RPR Control-100

Electronic process monitoring system

RPR Control-100 is the efficient monitoring system for centrifugal pumps.

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Competence in pump and filter technologies

Sondermann's RPR Control-100 for electronic process monitoring of pumps.

Users of centrifugal pumps are only too well aware of the problem that most pumps do not fail because of progressive wear but, long before their end of life, due to critical operating conditions like dry running, overheating or operation in cavitation.

For process-related reasons, it is impossible to entirely avoid critical operating conditions with many pump applications. And on top of that, more and more installations are being operated with less and less personnel, due to pressure from rising costs.
For smooth functioning though, the reliably automated monitoring of pump processes is a must. And the new RPR Control-100 series by Sondermann is a particularly efficient system to monitor centrifugal pumps.

Operating conditions are monitored by measuring the motor power input of the centrifugal pump. The higher the delivery rate is, the more power is required. A high-resolution power meter exactly determines the actual operating condition of the pump.

RPR Control-100 1
to be built into control cabinets and plug in the separate programming unit (mounted on top-hat rail)

RPR Control-100 2
to be built into control cabinets with integrated programming unit (mounted on top-hat rail)

Portable RPR Control-100 3
with indicating lamps and push-buttons but without programming unit

Separate programming unit
Hand-held programmer with cable and plug to programme specific switching thresholds to RPR Control-100 1 and 100 3 systems

The active-power meter integrated to the RPR Control-100 system has 4 user-programmable switching thresholds assigned to the following operating conditions:

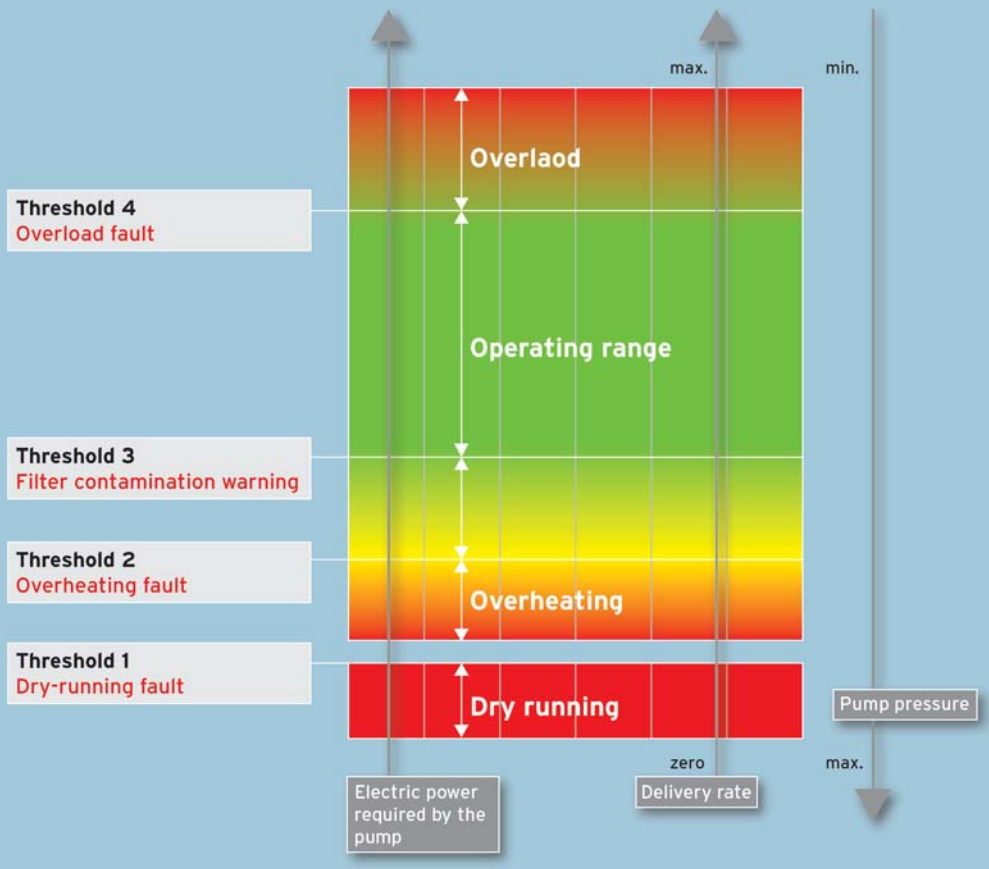
- Dry running
- Overheating
- Overload
- Flow rate falling below minimum value

So the active-power meter can be easily and conveniently adapted to various types of pumps and operating conditions. The fourth switching threshold to monitor a user programmable minimum flow rate may be used with a filter system, for example, to exactly determine and indicate the degree of contamination of the filter elements on the basis of a decreasing flow rate.

All advantages of the RPR Control-100 monitor at a glance:

- Safe and effective monitoring of pumps of up to 20kW.
- Cost-saving avoidance of expensive damages to the pump.
- Increased availability of your installation.
- Unproblematic retro-fitting to existing installations.
- No pipeline fixtures required.
- Integrated operating hours meter to indicate due maintenance inspection of the installation.

4 user-programmable switching thresholds



Competence in pump and filter technologies. This means excellent product quality, reliable service, and long-standing experience.

For more than 50 years now.

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Principle of measuring the electric power required

The least power is required when the pump is running dry or when there is only little fluid in the pump housing. A little bit more power is required when the pump overheats or runs with the pressure line closed or delivers at a rate of zero or slightly above. With increasing delivery rate, the pump reaches its normal operating range and the power required increases accordingly.
The top end of the operating range is limited by the overload threshold that is either characterised by the maximum power of the motor or the maximum volume flow permissible for this size of pump.

Sondermann – your competent partner for all critical pump applications.

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If one of these switching thresholds is reached, the RPR Control-100 transmits a signal to the overall controller. At the same time, the LED display at the monitor signals the error condition to the operating personnel.

What will the failure of a pump cost you?

Remember that, in addition to the costs for replacing a defective pump head, the standstill of machines and loss of production also entail considerable expenses.
Do you really want to pay for this?

A programming unit allows the user to easily set up and programme the monitoring system. The programmer is either built into the monitoring system or is a separate hand-held device. One programming unit can be used with several pumps. Once the programmer has been plugged off the monitor, the values set cannot be changed anymore.

The portable version of the RPR Control-100 monitor also is ideal to retrofit existing pump installations. This monitoring system is, together with its power section, built into a protection class IP 65 casing that may be used as an on-site operator element. The portable monitor is just wired to the motor line of the pump. If one of the operating conditions mentioned above occurs, the integrated contactor switches off the pump before it is damaged. As soon as the error has been corrected, you can start the pump again, directly on site.

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Or send an e-mail: rpr-control@sondermann-pumpen.de

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