

REXUniversal[®] meter

Universal metering platform

The robust features and flexible architecture of the Honeywell REXUniversal meter provide a solid foundation for implementing the smart grid of the future. Designed with advanced capabilities, the REXUniversal meter platform allows Honeywell's and other smart grid vendors' 900 MHz and 2.4 GHz (ZigBee1) communications to run natively on the REXUniversal meter hardware, giving utilities network flexibility and meter options when deploying their smart grid system.

Internal service control switch

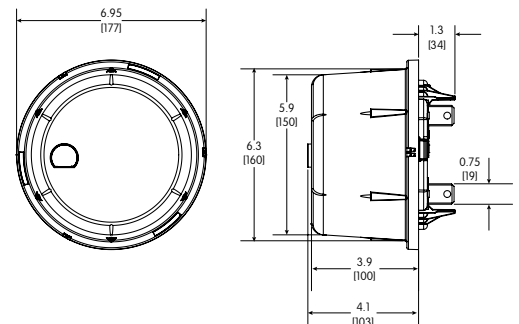
REXUniversal meters are available with an optional 200 A integrated service control switch. Based on significant field experience, the service control switch has been optimized to provide low contact resistance for increased life. Meters with service control switches are externally indistinguishable from meters without switches, thereby protecting utilities from consumer concerns about deployment. REXUniversal meters support advanced demand limiting and lockout functionality, and switches may be operated by authorized utility personnel through the network or locally at the meter.

Firmware upgrades over-the-air

Using proven code management architecture, our technology allows remote upgrade of meter and communications firmware while ensuring endpoint network functionality remains intact. The ability to separately upgrade the meter, communications, and ZigBee firmware protects your AMI investment and allows you to meet future requirements of the smart grid without concern of technology obsolescence.



Available in standard residential metering form factors (Forms 1S, 2S, 3S, and 12S)



Approximate dimensions in inches [millimeters]

OPTIMAL FUNCTIONALITY

On-request energy, demand, status, and instrumentation data.

Support for real, reactive, and apparent energy and demand.

Supports bidirectional metering, ideal for net metering and cogeneration applications.

Data storage for current data, previous demand reset copy, previous season copy, and seven self-read copies.

Calendar to support demand reset and self read events, DST time changes, and TOU schedules for four seasons each with up to four day types.

Supports block or rolling demand. Demand resets can be scheduled and controlled by the meter's calendar or performed over local or remote communications.

Advanced energy theft and meter tampering detection technology.

Status, warning, and error conditions reportable through the network.

Advanced security with 128-bit AES encryption.

Nonvolatile memory rated for over 1 million write cycles, ensuring data integrity for the life of the meter.

All data calculated and stored by the metrology processor for full auditability.

Ability to lock the optical port for greater security.

Optimized for very low burden on the utility distribution system.

Temperature monitoring, two thresholds can be configured temperature warning, and service disconnect.

Power outage, advanced power circuitry filters momentary outages and maintains real time clock.

QUANTITIES

Two metered quantities with support for:

- Total and 4-tier energy
- Total and 4-tier demand with demand time stamps

Two additional metered quantities (total energy only).

- 10 channels of interval data
- Up to 4 energy channels (corresponding to the four energy metered quantities) with EOI and midnight energy snapshots for improved data validation
- 6 instrumentation channels for flexible instrumentation profiling

Over-the-air meter configuration changes

Honeywell's Metercat™ software is used to create the configuration profile for the REXUniversal meter. Metercat is used to create the initial (that is, factory) program, but can also be used to directly reprogram the meter or to create program components that can be transferred over an AMI system. Program components are an encapsulated, signed block of data that can be transferred without interpretation by the AMI system. When received, the meter validates the signature and validity of the program for the specific meter type, and if valid, performs the configuration upgrade.

Outage restoration and restoration functionality

The REXUniversal meter provides advanced outage and restoration support, enhancing the utility's ability to more quickly identify the scope of outages and to receive positive restoration messages to validate that power has been restored to every endpoint. When a power failure occurs, the power supply provides energy for radio operation for up to 2 minutes, allowing momentary outages to be filtered and outage messages to be forwarded through the AMI network. After the 2 minute period, the meter maintains a real-time clock for up to 8 hours. This time carryover is performed without the maintenance concerns of a battery.

The meter also provides the status information to support outage index calculations:

- Number of momentary outages
- Number of sustained outages
- Cumulative time of sustained outages

Find Out More

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800-786-2215 (Honeywell Smart Energy sales information)
866-554-9007 (Product support)

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Instrumentation profiling

The REXUniversal meter provides the ability to record up to six channels of instrumentation (for example, voltage) profile data with 5-, 15-, 30- or 60- minute resolution. Instrumentation data channels are configured to report one or more of the following options: snapshot, minimum, maximum, or average per-phase voltage.

Operating Ranges			
Voltage	Nameplate	Operating range	Switch control range*
	120 V	96 V a 144 V	108 V a 144 V
	240 V	192 V to 288 V	216 V a 288 V
Current	Starting current to Class ampere		
Frequency	Nominal 60 Hz ± 5 %		
Temperature	-40 °C to +85 °C (inside meter cover)		
Humidity	0 % to 100 % (noncondensing)		
General performance characteristics			
Starting current	Forms 1S, 2S and 12S	10 mA for Class 200 160 mA for Class 320	
	Forms 3S and 4S	10 mA for Class 20	
Creep 0.000 A (no current)	No more than 1 pulse measured per quantity, conforming to ANSI C12.1 requirements		
Burden	Less than 3.0 VA		
Optional integrated communications	902 MHz to 928 MHz FHSS radio 2.4 GHz radio (ZigBee)		

*The switch control voltage range is the voltage range required to change the state of the service control switch.

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