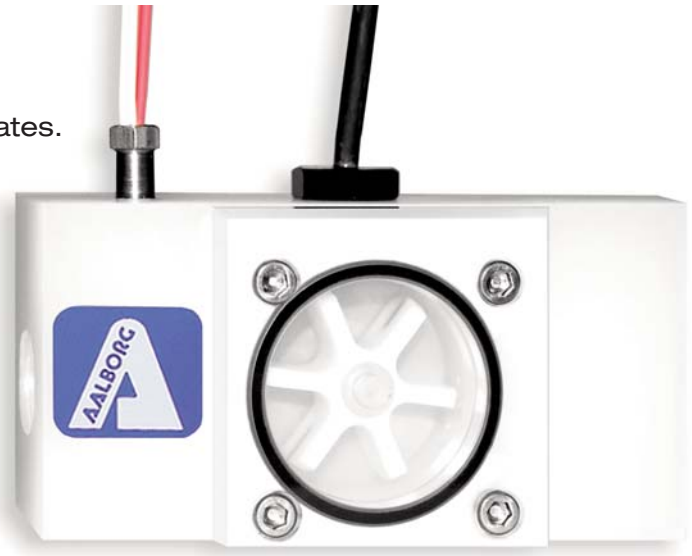


**Design Features**

- Flow meters for liquid flow applications.
- Jewel bearings allow for very low minimum flow rates.
- Easy to install and operate.
- Mounted horizontally or vertically.
- Only one moving part.
- Flow indication via transparent acrylic cover.
- Versatile square wave flow output signal.
- Female NPT ports.
- Multiparameter: flow and temperature \*outputs. Four wires platinum RTD option.
- Polypropylene and chemically resistant PVDF models.

\* PWM provides only raw pulse output signals. In order to get actual flow and temperature readings, user has to implement additional signal processing.



**FOR LIQUIDS ONLY**

**Principles of Operation**

Fluid flowing through the unit causes the paddle wheel to spin. As the magnets embedded in the paddle spin past the sensor, electrical pulses are produced in which frequency is proportional to the flow rate. The number of pulses per desired time interval and the K-factor (number of pulses/gallon) make it possible to calculate the flow rate and volume passing through the unit.

| TABLE 31 - FLOW RATE FOR PWM |                            |           |                                  |                   |     |
|------------------------------|----------------------------|-----------|----------------------------------|-------------------|-----|
| METER SIZES                  | FLOW RATE H <sub>2</sub> O |           | Inlet/Outlet Ports<br>Female NPT | Max Pressure Drop |     |
|                              | [L/min]                    | [gal/min] |                                  | Bar               | PSI |
| PWM4                         | 0.15-18.9                  | 0.04-5    | 3/8"                             | 1                 | 15  |
| PWM6                         | 0.3-37.6                   | 0.08-10   | 1/2"                             | 1.4               | 20  |
| PWM8                         | 0.6-64.4                   | 0.15-17   | 3/4"                             | 1.4               | 20  |
| PWM10                        | 1.3-132.5                  | 0.35-35   | 1"                               | 1.4               | 20  |

| TABLE 33 - PADDLE WHEEL MODEL NUMBERS |                        |        |               |
|---------------------------------------|------------------------|--------|---------------|
| POLYPROPYLENE                         | POLYPROPYLENE with RTD | PVDF   | PVDF with RTD |
| PWM4P                                 | PWM4PR                 | PWM4T  | PWM4TR        |
| PWM6P                                 | PWM6PR                 | PWM6T  | PWM6TR        |
| PWM8P                                 | PWM8PR                 | PWM8T  | PWM8TR        |
| PWM10P                                | PWM10PR                | PWM10T | PWM10TR       |

| TABLE 32 - SPECIFICATIONS |   |
|---------------------------|---|
| ACCURACY                  | ±1% FS.   |
| MAX TEMPERATURE           | 60 °C (140 °F).   |
| MAX PRESSURE              | 10 barg (150 psig).   |
| POWER                     | 5 to 24 Vdc @ 2 mA.   |
| OUTPUT SIGNAL             | NPN open collector (load 30 mA max).  |
| DIMENSIONS                | 56H x 108L x 53D [mm] (2.2 x 4.25 x 2.2")<br>Without RTD and flow sensors.      |
| CABLE                     | Flow signal 1.8 m (6') or optional 3.7m (12') [ft.]<br>RTD 12 [in.] long cable. |
| RTD                       | Platinum 0.00385 TCR, meets EN 60751, Class B.                                  |

| TABLE 34 - WETTED MATERIALS |                         |                   |
|-----------------------------|-------------------------|-------------------|
|                             | POLYPROPYLENE MODELS    | PVDF UNITS MODELS |
| BODY                        | Polypropylene           | PVDF              |
| LID                         | Acrylic                 | PVDF              |
| PADDLE WHEEL                | PVDF                    | PVDF              |
| SHAFT                       | Nickel Tungsten Carbide | Zirconia Ceramic  |
| BEARINGS                    | Sapphire Jewels         | Sapphire Jewels   |
| O-RINGS                     | EPDM                    | PTFE              |
| PLATINUM RTD                | 316 ss casing           | 316 ss casing     |

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