

# Capture Ultra-Low Flows and Monitor Flow Direction

Neptune® ProCoder™)R900i™



The Neptune® ProCoder™)R900i™ combination absolute encoder register/radio frequency endpoint makes it simple to collect metering data using multiple modes simultaneously and features a high-resolution, mechanical sweep hand to detect ultra-low flows as well as monitor direction of flow. Its interleaved mobile and high-power fixed network messages allow for simple migration from walk-by to mobile to fixed network reading – and back again – without site visits or reprogramming. Your utility can also review an account’s consumption by the hour with 96 days of profile information, along with alerts for leak or backflow. Proactively identify and resolve customer issues – heading off high bill complaints, reducing delinquent payments, and eliminating write-offs.

- Easy to install/no programming required
- Interleaved mobile and high-power fixed network messages
- Read in walk-by, mobile, fixed modes simultaneously
- 96 days of hourly account history
- Leak, tamper, reverse flow detection

## Specifications

### Electrical Specifications

- Endpoint Power: Lithium battery with capacitor

### Transmitter Specifications:

- Two-way endpoint
- Transmit Period (interleaved mobile and fixed network messages):
  - Standard mobile message every 14 seconds at 100 mW
  - Standard fixed network message every 7½ minutes at 1 Watt
- FCC Verification: Part 15.247
  - Transmitter Channels: 50 frequency-hopping, spread-spectrum
  - Channel Frequency: 910 to 920 MHz
- Encoder Register Reading Interval:
  - Every 15 minutes
- Data Logging Interval:
  - 96 days of hourly data

### Environmental Conditions

- Operating Temperature: -22°F to +149°F (-30°C to +65°C)
- Storage Temperature: -40°F to +158°F (-40°C to +70°C)
- Operating Humidity:
  - Inside Set: 0 to 95%, condensing
  - Pit Set: 100% submersible

### Materials

- Register Housing:
  - Inside Set: plastic polycarbonate
  - Pit Set: roll-sealed copper shell
- Lens:
  - Inside Set: plastic
  - Pit Set: glass

### Antennas

- Standard internal antenna
- Optional through-the-lid antenna
- 18" coax
- 6' coax
- 20' coax

## Resolution

### Register Capacity

	Size	G	ft <sup>3</sup>	m <sup>3</sup>
T-10®(Includes disc side of TRU/FLO®)	5/8", 3/4", 1"	10,000,000	1,000,000	100,000
T-10 (Includes disc side of HPPIII)	1.5", 2"	100,000,000	10,000,000	1,000,000
HP Turbine (Includes FS Turbine, HPPIII, Turbine Side of TRU/FLO)	1.5", 2", 3", 4"	100,000,000	10,000,000	1,000,000
HP Turbine (Includes FS Turbine, HPPIII, Turbine Side of TRU/FLO)	6", 8", 10"	1,000,000,000	100,000,000	10,000,000

### High Resolution (8-digit reading)

	Size	G	ft <sup>3</sup>	m <sup>3</sup>
T-10 (Includes disc side of TRU/FLO)	5/8", 3/4", 1"	0.1	0.01	0.001
T-10 (Includes disc side of HPPIII)	1.5", 2"	1	0.1	0.01
HP Turbine (Includes FS Turbine, HPPIII, Turbine Side of TRU/FLO)	1.5", 2", 3", 4"	1	0.1	0.01
HP Turbine (Includes FS Turbine, HPPIII, Turbine Side of TRU/FLO)	6", 8", 10"	10	1	0.1

### ProCoder Registration (Per Sweep Hand Revolution)

Type	Size	G	ft <sup>3</sup>	m <sup>3</sup>
T-10	5/8", 3/4", 1"	0.1	0.01	0.001
T-10 (Includes disc side of HPPIII)	1.5", 2"	1	0.1	0.01
HP Turbine (Includes FS Turbine, HPPIII, Turbine Side of TRU/FLO)	1.5", 2", 3", 4"	10	1	0.1
HP Turbine (Includes FS Turbine, HPPIII, Turbine Side of TRU/FLO)	6", 8", 10"	100	10	1

## Options

### Compatibility

- Available for 5/8"-2" T-10® water meters
- Handhelds with belt clip transceiver
- Mobile data collector - mobile RF
- Gateways - fixed network RF

### Units of Measure

- U.S. Gallons, Cubic Feet, Imperial Gallons, Cubic Metres

## Warranty

- Neptune provides a limited warranty for performance, materials, and workmanship. See warranty statement for details.



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