ 50 mA max.

**Display:**

- LED Display: 4 red colored digits, 0.3" height;
- LED Graph: 31 element bar, 0.2" W x 3.1" L (5.08 mm W x 78.74 mm L).

**Decimal Point:** 3 positions, user selectable.

**Temperature Limits:**

- Operating: -13 to 176°F (-25 to 80°C);
- Storage: -67 to 176°F (-55 to 80°C).

**Enclosure Rating:** NEMA 1 or NEMA 4X†, model dependent IP65 front.

**Electrical Connections:** Removable screw terminal blocks.

**Outputs:** 2 SPST relay outputs (optional).

**Switch Rating:** 1 A @ 200 V.

**Enclosure Material:**

- Bezel: Black epoxy enameled steel;
- Window: Acrylic;
- Case and Mounting Bracket: 304 SS.

**Time Delay:** 0.5 sec.

**Weight:** 40 oz (1.13 kg).

### ACCESSORY

**A-BGM-RPM,** Remote Programmer Module

Example	BGM	H	0	0	N	W	D	AE	AO	BGM-H00-NWD-AE-AO
Series	BGM									Bar Graph Meter
Orientation		H								Horizontal
		V								Vertical
Enclosure Rating			0							None
			4							NEMA 4X†
Relays				0						None
				2						2 Relay Outputs
Voltage Retransmission					N					None
					E					Voltage Retransmission
Power Supply						W				120 VAC 50/60 Hz
						S				5 to 12 VDC
						D				10 to 30 VDC
Signal Input							D			0 to ±10 VDC
							A			4 to 20 mA
							B			0 to 5 VDC
Scale Label*								AE		Feet
								AF		FPM
								AH		Inches w.c.
								AI		Inch/sec
								AM		Level
								AZ		Tank Level
Scale Range*								AO		0 to 5
								AQ		0 to 10
								AT		0 to 20
								AV		0 to 30
								AW		0 to 40
								AX		0 to 50
								AZ		0 to 75
								BA		0 to 100

\*Note: Contact factory for additional options.

† NEMA 4X option requires A-BGM-RPM for programming.



Model  
RVM

# Portable Radar Wave Velocity Meter

Non-Contact Measurement, Handheld Meter, Angle Compensation



The Model RVM Portable Radar Wave Velocity Meter uses Doppler Radar technology to accurately measure surface velocity of open channel flow. The “point-and-shoot” design along with automatic vertical angle compensation provides easy to use operation. Model RVM also has user-adjustable horizontal angle compensation of 5° increments to further reduce measurement error. Flow velocity can be measured bi-directionally with user-selectable directional modes (flows away, towards, or in both directions). Model RVM features a backlit LCD that indicates flow velocity in feet per second or meters per second. Model RVM includes the meter, rechargeable batteries, 12 VDC car charger, and a rugged case.

#### FEATURES

- High accuracy
- Doppler radar technology
- Works with shallow flow depths
- Field rechargeable

#### APPLICATIONS

- Sewer systems
- Water systems
- Rivers
- Streams
- Hydrologic systems

Model RVM, Portable Radar Wave Velocity Meter

#### ACCESSORY

A-RVM-CC, RS-232 Communication Cable

#### SPECIFICATIONS:

**Service:** Water.

**Range:** 0.1 to 43 fps (0.3 to 13 m/s).

**Display:** Single-line, 5-digit, backlit LCD.

**Accuracy:** ±5%.

**Power Requirements:** 6.1 to 8 VDC, (6) 1.2 V AA NiMH batteries, installed functional, user replaceable (12 VDC lighter plug power cable included).

**Power Consumption:** 0.18 A max.

**Serial Communications:** RS232 (with purchase of A-RVM-CC).

**Temperature Limits:** -22 to 158°F (-30 to 70°C).

**Enclosure Rating:** IP55.

**Humidity Limit:** 90% RH @ 98.6°F (37°C).

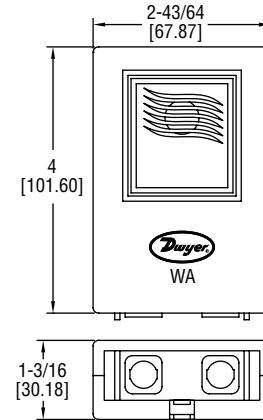
**Enclosure Material:** ABS polycarbonate blend.

**Angle Compensation:** Vertical: automatic via tilt sensor; Horizontal: adjustable from 0 to 45° in 5° increments for cosine angle error.

**Weight:** 2.1 lb (907 g).

# WATER LEAK DETECTOR

Low-Cost Compact Design, Wall Mount, Loud Alarm



**MODEL WA WATER LEAK DETECTOR** offers affordable and dependable leak detection. This model is ideal for any application where a flood or water leak is likely to occur. It offers a loud audible alarm in the presence of water.

#### FEATURES/BENEFITS

- Loud 110 decibel alarm can be heard from long distances
- Detachable 6 foot (1.8 m) cord allows for remote high water level monitoring prior to water damage
- Persistent 15 hour continuous alarm, ensures notification of alarm status

#### APPLICATIONS

- Basement flood monitoring
- Sump pump pit high water level alarm
- Leak detection
- Pipe burst notification

#### MODEL CHART

Model	Description
WA	Water leak detector

#### SPECIFICATIONS

**Service:** Water.  
**Audible Alarm:** 110 dB max.  
**Temperature Limits:** 32 to 120°F (0 to 49°C).  
**Humidity Limit:** 80% RH (no condensing or icing).  
**Power Requirements:** 9 V carbon zinc battery, not functional, user replaceable.  
**Power Consumption:** 10 mA.  
**Enclosure:** ABS.  
**Battery Life:** 3 years (approximately).  
**Weight:** 4.8 oz (136 g).  
**Agency Approvals:** CE.



Series  
MFS2

# Magnetic Inductive Flow Sensor

Lower Cost PVDF Design, Frequency Output, ±1% Accuracy, Maintenance-Free



**4-PIN PLUG CONNECTOR**

**MFS2-6**

**MFS2-1/5**

Model	L1	L2	D1	D2
MFS2-1	4"	0.86"	1/2-14" NPT	0.31"
MFS2-2	4"	0.86"	1/2-14" NPT	0.31"
MFS2-3	4.02"	0.86"	3/4-14" NPT	0.55"
MFS2-4	4.41"	1.04"	1-11.5" NPT	0.71"
MFS2-5	4.41"	1.04"	1-11.5" NPT	0.71"
MFS2-6	4.81"	1.13"	1-1/4-11.5" NPT	0.98"

The Series MFS2 Magnetic Inductive Flow Sensor is a compact, lower cost plastic alternative to the Series MFS. Unlike sensors with moving parts, the MFS2 can be used in applications dealing with contaminated media. This series provides a reliable measuring technique, an obstruction free pipe cross-section, as well as a quick response time, making this series ideal for interference free operation. Any change in temperature, density, viscosity, concentration or electrical conductivity of the liquid, does not affect the output signal of this Magnetic Inductive Flow Sensor. This, in addition to its longlife cycle and PVDF process connection, makes this series perfect for accurate reversible gauging of volume flow of conductive liquids in closed piping.

**Principles of Operation**

The measuring pipe is in a magnetic field. If an electrically conductive medium with a certain flow passes through the pipe, it passes at a right-angle to the magnetic field, creating a voltage that is proportional to the average flow velocity and picked up by two electrodes within the MFS2. A frequency output signal is obtained that is proportional to the flow (analog output option available).

**FEATURES**

- No moving parts
- No mechanical wear
- Maintenance-free

Model	Range GPM (LPM)	Process Connection
MFS2-1	0.07 to 1.3 (0.25 to 5)	1/2" male NPT
MFS2-2	0.26 to 5.3 (1.0 to 20)	1/2" male NPT
MFS2-3	0.66 to 13.2 (2.5 to 50)	3/4" male NPT
MFS2-4	1.3 to 26.4 (5.0 to 100)	1" male NPT
MFS2-5	2.6 to 52.8 (10 to 200)	1" male NPT
MFS2-6	3.3 to 66.0 (12.5 to 250)	1-1/4" male NPT

**ACCESSORIES**

- MFS-C3, 4-Pin Cable Socket M12x1 Connect, 9.8 ft (3 m)
- MFS-C5, 4-Pin Cable Socket M12x1 Connect, 16.4 ft (5 m)
- MFS-C10, 4-Pin Cable Socket M12x1 Connect, 32.8 ft (10 m)



**SPECIFICATIONS**

- Service:** Compatible, non-coating, conductive liquids.
- Range:** See model chart.
- Wetted Materials:**
  - Grounding Rings and Electrodes: 316 SS;
  - Process Connections: PVDF;
  - O-rings: EPDM.
- Accuracy:** ±1% of reading.
- Repeatability:** 1%.
- Temperature Limits:**
  - Process: 14 to 140°F (-10 to 60°C);
  - Ambient: 41 to 140°F (5 to 60°C).
- Pressure Limits:**
  - 145 psi (10 bar) @ 68°F (20°C);
  - 116 psi (8 bar) @ 104°F (40°C);
  - 87 psi (6 bar) @ 140°F (60°C).
- Response Time:** < 100 ms.
- Power Requirements:** 24 VDC ±15%.
- Power Consumption:** 0.6 W.
- Output:** Frequency: Square-wave, NPN or PNP.
- Flow Indication:** LED green, flow proportional blinking.
- Enclosure Rating:** IP65.
- Enclosure Material:** ABS plastic.
- Process Connection:** See model chart.
- Electrical Connection:** Plug connector M12x1.
- Conductivity:** > 20 µS/cm min.
- Weight:**
  - MFS2-1, -2, -3, -4, -5: 8 oz (226.8 g);
  - MFS2-6: 1 lb (0.45 kg).
- Agency Approvals:** CE.

FLOW

Flow Transmitters, Electromagnetic, In-Line