

DISTRICT HEATING:

GRUNDFOS iGRID BYPASSES

GRUNDFOS iSOLUTIONS



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GRUNDFOS iGRID BYPASSES

In any district heating grid, some consumers are placed more critically than others.

Bypasses are utilised to ensure that the consumers at the far end of the grid receive enough heat energy, even when the demand is low during summer.

With Grundfos iGRID bypasses, consumers receive exactly the temperature and pressure they need, ensuring maximum comfort with minimal operational costs, since the usual over-compensation is eliminated.

How does it work?

Once the supply temperature is below the setpoint, a bypass valve opens and increases the flow to the return line until the supply temperature is back at the required level.

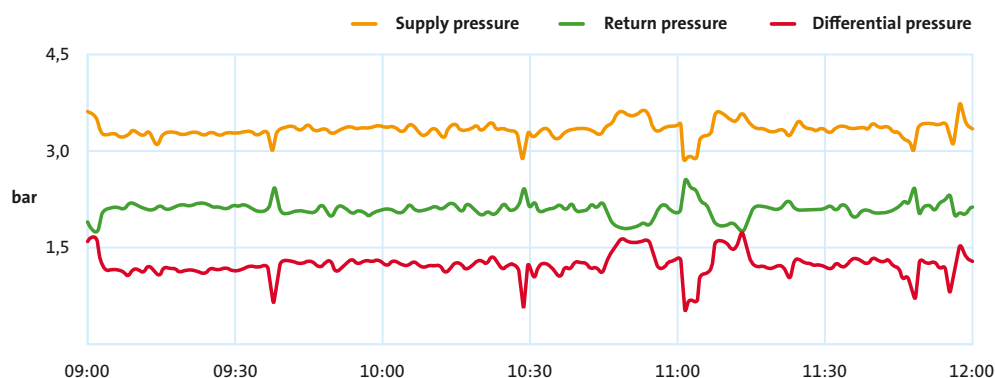
Set points and algorithms ensure that the bypass flow is only allowed when there is an actual demand.

Data is shared via GSM and made available online or via smart devices. Additionally, it can easily be connected to your SCADA system via an iGRID Receiver. To enable data sharing, the device is supplied with a SIM card for which there is a small data subscription and hosting fee.

There are two iGRID bypasses solutions:

- **iGRID Bypass Cabinet** - for outdoor installation without access to electrical power supply

- **iGRID Building Bypass** - for indoor installation with connection to electrical power supply

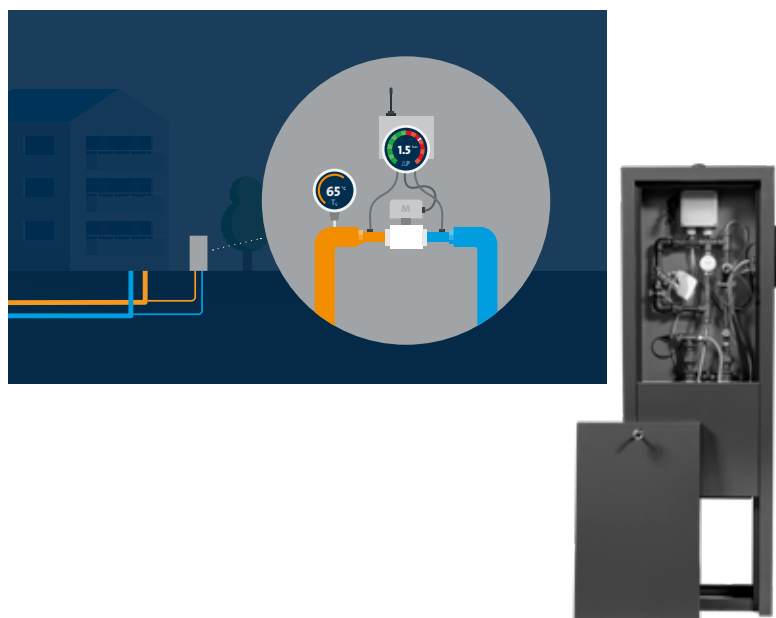


GRUNDFOS iGRID BYPASS CABINET

In critical parts of a district heating zone, an iGRID Bypass Cabinet is required to ensure that the consumers at the far end of a zone receive enough heat energy, even when demand is low during summer.

The iGRID Bypass Cabinet monitors pressure and temperature in the supply line and pressure in the return line. A thermal electric generator (TEG) ensures that there is no need to connect to the electricity grid.

The TEG utilises the temperature difference between the supply line and the outside air to create sufficient energy for controlling the motor valve and sharing the data via GSM.



PRODUCT DATA

Data	Grundfos iGRID Bypass Cabinet	Grundfos iGRID Building Bypass
Pressure ratings	6-10 bar	6 bar
Media temperature	0-105°C	0-105°C
Ambient temperature	up to 60°C	0-60°C
Housing material	Painted steel cabinet	Composite
Pipe connection	¾" RP	¼" RP (sensor connections) ½" RP (valve)
Power supply	Thermal electric generator	1 x 230V 50HZ (Schuko plug)
Rated Current	N/A	2.4 A
IP Rating	65	65
Weight	50 kg	2.8 Kg
Dimensions (W x H x D)	500 x 1500 x 250 mm	231 x 98 x 160 mm

Product numbers	Product name
99629467	Grundfos iGRID Building Bypass - 6 bar
99629469	Grundfos iGRID Bypass Cabinet - 6 bar
99629470	Grundfos iGRID Bypass Cabinet - 10 bar

GRUNDFOS iGRID BUILDING BYPASS

The Building Bypass is a remotely controlled solution which ensures that sufficient energy and temperature is delivered to buildings, even when the demand is low. In this way, buildings that face challenges with lack of energy during summer are improved.

The iGRID Building Bypass provides you with the option to constantly adjust and fit the required temperature for on/off use in buildings. Data is transmitted every minute to on/off buildings such as schools that require heat only for a certain period. At the same time, it is utilised for buildings with long service pipes, where the distributed water can easily decrease in temperature and become too cold during low demand periods. Since the iGRID Building Bypass is connected to the electricity grid, there is no need to install and replace batteries.



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.

