

DESCRIPTION

APPLICATIONS: The ORION® Universal 1 Pit and Remote Transmitter is factory programmed for connectivity to compatible encoders including: Sensus® ECR II and ICE™ encoder, Neptune® ProRead® and E-Coder™ registers, AMCo Scancoder® and Hersey® Translator encoder. All ORION Universal 1 transmitters have intelligence built into the electronics to allow the unit to automatically determine which encoder it is connected to without programming.

The Universal 1 Pit Transmitter is designed for water pit or vault installations that are subject to flooding or submergence. The Universal Pit Transmitter is offered in two different configurations to provide maximum performance for each application. The transmitters include pit transmitters designed for metal lid applications and nonmetal applications.

The Universal 1 Remote Transmitter is designed for basement, indoor or outdoor installations that are not subject to flooding or submergence.

RESOLUTION: ORION Universal Transmitters broadcast an electronic reading resolution equal to what is provided by the encoder register connected to it. The Universal 1 Transmitter offers an electronic reading of up to seven digits.

LEAK DETECTION: The ORION Universal Transmitter provides optional leak detection notification when the meter is read. The system reports leak detection when a two-hour window of no usage is not found within a 24 hour time period. The system automatically resets when the next two hour window of no usage is found.

DATA PROFILING: ORION Transmitters can be purchased with an optional Data Profiling feature. The ORION Data Profiling Transmitter includes all of the same features and functionality of the ORION Transmitter plus a customer programmable data storage option. The Data Profiling information provides utilities with an additional customer support tool to determine customer tampering and to help resolve high water usage disputes. With the capability to store 20,000 reads, based on an hourly time interval, the ORION Data Profiling Transmitter can accumulate over two years worth of customer usage for analysis.

CONSTRUCTION: The ORION Universal Pit Transmitter is constructed of a threaded plastic housing with an ORION RF board completely encapsulated in a waterproof epoxy. The completely threaded housing provides for maximum flexibility when installing the pit transmitter below or through a pit lid.

The ORION Universal Remote Transmitter is constructed of a plastic remote enclosure with an ORION RF board. The Universal Transmitter may be installed indoors or outside but is not designed for vault or meter pit applications, which are subject to flooding or submergence.

TEMPERATURE: The operating temperature of the ORION Universal 1 Pit and Remote Transmitter is -40°C to 60°C (-40°F to 140°F). The water meter should not be subject to temperatures below freezing.

WIRE CONNECTIONS: The ORION Universal Transmitter can be wired up to any approved encoder register with up to 75 feet of wire.



**Universal 1
Pit Transmitter**



**Universal 1
Remote Transmitter**

ELECTRICAL: The electronic circuitry of the ORION Universal 1 Pit and Remote Transmitter is designed to provide immunity to electrical surges and transients per IEC801-2, IEC801-4 Severity Level 4.

METER COMPATIBILITY: The ORION Universal 1 Pit and Remote Transmitter is compatible with Sensus ECR II and ICE encoders, Neptune ProRead and E-Coder registers, AMCo Scancoder registers and Hersey Translator encoders.

⚠ CAUTION

The ORION Universal Transmitter should only be connected to a Badger Meter approved product. Connection to an unapproved product will void the transmitter warranty.

⚠ WARNING

TRANSPORTATION: The Federal Aviation Administration prohibits operating transmitters and receivers on all commercial aircraft. When powered, the ORION Universal 1 Pit and Remote Transmitter are considered an operating transmitter and receiver and cannot be shipped by air.

LICENSE REQUIREMENTS: This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes made by the user not approved by the Badger Meter can void user's authority to operate the equipment. No license is required by the utility to operate an ORION meter reading system.

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