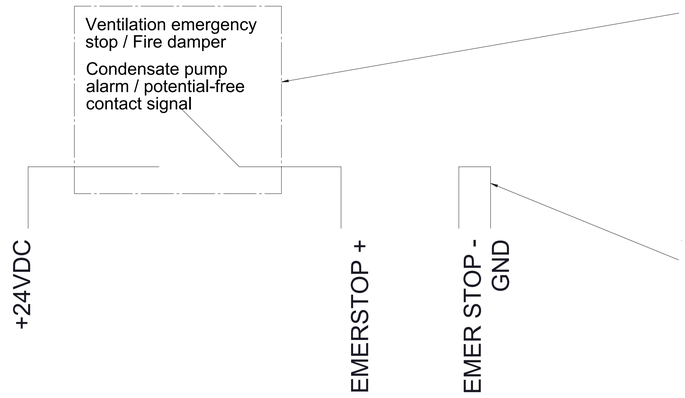
Emergency Stop Function: unit shutdown (e.g. when the fire damper alarm is triggered)
Function status indication forwarded e.g to electrical control hood or to Modbus

Connectable devices: e.g. fire dampers, condensate drain pump, sub control unit (SCU), potential-free status
(suitable for low voltage +24 VDC, unit-specific wiring)

+24 VDC jumpering from the control board (e.g. supply to Sub Control Units or fire dampers → potential-free status)
Status signal transmitted via Modbus or to electronical control hoods.



INFORMATION:
1. Normal operation: contact signal open.
2. Emergency stop active: contact signal closed.

If there are two fire dampers or other devices → connect in parallel.
When connected in this way, an alarm will also be generated if either of the alarm-triggering devices issues a stop command.

Do not connect multiple units together / linked from the same EMER STOP pin.

Install a jumper in the connection box between GND and EMER STOP –

NOTE! INCORRECT WIRING WILL DAMAGE THE CIRCUIT BOARD.

Physical connection: To be made according to the diagram shown below.
Note! When connected in this way, the unit's +24 VDC can be jumpered to the Sub Control Units (SCU), fire dampers or condensate drain pump alarm signals routed through the unit's connection box (do not connect multiple apartments/units in the same chain when wired this way).

All connection points are located in the Airfi unit's external connection box.

Signal to the electronical Airfi control hood (e.g. Airfi Suvi, Airfi Ida, Airfi Eva):
If a fire damper is activated or an external ventilation emergency stop command is received → the Airfi air handling unit will stop, and the symbol "P" will appear on the display of the electronical control hood.
The unit will not restart until the emergency stop signal has been cleared.

Signal to Modbus RTU or Modbus TCP/IP:
Ventilation emergency stop function via Modbus = in this case, e.g. fire damper activated → the status is transmitted to Modbus as a ventilation emergency stop signal. Register: 3x00017

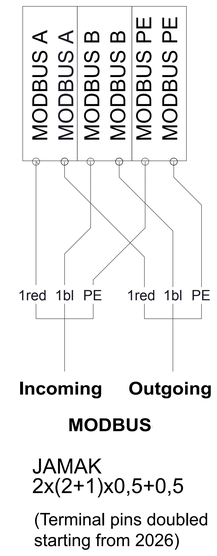
Reset of critical alarm signals
The reset method for the function can be selected via Modbus register 4x00027. Normally, for example after the fire damper has been restored, the unit will automatically resume operation.

The register can also be configured to require a separate reset via Modbus, if any of the following alarms have stopped the unit:
Ventilation emergency stop, Fire hazard alarm, In water-based models: water heating coil frost protection alarm.

NOTE! The above connection can be implemented with AIRFI units without any additional devices.

Carry out the connections with the power disconnected!

Modbus RTU



MODBUS

JAMAK
2x(2+1)x0,5+0,5

(Terminal pins doubled starting from 2026)

Modbus TCP

Ethernet Cable
CAT5E/CAT6/CAT7

Cable clearance 1.6 m
(if needed, the wiring route out of the box is ready)

MODBUS

Modbus RTU and Modbus TCP can be controlled / read in parallel.

This guide applies to the following models

Airfi Model 53mini Electric,
Airfi Model 60 Electric,
Airfi Model 100 Electric,
Airfi Model 130 Electric,
Airfi Model 150 Electric
Airfi Model 250 Electric
Airfi Model 250 Water
Airfi Model 350 Electric
Airfi Model 350 Water
Airfi Model C5 Electric
Airfi Model C5 Water

-We reserve the right to make changes-

Design 23.04.24 AP	CONNECTION POINTS	Diagram name	ELECTRIC DIAGRAM additional information Principle scheme; Emergency stop, Condensate drain pump, SCU, Indication, Fire damper connection Airfi	Diagram name S	Page 1/1
Update 11.05.2025 AP				Diagram type 60800754	Ver. C