



Sensors



Switches



Controls

Application notes



Application Note : September 2018

Market involved : Plastic & Rubber

Product : RG.. M Series

Customer : OEMs, panel builders

Subject : Control and monitoring of heaters used in blow moulding machines

CUSTOMER ISSUE :

Timely detection of heater malfunction in a blow moulding process can prevent scrap resulting from defects when the temperature is not optimally controlled.

Temperature measurement in the machine would eventually signal a heater malfunction but this takes some time.

This delay in malfunction detection gives rise to time consuming checks of already processed material and waste of low quality goods.

Customers need a solution able to promptly detect malfunctions independent of temperature measurements that may be present in the machine.

The solution to be provided should be able to control and detect the malfunction of heaters as small as 100 W.

OUR SOLUTION :

The RG..M series integrates monitoring functions in addition to the switching function of a solid state switch.

There is no need for additional components to be wired to the RG..M for the monitoring function.

If a malfunction occurs (mains loss, heater failure, SSR open circuit or short circuit), an alarm will be issued through the RG...M alarm output, which can be configured either in normally open or normally closed status.

The RG..M is a plug and play solution without the need for a teach or set-up process. The smallest model can handle low loads of 150 mAAC and goes up to 20 AAC. Other models cover a rating up to 90 AAC (for the versions without integrated heatsink) and 65 AAC for the versions with integrated heatsink.

BENEFITS :

- Cost savings with immediate detection of malfunction as this prevents scrap and time consuming checks
- Easy set-up with a plug and play solution – no additional components needed in addition to the RG..M for malfunction detection
- Fast installation with pluggable spring terminals for auxiliary connections
- Optimisation of the PLC inputs since the alarm outputs from various RG..Ms can be looped
- Panel space savings with a compact solution based on the RG platform (product width of only 17.8mm up to 30 AAC for the version with integrated heatsink)
- Versatility – the RG..M platform can easily replace the RG basic platform, allowing OEMs to give added value to their customers with the monitoring features available with the RG..M