

DISTRICT HEATING:

GRUNDFOS iGRID TEMPERATURE OPTIMISER

GRUNDFOS iSOLUTIONS



PUMP



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SERVICES



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LOWER TEMPERATURES AND REDUCE HEAT LOSS BASED ON REAL-TIME DATA

Grundfos iGRID Temperature Optimiser is a controller with a software package that optimises your district heating supply temperature according to the actual heat demand and weather conditions – either for the entire grid or a specific zone.

The controller uses data from the weather station to calculate the optimal supply temperature. Moreover, by using real-time temperature and pressure data from Grundfos iGRID Measure Points, since it is a group of products at the end of the grid, it is possible to see whether there is sufficient energy in the grid.

Compared to a traditional experience-based setup, the iGRID Temperature Optimiser can often reduce the heat loss in the grid by 20% or more.

What is required

This is the functionality required to get the full benefit from the iGRID Temperature Optimiser:

- **Access to SCADA system data**
In addition to data from your SCADA system, the controller uses data from the included weather station.
- **iGRID Measure Points at the end of the grid**
This is needed in order to identify accurate set points.

As a result, it enables the delivery of a preloaded heat pulse at the correct times according to the flow. Moreover, it significantly improves the grid overview.

- **Adjust temperature set points**
If the differential pressure crosses the desired differential pressure, it indicates that there is either too much or too little heat energy in the grid. Accurate set points allow you to adjust the temperature set points to reach the desired differential pressure that is at any time available from the iGRID measure points.
- **Controller delivered with integrated software**
All data and set points can be monitored and adjusted in our customer portal, which is accessible on both PC and mobile devices. You also have the option to integrate to your SCADA system.

Find out further details in our [Installation & Operation manuals](#).

EXPAND YOUR CONTROL OPPORTUNITIES

The iGRID Temperature Optimiser can be utilised for managing the temperature in the entire grid and in combination with iGRID Temperature Zones it can be utilised even more effectively, taking advantage of more similar building demands in specific branches.



Temperature Reduction

The customer is responsible for the temperature optimisation.

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Demand-Driven Optimisation

The Grundfos iGRID Temperature Optimiser works its magic and ensures optimal temperature control.

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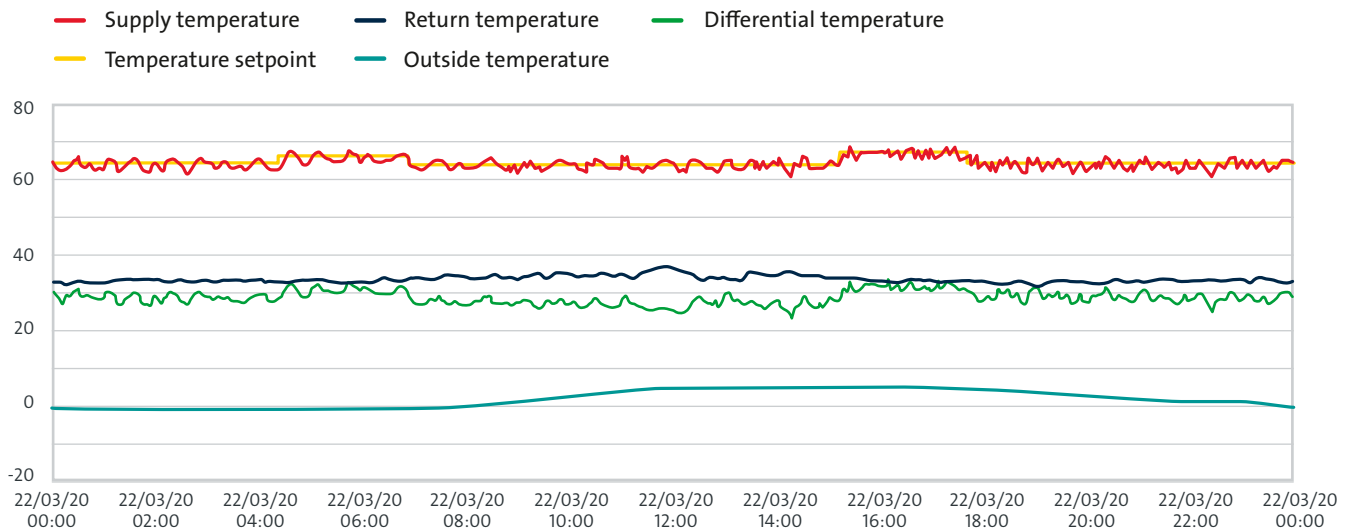


Full Energy Control

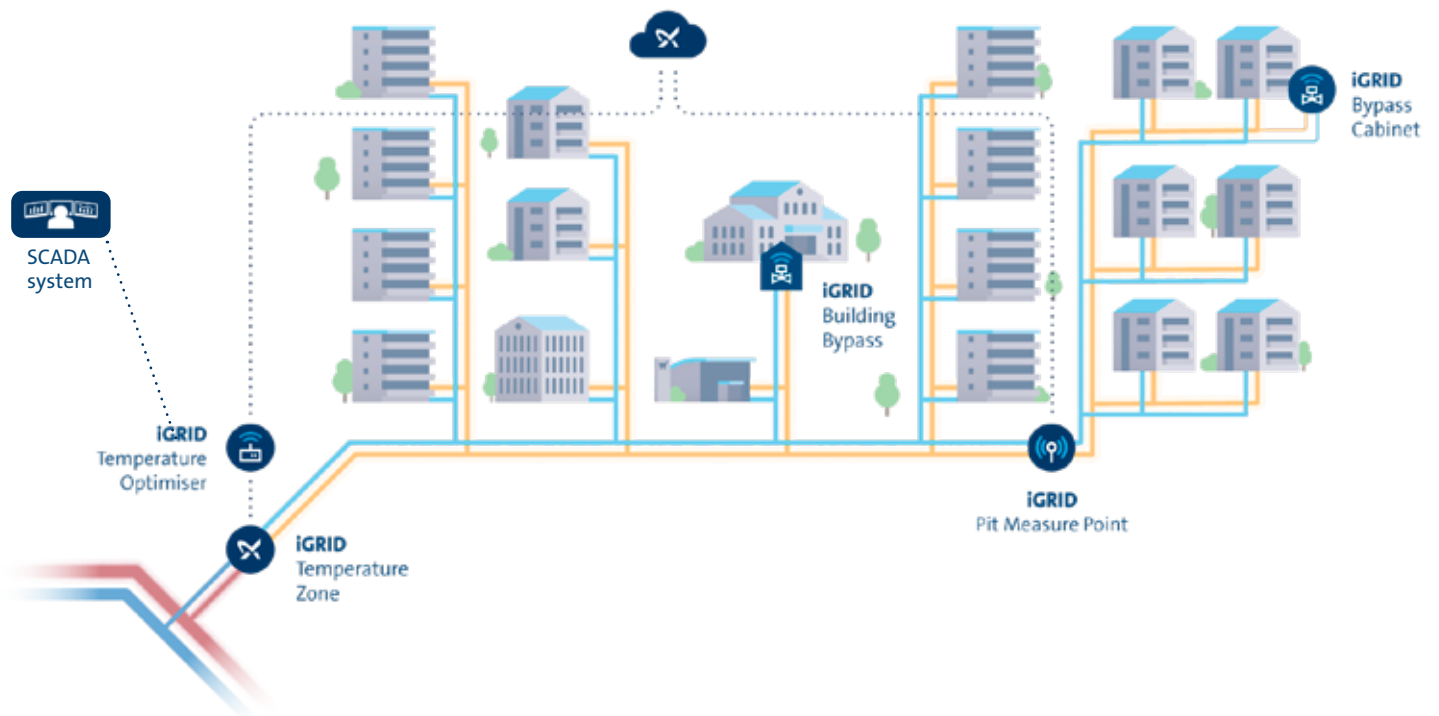
A flow meter ensures that the energy in and out of the zone is monitored for optimisation purposes.

| | | | |
|---|---|---|---|
| Pre-fabricated mixing loop in a pit, cabinet or on a skid – plug'n'pump | • | • | • |
| Enter setpoints on the pump or through your SCADA system | • | • | • |
| Peak shaving | | • | • |
| Weather compensation | | • | • |
| Automatic wPID regulation | | • | • |
| Real-time temperature optimisation based on iGRID Measure Points | | • | • |
| User portal accessible via web, smart devices and SCADA | | • | • |
| Complete overview of energy in and out of the zone | | | • |
| Energy benchmarking between zones | | | • |

OPTIMAL TEMPERATURE CONTROL FOR THE GRID OR A SPECIFIC ZONE



The iGRID Temperature Optimiser provides optimal temperature control based on actual weather conditions, peak shaving algorithms and real-time pressure data.



Optimising the supply temperature and pressure with weather compensation, peak shaving algorithms and real-time data from the Grundfos iGRID Pit Measure Point.

GRUNDFOS iGRID IS A NEW SOLUTION RANGE FOR DISTRICT HEATING

With this range we fight heat losses and prepare for utilisation of renewable energy sources through intelligent temperature control.

By creating city zones with mixing loops, temperatures can be lowered to meet the actual demands in those zones and thereby deliver exactly the heat energy needed – nothing more and nothing less!

Find out more about the Grundfos iGRID concept by contacting your local Grundfos Sales Company or visit grundfos.com form more information.

