

Installation Guide

MCX rooftop controller Instruction guide



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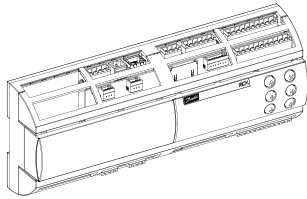


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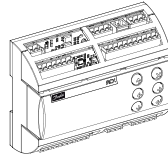
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Identification:



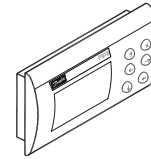
MCX152V

Ordering no.
080G0304 = 110/230vac



MCX08M (Optional)

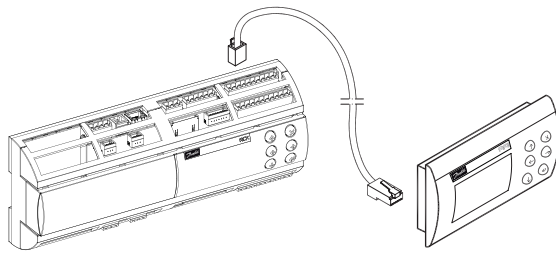
Ordering no.
080G0029 = 110/230vac



MMIGRS2 (Optional)

Ordering no.
080G0294

Connection:



CE IP 20
-20 – 60 °C (0 – 140 °F)
RH max. 90% non condensing

CE COMPLIANCE

This product is designed to comply with the following EU standards:
Low voltage guideline: 73/23/EEC Electromagnetic compatibility EMC:
89/336/EEC and with the following norms:

EN61000-6-1, EN61000-6-3 (immunity for residential, commercial and light-industrial environments)

EN61000-6-2, EN61000-6-4 (immunity and emission standard for industrial environments)

EN60730 (Automatic electrical controls for household and similar use)

UL APPROVAL
UL file: E31024

Technical data:

Supply Voltage

85 – 265 V AC, 50/60 Hz
Maximum power consumption: 27 W, 48 VA
Insulation between power supply and the extra-low voltage: reinforced

Plugs normally not used

Stepper Motor 1, Stepper Motor 2, Stepper Backup, RS485-2, Digital Input 18

Modbus

It is important that the installation of the data communication cable be installed correctly. Remember to terminate each end of the bus. See separate literature No. RC8AC.

DO - Digital outputs, 15 pcs. DO1 – DO15

DO1 – DO15, all are relays, no solid state relays
The relays are de-rated to the specified values

AO - Analog output, 6 pcs. AO1 – AO6

Outputs are 0 – 10 V DC by default

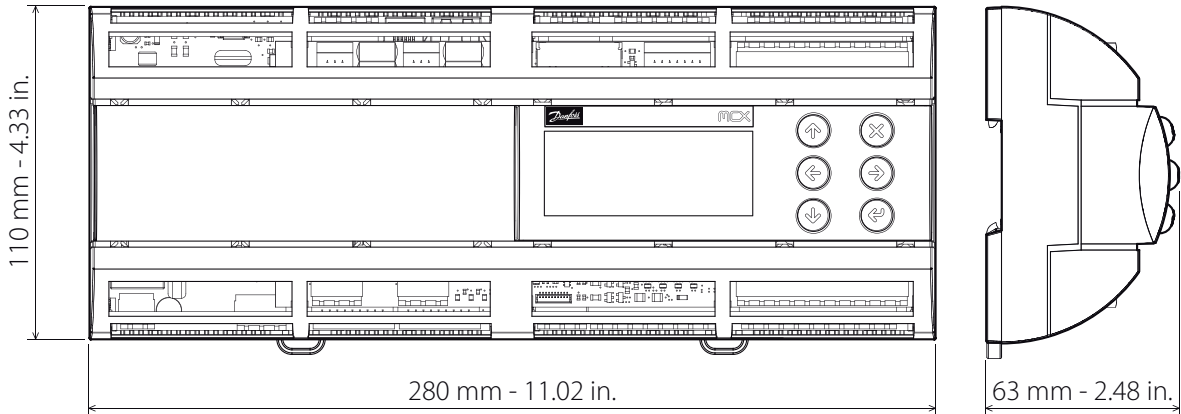
AI - Analog Inputs, 14 pcs. AI1 – AI14

All temperature sensors default to PT1000, Pressure transducers default to 0.5 – 4.5 V DC ratiometric with 5 V DC supply. All other inputs are 0 – 5 V DC by default

DI - Digital switch inputs DI1 – DI17

All Dry contacts except DI17, (24 V AC or 230 V AC driven)

Dimensions:



Modbus topology:

The cable must be EIA485 rated. The cable is connected from controller to controller, and no branches are allowed on the cable. If the cable length exceeds 1200 m a repeater must be inserted. One repeater must be added for every 32 controllers. If the data communication cable runs through an electrically noisy environment which impairs the data signal, one or more repeaters must be added to stabilise the signal.

When configuring Modbus devices on the control bus, the highest device address that can be used is 124 (max 120 modbus control devices in total - max 45 MCX RTC).

The wires are looped from device to device. A is connected to A and B is connected to B. The screen must be connected to the system device, all controller and any repeaters. A screen must always be looped from device to device.

The screen must not be connected to anything else.

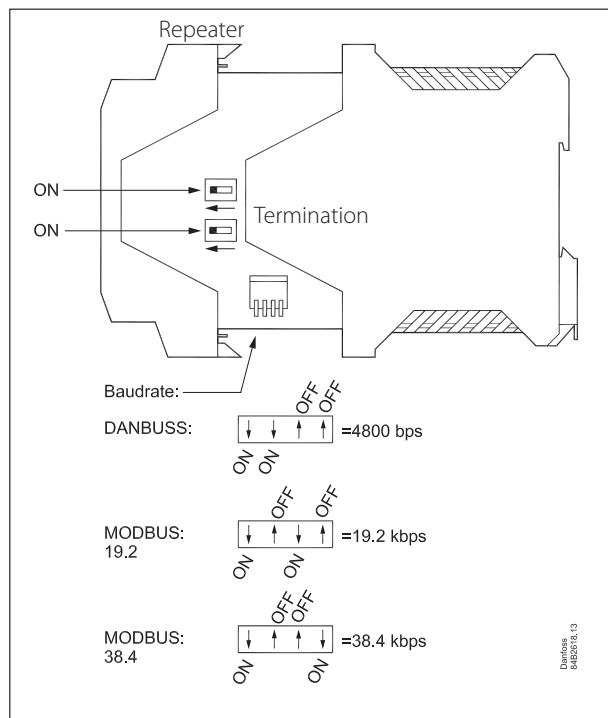
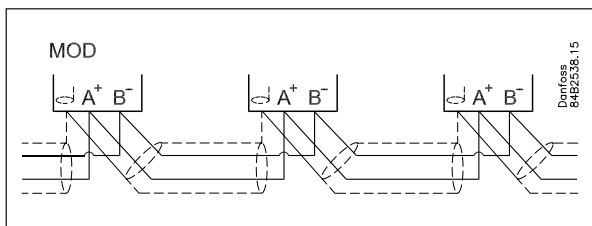
See AK-SM800 User Guide for system 485 wiring instructions.

Manual can be found at: <http://food-retail.danfoss.com/knowledge-center/software/ak-sm-800/>

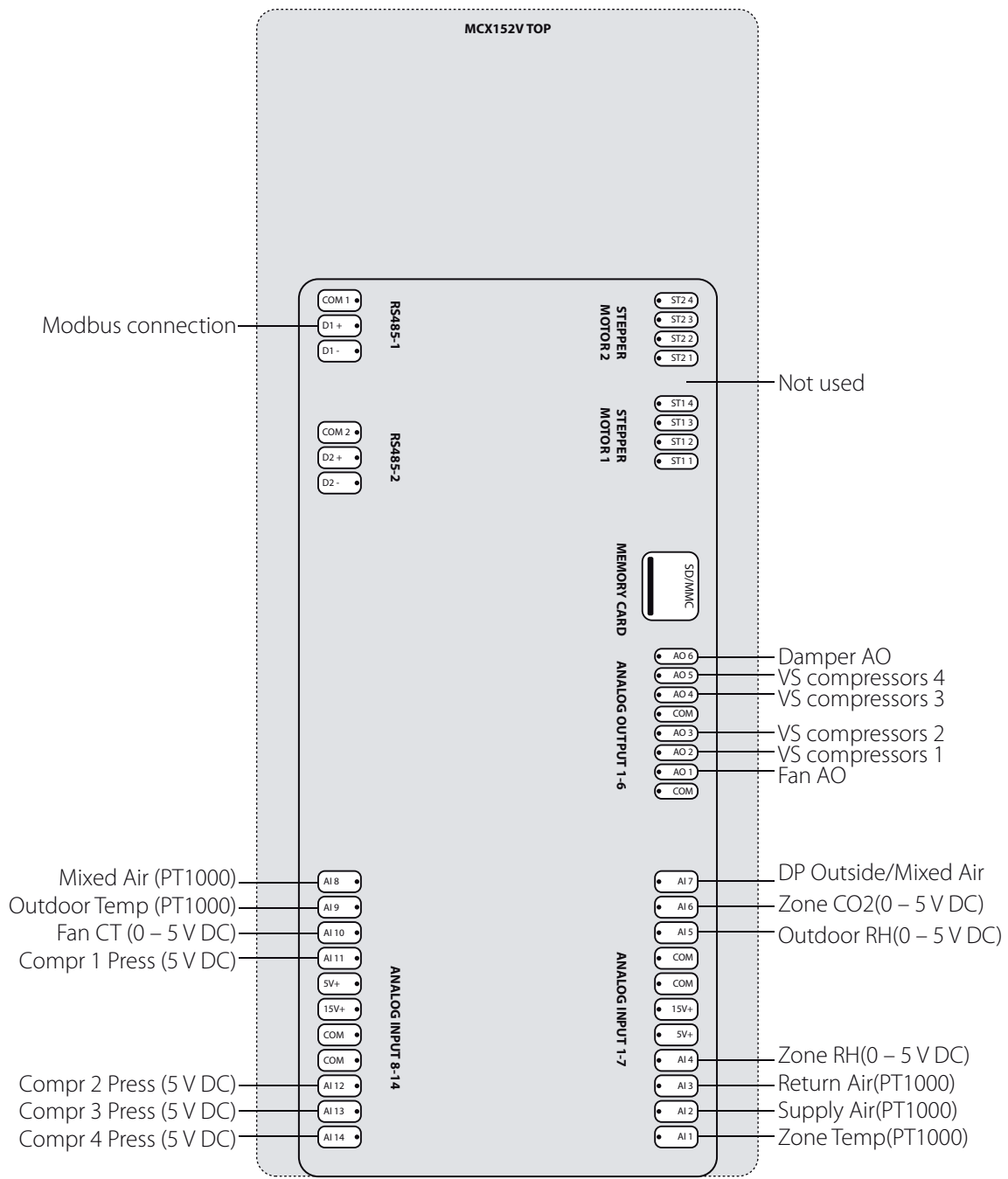
Be sure to configure the Modbus repeater AKA 222 (code#084B2240) to the correct baud rate.

MCX-RTU baud rate must be set to 38.4 K when used with the AK-SM800. MCX-RTU cannot be on the same 485 bus with SLVs.

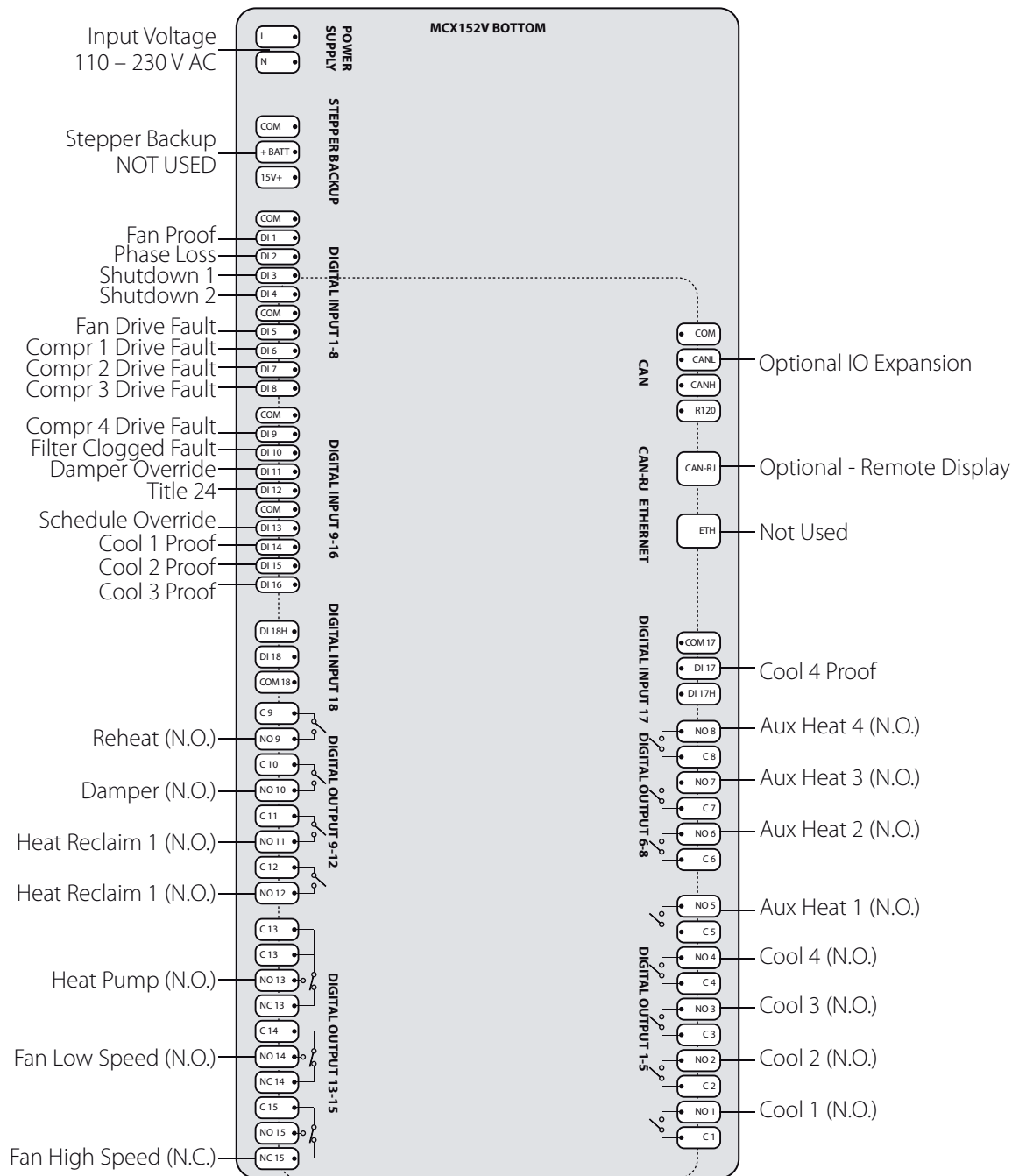
AK-SM800:



Wiring Diagram MCX152V -bottom and top



Wiring Diagram MCX152V -bottom and top



Contact info:
www.danfoss.com

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