



Assembly instructions

Communication set

for the HeatBloC MC system



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Translation of the original instructions

We reserve the right to make technical changes without notice!

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1 General Information

1.1 Scope of these instructions

These instructions describe the assembly and the electrical connection of the communication set for the HeatBloC MC system. For other components of the installation, such as the pump, the controller or the modular distribution manifold, please observe the instructions of the corresponding manufacturer. The chapters called [specialist] are intended for specialists only.

1.2 Designated use

The communication set may only be used for the extension of the PAW MCom controllers.

Improper usage of the communication set excludes any liability claims.

Only use PAW accessories with the communication set.

The wrapping materials are made of recyclable materials and can be disposed of with recyclable materials.

1.3 CE declaration

The communication set is CE labelled according to the regulations of the following directives:

- 2006/95/EG - Low Voltage Directive
- 2004/108/EG - EMC Directive

The compliance with the limit values has been checked according to DIN EN 60730-1, residential sector.

2 Safety instructions

The installation and commissioning as well as the connection of electrical components require technical knowledge commensurate with a recognised vocational qualification as a fitter for plumbing, heating and air conditioning technology, or a profession requiring a comparable level of knowledge [specialist]. The following must be observed during installation and commissioning:

- relevant local and national regulations
- accident prevention regulations of the professional association
- instructions and safety instructions of this manual

3 Product description

The communication set with insulated housing can be mounted on the wall using the enclosed mounting rail. It is connected with the controllers via a bus line. The internal mini PC is equipped with a power supply unit to assure the power supply and establishes its own local WLAN network. With a smartphone and the PAW MCom app, you can establish a connection with your installation via this WLAN and set parameters or read out current values.

You will get the app in the App Store for the iPhone and in the Google Play Store for smartphones equipped with Android entering the search term "PAW MCom".

The mini PC serves as access point and has a DHCP server that automatically assigns IP addresses and manages them.

Access data / Factory settings:

WLAN SSID*:	MCom
Security:	WPA-PSK
WLAN password**:	paw31789
IP address:	192.168.64.1
Subnet mask:	255.255.255.0

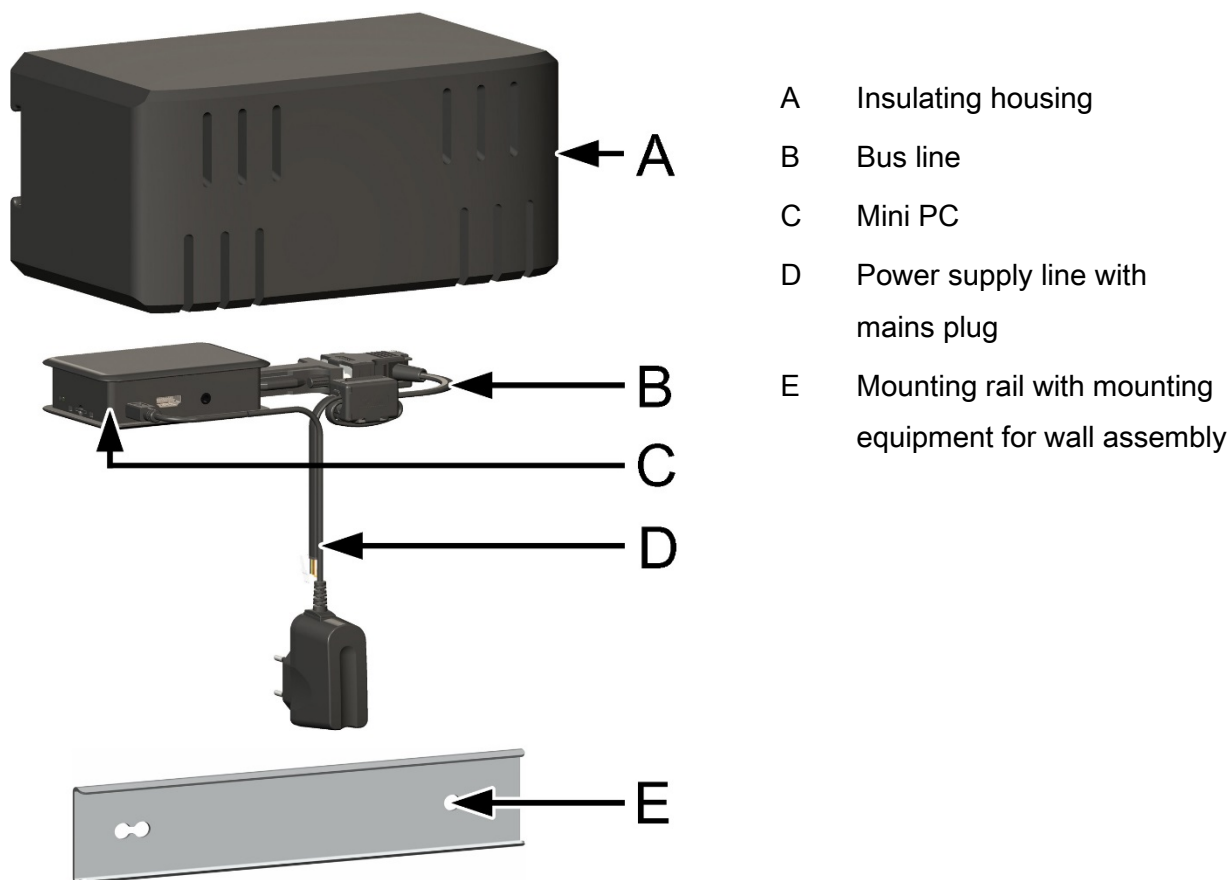
*The WLAN SSID can be changed and switched off in the MCom controller.

**As of software version 1.25 the WLAN password can be changed via the PAW MCom app and reset to the factory settings in the MCom controller.

With activated Powerline function (as of software version 1.25) the WLAN is deactivated.

3.1 Scope of delivery

The scope of delivery of the communication set includes:



4 Assembly [specialist]

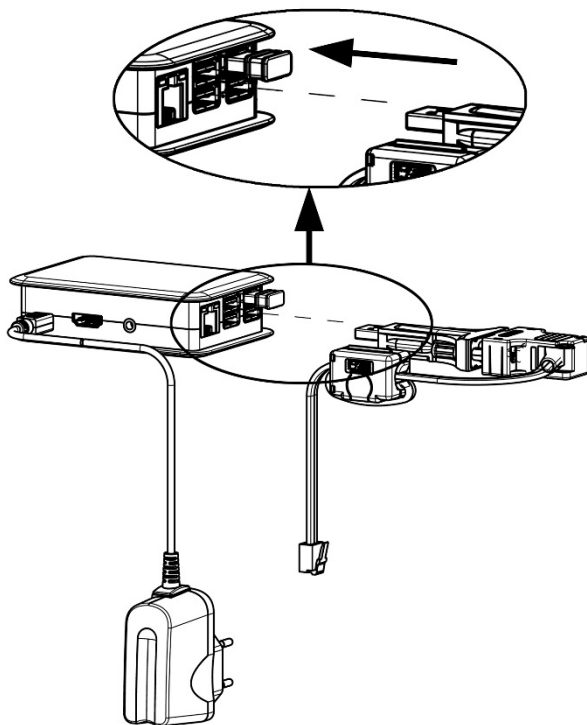
	WARNING
	<p>Risk to life and limb due to electric shock!</p> <ul style="list-style-type: none"> ➤ Prior to commencing electrical work on the controller, pull the mains plug! ➤ Only after completing all installation work as well as the flushing and filling, the mains plug of the controller can be plugged into a socket. An unintentional start of the motors is thus avoided.

NOTICE

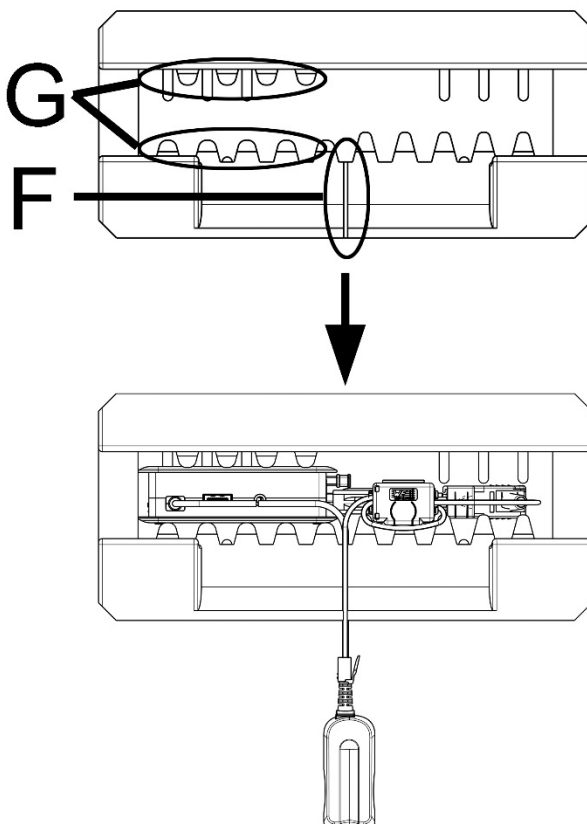
Damage to property!

The location of installation must be dry, load-carrying, frost-proof and protected against ultraviolet radiation in order to prevent material damage of the installation.

4.1 Preparations before installation



1. Remove the communication set from the packaging.
2. Connect the bus line that you already connected with the first (left) controller with the communication set.
For this purpose, put the USB plug into the lower right USB socket (see figure).
3. If you mount the optional EnOcean dongle, connect the dongle to the enclosed USB extension. Connect the USB extension to a free USB socket of the communication set. Please observe the separate instructions regarding the EnOcean dongle.

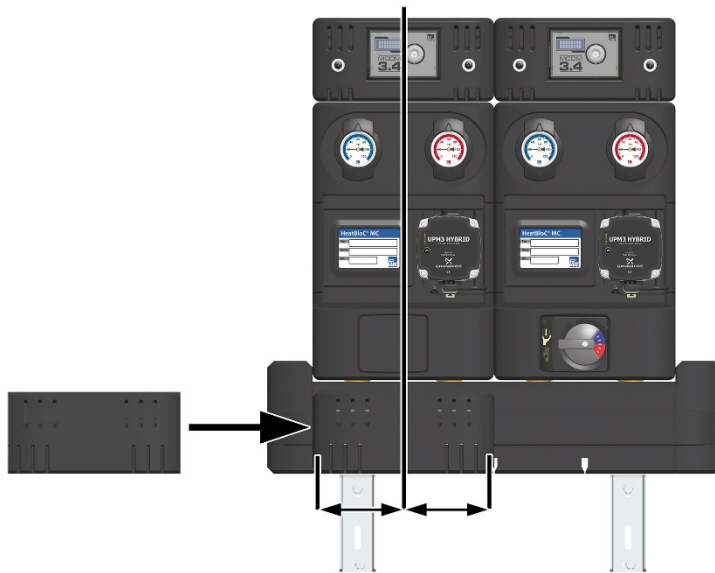


4. Put the mini PC [C] into the insulating housing.
The cable slot [E] points downwards, the mini PC [C] is fixed between the insulating bars [G].
5. Run first the bus line and then the power supply line in the cable slot [F] of the insulation.

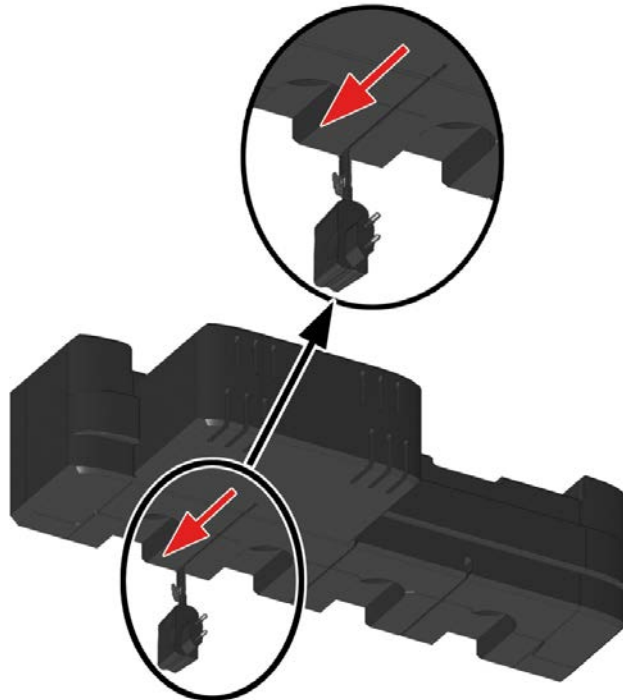
4.2 Installation

The communication set can either be mounted on a distribution manifold (only for distribution manifolds DN 25 and DN 32) or to the wall using the mounting rail.

4.2.1 Installation on the distribution manifold



1. Push the insulating housing from the left on the front insulation of the distribution manifold.
The cable slot of the insulating housing points downwards.
2. It is imperative to align the housing centrally to the left heating circuit.



Bottom view

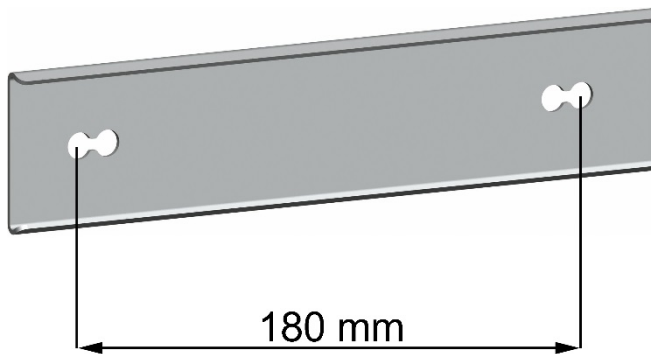
3. Run first the bus line and then the power supply line on the rear side of the distribution manifold in the cable slot backwards.

NOTICE

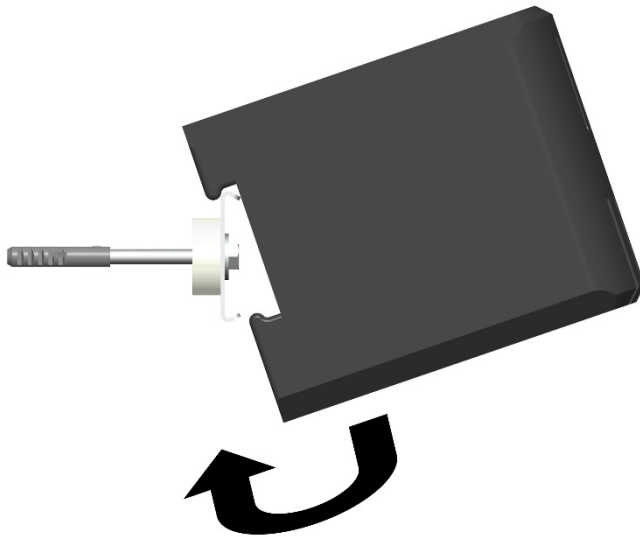
Damage to property!

Moving the housing can cause damage to the lines.

4.2.2 Wall assembly

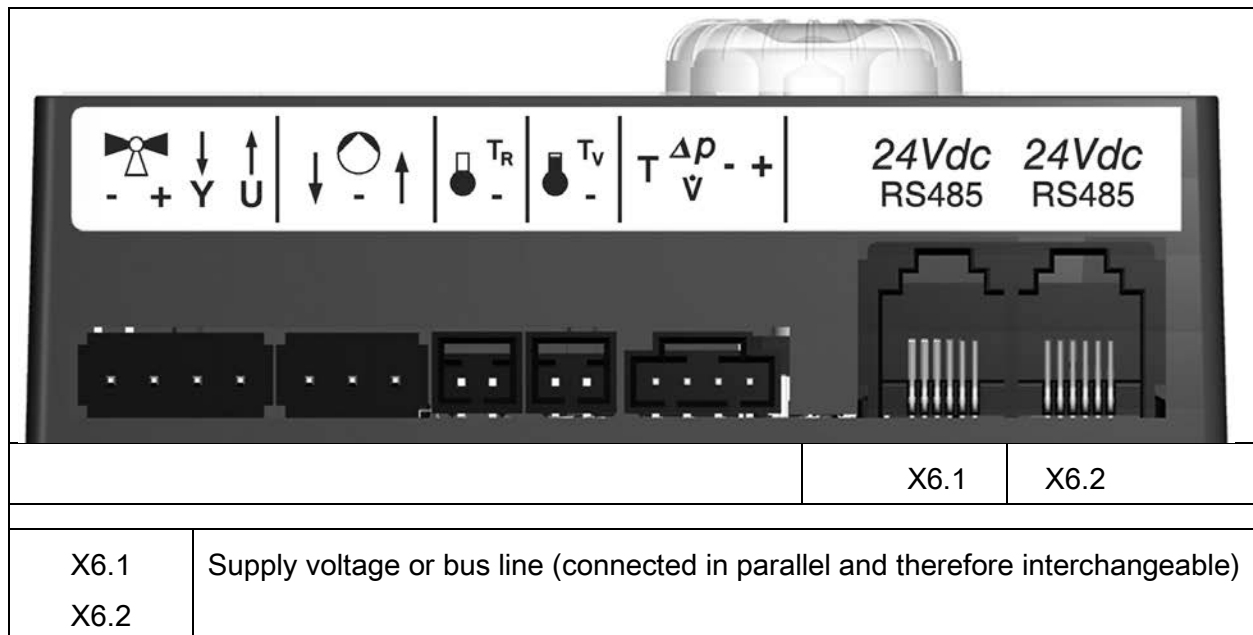


1. Drill two holes. They must have a distance of 180 mm.
2. Insert appropriate wall plugs.
Please note that the enclosed wall plugs are only adapted for full brick masonry.
3. Fix the mounting rail to the wall using the enclosed screws and spacers.
4. Fix the insulating housing of the communication set on the mounting rail (see figure).



4.3 Connection and commissioning

1. Remove the insulating shell of the first (left) controller by pulling it forward.
2. Connect the bus line with the first (left) controller (X6.1 or X6.2, see figure below).
As the two sockets of the bus line (X6.1 and X6.2) are connected in parallel, the position has no importance.



3. Carry out the electrical commissioning of the MCom controllers (see controller instructions).
Note: It is preferable not to plug the power supply unit of the communication set in the socket yet. Wait until you have adjusted all controllers. Thus, you don't have to scan the bus once again.
4. After the commissioning of the controllers, mount the insulating shell of the controller.
5. Establish the power supply of the communication set.
The communication set scans the system for connected controllers, sends the settings to the controllers and establishes the WLAN. This process will last for a few minutes.

4.4 Optional accessories: EnOcean dongle (not included in delivery)

The EnOcean dongle (item no. 1398735) is a USB flash drive to connect the PAW communication set and the wibutler Smart Home server.

The dongle is connected to the PAW communication set.

5 Deinstallation

1. Switch off the mini PC of the communication set. For this purpose, open the menu "Communication" of a MCom controller and select "Switch off PC" (see controller instructions).
2. Disconnect the communication set from the power supply.
3. Dismount the bus line of the communication set at the heating circuit with the number 1 (first / left heating circuit).
4. Remove the insulation of the communication set by pulling it to the left.

6 Technical data

Wall power supply	
Input voltage	230 V / 50 Hz
Nominal output	6 W
Communication set	
Rated voltage	5 V _{DC}
Rated maximum current	1.2 A
Data interface	
RS485 (Modbus)	
WLAN output power	11b:17 ±1.5 dBm 11g:b:15 ±1.5 dBm 11n:14 ±1.5 dBm
Function	Data logger and interface between the MCom controller and external devices (app)
Installation	on the distribution manifold or to the wall using the mounting rail
Operation	via the MCom controller and the app
Type of protection	IP 21 (when installed)
Protection class	III
Ambient temperature	0 ... 40 °C
Degree of pollution	2
Software class	A

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When the software was developed, third-party software was used in some cases.

a) MODBUS Library: A portable MODBUS master for MODBUS ASCII/RTU/TCP/UDP.

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Raspbian Wheezy, the operating system used, is not part of the communication set software.

It is subject to the GNU General Public License version 2.

The license text is available at <http://www.gnu.org/licenses/gpl-2.0.html>

or at `/usr/share/common-licenses/GPL-2`

The following configuration files of the operating system have been adjusted:

<code>/etc/crontab</code>	<code>/etc/default/hostapd</code>
<code>/etc/dnsmasq.conf</code>	<code>/etc/default/rsyslog</code>
<code>/etc/fstab</code>	<code>/etc/hostapd/hostapd.conf</code>
<code>/etc/hostname</code>	<code>/etc/init.d/varlog</code>
<code>/etc/hosts</code>	<code>/etc/mysql/my.cnf</code>
<code>/etc/inittab</code>	<code>/etc/network/interfaces</code>
<code>/etc/rc.local</code>	<code>/etc/proftpd/proftpd.conf</code>
<code>/etc/resolv.conf</code>	<code>/etc/ssh/ssh_config</code>

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