

PANEL SOLUTIONS

PUMP PROTECTION AND VARIABLE
SPEED CONTROL

CONTROL CUE



CONTROL MP204



DEDICATED CONTROLS



GRUNDFOS CONTROL PANELS

Selecting a ready to install control panel from Grundfos is the best way to ensure full intercommunication, compatibility and peace of mind, without needing to call on the services of specialist third party system integrators. Complete with power supplies, an approved quality cabinet and 100% functionally tested before leaving our UK production facility, all that is required is to connect power and signal cables and commission.

All Grundfos control panels in this range come with a standard RS485 GENIbus output, allowing them to connect to any SCADA system and give remote access to pump data.

Alternative communications available via a Grundfos Communication Interface Unit (CIU) include LonWorks, BACnet, PROFIBUS, PROFINET and Modbus, plus the innovative Grundfos Remote Management (GRM) system (see box).

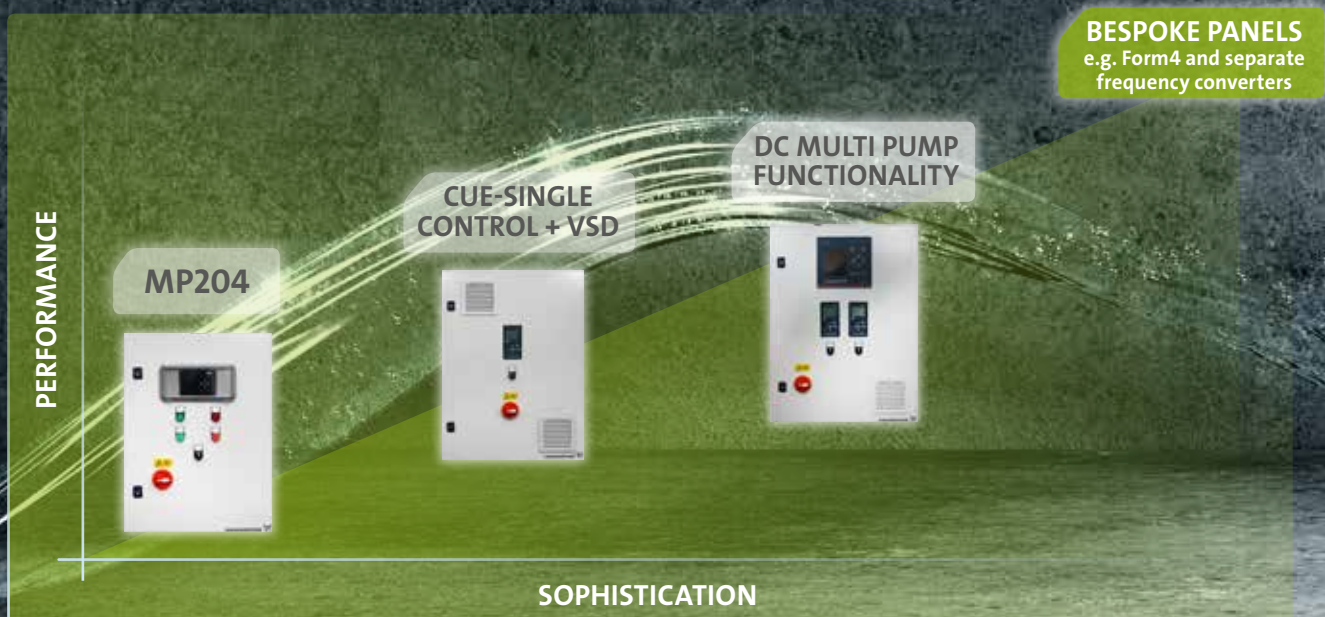
Grundfos Remote Management (GRM) is a cloud based remote monitoring, management and reporting system covering alarms, set points and data from ancillary devices e.g. sensors and meters.

- Live monitoring for full overview of trends and performance
- Module-based communication interface enabling data transmission via GPRS / SMS
- Fixed low fee covers data traffic, hosting and system support

THE RANGE

Grundfos offers a wide range of control and protection options from simple power isolation panels to bespoke Form4 panels and those for stand alone invertors. However, the most commonly selected are:

- **the Control MP204 motor protection panel**
- **the Control CUE combined variable speed drive and control panel**
- **the Dedicated Controls (DC) multi pump panel**



THE **CONTROL MP204 PANEL**

A simple, easy to install but complete motor protection panel based on the MP204 controller, for any asynchronous pump, motor or fan. The Control MP204 panel range protects your pump from power supply under and over voltage, missing phases and dry running. In addition to ensuring reliability of your pump installation, the panel also monitors energy consumption, making it possible for you to cost optimise its operation and giving early indications of clogging or impeller wear.

Designed for not just new systems, but also particularly suited to retrofit upgrades of existing pumps, applications for the Control MP204 Panel include:

- data centres
- field irrigation
- single pump effluent stations
- breweries, distilleries and food processing plants

The Control MP204 is available in models suitable for voltages ranging from 100 to 480VAC and currents ranging from 3 to 999A.



Options

- Dry running lamp, Red
- Enclosure light with socket outlet
- Panel anti-condensation heater
- Communication Interface Units:
 - LonWorks, CIU100
 - PROFIBUS, CIU150
 - Modbus, CIU200
 - GSM, CIU250
 - GRM, CIU270
 - BACnet, CIU300
 - PROFINET / Ethernet protocols, CIU500
- Antenna for CIU250/270

Accessories

- Analogue level sensor with cable hanger, enables constant water level detection
- Sensor cable junction box with built-in screw terminals and ambient pressure vent
- Loop powered continuous level ultrasonic level transmitter (requires setting up with handheld programmer)

Dimensions

MODEL	DESCRIPTION	VOLTAGE	CURRENT	H	W	D
98807702	Control MP204 0.55 - 2.2kW DOL	3x415, N & PE	1.4-4.7	700	500	260
98807703	Control MP204 3 - 5.5kW DOL	3x415, N & PE	6.2-10.9	700	500	260
98807704	Control MP204 7.5-15kW SD	3x415, N & PE	14.8-28	700	500	260
98807705	Control MP204 18.5-22kW SD	3x415, N & PE	35-41	700	500	260
98807706	Control MP204 30-37kW SD	3x415, N & PE	55-65	1000	600	260
98807707	Control MP204 45kW SD	3x415, N & PE	80	1000	600	260
98807708	Control MP204 55kW SD	3x415, N & PE	98	1000	600	260

THE CONTROL CUE PANEL

Combining a variable speed drive CUE with advanced control and monitoring functions, the Control CUE panel enables constant pressure, constant flow and constant water level operating modes. It protects against dry running and ensures automatic direction of rotation as well as offering connectivity to communications including GRM.

The Grundfos Control CUE comes with four digital outputs, where one is a dedicated input for external start / stop. Remaining inputs can be set to minimum / maximum curve, external fault, flow switch, alarm reset, dry running from an external sensor or not active. In addition there are two analogue inputs – one for set-point and one for sensor. One analogue output and two digital relay outputs are also available.

Options

- Dry running lamp, Red
- Alarm lamp, Red
- Running lamp, Green
- Enclosure light with socket outlet
- Panel anti-condensation heater
- Sine Wave Filter (matched to motor power)
- CUE input / output board
- Communication Interface Units:
 - LonWorks, CIU100
 - PROFIBUS, CIU150
 - Modbus, CIU200
 - GSM, CIU250
 - GRM, CIU270
 - BACnet, CIU300
 - PROFINET / Ethernet protocols, CIU500
- Antenna for CIU250/270



Dimensions

MODEL	DESCRIPTION	VOLTAGE	CURRENT	H	W	D
98805251	Control CUE 3ph 0.55kW	3x415V, N & PE	1.8	700	500	260
98805252	Control CUE 3ph 0.75kW	3x415V, N & PE	2.4	700	500	260
98805253	Control CUE 3ph 1.1kW	3x415V, N & PE	3	700	500	260
98805254	Control CUE 3ph 1.5kW	3x415V, N & PE	4.1	700	500	260
98805255	Control CUE 3ph 2.2kW	3x415V, N & PE	5.6	700	500	260
98805256	Control CUE 3ph 3kW	3x415V, N & PE	7.2	700	500	260
98805257	Control CUE 3ph 4kW	3x415V, N & PE	10	700	500	260
98805258	Control CUE 3ph 5.5kW	3x415V, N & PE	13	800	600	400
98805259	Control CUE 3ph 7.5kW	3x415V, N & PE	16	800	600	400
98805260	Control CUE 3ph 11kW	3x415V, N & PE	24	800	600	400
98805261	Control CUE 3ph 15kW	3x415V, N & PE	32	800	600	400
98805262	Control CUE 3ph 18.5kW	3x415V, N & PE	37.5	800	600	400
98805263	Control CUE 3ph 22kW	3x415V, N & PE	44	1000	800	400
98805264	Control CUE 3ph 30kW	3x415V, N & PE	61	1000	800	400
98805265	Control CUE 3ph 37kW	3x415V, N & PE	73	1000	800	400
98805266	Control CUE 3ph 45kW	3x415V, N & PE	90	2000	1200	600
98805267	Control CUE 3ph 55kW	3x415V, N & PE	106	2000	1200	600

THE **DEDICATED CONTROLS PANEL**

The Dedicated Controls (DC) panel is an intelligent monitoring and control solution developed specifically for network pumping stations and commercial or industrial buildings. Designed to control up to six pumps, this makes the range an excellent choice for mains systems, commercial building effluent or sewage duty and similar applications.

Comprising a steel enclosure with mains interlocked door for safety, functions can be accessed either through the panel keypad or via the handheld Grundfos GO controller / APP. All sensors are prewired to bottom terminals for easy access.

3 phase, 4 wire supply, TNC TNCS earthing for all pumps. Standard panel is WITHOUT Sine Wave filter or Communications Interface Unit – both are available as options.

As well as connectivity to GRM, the DC panel range features:

- **continuous energy optimisation according to duty condition**
- **control up to six pumps in groups**
- **random start levels**
- **fast commissioning with Wizard function**
- **user-friendly display interface**
- **flow estimate**
- **anti-clogging function**
- **analogue inputs 4-20 mA (pressure / ultrasonic transmitters) and / or up to five float switches**
- **wired or wireless network connection to SCADA and BMS systems**
- **full data logs on all values**
- **text messaging – control pumps and receive information via SMS**



Options

- Dry running lamp, Red
- Alarm lamp, Red
- Running lamp, Green
- Enclosure light with socket outlet
- Panel anti-condensation heater
- Variable speed control (CUE)
- Sine wave filter (variable speed models)
- Communication Interface Modules:
 - PROFIBUS, CIM150
 - Modbus, CIM200
 - GSM, CIM250
 - GRM, CIM270
 - Ethernet protocols (PROFINET/Modbus/BACnet), CIM500
- Antenna for CIM250/270

Accessories

- Analogue level sensor with cable hanger, enables constant water level detection
- Sensor cable junction box with built-in screw terminals and ambient pressure vent
- Loop powered continuous level ultrasonic level transmitter (requires setting up with handheld programmer)
- Back up battery, power controller to reduce need to reconfigure after power outage

Dimensions

MODEL	DESCRIPTION	VOLTAGE	CURRENT	H	W	D
98809033	Control DC 3ph 1P 0.55kW	3x415, N & PE	1.5	500	500	210
98809034	Control DC 3ph 1P 0.75kW	3x415, N & PE	2	500	500	210
98809035	Control DC 3ph 1P 1.1kW	3x415, N & PE	2.5	500	500	210
98809036	Control DC 3ph 1P 1.5kW	3x415, N & PE	3.5	500	500	210
98809037	Control DC 3ph 1P 2.2kW	3x415, N & PE	5	500	500	210
98809038	Control DC 3ph 1P 3kW	3x415, N & PE	6.5	500	500	210
98809039	Control DC 3ph 1P 4kW	3x415, N & PE	8.4	500	500	210
98809040	Control DC 3ph 1P 5.5kW	3x415, N & PE	11	500	500	210
98809041	Control DC 3ph 1P 7.5kW S/D	3x415, N & PE	14	600	600	210
98809042	Control DC 3ph 1P 11kW S/D	3x415, N & PE	21	600	600	210
98809043	Control DC 3ph 1P 15kW S/D	3x415, N & PE	28	600	600	210
98809044	Control DC 3ph 1P 18.5kW S/D	3x415, N & PE	35	600	600	210
98809045	Control DC 3ph 1P 22kW S/D	3x415, N & PE	40	600	600	210
98809046	Control DC 3ph 1P 30kW S/D	3x415, N & PE	55	600	800	260
98809047	Control DC 3ph 1P 37kW S/D	3x415, N & PE	65	600	800	260
98809048	Control DC 3ph 1P 45kW S/D	3x415, N & PE	80	600	800	260
98809049	Control DC 3ph 1P 55kW S/D	3x415, N & PE	98	600	800	260
98809061	Control DC 3ph 2P 0.55kW	3x415, N & PE	1.5	600	600	210
98809062	Control DC 3ph 2P 0.75kW	3x415, N & PE	2	600	600	210
98809063	Control DC 3ph 2P 1.1kW	3x415, N & PE	2.5	600	600	210
98809064	Control DC 3ph 2P 1.5kW	3x415, N & PE	3.5	600	600	210
98809065	Control DC 3ph 2P 2.2kW	3x415, N & PE	5	600	600	210
98809066	Control DC 3ph 2P 3kW	3x415, N & PE	6.5	600	600	210
98809067	Control DC 3ph 2P 4kW	3x415, N & PE	8.4	600	600	210
98809068	Control DC 3ph 2P 5.5kW	3x415, N & PE	11	600	600	210
98809069	Control DC 3ph 2P 7.5kW S/D	3x415, N & PE	14	600	800	260
98809070	Control DC 3ph 2P 11kW S/D	3x415, N & PE	21	600	800	260

Dimensions

MODEL	DESCRIPTION	VOLTAGE	CURRENT	H	W	D
98809071	Control DC 3ph 2P 15kW S/D	3x415, N & PE	28	600	800	260
98809072	Control DC 3ph 2P 18.5kW S/D	3x415, N & PE	35	600	800	260
98809073	Control DC 3ph 2P 22kW S/D	3x415, N & PE	40	800	1000	300
98809074	Control DC 3ph 2P 30kW S/D	3x415, N & PE	55	800	1000	300
98809075	Control DC 3ph 2P 37kW S/D	3x415, N & PE	65	800	1000	300
98809076	Control DC 3ph 2P 45kW S/D	3x415, N & PE	80	800	1000	300
98809077	Control DC 3ph 2P 55kW S/D	3x415, N & PE	98	800	1000	300
98809078	Control DC 3ph 3P 0.55kW	3x415, N & PE	1.5	800	800	300
98809079	Control DC 3ph 3P 0.75kW	3x415, N & PE	2	800	800	300
98809080	Control DC 3ph 3P 1.1kW	3x415, N & PE	2.5	800	800	300
98809081	Control DC 3ph 3P 1.5kW	3x415, N & PE	3.5	800	800	300
98809082	Control DC 3ph 3P 2.2kW	3x415, N & PE	5	800	800	300
98809083	Control DC 3ph 3P 3kW	3x415, N & PE	6.5	800	800	300
98809084	Control DC 3ph 3P 4kW	3x415, N & PE	8.4	800	800	300
98809085	Control DC 3ph 3P 5.5kW	3x415, N & PE	11	800	800	300
98809086	Control DC 3ph 3P 7.5kW S/D	3x415, N & PE	14	800	1000	300
98809087	Control DC 3ph 3P 11kW S/D	3x415, N & PE	21	800	1000	300
98809088	Control DC 3ph 3P 15kW S/D	3x415, N & PE	28	800	1000	300
98809089	Control DC 3ph 3P 18.5kW S/D	3x415, N & PE	35	800	1000	300
98809090	Control DC 3ph 3P 22kW S/D	3x415, N & PE	40	800	1000	300
98809091	Control DC 3ph 3P 30kW S/D	3x415, N & PE	55	1000	1000	300
98809092	Control DC 3ph 3P 37kW S/D	3x415, N & PE	65	1000	1000	300
98809093	Control DC 3ph 3P 45kW S/D	3x415, N & PE	80	1000	1000	300
98809094	Control DC 3ph 3P 55kW S/D	3x415, N & PE	98	1000	1200	300

GRUNDFOS **i**SOLUTIONS

Grundfos Control Panels are just one aspect of our commitment to deliver optimum pump system performance through intelligence, an approach we call **Grundfos iSOLUTIONS**.

We think beyond the pump and take the entire pumping system into account, optimising the way pumps, drives, controls and protection, sensors, measurement and communication units work together. Delivering intelligent solutions that require less maintenance, run more quietly, use less energy and provide information for pre-planned servicing and remote monitoring to be delivered more effectively, **Grundfos iSOLUTIONS** combines your demands, our application expertise and the latest in state-of-the-art pumping system technology.



COMMUNICATION
UNITS

CONTROL AND
PROTECTION

TRANSMITTERS

DRIVES

PUMPS

SERVICE

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