# **REX2<sup>™</sup> meter**

Honeywell

THE POWER OF CONNECTED

The robust features and flexible architecture of the Honeywell REX2 meter provides a solid foundation for implementing the smart grid of the future. The REX2 meter brings to the REX® meter family many enhancements designed to support emerging needs of smart grid initiatives. REX2 meters include enhanced memory, greater security, remote upgradeability, and additional capabilities to support smart grid needs such as outage and voltage monitoring.

Developed with technology and communications flexibility in mind, the REX2 meter provides communication to the two-way Honeywell 900 MHz EA\_LAN and to the ZigBee 2.4 GHz network. It also provides an open architecture framework for third party technology innovation supporting the Advanced Grid Infrastructure Initiative. The REX2 meter supports both ANSI C12.19 and C12.22 for communications..

#### Internal service control switch

REX2 meters are available with an optional 200 A integrated service control switch. Based on significant field experience, the REX2 service control switch has been optimized to provide low contact resistance for increased life. REX2 meters with service control switches are externally indistinguishable from REX2 meters without switches, thereby protecting utilities from consumer concerns about deployment. REX2 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.



REX2 meters are available in standard residential metering form factors (1S, 2S, 3S, 4S, and 12S).



Approximate dimensions in inches [millimeters] Do not use for construction

#### **OPTIMAL FUNCTIONALITY**

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

2 configurable metered quantities for real and reactive bidirectional metering, ideal for net metering and co-generation applications 3 demand quantities with 5-, 15-, 30-, or 60-minute block demand, including remote demand reset and demand limiting

4-tier, 4-season, TOU energy and demand with critical tier pricing

4 channel interval data collection with EOI energy snapshot for improved data validation Flexible voltage profiling support

Flexible water, gas, and third party device support through integrated or add-on communication modules

Advanced energy theft and meter tampering detection technology Status, warning, and error conditions reportable through the network

Separately upgradeable meter firmware and radio firmware

Advanced security with full 128-bit AES encryption

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

4.0

110.3

All data calculated and stored in meter for full auditability

Optimized for very low burden on utility distribution system

### **Over-the-air upgrades**

Using proven code management architecture, REX2 technology allows remote upgrade of meter and communications firmware while ensuring endpoint network functionality remains intact without loss of metering data. Remote upgradeability of the entire firmware image protects your AMI investment and allows you to meet future requirements of the smart grid without concern of technology obsolescence. In addition to remote firmware upgradeability, the meter also supports remote reconfiguration of many metering parameters.

# Outage restoration and restoration functionality

The REX2 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. Information needed to determine important outage indices is also available.

### Instrumentation profiling

The REX2 meter provides the ability to record up to two channels of voltage profile data with up to 5-minute resolution. Voltage data may include snapshot, minimum, maximum, or average voltage values..

## **Technical specifications**

Operating Ranges			
Voltage	Nameplate nominal	Operating	Switch control range*
Forms 1S and 2S	120 V	96 V to 144 V	108 V to 144 V
Form 2S	240 V	192 V to 288 V	216 V to 288 V
Forms 3S and 4S	120 V	96 V to 144 V	108 V to 144 V
	240 V	192 V to 288 V	216 V to 288 V
Current	O to Class ampere rating		
Frequency	Nominal 50 Hz or 60 Hz $\pm$ 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	100 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 1.5 W		
Power supply	Linear power supply conforms to FCC Part 15 Class B device		
Primary time base	Relative time maintained by a crystal; real time is provided by the EnergyAxis network		
Communication frequency	902 MHz to 928 MHz (unlicensed)		

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

#### **Find Out More**

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#### **Honeywell Smart Energy**

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