# Pump controller for water technology

## The pump - system controller MAH MASTER-CAP-3 2025:

is built in a sheet steel housing with a parametrizable pump controller with keyboard and colorful plain text display for operation together with MARE controller

Operating modes: pressure controller, pressure switch, limit switch, level controller, level switch, temperature controller, temperature switch, quantity controller, flow controller, vacuum controller, differential pressure controller, fire extinguishing mode

Power range: 1-3 MARE controller 0,75kW - 2,2kW / 1PH 230V 50/60Hz +/- 15% Power range: 1-3 MARE controller 0,75kW - 90kW / 3PH 400V 50/60Hz +/- 15%

#### **Technical specifications:**

Metal enclosure IP54, Power supply 230VAC 50-60Hz, Operating mode selector each pump,

4x Dig. Inputs,

1x Relay Output collective fault,

1x Relay Output Cooling / heating,

2x transducer inputs 4-20mA (2xMAH),

1x SD card,

1x interface RS485

Modbus RTU Master

1x interface RS485

Modbus RTU / GSM Slave

1x interface UART

Adapter port

Option:

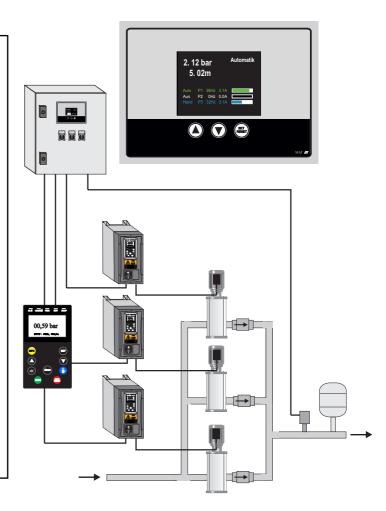
Plug-in board: 4x Relays Output,

Plug-in board: RS485 Modbus RTU (GSM),

Plug-in board: Modbus TCP/IP,

GSM RS485 Modem,

no transducer, no modem, no accessories



### **Optionen:**















General water supply applications such as: Pressure increase, level maintenance and process water supply must be implemented.

System monitoring is optionally possible.

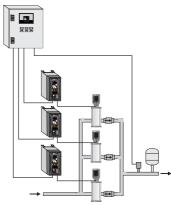
The system is configured at the factory.

Special types are available on request.



#### All features of the MAH regulation:

- Freely parametrizable pump controller with keyboard and colored plain text display
- Display for all operating messages, setpoints and commissioning values
- 4x digital inputs, 2x relay collective fault/heating/cooling,
- Speed control system for 1 to 3 pump systems all controlled
- Triple password protection, connection for two sensors 4..20mA
- Adjustable PI controller for quick pressure control
- Adjustable zero quantity switch-off to switch off the pump to "standby"
- Safe start function for the safe filling of the pipes after a power failure
- Manual operation with adjustable fixed speed for emergency supply in the event of sensor failure
- Pump monitor for operation with underwater pumps
- Adjustable runtime monitoring, adjustable leakage monitoring
- Adjustable pressure reduction, adjustable dry running protection
- · Adjustable electronic pressure monitoring
- Transducer monitoring with emergency switching to fixed speed
- Multi-operation with base load, peak load, jockey or boost function
- Automatic fault switching and pump change function
- · Adjustable test run, adjustable flushing mode, adjustable motor characteristic, adjustable PM mode
- Real-time clock with error memory and time stamp
- · Operating hours counter, daily hour counter
- Interface: RS485 ModBus RTU Slave
- Lockable front switch, fuses per frequency converter
- SD card for data logger, saving events
- GFCI + MCB 10A /230V on terminal
- Option: Connection for external 24VDC supply
- Option: Plug-in board RS485 Modbus RTU (GSM)
- Option: Aufsteckplatine Modbus TCP/IP
- Option: Modbus TCP/IP add-on board
- Option: stainless steel cabinet
- Option: control cabinet heating
- · Option: external control cabinet



### Dimensions for the MAH - MASTER CAP -3 (1-3) control on request:







Presented by:



