

QXA Series Condensation Monitors



QXA2100
(Switch Point = 95%)



QXA2101 with Remote Sensor
(Switch Point = 95%)

Description

The QXA Series Condensation Monitors are used to avoid damage due to condensation on chilled ceilings and other HVAC installations.

All QXA devices are equipped with an SPDT dry contact capable of switching 1 amp @ 24 Vac or 0.5 amp @ 24 Vdc. The switching point is approximately 95% rh. with a switching differential of 5% rh (Switch Point minus 5% rh).

Hardware is included for installation on pipes with outside diameters from 0.39 to 3.94 inches (10 to 100 mm). The QXA2101 features a remote sensing element for use in difficult to reach spaces.

Equipment Combinations

The QXA Series condensation monitors can be used in any 24V AC/DC control circuit and can be wired NO or NC to provide indication of pending condensation.

Typical Application

The condensation monitor acquires the relative humidity near the pipe surface, and the SPDT relay changes state as the relative humidity approaches the dew point. Reset occurs automatically when the relative humidity decreases to approximately 5% rh below the switching point.

In chilled ceiling applications, the 24V power to the chilled water valve actuator is wired through the NC contact on the QXA Sensor. As measured relative humidity approaches dew point, the contact opens to interrupt power to the valve actuator. Proper operation requires that the valve actuator be power-to-open with a spring return actuator.

The QXA Series devices can also be used to help prevent condensation on pipes and other surfaces throughout the HVAC system.

Specifications

Power Requirements

Operating voltage	24 Vac/Vdc $\pm$ 20%
Frequency	50/60 Hz
Power consumption	Maximum 1 VA

Switching

Points	95% $\pm$ 4% rh @ 77°F
Switching differential	$\approx$ 5% rh
Response time in static air	3 minutes (maximum)

Output

Relay output	SPDT dry contact
Switching capacity (24V)	AC = 1 amp; DC = 0.5 amp

Enclosure	IP54 ($\approx$ NEMA 3)
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Shipping weight	8 ounces (227 g)
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Wiring

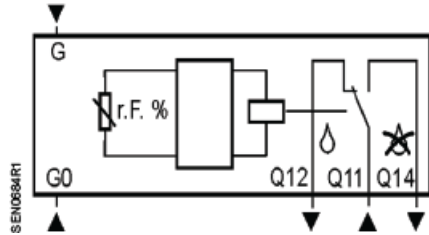


Figure 1. Wiring Diagram.

G (G+) Operating voltage
AC 24V or DC 24V
G0 (G-) System neutral
Q... Potential free changeover contact
AC/DC 1 to 30V

Dimensions

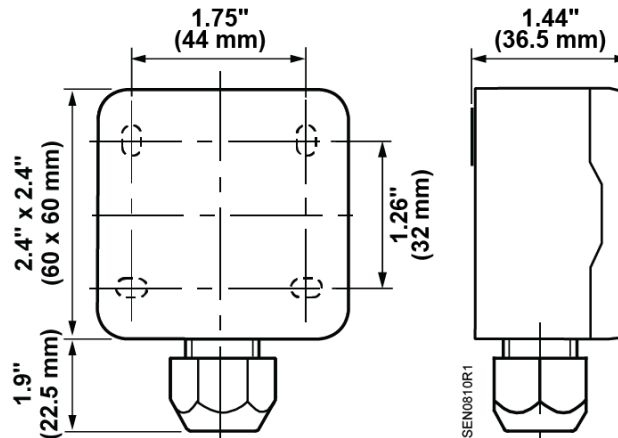


Figure 2. QXA2100 Dimensions.

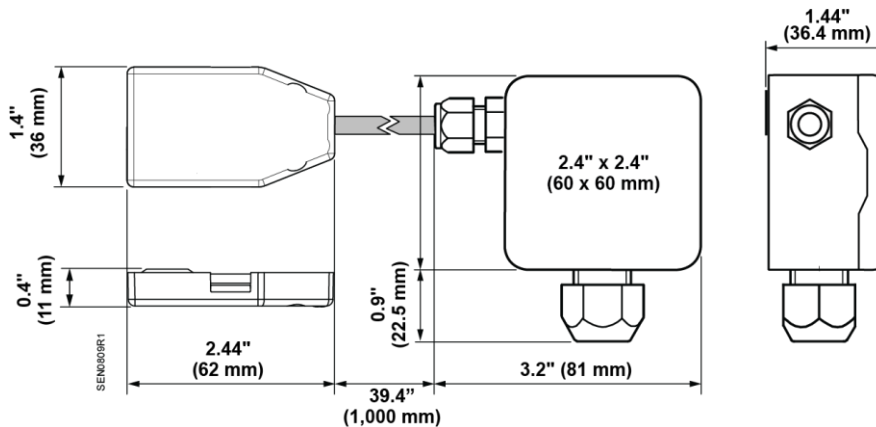


Figure 3. QXA2101 Dimensions.

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