

# Accompanying Device Documentation

Programmable PID multichannel temperature controller



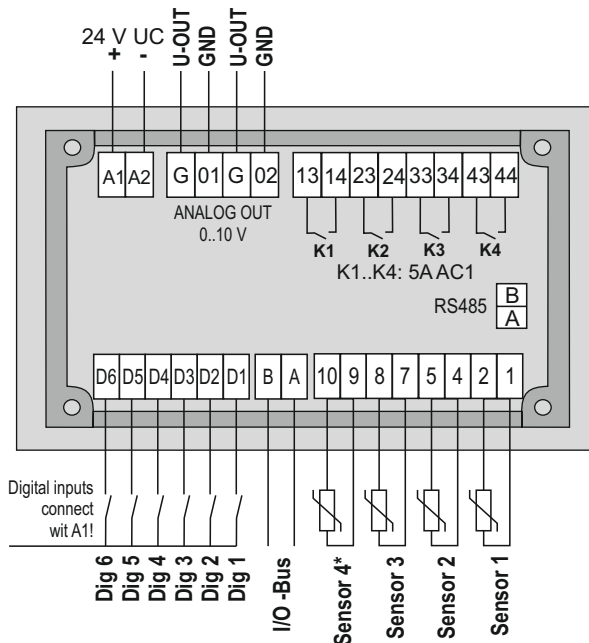
MRFC-3-005-F ..

MRHC-3-005-F ..



**The device has to be mounted, connected and parameterized according to the user manual no. 105978 (for plant engineering companys). All herein indicated Safety Instructions must be strictly observed!**

The user manual is available on the Internet at [www.welba.de/pdf-englisch/ba/105978.pdf](http://www.welba.de/pdf-englisch/ba/105978.pdf). You can request a printed version at Welba.



K1 to K4 relays must be connected only with a uniform voltage!

Software default switchable:  
PT100-2 - PT1000  
KTY 81-110 - KTY 81-210  
\* (PT100-2 not with sensor 4)

### Items supplied

- Controller
- Holder (only at MRFC-3..)
- Rubber seal
- Fixing screws

### Unpacking and storage

If the packaging is damaged or something is missing, do not fit the temperature controller. In this case please contact Welba.

If you keep the temperature controller for a period before using it, store it in a clean dry place.



*The plant engineering company must prepare operating instructions for the operator, taking account of the controller's parameters as supplied.*

*We recommend referring only to the parameters which the end user needs for safe operation.*

*In preparing the operating instructions for the end user, especially the chapter on "Safety", account must be taken of local regulations.*

### Technical data

Operating voltage	230 V AC - 50/60 Hz
Relay contacts	see connection diagram
max. switching current	5 AAC1
max. switching voltage	24V UC
Display	240 x 320 Pixel Full Color TFT Display - 2,0 inch
Active display area:	ca. 30,6 x 40,8 mm
Number of sensor inputs	4
Useable sensors	PT 100-2 PT 1000 KTY 81-210 KTY 81-110
Measure range	
- PT 100	-50° to +400°C
- PT 1000	-50° to +400°C
- KTY 81-210	-50° to +150°C
- KTY 81-110	-50° to +150°C
Interface RS-485	WE-Bus / Modbus / I/O-Bus
Digital inputs	6
Temperature alarms	2 (independently)
Control mode	two step control / three step control / PID
Housing	
- MRFC-3 (Front panel mounting)	- Front size 106 x 68 mm - Front panel cut 87 x 56 mm
- MRHC-3 (Rear wall mounting)	- Frontsize 106 x 68 mm - Front panel cut 87 x 66 mm
Installation conditions	build-in-appliance - installation depth 45 mm
Protection class	
- Housing front	IP 64
- Rear	IP 00
Elektrical safety	Overvoltage category III
- pollution degree	2
- rated impulse voltage	1500 V
Connection	Plug-in screw connections for cables up to 2,5 mm <sup>2</sup> / 1,5 mm <sup>2</sup>
Environment specifications:	
- Operation temperature	0° .. +50°C
- Storage temperature	-20° .. +70°C
- max. humidity	75% (no dew)

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