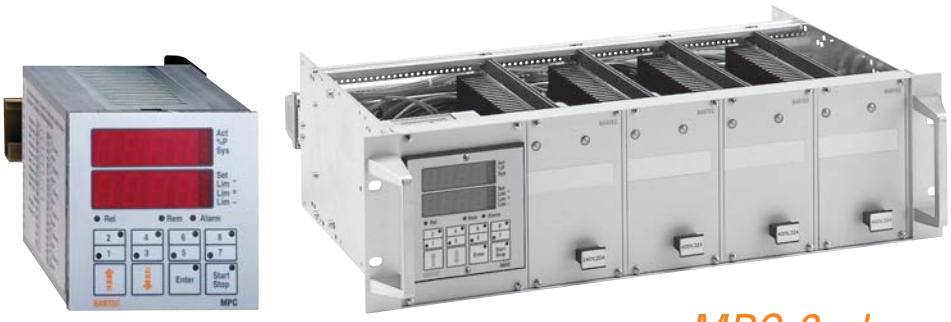
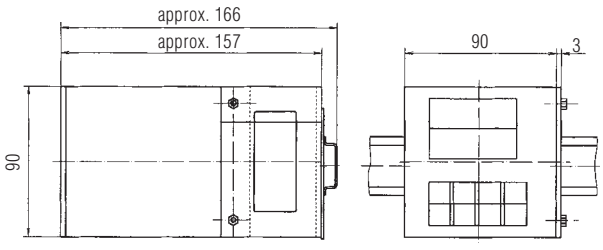


MPC 8-channel multiplex controller

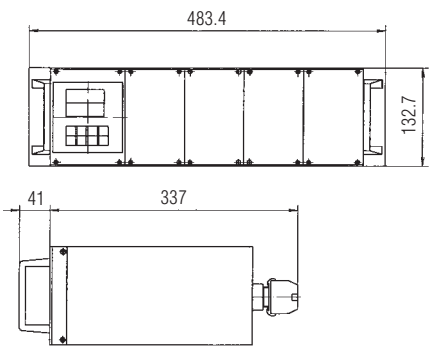
Features

- Easy installation thanks to the prewired 19" rack
- Its modular structure guarantees a tailored output power and easy maintenance
- Only plug-in connectors
- Remote scanning and operation via RS 485 interface
- High output: up to 32 A per channel
- 19" design for an easy and space-saving installation in control cabinets
- Self-optimising PID control
- Display of each channel's output power
- Simultaneous display of actual value and setpoint
- Intelligent energy management
- High energy saving thanks to ambient temperature-prompted temperature control
- Monitoring of limiters connected in series
- Autocontrol and shut-down in the event of faults
- Integrated digital energy controller

Dimensions MPC controller (snap-on case)



Dimensions MPC 19" Rack style



Description

The MPC multiplex controller is an 8-channel controller which, thanks to its stored PID algorithm, offers a very high control precision and the safe control of even most complex applications. The 2 LCD displays continuously indicates the programmed setpoint, the actual value and tha status. Up to 8 heating circuits can be safely controlled. Via the serial interface, several MPC control units can be connected to each other according to the MasterSlave system, or controlled by means of a PC or a process control system. BARTEC's interface protocol allows easy programming and adjustment to the existing hardware. The permanent memory of the controller keeps data safe in case of power failure. Combined with our Ex Pt 100 it is also possible to carry out measurements in hazardous areas.

Structure

The 2 LED displays on the front fascia of the unit continously indicate the programmed setpoint, the actual temperature of the heated object and the status of the device/heating circuits. The robust touch sensitive key-pads beneath the LCD display allow the setting of the input and output parameters. All parameters and values are also made available via the serial RS 485 interface.

MPC with power section:
The MPC with power section is accommodated in a 19'' unit. The unit provides four slots for up to four power sections. The MPC's power section features two electronic high-performance relays for 20, 25 or 32 A. The power sections are available with or without mechanical safety relays. If power sections with mechanical relays are used, an additional limiter can be connected for each channel. Terminal connections for sensor, limiter, power supply and heating are provided on the rear of the unit.

MPC as single unit:
The MPC single unit is snapped onto a TS 35 DIN rail and available with either volt-free change-over relay contacts or 24 V outputs for the control of electronic load disconnecting relays.

Function

The setpoint programmed on the unit is constantly compared with the actual temperature value. Thanks to the MPC determined parameters of the controlled system, only the power necessary for the maintenance of the programmed actuel values is provided continnously. For this reason there is hardly any temperature deviation between actual value and setpoint. Any limiter used is monitored via a locally powered signal input.

Additional products

Pt 100 Ex, explosion-protected	Type 27-71.8-13.3
DTL II Ex, digital temperature limiter	Type 17-8875-46361300

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Technical data

Min. ambient temperature
0 °C

Max. ambient temperature
+40 °C

Storage temperature -20 °C up to +40 °C, relative humidity max. 90 %

Protection class IP 20

Alarm messages high temperature, low temperature, strip alarm, sensor error, external message, serial interface as single unit

Inputs
as single unit
2 digital inputs 24 V/7 mA
8 sensor inputs
- temperature sensor NiCr-Ni (K), Fe-Ko (J), Pt 10Rh-Pt (S), Nicrosil-Nisil (N)
- temperature sensor Pt 100 (3-wire) EEx m Pt 100 (from BARTEC)
- norm signals 4 to 20 mA, 0 to 20 mA

with power section
2 digital inputs 24 V/7 mA
8 sensor inputs
- temperature sensor NiCr-Ni (K), Fe-Ko (J), Pt 10Rh-Pt (S), Nicrosil-Nisil (N)
- temperature sensor Pt 100 (3-wire), EEx e Pt 100 (from BARTEC)
- norm signals 4 to 20 mA, 0 to 20 mA

8 inputs for the connection of limiters (depends on the type of power section)

Outputs
as single unit
8 signal outputs 24 V/10 mA or
8 relay outputs 230 V/2 A
1 digital output 24 V/20 mA
1 limit value output (changeover contact) 230 V/2 A

with power section
4 power sections (max.), random combination
8 prewired signal outputs 24 V/10 mA
1 digital output 24 V/20 mA
1 limit value output (changeover contact) 230 V/2 A

LED displays heating/serial interface/alarm/ACT/%P/Sys/Set/Lim‾‾/Lim__/Lim=

Display two large LCD displays

Operator keys touch sensitive keypad

Resolution programmable 0.1 K or 1 K (standard: 1K)

Measuring precision 0.3 % of the display range, 32000 contrasts

Installation prewired in 19" rack or single unit

Enclosure material controller case: steel
push-on unit: steel and aluminum

Colour grey

Mounting dimensions

as single unit	
H x W x D	96 x 96 x 130
mounting depth	125 mm
mounting	snaps onto DIN rail
with power section	
height	3 modules (132.5 mm)
width	85 modules (19")
depth	300 mm
mounting	19" rack

Weight

as single unit	1.05 kg
with power section	7.5 kg

Electrical data

Supply voltage 230 V +10 %
(AC 110 V/DC 24 V on request)

Terminals Rack: power 6 mm²
control 2.5 mm²

Order Numbers

MPC as single unit

in snap-on case	Order no.
with relay output 8 x 230 V/2 A	**17-8831-467A/6300**
with signal outputs 8 x 24 V	**17-8831-467B/6300**
for front panel mounting	**Order no.**
with relay outputs 8 x 230 V/2 A	**17-8831-467A/63FT**
with signal outputs 8 x 24 V	**17-8831-467B/63FT**

MPC with power section

Basic unit
19" rack with premounted MPC control unit and slots for max. 4 double power sections
Order no. 17-8831-3680/6300

Double power sections for the basic unit

Version	Code no.	Channels	Code no.
without safety relay	**1**	2 channels each 20 A/240 V	**733**
		2 channels each 25 A/240 V	**734**
with safety relay	**2**	2 channels each 32 A/400 V	**835**

Complete order no. **17-8832-** ☐☐☐☐
Please enter code number.

Covers (for non-occupied slots in the basic unit)
Order no. 17-8832-3000

Three phase current on request

Interface converter

Version	Order no.
RS 485/RS 232	**17-8832-5711**

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