

# ***A1 Commercial Grade Meters***

*Commercial Grade Meters are designed as self-contained, battery powered units. These indicating meters come in Aluminum or Nylon only. A1 Meters are not field serviceable like the popular G2 Series Meters. For Flowmeters with advanced features and additional housing materials, refer to the G Series, G2 Series or GM Series sections in this catalog.*





# Build-Your-Own A1 Series Meter

## 1) Select Your Turbine



**Aluminum**



**Nylon**



## 2) Select Your Electronic Choice

For further details see page 56.



**09 Computer**



**XX No Computer**



## 3) Select Your Module

For further details see page 48.



**Standard Remote Kit**



**FM Approved Remote Kit**



**Conditioned Signal Module**



## 6) Do you require any accessories

For further details see page 50.



**Display Adapter Kit**



**GPI Electronics Programmer**



# A1 Series Meter Numbering Reference

## Product Identifier

**A1** = Commercial Grade Electronic Digital Meter

## Electronic Choice

**09** = 2 Totals (1 Resettable, 1 Cumulative), Factory Calibration in Gallons and Litres, 2 User Calibrations and Flowrate

**XX** = No Computer

## Calibration

**GM** = Gallons / Minute (NPT only)

**LM** = Litres / Minute (ISO only)

**XX** = No Computer

## Turbine Material & Size

**A025** = Aluminum - Low Flow

**A100** = Aluminum - 1 inch

**A200** = Aluminum - 2 inch

**N025** = Nylon - Low Flow

**N100** = Nylon - 1 inch

**X###** = No Turbine\*

## Fitting Type

**N** = NPT (Female)

**I** = ISO (Female)

**B** = BSPP (Female) - available on A025 and A100 turbines only

**X** = No Turbine

## Packaging

**A1** = Standard Low Flow - 1 inch

**A2** = Standard - 2 inch

**B1** = Low Flow - 1 inch Turbine Only

**B2** = 2 inch Turbine Only

**B3** = Computer Only

**C1** = Generic Low Flow - 1 inch

**C2** = Generic - 2 inch

**C3** = Generic Computer Only

**A1** + **09** + **LM** + **N100** + **N** + **A1** ← (Sample Model Number)

\* When ordering Computer Assembly Only, specify Turbine Housing size.



# A1 Commercial Grade Meters

GPI Commercial Grade Meters are identified by an A1 prefix. Commercial Grade Meters are packaged as a self-contained unit. Select this meter when you need an accurate, basic meter. GPI Commercial Grade Meters come in Aluminum and Nylon.



Aluminum



Nylon

Choose one of three sizes of Aluminum meters for petroleum products. Use the Nylon meters for water or non-aggressive chemicals.

**ACCURACY: ± 1.5% OF READING**  
(on models A100, A200 and N100)

#### APPROVALS



### Select Your Fitting Size:

#### Aluminum

Low Flow    1 inch    2 inch

#### Nylon

Low Flow    1 inch



### Features and Benefits:

- ✓ Unique package combines Turbine and LCD into a self-contained, compact, economical meter.
- ✓ Local Display Computer features: 2 Totals (1 Resettable, 1 Cumulative); Factory Calibration in gallons and litres; 2 User Calibrations and Flowrate.
- ✓ Output capabilities available to communicate with process control equipment.
- ✓ Lightweight, compact design allows for easy installation.
- ✓ Powered by Lithium batteries for long life.

BUY SMART . BUY VALUE . BUY **GPI**



# AI Commercial Grade Meters

|                                     | ALUMINUM                             |                                      |                                      | NYLON                                |                                      |
|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
|                                     | A025 (Low Flow)                      | A100 (1 inch)                        | A200 (2 inch)                        | N025 (Low Flow)                      | N100 (1 inch)                        |
| <b>Design Type:</b>                 | Paddlewheel                          | Turbine                              | Turbine                              | Paddlewheel                          | Turbine                              |
| <b>Housing Material:</b>            | Aluminum                             | Aluminum                             | Aluminum                             | Nylon                                | Nylon                                |
| <b>Fitting Size:</b>                | 1 inch                               | 1 inch                               | 2 inch                               | 1 inch                               | 1 inch                               |
| <b>Fitting Type:</b>                | NPT, ISO or BSPP(female)             | NPT, ISO or BSPP(female)             | NPT or ISO (female)                  | NPT or ISO (female)                  | NPT or ISO (female)                  |
| <b>Flow Range (GPM):</b>            | 0.3 - 3 GPM                          | 3 - 50 GPM                           | 30 - 300 GPM                         | 0.3 - 3 GPM                          | 3 - 50 GPM                           |
| <b>Flow Range (LPM):</b>            | 1 - 11 LPM                           | 11 - 190 LPM                         | 114 - 1,135 LPM                      | 1 - 11 LPM                           | 11 - 190 LPM                         |
| <b>Accuracy:</b>                    | N/A <sup>*</sup>                     | ± 1.5% of reading                    | ± 1.5% of reading                    | N/A <sup>*</sup>                     | ± 1.5% of reading                    |
| <b>Repeatability:</b>               | ± 1%                                 | ± 0.2%                               | ± 0.2%                               | ± 1%                                 | ± 0.2%                               |
| <b>Pressure Rating:</b>             | 300 PSI / 21 BAR                     | 300 PSI / 21 BAR                     | 300 PSI / 21 BAR                     | 150 PSI / 10.2 BAR                   | 150 PSI / 10.2 BAR                   |
| <b>Operating Temperature Range:</b> | -40°F to +250°F<br>(-40°C to +121°C) | -40°F to +250°F<br>(-40°C to +121°C) | -40°F to +250°F<br>(-40°C to +121°C) | -40°F to +250°F<br>(-40°C to +121°C) | -40°F to +250°F<br>(-40°C to +121°C) |
| <b>with Computer:</b>               | +14°F to +140°F<br>(-10°C to +60°C)  | +14°F to +140°F<br>(-10°C to +60°C)  | +14°F to +140°F<br>(-10°C to +60°C)  | +14°F to +140°F<br>(-10°C to +60°C)  | +14°F to +140°F<br>(-10°C to +60°C)  |
| <b>Wetted Material - Housing:</b>   | Aluminum                             | Aluminum                             | Aluminum                             | Nylon                                | Nylon                                |
| <b>Bearings:</b>                    | Ceramic                              | Ceramic                              | Ceramic                              | Ceramic                              | Ceramic                              |
| <b>Shaft:</b>                       | Tungsten Carbide                     | Tungsten Carbide                     | Tungsten Carbide                     | Tungsten Carbide                     | Tungsten Carbide                     |
| <b>Rotor:</b>                       | Nylon                                | Nylon                                | Nylon                                | Nylon                                | Nylon                                |
| <b>Signal Generators:</b>           | Ferrite                              | Ferrite                              | Ferrite                              | Ferrite                              | Ferrite                              |
| <b>Rings:</b>                       | 316 Stainless Steel                  | 316 Stainless Steel                  | 316 Stainless Steel                  | 316 Stainless Steel                  | 316 Stainless Steel                  |
| <b>Typical K-Factor:</b>            | 2200                                 | 730                                  | 72                                   | 2200                                 | 730                                  |
| <b>Frequency Range:</b>             | 11 - 110 Hz @<br>0.3 - 3 GPM         | 36.5 - 608.3 Hz @<br>3 - 50 GPM      | 36 - 360 Hz @<br>30 - 300 GPM        | 11 - 110 Hz @<br>0.3 - 3 GPM         | 36.5 - 608.3 Hz @<br>3 - 50 GPM      |
| <b>Recommended Strainer Size:</b>   | 55 mesh                              | 28 mesh                              | 28 mesh                              | 55 mesh                              | 28 mesh                              |
| <b>Shipping Weight:</b>             | 1.35 lbs. (0.61 kg)                  | 1.35 lbs. (0.61 kg)                  | 3.0 lbs. (1.36 kg)                   | 1.0 lbs. (0.5 kg)                    | 1.0 lbs. (0.5 kg)                    |
| <b>Local Display:</b>               | 09 Computer<br>(See page 58)         | 09 Computer<br>(See page 58)         | 09 Computer<br>(See page 58)         | 09 Computer<br>(See page 58)         | 09 Computer<br>(See page 58)         |

\* Accuracy can vary up to ± 5% depending on installation and fluid type.  
Field Calibration is recommended for best accuracy.



# A1 Meter Modules

## Standard Remote Kit Assembly (Part No. 113265-1)



Standard Remote Kit Assembly Installed



The Standard Remote Kit Assembly modifies GPI Electronic Digital Meters for applications in specialized situations including remote indication and high or low fluid temperature metering applications. This kit also provides the versatility of panel mounting of the LCD readout up to 300 ft. from the turbine housing and sensor.

This kit consists of a sensor module, a dustcover assembly and 10 ft. of cable; it also requires a 09 Computer.

Do not use on A1 2" meter. Order 113275-1.

### Features and Benefits:

- ✓ Accommodates fluid temperatures from -40°F to +250°F (-40°C to +121°C).
- ✓ This kit can upgrade an existing GPI meter or can be purchased with a new meter.

### SPECIFICATIONS

|                  |  |
|------------------|--|
| Magnetic Pickup: | 1.5 k Ohm, 700 mH  |
| Signal Type:     | Sine Wave  |
| Voltage:         | Peak to Peak 33 mV to 825 mV                               |
| Frequency:       | 11 to 750 Hz   |
| Cable:           | 10 ft. (3 m), 2-conductor shielded, Belden #1266A or #8451 |

## FM Approved Remote Kit Assembly (Part No. 113275-1)



FM Approved Remote Kit Assembly Installed



The Factory Mutual (FM) Approved Remote Kit Assembly modifies GPI Electronic Digital Meters for applications in specialized situations including remote indication and high or low fluid temperature metering applications. This kit also provides the versatility of panel mounting of the LCD readout up to 100 ft. from the turbine housing.

This kit consists of a sensor module, a dust-cover assembly and 10 ft. of cable; it also requires a 09 Computer.

### Features and Benefits:

- ✓ Accommodates fluid temperatures from -40°F to +250°F (-40°C to +121°C).
- ✓ This kit can upgrade an existing GPI meter or can be purchased with a new meter.
- ✓ Use this module with GPI Industrial or Commercial Grade Electronic Digital Meters.

### SPECIFICATIONS

|                  |  |
|------------------|--|
| Magnetic Pickup: | 1.3 k Ohm, 90 mH                                 |
| Signal Type:     | Sine Wave  |
| Voltage:         | Peak to Peak 10 mV to 500 mV                     |
| Frequency:       | 11 to 750 Hz                                     |
| Cable:           | 10 ft. (3 m), 2-conductor shielded, Belden #9501 |

### APPROVALS



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# AI Meter Modules

## Conditioned Signal Output Module (Part No. 113435-1)



Conditioned Signal Output Module Installed

### Features and Benefits:

- ✓ Provides two digital signals: Open Collector or 6-volt Square Wave and can communicate with most process control devices.
- ✓ Operating temperature range of -40°F to +212°F (-40°C to +100°C).
- ✓ Can be externally powered or battery powered.

This module provides an unscaled, amplified, digital signal capable of transmission up to 5,000 ft. There is no need for additional signal conditioning or amplification devices to achieve the desired digital signal.

The module is factory assembled for Open Collector signal output and operates from an external 9 to 35 volt power source. By changing terminal connections and adding a battery kit, the module provides a self-powered 6-volt Square Wave signal.

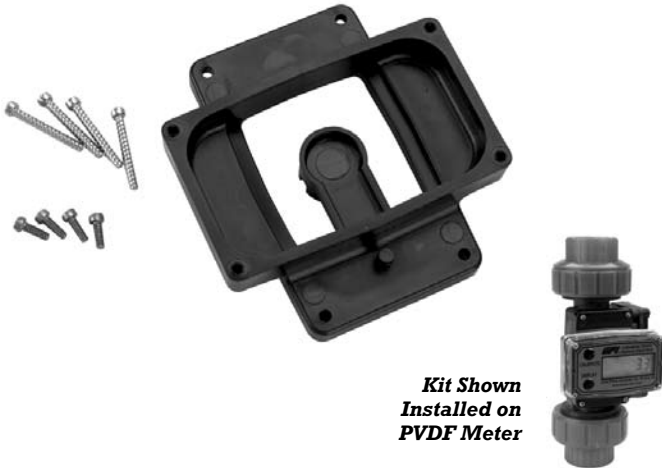
### SPECIFICATIONS

|              |  |
|--------------|--|
| Connector:   | Hubble PG7                               |
| Signal Type: | Open Collector (NPN)                     |
| Power:       | External 9 to 35 VDC, approximately 1 mA |
| Connection:  | Three wire                               |
| Frequency:   | 0 to 750 Hz                              |
| Cable:       | 10 ft. (3 m) Belden #9363                |



## AI Meter Accessories

### 90° Display Adapter Kit (Part No. 125260-1)



*Kit Shown  
Installed on  
PVDF Meter*

90° Display Adapter Kit allows for horizontal readout of vertical meters. Includes adapter, O-ring, screws and foam spacers required for installation.

### GPI Electronics Programmer (Part No. 113800-06)



The GPI Electronics Programmer is a system composed of a small USB interface unit, a USB cable, and a software program. This kit is perfect for reconfiguring multiple GPI Electronics for the first time or when changing the configuration over the life of the meter.

Used with your PC, it allows quick, convenient on-screen setting (and reading) of setup options and calibration data from many GPI Electronic Digital Meters (EDMs).