

---

# LON capability retrofitted to existing pump installations

VIA SCADA SYSTEMS, FACILITY MANAGERS CAN MONITOR, CONTROL AND OPTIMISE THEIR ELECTRICAL INSTALLATIONS, FROM THEIR PC. THEY CAN DO THIS FROM ANYWHERE AROUND THEIR FACILITY – OR EVEN FROM HOME.

The more installations that are connected, the more a facility manager can capitalise on this technology. This is the situation at the Regional Hospital of Silkeborg where over 100,000 patients are treated annually in general medicine, orthopaedic surgery, gynaecology and more.

With the new Grundfos CIU communication interface, the hospital has recently brought existing Grundfos pump installations online via their LON network. After half an hour's straight-forward commissioning, data exchange between the pumps in the system and the SCADA system was a reality, and there have been no issues since.

The new interfaces complete Grundfos' offering of fully integrated turn-key systems pre-programmed to work with all major SCADA systems.

## THE SITUATION

### PREVIOUSLY DEPENDENT ON VISUAL INSPECTIONS

The installations concerned were a Hydro MPC-E booster for constant pressure water supply and a set of Grundfos TPE circulator pumps at the central heating inlet. Each installation consisted of three speed-controlled pumps controlled and monitored by a Grundfos Control MPC multi-pump controller. Despite the communication capability built into the Control MPC, the hospital's four-man technical team had to perform visual

---

#### TOPIC:

The new interfaces complete Grundfos' offering of fully integrated turn-key systems pre-programmed to work with all major SCADA systems.

---

#### LOCATION:

Denmark

---

#### COMPANY:

The Regional Hospital of Silkeborg

---

inspections. If incidents occurred outside working hours, the technician on duty from home would have to drive in to check and remedy the situation. The same applied if system conditions required optimisation.

Standard I/O LON interfaces could have provided simple data, but the information value was considered insufficient. It is not enough to know that an alarm has occurred; a detailed description is needed for the technician to determine how urgent the situation is. According to Operations Manager, Søren Christiansen, unless suppliers could deliver a LON capability themselves, he would rather save himself the bother and live without the connection to SCADA.

## THE GRUNDFOS SOLUTION

### MONITORING AND CONTROL VIA ANY SCADA SYSTEM

The Grundfos CIU was a welcome option for bringing the pressure booster and heating circulators online. The CIU is a standard interface for data transmission between a Grundfos pump or controller and virtually any SCADA system – in this case LON.

The communication interface is fully compliant with the standard LONmark functional profile 8120 “Pump Controller”, ensuring interoperability with other LON devices. Without interrupting the water or heating supplies, the CIU unit was installed in both existing Control MPC control panels. A Grundfos technician installed the unit successfully in half an hour. Finally, without previous experience with the CIU, the hospital’s own electrical engineer carried out commissioning in only half an hour – again without any problems.

## THE OUTCOME

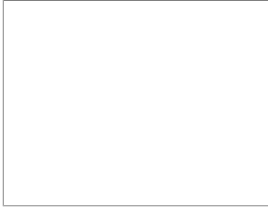
### FAULTLESS MONITORING AND CONTROL

Drama is pretty much the last thing the technicians want or need in their work at the hospital. In this respect there have been some distinct advantages with the CIU. The hospital now has a complete solution comprising pumps, controllers and communication interfaces with each component is integrated and optimised to work together. While this case was a retrofit, the same set-up is available as a complete turnkey solution, which significantly improves reliability compared to components sourced separately.

During a tour of the installations, staff reported that there had been no issues with data exchange at all. Now if an incident occurs during operation, they can react from anywhere on- or offsite. And, as Søren Christiansen explains, if the hospital needs some extra heat at night, “we just change the settings from home.”

---

## Related Products



### CIM/CIU

CIM och CIU möjliggör anslutning av Grundfos elektroniska produkter till standard fieldbusnätverk