Automotive / digital industries



Proposal for reduction of plant fire risk

Continuous monitoring for early detection of ignition factors

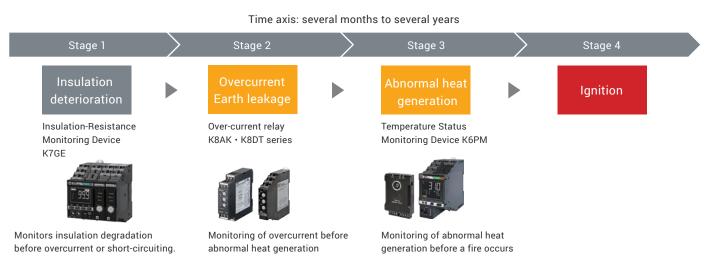
In addition to building and human damage, factory fires are extremely serious damage in production, such as equipment stoppage. However, the risk of factory fires is rising as there is a lack of maintenance for deteriorated equipments that have been in operation for decades and autonomous equipments operating 24 hours a day in order to resolve the recent labor shortage.



Monitor abnormalities according to factors leading to factory fire

Electric fire is one of the factors leading to factory fires. In an electricalfire if the insulation resistance drops due to deterioration or failure of electronic equipment, it may lead to an overcurrent or electric leakage. It is difficult to detect overcurrent and earth leakage with the main breaker that monitors multiple systems of equipment at the same time, and the equipment can operate normally. If this condition continues, it may cause abnormal heat generation, leading to a fire accident in the worst case. Omron offers a range of equipment that monitors the status of each stage that leads to ignition.

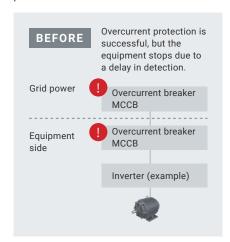
Mechanism of ignition accident due to insulation deterioration

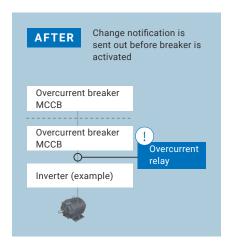


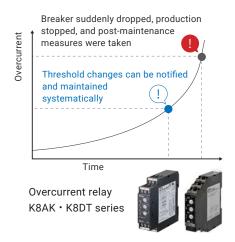
Products that can help reduce the risk of fire by detecting abnormalities at an early stage

Monitoring relay protects the device from errors including "overcurrent and overload" that could cause a fire

Overcurrent relay notifies the status of a breaker before it starts. This prevents sudden equipment stoppage and enables planned maintenance.







Monitoring of abnormal conditions causing fire such as "insulation deterioration and abnormal heat generation"

Insulation deterioration and abnormal temperature leading to a fire were detected early by continuous monitoring. Automatic measurement and remote monitoring can greatly reduce the time required for periodic inspections.





Thermal condition monitoring device K6PM



Predicts abnormal temperature conditions and notifies overheating risk levels

Motor condition monitoring device K6CM



Monitors motor degradation trends around the clock to identify and notify anomalies

Insulation resistance monitoring device K7GE



Automatic measurement and monitoring of insulation deterioration, one of the causes of fire and short-circuiting accidents



Visualization of power supply status and centralized management realize planned maintenance before equipment trouble occurs

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