

Owner's Manual

02 Series Electronic Flowmeter with Scaled Pulse Output

IMPORTANT NOTICE

This meter is not approved for use with flammable liquids. Do not use with liquids or chemicals that are not compatible with the wetted materials found in the **Specifications** section.

This meter is not legal for trade applications.

This meter is sensitive to electrical "noise" and may not operate correctly if located near certain electrical equipment.

CALIBRATION

This meter has a permanent factory calibration for light viscosity fluids. If installed and used correctly, accuracies of no greater than $\pm 5\%$ will be obtained.

INSTALLATION

This meter may be installed in-line either horizontally or vertically, or at the end of the hose adjacent to the nozzle if present. For best accuracy, provide 10 inches of pipe upstream and 5 inches of pipe downstream. The use of pipe sealant or PTFE tape is acceptable. Review your application for suitability. Attach meter with arrow on outlet port pointed in the direction of flow.

For Aluminum Housings: Using a wrench, tighten meter at the ends.

For Nylon Housings: Hand tighten only. Avoid using metal connections, as this could damage the housing.

OPERATION

Batch and Cumulative Totals

This meter maintains two totals: **Batch** and **Cumulative**. The **Batch** total may be reset to measure flow during a single use. The **Cumulative** total provides continuous measurement and may not be manually reset. The **Batch** total is labeled **TTL1**. The **Cumulative** total is labeled **TTL2**. When the **Cumulative** total reaches a maximum reading of 9999, it will automatically reset to zero. Press the DISPLAY button briefly to switch between **Batch** and **Cumulative** totals.



Batteries Included

Activate the Meter

Turn the meter ON by starting fluid flow or briefly pressing the DISPLAY button. The meter will display the batch or cumulative total from last use.

Press DISPLAY briefly to display the batch total. Hold the DISPLAY button down for three seconds to reset that batch total to zero.

This meter is programmed to turn off automatically if not used for approximately one minute.

Scaled Output Pulse

For every whole unit (Gallon or Litre) that passes through the meter's Batch Total (TTL1), a single pulse is transmitted via the attach cable. The White wire is signal and the Black wire is common (GND) (**See Specifications**).

Note: Some interface devices may not have an internal pull-up resistor. Use a minimum 820 ohms resistor if necessary (**See Figure 1**).

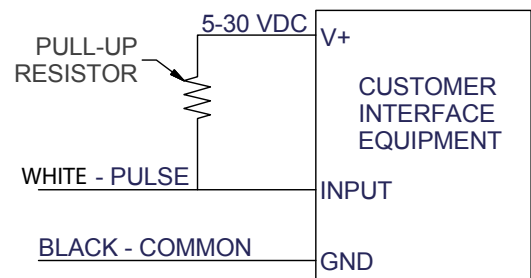


Figure 1

MAINTENANCE

Proper handling and care will extend the life and service of this meter.

Turbine Rotor

This meter is virtually maintenance-free. However, it is important for the rotor to move freely. Keep the meter clean and clear of contaminants.

Remove debris or deposits from the rotor using a soft brush or small probe. Be careful not to damage the turbine rotor or supports.

CAUTION

Blowing compressed air through the turbine assembly could damage the rotor.

BATTERY REPLACEMENT

The meter is powered by two AAA alkaline batteries which may be replaced while the meter is installed. When batteries are removed or lose power, the batch and cumulative totals reset to zero but the factory calibration is retained.

If the meter display becomes dim or blank, replace the batteries as follows:

1. Remove the four Phillips-head screws from the face of the meter and lift the faceplate from the turbine.
2. Remove the old batteries and clean any corrosion from the terminals.
3. Install new batteries. Make sure the positive post is in the correct position.
4. When the batteries are replaced, the faceplate will power ON. Check the display to ensure normal functions have resumed before assembling again.
5. Re-seat batteries, if necessary, and position the faceplate on the turbine housing. To avoid moisture damage, make sure the seal is fully seated. Tighten the four screws on the faceplate.

SERVICE

For technical assistance, warranty replacement or repair contact your FLOMEC® distributor:

In North or South America:

888-996-3837 / GPI.net

Outside North or South America:

+61 2 9540 4433 / flomec.com.au

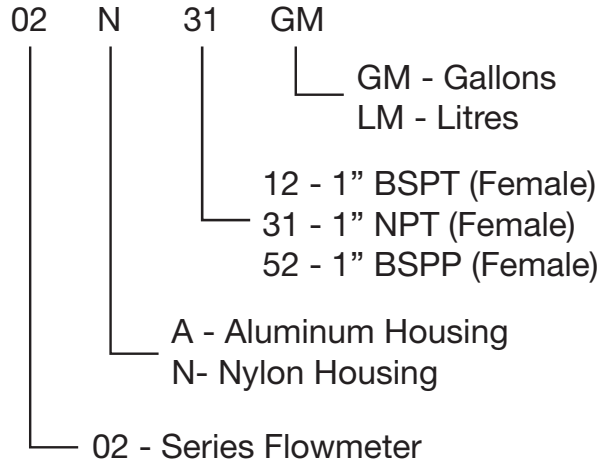
To obtain prompt, efficient service, always be prepared with the following information:

- The model number
- The manufacturing date code (located under the coverplate)

For warranty work, always be prepared with your original sales slip or other evidence of purchase date.

Please contact your FLOMEC® distributor before returning any part. It may be possible to diagnose the trouble and find a solution with a telephone call. You may also be informed of any special requirements you will need to follow for shipping.

SPECIFICATIONS



Flowrate:	3 to 30 GPM (11 to 113 LPM)
Working Pressure (MAX.):	150 PSIG (10.3 bar) Nylon 300 PSIG (21 bar) Aluminum
Operating Temperature:	+14°F to +130°F (-10°C to 55°C)
Storage Temperature:	-40°F to +158°F (-40°C to 70°C)
Wetted Materials:	
Housing:	Noted above
Bearings:	Ceramic
Shaft:	Tungsten Carbide
Rotor / Supports:	Nylon
Rings:	316 Stainless Steel
Signal Generator:	Ferrite
Pulse Out Description:	Open Collector (a.k.a. npn or current sinking)
Pulse Duration:	250 msec
Pulse Amplitude:	5 to 30 VDC
Scaling:	One pulse per Gallon or Litre
Cable Length:	5 ft. / 1.5 meters



The Waste Electrical and Electronic Equipment (WEEE) directive (2002/96/EC) was approved by the European Parliament and the Council of the European Union in 2003. This symbol indicates that this product contains electrical and electronic equipment that may include batteries, printed circuit boards, liquid crystal displays or other components that may be subject to local disposal regulations at your location. Please understand those regulations and dispose of this product in a responsible manner.

Declaration of Conformity

Manufacturer's Name: Great Plains Industries, Inc.
Manufacturer's Address: 5252 East 36th Street North
Wichita, KS USA 67220-3205

Declares, that the product:
Product Name: Electronic Digital Meter
Model Numbers: 02A12LM, 02N12LM, 02A31GM,
02N31GM, 02A31LM, 02N31LM,
and 02A52LM

Conforms to the following Standards:
EMC: EN 50081-1 : 1992 (Reference EN 55022)
EN 55082-1 : 1992

Supplementary Information:

- The products comply with the requirements of the EMC Directive 89/336/EEC.
- The products conform to Council Directive 2011/65/EU and 2002-95-EC as amended (RoHS Directive) relating to the restriction of certain hazardous substances in electrical and electronic equipment.
- This product is not recommended for custody transfer or application where levying by consumption takes place.
- This product has insufficient internal volume size or pressure ratings to meet a pressure directive.
- Year of Manufacturing is displayed directly on the product as Manufacturing Date Code (Mfg. Date) indicating week and year.

I the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Signature:



Full Name:

Victor Lukic

Position:

President

Great Plains Industries, Inc.

Place:

Wichita, KS USA

April 2014

GREAT PLAINS INDUSTRIES **GPI**[®]
5252 E. 36th St. N. Wichita, KS 67220-3205
316-686-7361 / f. 316-686-6746 / GPI.net



Limited Warranty Policy

Great Plains Industries, Inc. 5252 E. 36th Street North, Wichita, KS USA 67220-3205, hereby provides a limited warranty against defects in material and workmanship on all products manufactured by Great Plains Industries, Inc. This product includes a 1 year warranty. Manufacturer's sole obligation under the foregoing warranties will be limited to either, at Manufacturer's option, replacing or repairing defective Goods (subject to limitations hereinafter provided) or refunding the purchase price for such Goods theretofore paid by the Buyer, and Buyer's exclusive remedy for breach of any such warranties will be enforcement of such obligations of Manufacturer. The warranty shall extend to the purchaser of this product and to any person to whom such product is transferred during the warranty period.

The warranty period shall begin on the date of manufacture or on the date of purchase with an original sales receipt. This warranty shall not apply if:

- A. the product has been altered or modified outside the warrantor's duly appointed representative;
- B. the product has been subjected to neglect, misuse, abuse or damage or has been installed or operated other than in accordance with the manufacturer's operating instructions.

To make a claim against this warranty, contact the GPI Customer Service Department at 316-686-7361 or 888-996-3837. Or by mail at:

Great Plains Industries, Inc.
5252 E. 36th St. North,
Wichita, KS, USA 67220-3205

If you are outside North or South America contact:

Great Plains Industries – Australia
1/16 Atkinson Road,
Taren Point NSW 2229, Sydney, Australia

The company shall, notify the customer to either send the product, transportation prepaid, to the company at its office in Wichita, Kansas, or to a duly authorized service center. The company shall perform all obligations imposed on it by the terms of this warranty within 60 days of receipt of the defective product.

GREAT PLAINS INDUSTRIES, INC., EXCLUDES LIABILITY UNDER THIS WARRANTY FOR DIRECT, INDIRECT, INCIDENTAL AND CONSEQUENTIAL DAMAGES INCURRED IN THE USE OR LOSS OF USE OF THE PRODUCT WARRANTED HEREUNDER.

The company herewith expressly disclaims any warranty of merchantability or fitness for any particular purpose other than for which it was designed.

This warranty gives you specific rights and you may also have other rights which vary from U.S. state to U.S. state.

Note: In compliance with MAGNUSON MOSS CONSUMER WARRANTY ACT – Part 702 (governs the resale availability of the warranty terms).

Wichita · Sydney · Mexico City



Great Plains Industries, Inc. / 888-996-3837 / GPI.net