



Badger Meter

ORION® 2.0 Gateway Receiver

OVERVIEW

Working with providers of fixed network products, Badger Meter has expanded the options for a utility today and in the future. The ORION® gateway receiver allows a utility to move seamlessly from a walk-by or drive-by ORION solution, into a selectively deployed, fixed-network reading system. The ORION gateway receiver provides easy integration into numerous network hardware manufacturers' equipment due to its simplicity and flexibility.

The gateway is assigned a unique network IP address and simply listens and records the latest readings from up to 800 ORION endpoints in the area. Using Badger Meter reading data management software, the utility can poll the IP address of the gateway receiver at any time and receive and store the latest endpoint readings. The gateway data transfer has extremely low-bandwidth requirements, so readings can be taken at anytime without slowing the network.

COMMUNICATIONS

- Responds to HTTP://IPADDRESS request with meter readings.
- 10Base-T communications capability via a single RJ45 port. Compliant to IEEE 802.3 communications standard.
- USB port for configuration of network parameters, IP address, MAC address, etc.
- Three-wire RS232 for configuration and real-time read reporting.

RF RECEIVER

- Receiver monitors 25 frequencies in the 902...928 MHz band.
- Receiver has a conducted sensitivity of at least – 103 dBm.
- Two antenna plugs (BNC) for antenna diversity. The gateway module uses a Laird antenna. The gain is 5 dbi. Badger Meter recommends antennas be tuned for the specific application and have no less than 5dbi gain.
- Receive Signal Strength Indicator (RSSI) available for each reception.



MEMORY

RAM storage for 800 unique meter readings, leak and tamper status. When an endpoint is heard more than one time within a day, the latest reading replaces the previous reading. Endpoint readings are kept in the gateway memory for a maximum of 24 hours. After 24 hours without a read, the gateway removes the endpoint from the gateway memory. This prevents “stale” readings. Flash memory for the gateway serial number, IP Address, configuration and program.

GATEWAY PROGRAMMING

After it is properly installed, the ORION gateway receiver will automatically listen to and store the first 800 ORION endpoints it hears – no customer programming required.

SPECIFICATIONS

Power Supply	802.3af POE powered device or 9...40 Volts DC power (12 VDC @ 300 ma)
Standards	FCC compliant Part 15 Subpart B Unintentional radiator and equivalent SCT (Mexico) and Industry Canada Complies with IEC 61000-4-3 to level 3 – EMC compliance USB 1.0/2.0 IEEE 802.3 10Base-T IEEE 802.3af power over Ethernet-powered device (PD)
Operating Temperature	-40°...60°C Below -30°C, ORION endpoints may fall below the specified power limits or may not radiate at all.
Storage Temperature	-40°...85°C
Mechanical	NEMA 4X Enclosure.
Size	Height with antennas: 24.25" Width: 11.75" Thickness: 2.75"
Weight	6.3 lb

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