Intelligent temperature monitoring alarm and shutdown control for a pumping system
2008-09-02
Product Solutions:
ioLogik E2262

Ethernet Micro RTU Controller with 8 thermocouple inputs and 4 digital outputs

Introduction

In the pumping system of a factory's tank farm, bearings of a pump motor always burn out after the motor runs non-stop for a period of time. The downtime and damage caused by overheated bearings raise maintenance costs and reduce output. Extra expenses are not only incurred from repairing or replacing the bearings, but paying the engineers for overtime as well.

System Requirements

In order to keep the motors running smoothly and continuously, the tank farm requested a distributed monitoring and control system to monitor the temperature of the motors. When the temperature rises too high, the front-end controller must shut down the motor and restart it after the temperature cools back down to an appropriate level. In addition, the front-end controller must send out a notification e-mail to the central site and field engineer's blackberry when the motors shut down and recover.

Moxa Solution

The ioLogik E2262 Active Ethernet I/O server is designed for mixed I/O applications. The 8 TC (thermocouple) inputs can connect 9 types of TC sensors (mV mode included) and the 4 built-in digital inputs can connect to multiple outputs such as alarms, buzzers, and lights. With the Click&Go local control logic, users can easily program the ioLogik E2262 to control the pumps, generate alarms, send status updates to the control center, and deliver e-mail notifications. Click&Go logic also allows the ioLogik to seamlessly integrate and manage temperature monitoring, output control, and alarms.
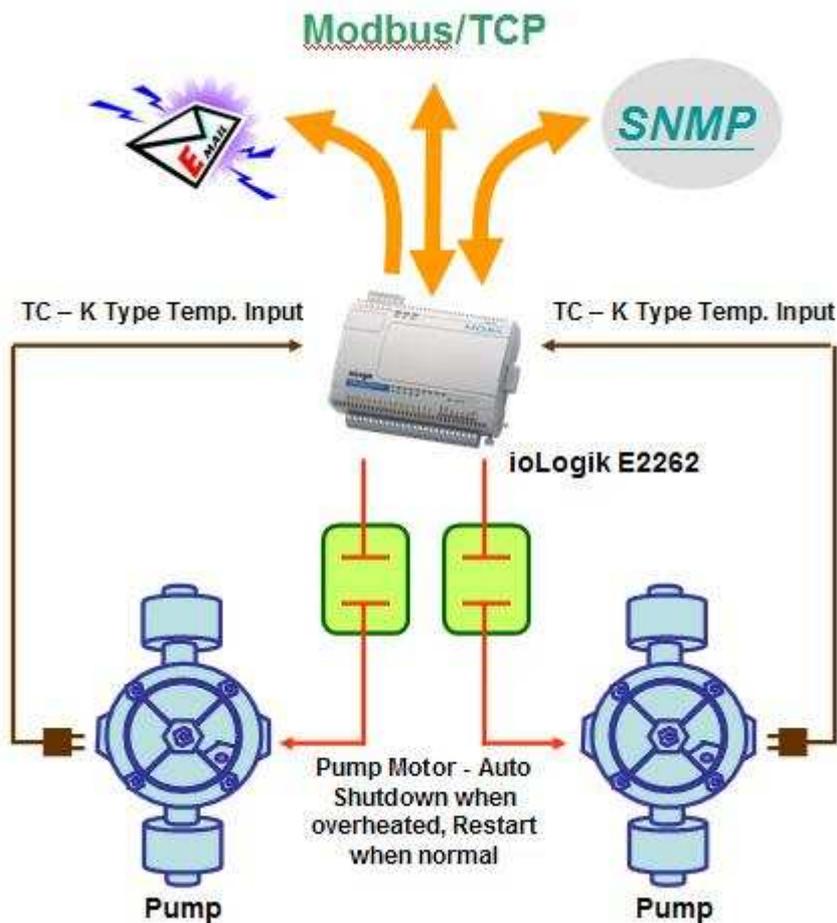
Why Moxa

Moxa's ioLogik E2262 provided the pumping system with the following benefits:

- A controller equipped with both TC temperature sensor inputs and digital output channels
- 100 meters of TC sensor cable length with 2 built-in CJC
- Click&Go's easy IF-THEN style control logic
- Alarm messages can be generated via TCP/UDP/SNMP trap or e-mail
- Compact size and cost-effectiveness

Additional features
The ioLogik E2262 is also equipped with the following additional features:

- Scheduling feature to set shutdown and start time for the pump motor
- Powerful IF-THEN-ELSE programming for up to 24 rules
- OPC Connectivity to connect Moxa's ioLogik products to the world's most popular SCADA systems