

Series 2300 Humidity and Temperature Room Units for TALON Controllers



Figure 1. QFA33xx.EWTN and QFA33xx.FWTN RH/Temperature Room Unit.

The Series 2300 Relative Humidity and Temperature Room Units from Siemens Industry, Inc. offer a wide range of features and functionality that work in concert with the TALON 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 humidity and temperature. Various models can be used with the TALON Controllers for either zone or primary control, respectively.

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) (QFA33SS types)
Sensing Element Accuracy	± 0.9°F (± 0.5°C)
Voltage Mode	± 1.8°F (± 1°C)
Current Mode	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 (QFA3330.FWTN, QFA3330.FWNN, QFA33SS.FWTN, and QFA33SS.FWNN). 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) selectable, 0-10V or 0-5V
Sensing Element Type	1K Ohm Platinum RTD (QFA3312 types) 10K Ohm NTC Type II thermistor (QFA3330 types)
Sensing Element Accuracy	
10K ohm Thermistor	
55°F to 80.6°F (13°C to 27°C)	±0.5°F (±0.3°C)
80.6°F to 95°F (27°C to 35°C)	±1.0°F (±0.5°C)
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.)

Specifications, Continued

Humidity Specifications		TALON Raptor or TC Compact	300 to 750 ft Maximum cable length 18 to 22 AWG twisted pair NEC Class 2
Humidity Range	0% to 100% rh	Installation Adjustments	None required
Output Signal	Select 0-5V, 0-10V, 4-20mA	Cover	
Sensing Element Type	Digital Sensor IC (capacitive)	Dimensions	4.5" x 2.75" x 1.18" (115 mm x 70 mm x 30 mm)
Humidity Accuracy		Color	White
10% - 90% rh	± 2% rh	Weight	4 oz (0.11 kg)
< 10% rh; > 90% rh	± 4% rh	Regulatory Agencies	UL 916
Calibration Features		Input Power	18 to 36 Vdc or 24 Vac ± 20%
Temperature	Adjustable to +/- 5°F	VA Rating	1.5 VA, max.
Humidity	Adjustable to +/- 5% rh		
Installation			
TALON Predator	100 ft. Maximum cable length. 6C #24 AWG, Belden DFLEX3 or equal, NEC Class 2		

Product Ordering Information

Description	Product Part Number
Humidity and Temperature Room Unit, 2%, RH: 0-10/0-5 Volt or 4-20 mA selectable, 2% T: 10K Type 2 NTC, Display, Setpoint, Override, TALON Logo	QFA3330.FWTN
Humidity and Temperature Room Unit, 2%, RH: 0-10/0-5 Volt or 4-20 mA selectable, 2% T: 10K Type 2 NTC, Display, Setpoint, Override, No Logo	QFA3330.FWNN
Humidity and Temperature Room Unit, 2%, 0-10/0-5 Volt or 4-20 mA selectable, Display, Temp Setpoint, Override, White, TALON Logo	QFA33SS.FWTN
Humidity and Temperature Room Unit, 2%, 0-10/0-5 Volt or 4-20 mA selectable, Display, Temp Setpoint, Override, White, No Logo	QFA33SS.FWNN
Humidity and Temperature Room Unit, 2%, 0-10/0-5 Volt or 4-20 mA selectable, White, TALON Logo	QFA33SS.EWTN
Humidity & Temp Room Unit, RH: 0-10/0-5 Volt or 4-20 mA selectable, 2%, T: 1K Platinum (385) RTD, White, No Logo	QFA33SS.EWNN
Humidity and Temperature Room Unit, 2%, RH: 0-10/0-5 Volt or 4-20 mA selectable, 2% T: 1K Platinum (385) RTD, White, TALON Logo	QFA3312.EWTN
Humidity and Temperature Room Unit, RH: 0-10/0-5 Volt or 4-20 mA selectable, 2%, T: 1K Platinum (385) RTD, White, No Logo	QFA3312.EWNN

Accessories Ordering Information

Description	Product Part Number
Replacement Sensor Housing Base for QFA33xx.EWxN	563-102-03
Replacement Sensor Housing Base for QFA33xx.FWxN	563-102-04
Room Unit Back Plate (10-pack)	AQA2200-INTL
Room Unit Back Plate (Single)	AQA2200-2X4

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