

SP motor protection

Electronic pump protection made simple

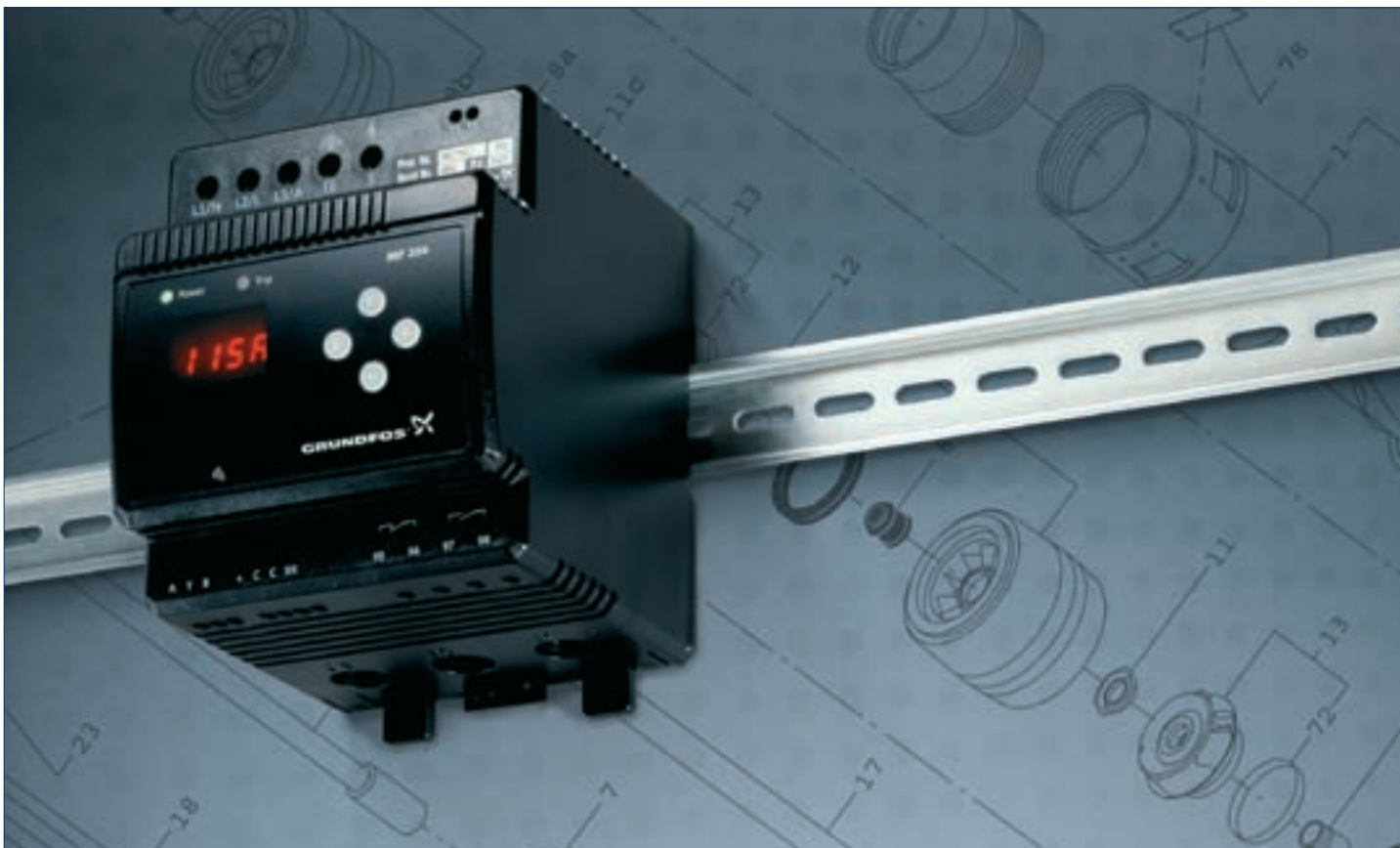
SP pumps are made to be very strong indeed. But that does not mean they cannot benefit from extra protection that prolongs their lifetime and safeguards them against external threats. That is why we created the new MP 204 motor protection unit.

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 crammed 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 undervoltage, overvoltage 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%. 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.



Made for pumps by pump experts

Simple set-up a priority

Simple installation and set-up was a major priority for the MP 204 designers. Mounting is done by means of four screws or by sliding the unit onto a mounting rail, and the entire set-up can be completed in just two minutes. The simple menu is used to set four parameters: rated motor amps, nominal voltage, trip class, and no. of motor phases. After just 120 seconds of setting, the unit is ready to go.

True RMS measurement for maximum accuracy

The MP 204 features uses a true RMS converter to ensure correct conversion of the signals received into direct current signals. This means that you avoid the errors which distortion and offsets cause with other types of converters.

Temperature monitoring – a special SP feature

The MP 204 unit really comes into its own when used in conjunction with the SP series. It gives access to communication via the Tempcon temperature sensor, which means that the MP 204 keeps an eye on your SP pump's motor temperature at all times. If the temperature reaches 60°C it will issue a warning signal. If it reaches 75°C, the MP 204 will stop the motor to prevent damage.

Access more functions with the R 100 remote control

The R 100 remote control from Grundfos gives you access to even more options. For example, you can adjust factory settings, carry out service and troubleshooting, and get read-outs of data stored in the MP 204 unit.

Ready for bus communication

While many customers require motor protection only, the MP 204 is also prepared for expansion. It allows for monitoring and communication via GENibus – a special Grundfos BUS for exchange of pump data, alarms, status information, and setpoints. This enables users to connect the MP 204 to e.g. SCADA systems.

Handles currents up to 1,000A

On its own, the MP 204 will handle currents up to 120A. For applications involving currents up to 1,000A, the unit can be fitted with external current transformers available from stock at Grundfos.



Technical data – MP 204

• Enclosure class:	IP 20
• Ambient temperature:	-20 to +60°C
• Relative humidity:	99%
• Voltage range:	80-610VAC
• Current range:	3-999A
• Frequency:	47 – 63 Hz
• IEC trip class:	1 – 4S
• Special Grundfos trip class:	0.1 – 30 s
• Voltage variations:	-25/+15% of nominal voltage
• Approvals:	EN 60947, EN 60355, UL/CSA 508
• Marking:	SE, cUL, C-tick

Monitoring parameters

• Insulation resistance before start-up
• Temperature (Tempcon, PT sensor and PTC/thermal switch)
• Overload / underload
• Overvoltage / undervoltage
• Phase sequence
• Phase missing
• Power factor (cos φ)
• Power consumption
• Harmonic distortion
• Current asymmetry
• Run and start capacitor (single-phase)
• Operating hours and number of starts