

MFH 230

System Control Module

WIRING INSTRUCTIONS

Introduction



This manual describes how to understand, install and wire the MFH 230 Control Module. MFH 230 is pre-configured to automatically fire the boiler(s) only when one or more time/temperature zone controls call for heat, eliminating the need for a separate boiler clock and so prevents boiler dry-cycling.

WARNING & INFORMATION SYMBOLS

The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed. Obey all safety messages that follow this symbol to avoid possible injury or death.

The Information symbol is used to address practices not related to physical injury and to indicate where useful facts will assist in installing or using the device correctly.



CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



IMPORTANT INFORMATION



IMPORTANT! Disregard will lead to permanent equipment damage!

INFORMATION! indicates an explanation containing information that is useful to know, a supplementary operating procedure, or other data.



IMPORTANT:

ONLY use 0.5 mm² to 1.5 mm² wiring cable when connecting to the MFH 230 unit.



CAUTION

Wiring external to the printed circuit board **MUST** be in accordance with current statutory wiring regulations and any local regulations that apply.



DANGER

The power supply must be 230 V~, 50/60 Hz, Single Phase. Attaching the MFH 230 board to more than one phase will cause irreparable damage.



DANGER

To ensure single phase, we recommend that power be introduced only at the mains input terminals (7, 8) and that all other mains inputs be derived from suitable outputs on the board itself.



DANGER

Devices attached to MFH 230 **MUST** be properly earthed in accordance with manufacturer’s specifications. The method of connection to the mains electricity supply **MUST** facilitate complete electrical isolation of the entire installation.



DANGER

A fused double pole switch, with at least 3 mm (1/8”) contact separation in both poles, serving only the MFH 230 panel should be used. The point of connection to the mains should be readily accessible and, if possible, adjacent to the MFH 230 unit.



This product must be fitted by a competent person, and installation must comply with the guidance, standards and regulations applicable to the country or state where the product is installed. Failure to comply with the requirements of the relevant guidance, standards and regulations could lead to injury, death or prosecution.

Always isolate the AC mains supply before installing or working on any components that require 230 V~, 50 Hz supply.

TECHNICAL INFORMATION

TERMINALS 0.5 mm² to 1.5 mm²

DIMENSIONS

92 x 350 x 57 mm

MOUNTABLE

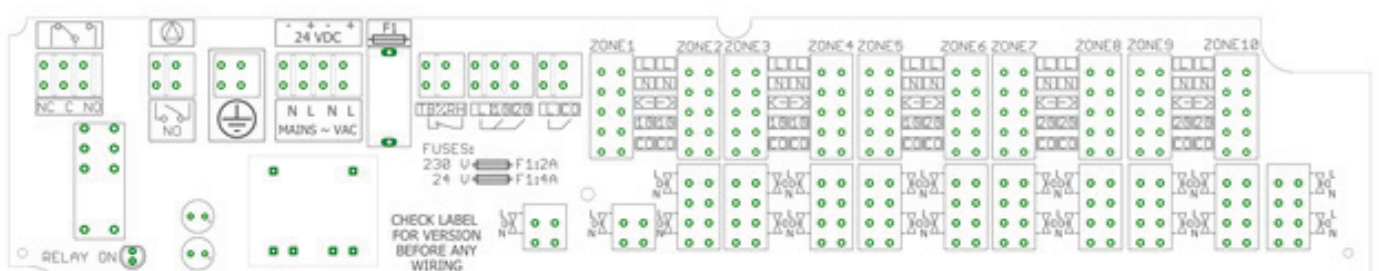
DIN rail or screws

WEIGHT

700 g

MODEL	10 ZONES	6 ZONES	PUMP CONTROL	BOILER CONTROL	POWER SUPPLY
230 V	○	○	○	○	230 ~ VAC
24 V	○	○	○	○	24 ~ VAC or 24 VDC
230/24 V	○	○	●	●	24 ~ VAC or 24 VDC or 230 ~ VAC

MODEL	MAX POWER	LED INDICATION	PUMP CONTROL	BOILER CONTROL
230 V	200 watts	○ (relay on)	NO	NC/NO
24 V	70 watts	○ (relay on)	NO	NC/NO
230/24 V	200 watts	●	●	●



Terminal Identification & Description



POWER SUPPLIES

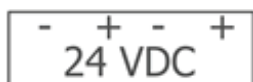
L - live

N - Neutral

For 230 VAC version one L and N use for power supply, other you can take for pump control. In case of pump control you can bring one ground line and one use for pump connection. Max power for pump is 150 watts.

In case of 24 VAC power supply you can't use this terminal to drive pump due to low voltage but you can still use relay to switch contact.

Same contacts you may use for 24 VDC power supply.



USING INCORRECT FUSE SIZES WILL INVALIDATE THE WARRANTY

230 VAC version and 24 V version can't be switched from one version to other.

Before conducting any wiring always check label for proper voltage.

Failure to follow this advice may result in injury and/or product damage.

WIRING

Use 0.8 mm² wires. We recommend to use terminals. Enclosure is designed so it can firmly connect wires between plastic strips. If cables are not firm enough (wire width can vary) use ties to additionally block slipping.

POSITIONING THE ENCLOSURE

Use screws or DIN rail. For DIN RAIL option mount two plastic parts on back of enclosure.

RELAY EXPLANATION

If device is supplied with relay, any of zones will trigger relay.

In this case relay will turn on and in the same time led will turn on.

We have two contacts:

Pump control is normally open

Symbol for pump on board is . Max power here is 150 watts.

Other contact can be normally open or closed

Don't use this contact to drive anything bigger than 300 watts power.

This is volt free contact and can be used for example to turn on boiler via volt free contact.

Do not drive electrical heaters on this contact.

If you drive boiler or any other low voltage device do not lead cables with high voltage cables as induction may occur (and thus false triggering of boiler).

General Zone & Boiler Control

Terminal Identification and Function



DO NOT DRIVE ELECTRICAL HEATERS ON RELAY CONTACT. THERE IS NOT ENOUGH POWER SUPPLIED.

FUSES:
230 V → F1:2A
24 V → F1:4A

Fuse sizes:


Fuse is marked with




ZONE EXPLANATION



L,N - power supply to thermostat. Depend on model can be 24 VAC or 24 VDC or 230 VAC. If power used is DC then L is +, N is -.

 is return from thermostat. If this trace is Live (or +) it will trigger valve and valve and in the same time it will trigger relay ON.

 is clock information to thermostat. Device can externally have two clocks and these are marked with 1 and 2.

 is change over information to thermostat.

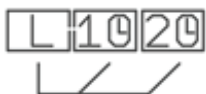


 are connections for valve. If needed mind the polarity.

Other contacts:



Can be used as condensation sense. This contact should be closed (NC) in order for device to work. If open it will not trigger valve and relay.



Clock connections. Device can use two external clocks and this can be wired to thermostats if thermostat support this function.



Change over for change between heating and cooling. Can be wired to thermostats if thermostat support this function.



Ground connection

RELAY ON

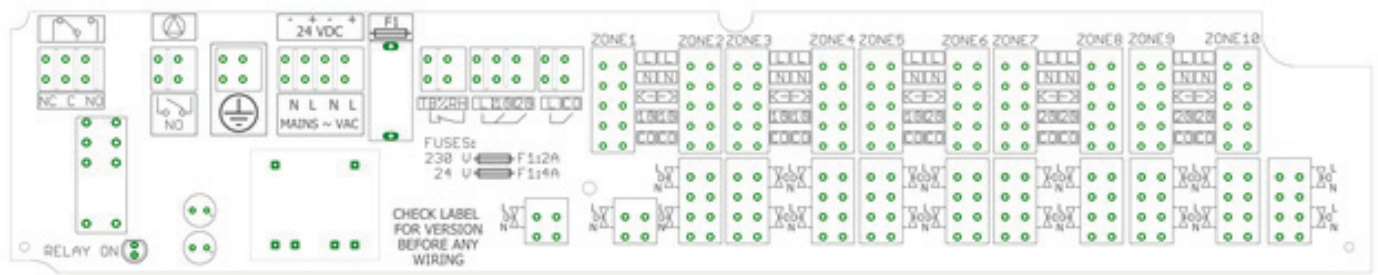
If device is 230V version and if relay contact is used to drive pump this contact can be wired for ground connection (one in and one out).

Relay on



In case that any of ZONE`S thermostat bring valve to open, it will trigger relay and there is LED signal so it can be seen if relay is triggered.

MFH 230 installation / wiring diagram sketch pad



WARRANTY & SERVICE



You receive a 12 months warranty for this appliance as of the purchase date. This appliance has been manufactured with care and meticulously examined before delivery. Please retain your receipt as proof of purchase. In the case of a warranty claim, please contact with the dealer or our service department. Only in this way can a post-free dispatch for your goods be assured. The warranty covers only claims for material and manufacturing defects, but not for transport damage, wearing parts or for damage to fragile components, e.g. buttons or batteries. The warranty is void in the case of abusive and improper handling, use of force and internal modifications not carried out by our authorized Service Centre. Your statutory rights are not restricted in any way by this warranty. The warranty period is not extended through repairs made under warranty. This applies also for replaced or repaired parts. Any damages or deficiencies found on purchase must be reported as soon as possible after unpacking, at the latest two days after purchase. On expiry of the warranty, all repairs or replacements carried out are subject to payment.

Please retain your receipt as proof of purchase. In the case of a warranty claim, please contact our service department by email or telephone.

The warranty covers only manufacturing defect in material and workmanship that may arise despite normal operation and usage of the MFH 230 as prescribed in the operating manual.

The customer shall provide a reasonable, sufficient and safe working space to access the appliances for service.

The company's obligation under this warranty shall be limited to repair and providing replacement of defective parts only. It is hereby clarified that after the Standard Warranty Period, call-out charges will be applicable for all call-outs and the cost will be borne by the customer.

DISPOSAL OF OLD DEVICES



Devices marked with this symbol are subject to European Directive 2002/96/EC. All electric and electronic devices must be disposed of separately from household waste at official disposal centres. Avoid hazards to the environment and dangers to your personal health by disposing of the device properly. For further information about proper disposal, contact your local council, waste disposal office or the shop where you bought the device.