

# SPECIFICATION SHEET

M&E | Bronze PD40FLG(SCR)-NR, PD50FLG(SCR)-NR

Positive Displacement Water Meter

## Specifications

### Water Meter

- The PD water meter consists of three major assemblies: a register, a lead-free bronze main case, and a positive displacement (oscillating piston) measuring chamber.
- For reading convenience, the register is mounted hinged on the outlet side of the meter. The lead-free bronze main case is corrosion resistant and is rated for typical municipal applications.
- The positive displacement chamber design of the measuring element ensures maximum accuracy in any installation orientation. The measuring unit is optimized for minimal wear.
- All M&E meters meet or exceed AWWA C700 standards.
- M&E provides a limited warranty. See warranty statement for details.

### Register

- Incorporates Accuracy Data Leveling Technology as presented in: <https://doi.org/10.1002/opfl.1757>
- Built-in BLE communication for configuration and reading.
- Anti-obsolence: 10-year estimated battery life, under normal operating conditions. Replaceable with CR18505 lithium battery.
- Operating Environment:
  - » IP68 for submersed applications.
  - » Temperature min -4° F
  - » Temperature max 120° F
- Exceeds IP68 requirements.
- Field replaceable, sealed battery.
- Complies with Part 15 of the FCC rules.

## Application

For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

The register's powerful and intuitive mobile application allows you to both program as well as collect reads from it without the need of additional costly equipment. This facilitates utilities to both reduce expenses while increasing the efficiency of daily operations.

The measuring chamber is an oscillating piston positive displacement design made of engineered plastics that meet NSF standards. The PD40 and PD50 are approved by NTEP for horizontal and vertical installations in cold water.



## Features

### Register

- All M&E -NR meters ship configured to USG
  - » Field configurable to: USG, CF, Liters & Cubic Meters
- Encoded output
  - » All M&E -NR meters ship configured to Sensus encoded protocol
  - » All M&E -NR meters are field configurable to: Neptune, AMCO & Sensus protocols
- Pulse output
  - » Field configurable to pulse output
- Wireless meter reading
  - » Walk by, drive by and 3rd party capable
- Configurable using iOS and Android.

### Lead-Free Main Case

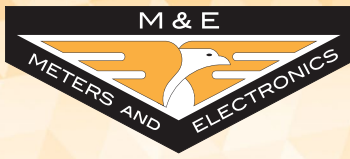
- Made from lead-free bronze.
- NSF/ANSI/CAN 61 and 372.
- Includes 1/4"- 20 threaded boss for AMR/AMI pit installations.
- Electrical grounding continuity.

### Measuring Chamber

- Oscillating piston measuring chamber.
- Widest effective flow range for maximum revenue.
- Polymer measuring chamber materials maximize long-term accuracy.



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**877-863-8377**



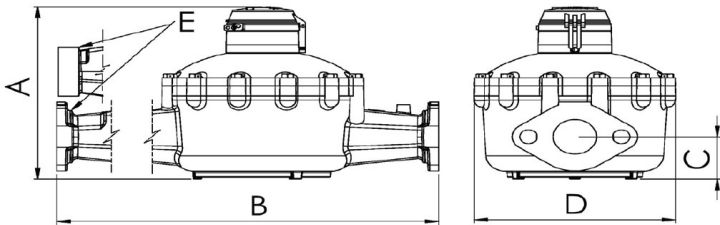
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## Size Options

Model # (Bronze)	PD40FLG-NR 1-1/2" FLG	PD50FLG-NR 2" FLG	PD40SCR-NR 1-1/2" SCR	PD50SCR-NR 2" SCR
Normal Operating Range +/- 1.5% GPM (CFM)	5-100 (0.67-13.37)	8-160 (1.07-21.39)	5-100 (0.67-13.37)	8-160 (1.07-21.39)
Low Flow +1.5% / -5% GPM (CFM)	1-1/2 (0.20)	2 (0.27)	1-1/2 (0.20)	2 (0.27)
Maximum Continuous GPM (CFM)	50 (6.68)	80 (10.69)	50 (6.68)	80 (10.69)
Maximum Intermittent GPM (CFM)	100 (13.37)	160 (21.39)	100 (13.37)	160 (21.39)
Maximum Pressure (PSI)	150	150	150	150
Maximum Temperature (°F)	120	120	120	120
Length (in)	13.0	17.0	12.63	15.25
Overall Height (in)	8.55	9.4	8.55	9.4
Height, bottom to center line (in)	2.65	2.56	2.65	2.56
Width (in)	9.0	10.0	9.0	10.0
Weight (lbs)	24.80	35.60	21.49	29.87
Register Capacity millions USG (millions CF)	100 (10)	100 (10)	100 (10)	100 (10)
Pulse Resolution (USG)	1 Pulse = 10 USG	1 Pulse = 10 USG	1 Pulse = 10 USG	1 Pulse = 10 USG
Pulse Resolution (CF)	1 Pulse = 1 CF	1 Pulse = 1 CF	1 Pulse = 1 CF	1 Pulse = 1 CF
Meter Spigots or Flange	1.5" Oval 2 Bolt	2" Oval 2 Bolt	2" NPSM	2.5" NPSM



	A (in)	B (in)	C (in)	D (in)	E (in)	WGT (lbs)
1-1/2" PD FLG	8.55	13.0	2.65	9.0	1.5" OVAL FLG	24.80
2" PD FLG	9.4	17.0	2.56	10.0	2" OVAL FLG	35.60
1-1/2" PD SCR	8.55	12.63	2.65	9.0	2" Male NPSM	21.49
2" PD SCR	9.4	15.25	2.56	10.0	2.5" Male NPSM	29.87

## Register LCD Display

**Current Meter Read**  
*cummulative meter total*

**Flow Rate**  
*per minute*

**Flow Indicator**  
*water currently flowing*

**Flow Direction**  
*forward or backward flow*

**Water Alarm**  
*leak or backflow*

**General Alert**  
*tamper or freeze*

**Billing Digits**  
*Read digits configured for output*

**Output Type**  
*Wire output type and status*

**Unit of Measure**  
*Configured measure (one)*

**Configuring**  
*Connected and ready to update*

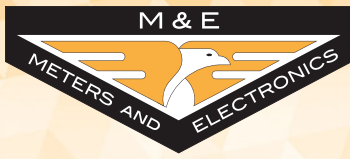
**Battery Life**  
*Remaining capacity*

**Radio Signal**  
*Integrated RF network signal strength*

LCD width: 2.5 in



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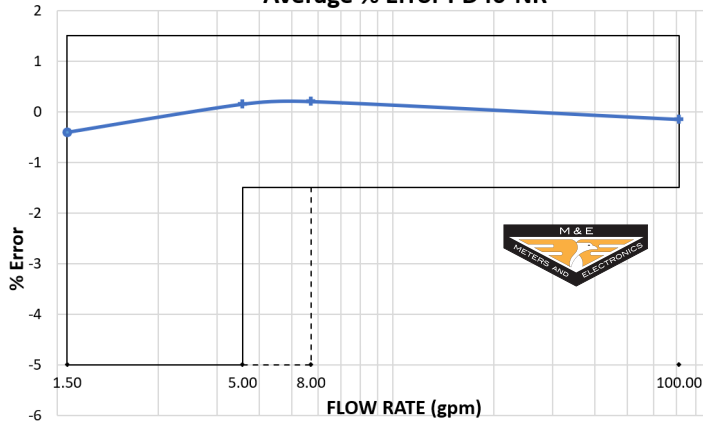


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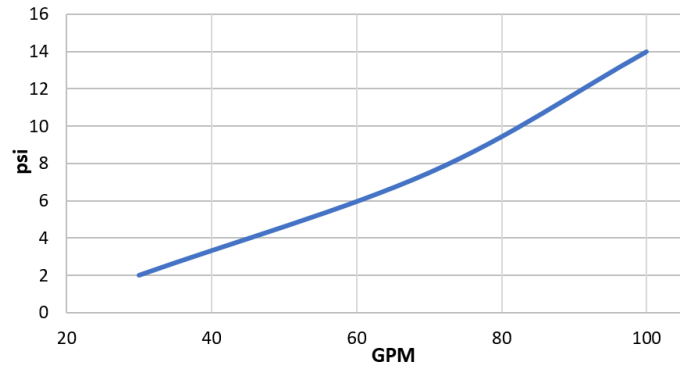
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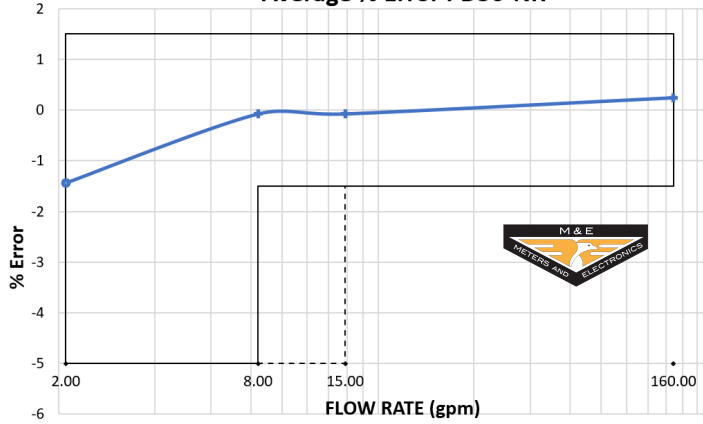
### Average % Error PD40-NR



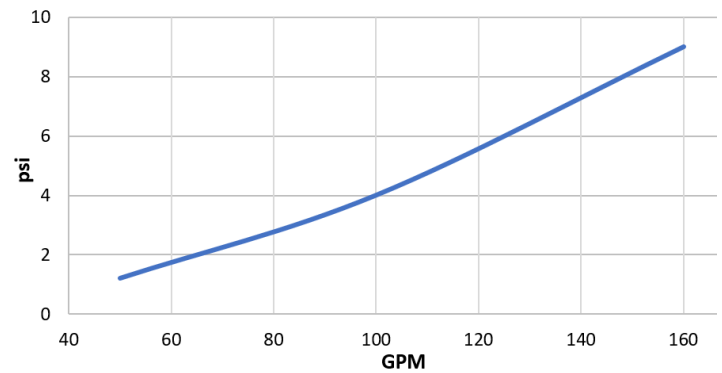
### Headloss PD40-NR 1-1/2"



### Average % Error PD50-NR



### Headloss PD50-NR 2"



\*Note: All data are actual M&E test results.



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