SP Motor Protection

GRUNDFOS **MP 204**

ELECTRONIC PUMP PROTECTION MADE SIMPLE

SP pumps are made to be very strong indeed. But that does not mean they cannot benefit from extra protection that prolongs their lifetime and safeguards them against external threats. That is why we created the MP 204 motor protection unit.

Made especially for pumps by pump specialists, it was designed to bring you pump protection that is as simple to use as it is efficient. Our engineers packed it full of all the protection features you need—but kept it easy to install, set, and use.

PROTECT YOUR PUMPS AGAINST EXTERNAL THREATS

The MP 204 protects pump motors against incoming station power supply issues such as: undervoltage, overvoltage, current unbalance, and other variations in power supply. So even if your external power supply is not entirely steady, your SP pump will remain as reliable as ever. Very importantly, the extra protection also reduces wear, thereby prolonging the motor's lifespan.

Reduced power consumption is a strong indication that the pump is about to run dry, so the MP 204 will immediately stop the pump if the power consumption drops below 60 percent. And with SP pumps, the Tempcon temperature sensor ensures that the pump is stopped if it becomes too hot—for example if a foreign object jams the pump.

KEY FEATURES AND BENEFITS

- Configure limits, trip points, delays, and more...
- See Detailed alarm and warning information
- View pump run times and starts
- Copy and save settings from one MP 204 to another
- Read, print, and/or email full performance reports with the MP 204 report function
- Full I&O manual available on Grundfos GO for MP 204

3-YEAR SYSTEM WARRANTY WHEN USED WITH A GRUNDFOS PUMP AND MOTOR

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think
innovate

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TECHNICAL DATA

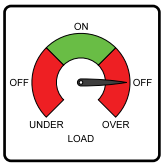
MP 204	
ENCLOSURE CLASS:	IP 20
AMBIENT TEMPERATURE:	÷20 to 60°C
RELATIVE HUMIDITY:	99%
VOLTAGE RANGE:	100-480 VAC
CURRENT RANGE:	3-999 A
FREQUENCY:	47-63 Hz
IEC TRIP CLASS:	1-45
SPECIAL GRUNDFOS TRIP CLASS:	0.1-30 s
VOLTAGE VARIATIONS:	÷25/+15% of nominal voltage
APPROVALS:	EN 60947, EN 60335, UL/CSA 508
MARKING:	CE, cUL, C-tick

(MI301 Grundfos GO Dongle Shown)

STAY IN TOUCH FROM A DISTANCE

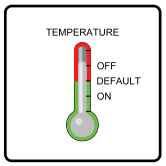
We believe in open protocols. That is why your MP 204 solution can be connected to virtually any SCADA system, allowing you remote access to your pump data anywhere. You can control the pump, change the settings, and access information such as energy consumption, detailed single and three-phase voltage and current conditions, alarms and operation data. Grundfos iSolutions can communicate with almost all of the communication standards available on the market. Connections can be created either via wired networks or wireless technology. If you choose WebAccess via the Grundfos Remote Management system (GRM), you can communicate via your computer, the Internet, or via mobile phones as you choose.

MP204 PROTECTS AGAINST:



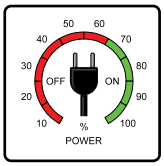
E48 E56 A48 A56

If the motor current is outside the required values, the motor will stop. Protecting against overload/underload lengthens the lifetime and improves overall system reliability.



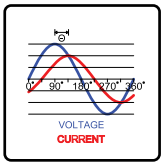
E64 E71 A64 A71

Monitoring temperature means the motor shuts down before it overheats and gives you an early warning for servicing. The TempCon temperature transmitter works with SP pumps, and the Pt sensor or PTC/thermal switch with other pump ranges.



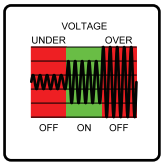
E21

Continually checks the motor's power consumption and stops the pump if the power falls below a certain level. This could indicate a problem and prevents the total motor damage that would otherwise occur if the pump runs dry.



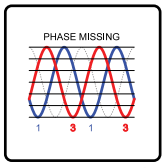
E112 E113 A112 A113

The power factor is an indicator that the pump is running under optimal conditions. If MP 204 measures a fall in the power factor, this can be an indication of issues within the pump motor itself. A failing power factor is an indicator of pump motor health and is used as a predictive maintenance indicator.



E32 E40 A32 A40

Overvoltage/undervoltage is monitored and if there are variations in supply, possibly caused by long cables or a transformer, these can result in pump damage. Early warning gives you an opportunity to improve operating conditions.

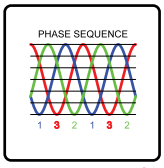


A2

Phase missing is often caused by wear or possibly a mains cable fault or blown fuse. The MP 204 checks that all phases are present, ensuring the pump is correctly installed, avoiding overheating and possible motor damage.

E20 A20

Measuring voltage leakage to the ground on start-up protects against ground failure/ insulation resistance before start-up. The pump won't start, averting potential damage.



A9

Ensuring the correct phase sequence delivers maximum performance. Incorrectly connected phases cause rotation in the wrong direction which reduces performance and leads to excessive wear.

Visit grundfos.us/pei to learn more about Department of Energy (DOE) pump energy index (PEI) requirements and PEI ratings on specific Grundfos models.

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