



Safety Alert



INCIDENT TITLE:

TLC Anti-Condensation Heater

TIME AND DATE OF INCIDENT:

16/08/2024

INCIDENT DETAIL :

Our work task was to check on equipment and take some post-installation photos at TLC (Manapouri area).

When I touched the Gemco rotating cam limit switch cam box combined with the encoder, it felt extremely hot.

A decision was made to open the device to investigate why this was so hot. It was found that the heater was glowing bright red. A block of aluminium (melting point 660°C) surrounding it had melted, as well as the plastic cam.

This was an extreme fire hazard and might have impact on the working of the TLC system.

IMPORTANT INFORMATION:

Our research and in-depth investigation revealed that the anti-condensation heater and thermostat supplied were not fit for purpose and did not meet industry best practices.

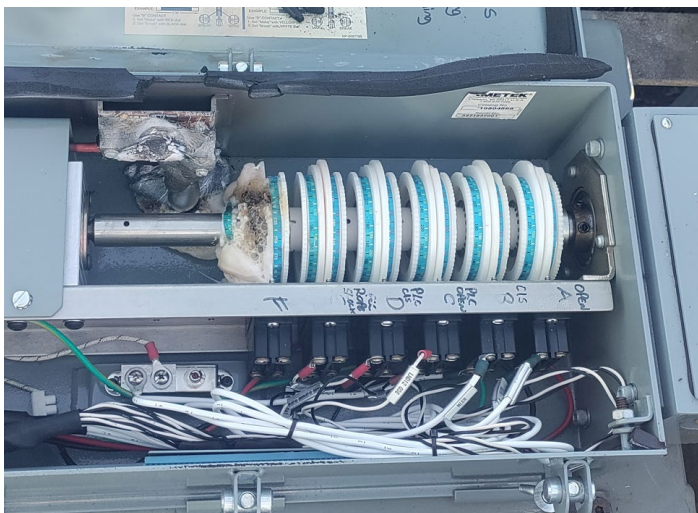
The heater supplied, Watlow FR-J2G35 Firerod, although stamped with 120V AC, is compatible with 230V AC. The thermostat was a high-temperature device with a cut-off at 500°F (260°C).

The maximum operating temperature for the Watlow FR-J2G35 Firerod is 1400°F (760°C), which explains why it melted the aluminium.

BEST PRACTICE:

The Watlow FR-J2G35 Firerod is primarily designed for applications requiring high temperatures and precise heating, such as plastic processing, packaging equipment, and medical devices. While it excels in these areas, it is not suitable for anti-condensation heater purposes.

PHOTO



IMMEDIATE INTERIM ACTIONS:

A worker immediately went to the control room, isolated the heater supply circuit, and notified the rest of the crew on site.

They also notified the Site Owner, Regional Manager, Automation Team Leader, Engineering Authority and Engineering Team Lead.

A Follow-up with the supplier and OEM to identify how, in the application of an anti-condensation heater, a dangerous device was installed that does not meet industry good practices.

THIS SAFETY ALERT HAS BEEN ISSUED BY THE HEALTH & SAFETY TEAM. FOR FURTHER INFORMATION PLEASE CONTACT:

Steve Herbst

Daniel Adams-Zarate

steve.herbst@meridianenergy.co.nz

daniel.adams-zarate@meridianenergy.co.nz

0212270059

021342309