

FlexNet Gas Meter Transmitter for Residential Meters

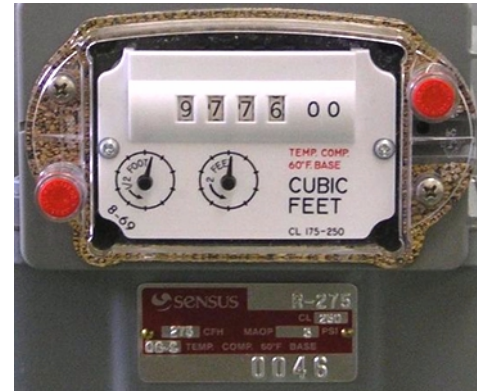
Description

Application: The FlexNet wireless transmitter for gas AMI applications permits offsite meter reading via a licensed fixed base radio network. In addition to solving meter reading problems such as lockouts, entering unsafe meter locations, "curbside" reading estimates, estimated billing, and errors associated with manual meter reading methods, a fixed network provides benefits such as daily reads and status alerts.

Operations: The FlexNet transmitter is enclosed in a durable polycarbonate casing with a clear cover that enables reusing the original meter index. The module consists of a narrowband transmitter, magnetic sensors, and a mechanical meter interface that includes a shaft with a magnet. A handheld programming tool set is used to initialize operation. The transmitter monitors the meter and sends data back to the Tower Gateway Base Station (TGB) receiver at pre-defined intervals. TGB's are strategically placed in the utility service area to maximize reception. The readings are instantaneously transmitted to the Regional Network Interface (RNI) upon reception at the TGB. Transmitter messages contain meter reading data, status and relevant parameters such as pulse ratio and the number of dials. Messages are routed to a database, where the data gets formatted for export to billing, marketing and customer service systems.

Powerful Transmission: A significant advantage of the module is its powerful two-watt transmitter. The long range enabled by the strong signal, novel modulation techniques, high receiver sensitivity and licensed frequency band, minimize the number of TGB's and provides optimal coverage at minimal deployment. FlexNet transmitters are powered by a Lithium battery pack, with an expected service life of 20 years. Combining these features minimizes the overall life-cycle costs of the FlexNet system.

FlexNet Features: The FlexNet gas transmitter can read the meter in one hour intervals. This provides the utility with detailed data when events like usage disputes occur. The transmitter has the capability to store reading history up to 168 hourly reads, depending on the consumption of the meter. In the event a transmission does not make it to the TGB, this historical data is sent in the following transmission and the readings are stored on the RNI. This data redundancy provides security to the utility that reading data will not be lost during uncontrollable events such as power outages or network downtime.



Specifications

SERVICE	Direct mount to meter face interfacing the utility meter to the Sensus FlexNet system.
PHYSICAL CHARACTERISTICS	100G: 5.7" W x 3.7" H x 3" D 200G: 6.5" W x 3.4" H x 3.6" D 300G: 6.1" W x 3" H x 3.5" D
WEIGHT	0.9 lbs/14.4 oz
COLOR	Navy Grey
FREQUENCY RANGE	900 – 950 MHz, 8000 channels X 6.25 kHz steps
MODULATION	Proprietary Narrow Band
MEMORY	Non-Volatile
POWER	Lithium Thionyl Chloride batteries in conjunction with a hybrid layer capacitor (HLC)
APPROVALS	US: FCC CFR 47: Part 90, Part 24D, Part 101C, Part 15 Licensed operation CANADA: Industry Canada (IC) RSS-134, RSS-119, RSS-210
OPERATING TEMPERATURE	- 30° F to +150° F - 34° C to + 66° C
INSTALLATION ENVIRONMENT	The FlexNet residential gas meter transmitter is designed for a direct mount to the meter face re-using the meter index.
COMPATIBILITY	Sensus (Rockwell, Equimeter, Invensys): 100G-A: R175, R200, R275, RT275, R315, S200 (11-tooth gear) 100G-B: R415 (18-tooth gear) 100G-C: MR-8, MR-12 (16-tooth gear) American Meter: 300G; AL175, AC175, AT175, ALC175, AT210, AL225, 5B, 10B, AL250, AC250, AT250, AM250, AL425, AC630 Actaris (Sprague, Schlumberger): 200G: 240, S240, 250, 250WC, S250, METRIS 250, 400, 400A (All slant face, 3 hole index cover)
WARRANTY	20 years – Based on four transmissions per day Refer to Sensus G-500 for warranty.

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