Applications of the temperature controller from Matsuo (X·X̄·Y·Ȳ)

Transportation purposes

Temperature control and defogging of laser equipment for ETC vehicle height sensors

Vehicle height sensors automatically measure the distance between the vehicle at the ETC gate and the road surface. In Japan, where it gets hot and humid in summer time, the temperature powerful sensors (TPS) are used to prevent fogging of the lens of the laser equipment of the infrared sensors. The MQT8H 40XC and MQT11H 45XD are used for temperature control of the heater for defrosting. Because the MQT11H 45XD has a built-in temperature fuse, it can be said that the system has a fail safe feature.

Temperature control / fan control inside elevator control panels

AThe temperature powerful sensor (TPS) from Matsuo is used inside the control panel of elevators as a thermostat for temperature control. It is used to operate the fan when the temperature inside the control panel goes up. The temperature powerful sensor MQT8K 60YB controls this in such a way that the fan turns ON when the temperature reaches 60°C on a temperature rises and OFF when the temperature falls approximately 55°C.
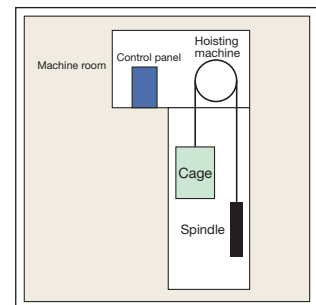
For temperature control / anti-freezing of pay machines at self-serve gas stations

The temperature powerful sensor (TPS) from Matsuo, the supplier of thermostats for temperature control, is used for the anti-freezing of outdoor money changers at self-serve gas stations.

In order to prevent the outdoor equipment from freezing in cold districts, setting is made for the MQT8K 5X(bar)C to turn ON the heater at 5°C on a temperature falls and to turn OFF the heater at 12°C. By controlling the temperature with this temperature powerful sensor having a long life and small differential features, freezing can be prevented without fail.

Applications of the temperature controller from Matsuo (X·X̄·Y·Ȳ)

Transportation purposes

Temperature control inside the pay machines / ticketing machines at parking lots (coin parking)

The temperature powerful sensor (TPS) is used as a thermostat for temperature control inside the pay machines / ticketing machines installed outdoors at parking lots (coin parking). The MQT8K 30YB turns the fan ON when the temperature inside the pay machine / ticketing machine reaches 30°C on a temperature rises and turns the fan OFF when the temperature falls 25°C. Furthermore, in cold districts, the MQT8K 5X(bar)C is used to turn the heater ON when the temperature falls to 5°C, and turns the heater OFF when the temperature goes up 11°C. As such, the temperature powerful sensor is used in various temperature controller applications as a substitute for the thermistor controller.

Temperature control of railroad operation guidance indicators (LED indicator boards)

The temperature powerful sensor (TPS) from Matsuo is used as a thermostat for temperature control inside the cabinets of railroad operation guidance indicators (LED indicator boards). The MQT8K K35YA1.5 (contact for micro current / crossbar contact) switches ON when the temperature inside the cabinet reaches 35°C on a temperature rises, and the cooling unit begins to operate upon receiving this signal. When the temperature falls to 32°C , the temperature power sensor switches OFF and stops the cooling unit.

Temperature control inside the cabinets of expressway sign boards (LED indicator boards)

The temperature power sensors (TPS) from Matsuo are used as a thermostat for temperature control inside the cabinets of expressway sign boards (LED indicator boards). When the temperature inside the sign board cabinet gets hot, the MQT8K 35YB turns ON the cooling unit at 35°C, and then turns it OFF when the temperature falls to 30°C. Furthermore, the MQT8K K70YD turns ON at 70°C on a temperature rises and sends a signal to the centralized control center. As such, temperature control can be made as a substitute for the thermistor controller.

Applications of the temperature controller from Matsuo (X·X̄·Y·Ȳ)

Transportation purposes

Temperature control / anti-freezing of obstacle detection sensors at railroad crossings

The temperature powerful sensors (TPS) from Matsuo are used as a thermostat for temperature control in the infrared transmitting devices for obstacle detection at railroad crossings in cold districts. The MQT8K 10X (bar)B and M3 10(bar)B are the two types of TPS used. When the temperature falls to 10℃, the heater inside the infrared transmitter for railroad crossing obstacle detection is turned ON, and it is turned OFF when the temperature goes up around 15℃. The device is protected so as to prevent it from transmitting error signals due to heavy deposits of snow etc.

Temperature control for the anti-freezing of infrared sensors used for intrusion detection for security purposes

The temperature powerful sensor (TPS) is used to control the heaters for the anti-freezing of the power supply and peripheral equipment inside the equipment of infrared sensors of intrusion detectors for security purposes in cold districts. For anti-freezing purposes, the MQT8K 5X(bar)C is set to turn the heater ON when the temperature falls to 5℃, and to turn it OFF when the temperature goes up 10℃. As such, the temperature powerful sensor can be easily used as a substitute for the thermistor controller.

The transmitter of an infrared sensor is built-in inside the detector.

Lens

Lens