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In practical experiments, researchers may not always be able to monitor the reaction continuously. The SMS series magnetic stirrer takes into full account potential issues that may arise during experiments, such as temperature sensor disconnection, improper contact between the sample and the plate, motor failure preventing stirring, and uncontrolled magnetic heating.

Thanks to the independent safety circuit design and multiple sensors providing continuous monitoring, the hardware-level protection ensures that if any unexpected situations occur, the instrument will immediately shut off the heating function and sound an alarm. This helps protect the reaction samples and prevents overheating and temperature runaway from causing accidents. Additionally, users can quickly identify the cause and address issues using the corresponding error codes.

ER3: During heating, the temperature sensor was removed from the container.

ER4: During heating, the external temperature sensor exceeded the target temperature by 40°C.

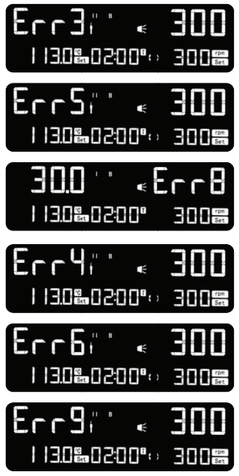
ER5: Hardware protection temperature detection: internal temperature exceeded the overheating protection threshold.

ER6: Temperature automatically rises by 20°C when heating is not turned on.

ER8: No detected rotation speed when stirring is turned on.

ER9: During heating, the temperature sensor is improperly placed or not in the container. If heating is on for 7 minutes and the temperature rises by less than 5°C, this error is triggered.

Fault Reporting Data



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SMS Series Magnetic Stirrer

Safety during experiments

Safe design
Rhein certification
stable and reliable

SCILOGEX

In traditional chemical and chemical engineering laboratories, flammable and explosive reagents, organic liquids, steam, and other substances pose safety hazards. To eliminate these risks, you need a magnetic stirrer with electrical safety features, including insulation and protection against electric shock, overload protection, grounding protection, an independent internal safety circuit, built-in temperature sensor overheating protection, and automatic power-off in case of abnormal errors.

SCILOGEX always places user safety as a top priority，Our DMS series magnetic stirrer has obtained multiple product safety certifications, including CE EMC (EU Electromagnetic Compatibility) from TÜV Rheinland, FCC (USA/Canada Electromagnetic Compatibility), ICES (Canada Electromagnetic Interference), CE LVD (EU Low Voltage Directive), UKCA EMC (UK Electromagnetic Compatibility), UKCA LVD (UK Low Voltage Safety), cTUVus (North America Safety Certification), and CB (International Electrical Product Safety Certification), among others. It meets various high safety standards required for laboratories, ensuring stable operation of experimental samples and, more importantly, protecting the safety of the operators.

PART. 01

Safety is not just a statement—it’ s a commitment. Our design incorporates triple protection: a protective outer shell, an internal safety circuit, and real-time monitoring for overtemperature and overcurrent. These features provide reliable protection, ensuring the safety of both the laboratory and its operators.

Heat warning function:

When the disc temperature is higher than 50°C, When heating is turned off or the power is cut, the "Hot" indicator flashes to warn of high temperatures.

The safety temperature is djustable:

You can set a maximum temperature limit to prevent accidental overheating.

Safety lock:

Prevents accidental changes to set operating parameters, ensuring more reliable and secure operation.

Two independent safety circuit design:

Sensors continuously monitor the device, and in case of abnormal errors, the machine automatically cuts off the power, ensuring the safety of the operator.

Efficient drainage platform:

Quickly directs spilled liquids away, preventing them from entering the internal components.

Tempered glass touch panel:

High temperature resistant, resistant to acid, alkali, and salt corrosion, with high structural strength and easy to clean.

Waterproof ridge design on the back:

Prevents liquids from entering the interface, eliminating the risk of water ingress and enhancing safety.

Tempered glass touch panel:

High temperature resistant, resistant to acid, alkali, and salt corrosion, with high structural strength and easy to clean.

IP42 dust and water resistance:

Provides enhanced protection against accidental liquid spills and laboratory dust, preventing corrosive liquids and particles from entering the machine, effectively safeguarding electronic components.

RS232 communication interface:

Allows connection to a computer or industrial control system, enabling remote real-time monitoring of the instrument's operating status, parameter settings, and operations like start, stop, etc.

PART. 02

As a professional magnetic stirrer, the DMS series ensures safety while being designed with the user's real-world scenarios in mind. It achieves a balance of safety, stability, ease of use, and durability.

Full metal body casing:

Excellent heat dissipation, maintains shape at high temperatures, and is fire-resistant.

Three operating modes can be set upon startup:

- Mode I: Power failure restart with saved parameters, heating and stirring functions turned off.
- Mode II: Power failure restart with saved parameters, heating and stirring functions remain in the state they were in before shutdown.
- Mode III: Same as Mode I, but requires confirmation of the safety temperature.

High-temperature resistant strong magnets:

Powerful magnetic force, not easy to lose magnets, and resistant to demagnetization at high temperatures, ensuring smoother stirring of viscous samples.

Glass-ceramic surface:

01 Made from highly chemically inert materials, it is highly resistant to strong acids, strong alkalis, oxidants, and other corrosive chemicals.

02 Heat-resistant with a low coefficient of thermal expansion, it undergoes minimal deformation at high temperatures, ensuring stability and durability.

03 Strong resistance to stains, making it easy to clean up accidental spills of solvents, oils, or other contaminants.