

Wastewater Controls

GRUNDFOS DEDICATED CONTROLS

Grundfos Dedicated Controls is an intelligent monitoring and control solution developed specifically for network pumping stations and commercial buildings. Designed to control groups of up to six pumps in sewage pumping stations, this solution is an excellent choice for wastewater lift stations, stormwater stations, influent/effluent stations and many other similar applications. A range of advanced features allow for system measurement and calculation, and integration with other monitoring, control and energy optimizing equipment. Gain full control of your system - from anywhere.



Key Features and Benefits

- Supports communication with monitoring equipment or other external units Communication Interface Module (CIM) via a number of different fieldbus protocols
- Compatible with Grundfos Remote Management (GRM)
- Communication using wired or wireless networks to SCADA and BMS systems
- The anti-clogging feature utilizes a reverse pump rotation function that is unique to Dedicated Controls, as is the ability for continuous energy optimization according to duty condition
- User-friendly color display interface with an intuitive and easy-to-follow set-up wizard simplifies installation and operation
- In addition to a comprehensive range of basic features, user-defined inputs/outputs can be added for system functions specific for the pumping station
- Continuously learns and adapts to duty conditions to ensure the lowest possible specific energy consumption
- Free PC Tool software included for configuring and backing up of system settings, utilizing a simple USB cable connection
- Automatically and precisely monitors flow using our unique integrated flow calculation feature, or by wiring in a physical flow meter
- Available as cataloged or custom control panels

APPLICATIONS

- Wastewater lift stations
- Stormwater
- Wastewater treatment
- Influent/effluent stations

Dedicated Controls System Components



Grundfos Control Panels – TOTAL SOLUTION

- UL508A/698A Standard or Custom control panels ranging from the most basic to advanced applications

Control Unit – CU362

- Low cost controller for ‘empty’ pump stations with 1-6 pumps, ready to use out of the box
- Full color graphical display and intuitive menu structure
- No more programming! Easy 17-step setup wizard will have your station up and running in minutes
- Energy Optimization – Utilizing our CUE VFD drives with the CU362, we find the optimal speed to run your pumps to save energy and run the most efficient station possible and display the specific energy curve in an easy-to-read screen
- Important Pump Data Accessible Onsite for effective troubleshooting
- Utilizes Grundfos GENIbus® 3-wire communication between CU362 and other Grundfos components to simplify and drastically reduce the amount of panel wiring necessary
- Station Flow Calculations - station inflow and pump outflow calculated without a flow meter needed
- PID Control - Turn on and setup a PID loop controlled station in minutes!
- Anti-Blocking feature utilized with Grundfos CUE VFDs detects and attempts countermeasures to unblock pump
- Dynamic log capability of faults, warnings and alarms
- Variable Frequency Drive control and optimization for Grundfos CUE drives or any other manufacturer of VFD's
- Easy Integration to SCADA utilizing open protocols (Modbus RTU, Modbus TCP/IP) and a pre-configured profiles list



IO 351B – Input Output Module

- Communicates to CU362 via GENIbus®
- Enough inputs and outputs for a 2-pump configuration utilizing ball floats or any 4-20mA level detection device
- 9 digital inputs, 7 digital outputs (240VAC, 2A), 2 analog inputs, 3 analog outputs, 4 PTC inputs for motor protection



CUE – Grundfos Variable Frequency Drives

- Specifically designed for operating pumps (up to 350HP)
- NO NEED FOR HARDWIRED SIGNALS! All data from CUE is communicated to CU362 via GENIbus® (data includes: Frequency, “State,” Voltage, Current, Power, Energy, Torque)
- Easiest User friendly setup wizard of any VFD on the market (initial setup takes 5-10 minutes)
- Pump rotation check
- RFI filters for domestic applications built-in
- Low Total Harmonic Distortion (THD)
- Will work with any pump brand



MP204 – Motor Protection and Information Module

- Designed for across-the-line and soft-starter applications
- Monitors and protects pump on station voltage, pump current, current asymmetry, power, energy, insulation resistance
- Works as a stand-alone device or transmits all data to CU362 via Grundfos GENIbus®
- Built in current transformers up to 120A (for larger pumps, external current transformers are wired in)
- Built in megger for testing pump winding insulation



IO113 – Pump Protection and Monitoring for Grundfos Pumps with Sensors

- Monitors pump thermals, seal failure and percentage of water-in-oil (if equipped with WIO sensor)
- Built in megger for testing pump winding insulation
- When used in conjunction with our SM113 and corresponding sensors within our Grundfos Pumps, monitors bearing temperature, stator temperature, vibration and PTC's
- Specific individual fault LED indicators on front of unit for easy field troubleshooting