Chilled Water Control

**GRUNDFOS CONTROL HVAC**

**Key Features and Benefits**

**Guaranteed to fit in your building, no matter the size**
- Measures up to 26 building zones differential pressure sensor values, comparing them to individual setpoints
- Calculates main control loop setpoint from the largest deviation between actual and setpoint values
- Can control system bypass valve to ensure operating chillers minimum flow requirements are met

**Maximize building comfort and efficiency**
- Easy configuration of cut-in/cut-out speeds for individual pumps using application-optimized software
- Automatic cascade control ensures the highest possible system energy efficiency
- Regulates the variable-speed pumps and controls the bypass valve based on building demand

**Easy commissioning and reliable operation**
- Self-configuration option using Autotune — calculates the optimal control loop settings and reliably run the chilled-water system
- Protects chillers from freezing in low demand situations by adjusting bypass valve to ensuring consistent operation

**Flexible remote access and monitoring**
- Optional: BMS integration and monitoring via standard protocols (e.g., BACnet IP and Modbus TCP)
- Optional: Grundfos Remote Management system (GRM) integration

**Four standard variants offer up to:**
1. Four Grundfos E-pumps or CUE frequency converter / Four chiller signals
2. Four ext. variable frequency drives (0–10 V control / 4–20 mA power feedback) / Four chiller signals
3. Eight Grundfos E-pumps or CUE frequency converter / Eight chiller signals
4. Eight ext. variable frequency drives (0–10 V control / 4–20 mA power feedback) / Eight chiller signals

*Optional bypass valve control available with all*

**CHOOSE GRUNDFOS QUALITY FOR FLOW CONTROL**

Grundfos Control HVAC can help you achieve significant energy savings without sacrificing building comfort. Designed exclusively for delivering the highest level of efficiency to chilled water systems, you can count on it to deliver unmatched reliability and energy efficiency no matter the building size.
**HVAC CONTROLLER Technical Data**

**HOW DOES IT WORK?**

The Control HVAC regulates the controlled pumps’ speed and optionally the bypass valve in order to keep the differential pressures over the active chillers within the allowed range.

The Controller is available in 4 versions:
- 4 x Grundfos E-pumps / CUE
- 8 x Grundfos E-pumps / CUE
- 4 x external variable frequency drive (VFD 0-10V)
- 8 x external variable frequency drive (VFD 0-10V)

**SYSTEM OVERVIEW – VARIABLE PRIMARY FLOW**

First, the Control HVAC regulates the pumps and optionally the bypass valve, keeping the differential pressures over the active chillers within the allowed range. Once achieved, the Control HVAC will regulate the pumps for prime energy optimization by targeting the zone with the largest deviation with the needed differential pressure.

Optional: The controller can handle the control of a bypass valve to ensure the minimum flow through the chiller.

**SYSTEM OVERVIEW – PRIMARY/SECONDARY**

The controller regulates the speed of the secondary pumps in a fixed-speed primary / variable-speed secondary system.

The objective of the controller is to regulate the speed of controlled secondary distribution pumps in an energy-optimized way to keep the zone with the lowest differential pressure at the set point.