SIEMENS

Technical Specification Sheet
Document No. 149-129
September 18, 2013

Series 2200 Relative Humidity and Temperature Room Units for APOGEE Controllers



Figure 1. QFA3212.EWSN Combo RH/Temperature Room Unit.

The Series 2200 Relative Humidity and Temperature Room Units from Siemens Industry, Inc. offer a wide range of features and functionality that work in concert with the APOGEE® Automation System to deliver exceptional occupant comfort in even the most demanding application environments. All room units incorporate precision temperature sensing elements to accurately and reliably measure room temperature. Their compact, low profile design results in an attractive, inconspicuous installation. Strategically placed ventilation slots in the housing optimize airflow through the cover for fast measurement response and superior control.

These room units provide accurate, reliable sensing of room temperature. Various models can be used with either the Terminal Equipment Controllers (TECs) or with APOGEE field panels for primary control.

Applications

These room units connect to the controller's input points via free wire cabling, which is terminated on the controller's terminal block connector.

Specifications

Temperature Specifications	
Signal Selectable Models:	
Operating Range, Selectable*	32°F to 122°F (0°C to 50°C) 55°F to 95°F (13°C to 35°C) 40°F to 90°F (4°C to 32°C)
Output Signal	Select 0-5V, 0-10V, 4-20 mA
Setpoint Output Range	55°F to 95°F (13°C to 35°C) selectable, 0-10V or 0-5V, 4-20 mA
Sensing Element Type	Digital Sensor IC (band gap) (QFA32SS types)
Sensing Element Accuracy Voltage Mode Current Mode	± 0.9°F (± 0.5°C) ± 1.8°F (± 1°C) 2° to 4°F (1° to 3°C) low
Override Signal	Relay/dry contact (1 amp @ 30 Vdc max.)
* Selectable operating range is only possible on display versions (QFA3212.FWSN and QFA32SS.FWSNN). Sensing only versions (QFAxxSS.E types) measure a fixed range of 32°F to 122°F (0°C to 50°C) over the selected output signal.	
Resistive Output Models:	
Operating Range	32°F to 122°F (0°C to 50°C)
Output Signal	Changing resistance
Setpoint Output Range	55°F to 95°F (13°C to 35°C) 0-10V
Sensing Element Type	Digital Sensor IC, and 1K Ohm Platinum RTD (QFA3212 types)
Sensing Element Accuracy 1K ohm RTD mid-range 75°F (24°C)	 ±0.75°F (± 0.4°C)
Override Signal	Relay/dry contact (1 amp @ 30 Vdc max.)
Accuracy 55°F to 80.6°F (13°C to 27°C) 80.6°F to 95°F (27°C to- 35°C) 1K ohm RTD mid-range 75°F (24°C)	 ±0.5°F (±0.3°C) ±1.0°F (±0.5°C) ±0.75°F (± 0.4°C)

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Humidity Specifications	
Humidity Range	0% to 100% rh
Output Signal	Select 0-5V, 0-10V, 4-20 mA
Sensing Element Type	Digital Sensor IC (capacitive)
Humidity Accuracy	
10% - 90% rh	± 2% rh
< 10% rh; > 90% rh	± 4% rh
Calibration Features	
Temperature	Adjustable to +/- 5°F
Humidity	Adjustable to +/- 5% rh
Installation	
PXC/MEC	
Maximum cable length (twisted pair, NEC Class 2)	300 feet 22 AWG 750 feet 18 AWG

Installation Adjustments	None required
Cover	
Dimensions	4.5" × 2.75" × 1.18" (115 mm × 70 mm × 30 mm)
Color	White
Weight	4 oz (0.11 kg)
Regulatory Agencies	UL 916
Input Power	18 to 36 Vdc or 24 Vac ± 20%
VA Rating	1.5 VA, max.

Product Ordering Information

Description	Product Part Number
Humidity and Temperature Room Unit, RH: 0-10V/0-5V/4-20 mA selectable, 2% T: 1K Platinum (385) RTD, Display, Temperature Setpoint, Override	QFA3212.FWSN
Humidity and Temperature Room Unit, RH: 0-10V/0-5V/4-20 mA selectable, 2%, T: 1K Platinum (385) RTD	QFA3212.EWSN
Humidity and Temperature Room Unit, 2%, 0-10 Volt, Display, Temperature Setpoint, Override; signals 0-10V/0-5V/4-20 mA selectable.	QFA32SS.FWSN
Humidity and Temperature Room Unit, 2%, 0-10 Volt, White; signals RH 0-10V/0-5V/ 4-20 mA selectable.	QFA32SS.EWSN

Accessories Ordering Information

Description	Product Part Number
Replacement Sensor Housing Base for QFA32xx.EWSN	563-102-03
Replacement Sensor Housing Base for QFA32xx.FWSN	563-102-04
Room Unit Back Plate (10-pack)	AQA2200-INTL
Room Unit Back Plate (Single)	AQA2200-2X4
Room Sensor Insulating Gasket (10-pack) (Recommended for hollow wall installations.)	563-102 GSKT KIT

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