

Device description

FBR5H Field Bus Regulator

Application

The field bus regulator FBR5H is installed within the DDC3000 system for heating control. They have four continuous, freely parameterizable outputs 0..10 V DC.

The data communication to DDC3000 Central Control Units DDC3002, DDC3003, DDC3200 or DDC3300 occurs over the field bus.

Type

FBR5H Field bus regulator for heating control with 4 continuous, freely parameterizable outputs 0..10 V DC



Technical data

Operating voltage	12 V DC ± 20%, 1.9 VA or 24 V AC/DC ± 20%, 3.2 VA	
Inputs	-5 analog inputs B1..B5	B1 and B2: sensor input KP10 or 0..10 V DC (Ri = 300 kΩ), parameterizable B3 and B4: sensor input KP10 (2.73 V at 0°C, TK 10 mV/K) B5: 10 kΩ for setpoint remote setter, range parameterizable for zero-voltage contacts, invertable, parameterizable, e.g. as malfunction or plant process message, pump ON/OFF etc.
	- 4 digital inputs K1..K4	
Outputs	- 4 continuous outputs Y1..Y4	0..10 V DC, freely parameterizable total load of all continuous outputs Y1..Y4 max. 12 mA (load of a single continuous output Y.. max. 5 mA) zero-voltage changeover switch for 230 V AC, 6 (3) A, parameterizable
	- 3 relay outputs K6..K8	
Bus connection	field bus , max. 2000 m	
Address -switch	addressing 01..63 with 2 rotary switches in the housing	
Displays	LED data blinking for field bus data transmission LED Error lit up for field bus error	
Housing	plastic housing, hood color RAL 9010 (pure white)	
Degree of enclosure protection	IP20	
Ambient temperature	0..45°C	
Mounting	wall mounted, see section Mounting	
Measurements		

Installation



Warning

The device may be electrically installed and connected only by qualified specialists.

The VDE regulations as well as all the local ordinances must be observed.

- Power supply lines and field bus are to be laid in a common insulated cable, cable type at least JY(St)Y 2x2x0.8 Lg. Power supply lines must be in twisted pairs. Field bus lines must be in twisted pairs. At the end of the field bus (furthest point from the Central Control Unit, max. 2000 m), both connection lines from the field bus must be provided with a terminating resistor of approx. 180 Ω (terminating resistor delivered with the Central Control Unit as accessory pack).
- The field bus regulator FBR5H can be supplied with an operating voltage of 24 V AC or 24 V DC as an alternative to the operating voltage (12 V DC).
- Only the commissioning technician may switch on the mains after setting the devices!

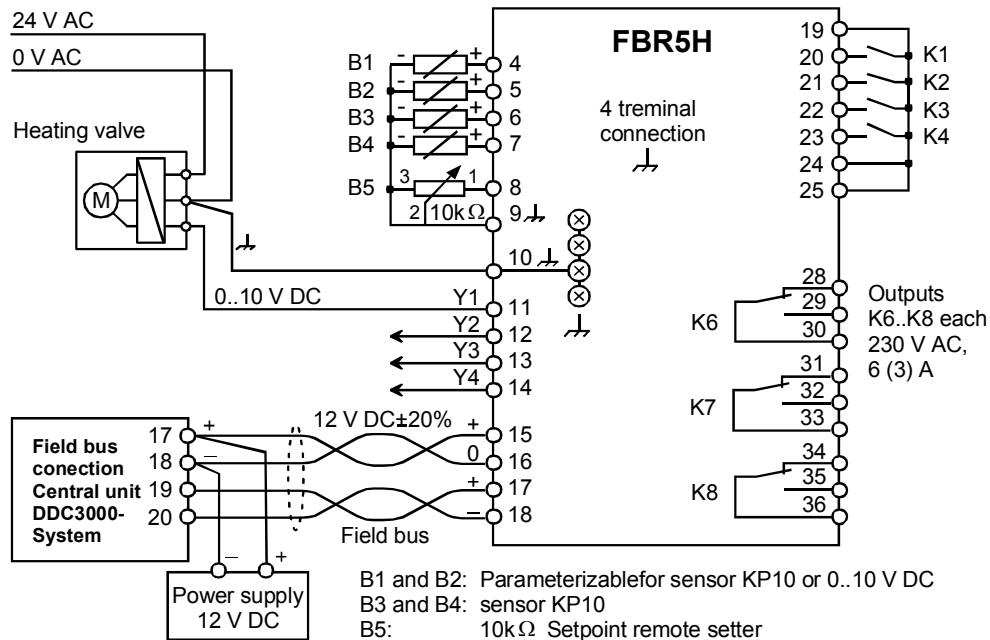
Date 12.04.2002

Devices connection



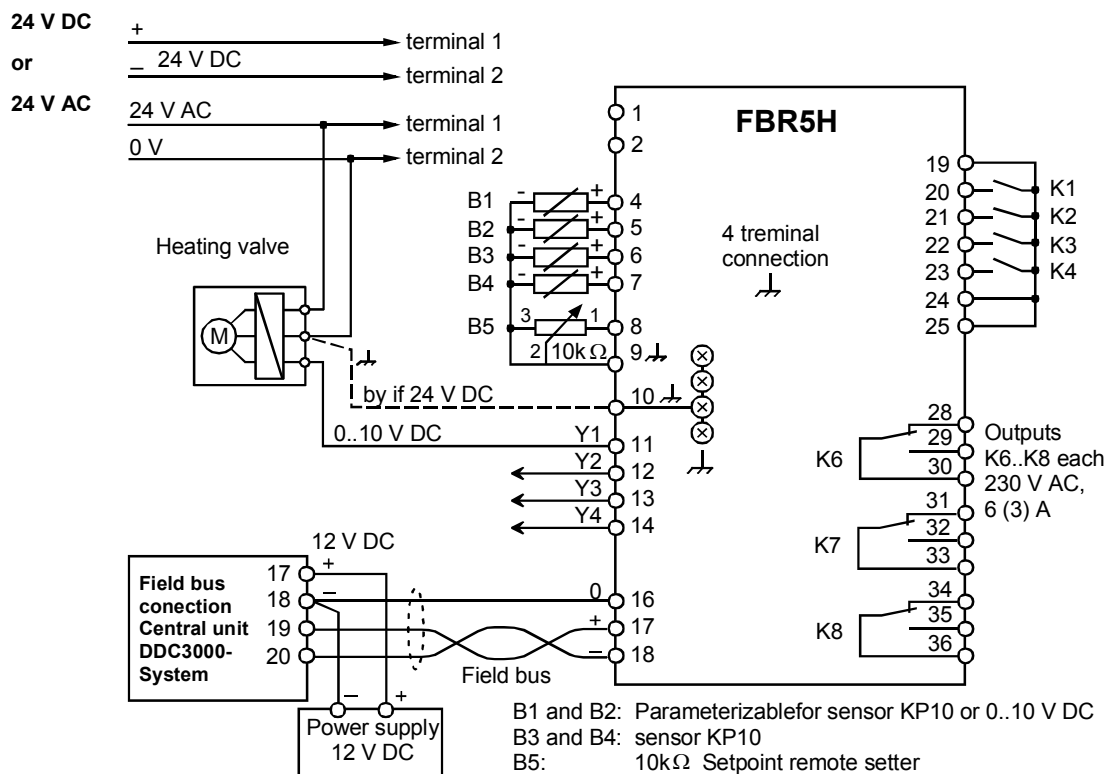
The continuous outputs Y1..Y4 are freely parameterizable. In the connection example, the output Y1 is assigned to the heating valve of the FBR5H control-loop. The free outputs Y2..Y4 can be used for other functions by the DDC System.

- **Operating voltage for FBR5H: 12 V DC** (voltage supply from the power supply 12 V DC)
 Operating voltage for heating valve: 24 V AC



Alternative

- Operating voltage for FBR5H: 24 V DC or 24 V AC
 operating voltage for heating valve: 24 V AC



Device description

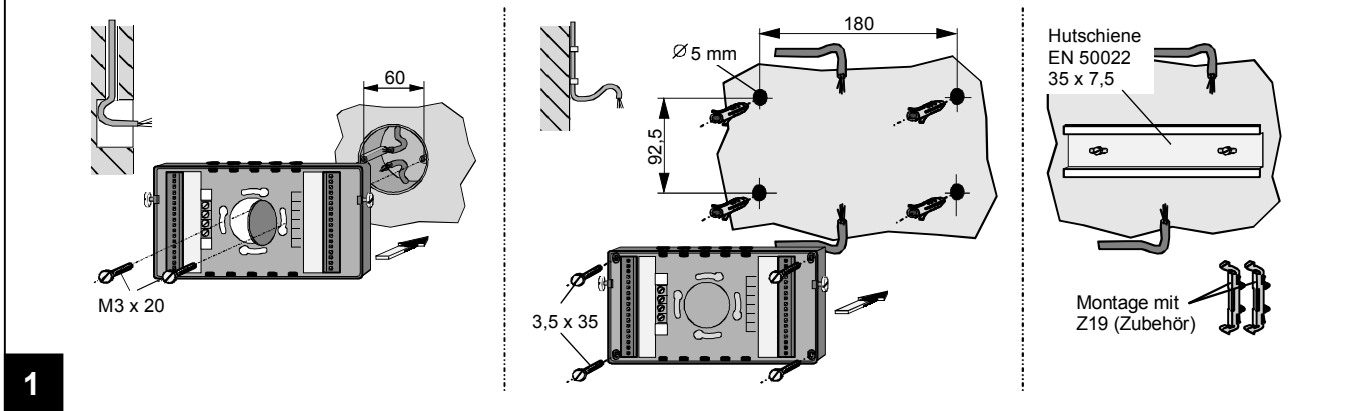
FeldBusRegler FBR5H

Mounting



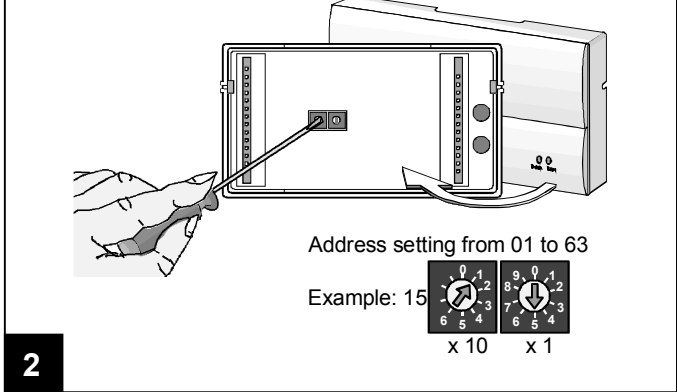
- Device connection may be carried out only by qualified personnel!
- Only the commissioning technician may switch on the mains after setting the devices!

Monting proceedure

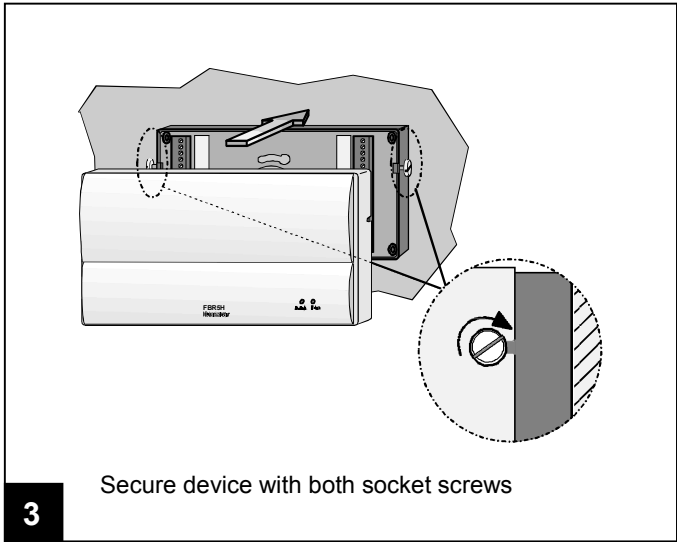


1

Address setting by the commissioning technician



2



3

Secure device with both socket screws

