

**IDEAL INDUSTRIES, INC.**

1375 Park Avenue; Sycamore, IL 60178 • (800) 947-3630 • Fax: (800) 947-3616 • E-Mail: [idealsensors@idealwirelessensors.com](mailto:idealsensors@idealwirelessensors.com)

## 2.4 GHz Wireless Sensor System - 1101 Sensors

The 1101 Series IDEAL Wireless Sensors are battery-powered, multi-sensor devices for applications such as HVAC control, building automation, energy management, industrial monitoring and data centers. The 1101 Series measures and transmits temperature, humidity, dew point, light level, external temperature or contact closure measurements once per minute. It has a small form factor, is wall mountable, and has an operating life that exceeds 25 years with the pre-installed battery.

Data is transmitted to a G1 Series wireless gateway or repeaters, which extends operation to unlimited distance. The G1 Series gateway receives data from up to 100 sensor devices and interfaces to a wide range of standard BAS protocols including BACnet®, Modbus, LonWorks®, and Metasys® N2. SNMP and XML protocols are available for IT systems.



Temperature



Humidity/Dew Point



Light Level



Dry Contacts

### Wireless Sensor

- Multiple sensor options
- 25+ year battery life
- No calibration, stable long-life performance
- Small form factor with internal antenna
- Maintenance-free: No battery replacement
- Easy installation: No wiring or conduit
- No interference with or from Wi-Fi
- Off-site or on-site configuration
- 3-Year Warranty



### Gateway/Repeater

- Supports up to 100 devices
- Connects to virtually any BAS
- Integrated antenna
- No interference with or from Wi-Fi
- 24VAC/DC power
- 3-Year Warranty



### Specifications

Part Numbers	58-N-1101- X - Y    X=Type,Y=Battery <u>Type</u> T = Temperature TH = Temperature + Humidity TX = Temperature + 2 External Temp 10K ports L = Light Level C = Contact Closure / Digital Input (2 ports) <u>Battery</u> N = 25+ year non-replaceable R = replaceable
Radio	2.4 GHz, internal antenna
Regulatory Approvals	FCC Part 15 and Industry Canada Contains FCC ID: OA3MRF24J40MA Contains IC: 7693A-24J40MA
Transmit Range	100 ft. indoors to G1 Gateway/Repeater in a typical open commercial office building
Accuracy	Temperature: ± 1°F (50-90°F) Humidity: ± 3% (10-90%RH) Dew Point: ± 4% (50-90°F, 10-90%RH) Light: ± 15% (0-1,000 lux) Thermistor ports: 10K Type 2, 10 bit resolution
Power	(-N) 25+ year Li battery, non-replaceable (-R) 3xAAA, replaceable 15 year battery life with Energizer L92 (included)
Enclosure	ABS, UL94-5VA rating, Bone color
Configuration Port	Internal USB mini-B connector for connection to G2 Gateway/Repeater
Mounting	Wall mount, vertical, indoor use only
Dimensions	(-N) 4.2 x 2.1 x 1.1 inches (-R) 4.2 x 2.1 x 1.7 inches
Operating Temp.	(-N) 0 to 104° F, indoor use only (-R) 0 to 120° F, indoor use only
Storage Temp.	-20 to 120° F
Transmitted Data	Node ID, Sensor readings, and battery voltage once per minute (non-configurable)
Weight	3.3 oz.

### Specifications

Frequency	2.4 GHz
Approvals	FCC Part 15 and Industry Canada Contains FCC ID: OA3MRF24J40MA Contains IC: 7693A-24J40MA
Antenna	Internal, 360° pattern
Range	100 ft. indoor in typical open commercial office building
Power	24VAC/DC, removable terminal block
Configuration Ports	USB Type B – PC Interface USB Type A – Sensor Interface
Network Port	Ethernet, RS-485 or FTT-10
Enclosure	ABS plastic, UL94-5VA rating, color – bone
Mounting	Wall mount, vertical, indoors
Dimensions	6.6" x 4.4" x 1.75"
Environment	0 to 120° F, indoor use only
Weight	8.5 oz.

See reverse side for ordering information.

## 2.4 GHz Wireless Sensor System

### Ordering Information

Wireless Sensor	
<b>58-N-1101-T-N</b>	Wireless temperature sensor, 25+ year battery
<b>58-N-1101-TH-N</b>	Wireless temperature and humidity/dew point sensor, 25+ year battery
<b>58-N-1101-TX-N</b>	Wireless temperature sensor, 25+ year battery – internal temperature, 2 external 10K RTD ports
<b>58-N-1101-C-N</b>	Wireless dry contact closure (2 inputs), 25+ year battery
<b>58-N-1101-L-N</b>	Wireless light level sensor, 25+ year battery

\*Substitute suffix -N with -R for replaceable battery version (1101 Series only).

Gateway/Repeater		
Part Number	Protocol	Interface
<b>58-G1-BACNETIP</b>	BACnet®/IP	Ethernet
<b>58-G1-MODBUSTCP</b>	Modbus TCP	Ethernet
<b>58-G1-SNMP</b>	SNMP	Ethernet
<b>58-G1-XML</b>	XML	Ethernet
<b>58-G1-BACNTMSTP</b>	BACnet®/MSTP	RS-485
<b>58-G1-METASYSN2</b>	Metasys® N2	RS-485
<b>58-G1-MODBUSRTU</b>	Modbus RTU	RS-485
<b>58-G1-LON</b>	LonWorks®	FTT-10
<b>58-G1-SERIAL</b>	Serial Gateway/Repeater	USB
Related Products		
<b>58-PS-24V-T</b>	24V Power Supply	–
<b>58-N-1102-CO2-R</b>	Wireless CO <sub>2</sub> transmitter	–
<b>58-N-1102-DP1-R</b>	Wireless Differential Pressure transmitter +/-2" w.c./+/- 500pa	–

BACnet® is a registered trademark of ASHRAE.

Metasys® is a registered trademark of Johnson Controls, Inc.

LonWorks® is a registered trademark of Echelon Corporation.

### Sensor Data Reporting

Sensor Type - 1101 Series						
	Temperature	Temperature, Humidity, Dew Point	Temperature Internal w/ Dual External	Contact Closure	Light	
Sensing Points	<b>S1</b>	Temp F°	Temp F°	Temp F° Internal	X1 Current State 0=open, 1=closed	Ambient Light Level Lux
	<b>S2</b>		Humidity % RH	Temp F° External 1 using 10K Type II Thermistor	Count of X1 state changes during last period	
	<b>S3</b>		Dew Point F°	Temp F° External 2 using 10K Type II Thermistor	% of time X1 is closed during last period	
	<b>S4</b>					
	<b>S5</b>				X2 Current State 0=open, 1=closed	
	<b>S6</b>				Count of X2 current state changes during last period	
	<b>S7</b>				% of time X2 is closed during last period	
	<b>S8</b>					

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Technical Hotline: 800-947-3630

www.idealwirelessensors.com

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