

Heater Sensor

Equilibrium Point IOT, Inc.

1.0 FEATURES

- Integrated on the EQP IOT platform, powered by AWS
- Provides a local heat source to warm up equipment and machinery
- Sends status and alerts to EQP IOT platform

2.0 GENERAL DESCRIPTION

The EQP Heater Sensor is a powerful heater that can deliver large amounts of heat to equipment and machinery. It is powered by a 24V DC/AC supply. It is configurable with up to two separate heating elements, and one extra temperature sensing (thermocouple) element. The heater(s) are powered, and the reading from the auxiliary temperature sensor is sent to the EQP gateway. This permits the extended operating temperature of equipment, for example by melting the ice on a drive- up credit card reader that would otherwise freeze over.

3.0 DEVICE CHARACTERISTICS

Absolute Maximum Ratings (†)

| Vcc (DC Supply) | 36V |
|-----------------------|---------------|
| Storage Temperature | -40°C to 80°C |
| Operating Temperature | -20°C to 40°C |
| ESD Protection | >2kV |
| Drop Height | 2m |
| Relative Humidity | Dew Point |

† NOTICE: Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at those or any other conditions above those indicated in the operational listings of this specification is not implied. Exposure to maximum rating conditions for extended periods may affect device reliability

Table 1-1: Operating Characteristics

| Sym | Characteristic | Min. | Тур. | Max. | Units | Conditions |
|-----|------------------------|------|------|------|-------|-----------------|
| Vcc | Input Voltage | 12 | 24 | 36 | V | DC Supply |
| ls | Operating Current | - | 3 | 3.5 | Α | With 24V supply |
| Pd | Power Dissipation | - | 72 | 84 | W | - |
| Tr | Aux Thermocouple Range | -200 | _ | 700 | °C | Detection Range |