

MCX06C is an electronic controller that holds all the typical functionalities of MCX controllers in the 32x74 mm standard size: programmability, connection to the CANbus local network, Modbus RS485 serial communication interface

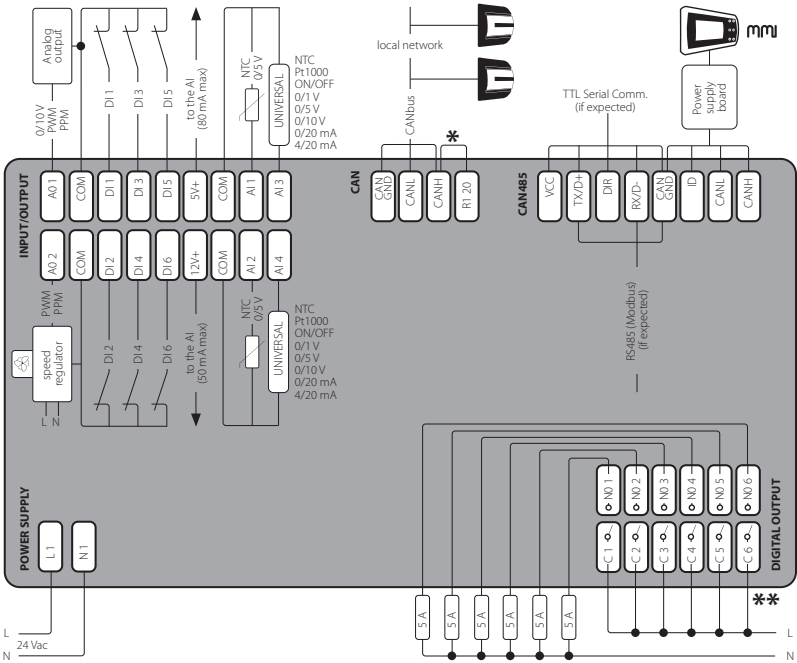
MCX06C	
ANALOG INPUTS	
NTC, 0/1V, 0/5V	2
Universal (NTC, Pt1000, 0/1V, 0/5V, 0/10V, ON/OFF, 0/20mA, 4/20mA) selectable via software	2
Total number	4
DIGITAL INPUTS	
Voltage-free contact	6
Total number	6
ANALOG OUTPUTS	
0/10Vdc, PWM, PPM selectable via software	1
PWM, PPM selectable via software	1
Total number	2
DIGITAL OUTPUTS	
SPST relay 5A (normally open contacts)	6
Total number	6
OTHERS	
Insulated power supply 20/60Vdc - 24Vac	•
Connection for programming key	•
Connection for remote display and keyboard	•
Buzzer	•
CANbus	•
RTC clock	•
Modbus RS485 serial interface	•
Dimensions (mm)	33x75
Mounting	Panel

- The installation must be executed according the local standards and legislations of the country
- Always operate on the electrical connections with the device disconnected from the main power supply
- Before carrying out any maintenance operations on the device, disconnect all the electrical connections
- For safety reasons the appliance must be fitted inside an electrical panel with no live parts accessible
- Don't expose the device to continuous water sprays or to relative humidity greater than 90%.
- Avoid exposure to corrosive or pollutant gases, natural elements, environments where explosives or mixes of flammable gases are present, dust, strong vibrations or chock, large and rapid fluctuations in ambient temperature that in combination with high humidity can condensate, strong magnetic and/or radio interference (e.g. transmitting antennae)
- When connecting loads beware of the maximum current for each relay and connector
- Use cable ends suitable for the corresponding connectors. After tightening the screws of connectors, slightly tug the cables to check their tightness
- Use appropriate data communication cables. Refer to the Fieldbus Installation Guide for the kind of cable to be used and setup recommendations
- Reduce the path of the probe and digital inputs cables as much as possible, and avoid spiral paths enclosing power devices. Separate from inductive loads and power cables to avoid possible electromagnetic noises
- Avoid touching or nearly touching the electronic components fitted on the board to avoid electrostatic discharges

I/O	TYPE	NUMBER	SPECIFICATIONS
Digital outputs	Relay	6	<p>Insulation between relays: functional (common lines internally connected)</p> <p>Insulation between relays and the extra-low voltage parts: reinforced</p> <p>Total current load limit: 6A</p> <p>C1-NO1, C2-NO2, C3-NO3, C4-NO4, C5-NO5, C6-NO6</p> <p>Normally open contact relays:</p> <ul style="list-style-type: none"> - characteristics of each relay: <ul style="list-style-type: none"> 4A 30Vdc / 250Vac for resistive load - 100.000 cycles 0,7A 250Vac for inductive load - 100.000 cycles with $\cos(\phi) = 0,5$ UL: 240Vdc - 1A resistive - 1.0FLA - 6.0LRA - 96VA pilot duty 30.000 cycles
Digital inputs	Voltage free contact	6	<p>DI1, DI2, DI3, DI4, DI5, DI6</p> <p>Current consumption: 5mA</p>
Analog outputs	0/10V, PWM, PPM	1	<p>AO1</p> <p>Analog outputs selectable via software between:</p> <ul style="list-style-type: none"> - pulsing output, synchronous with the line, at modulation of impulse position (PPM) or modulation of impulse width (PWM): <ul style="list-style-type: none"> open circuit voltage: 6.8V minimum load: 1kΩ - pulsing output, at modulation of impulse position (PPM) with range from 100Hz to 500Hz: <ul style="list-style-type: none"> open circuit voltage: 6.8V minimum load: 1kΩ - 0/10Vdc non optoinsulated output, referred to the ground: <ul style="list-style-type: none"> 10mA maximum loads
	PWM, PPM	1	<p>AO2</p> <p>Analog outputs selectable via software between:</p> <ul style="list-style-type: none"> - pulsing output, synchronous with the line, at modulation of impulse position (PPM) or modulation of impulse width (PWM): <ul style="list-style-type: none"> open circuit voltage: 6.8V minimum load: 1kΩ - pulsing output, at modulation of impulse position (PPM) with range from 100Hz to 500Hz: <ul style="list-style-type: none"> open circuit voltage: 6.8V minimum load: 1kΩ

I/O	TYPE	NUMBER	SPECIFICATIONS
Analog inputs	NTC, 0/1V, 0/5V	2	A11, A12 Analog inputs selectable via software between: <ul style="list-style-type: none"> - NTC temperature probes, default: 10kΩ at 25°C - pressure transducers with 0/5V output
	Universal	2	A13, A14 Universal analog inputs selectable via software between: <ul style="list-style-type: none"> - ON/OFF (current: 20mA) - 0/1V, 0/5V, 0/10V - 0/20mA, 4/20mA - NTC (10kΩ at 25°C) - Pt10000 12V+ power supply 12Vdc, 50mA max for 4/20mA transmitter (total on all outputs) 5V+ power supply 5Vdc, 80mA max for 0/5V transmitter (total on all outputs)

CONNECTION DIAGRAM



*NOTE: connection has to be made on the first and last local network units, make the connection as close as possible to the connector
**NOTE: C1, C2, C3, C4, C5, C6 internally connected to themselves

MAKING MODERN LIVING POSSIBLE



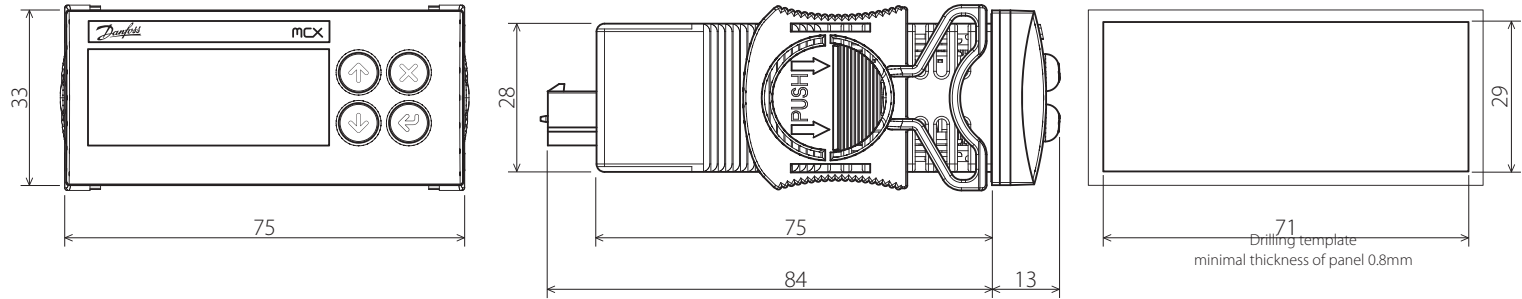
MCX06C electronic controller

REFRIGERATION &
AIR CONDITIONING DIVISION



DIMENSIONS

LED display



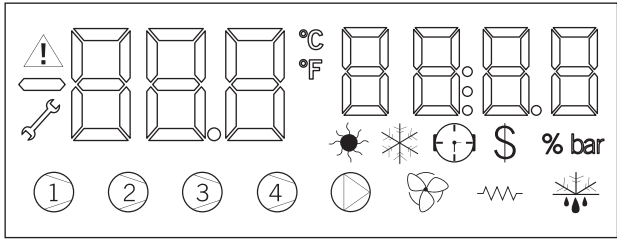
CONNECTIONS

- Input/output connector
18 way Molex Microfit type (43025-1800) crimping contact type:
Molex: (43030-0001) section cable AWG20-24 (0.52-0.20mm²)
Molex: (43030-0004) section cable AWG26-30 (0.13-0.05mm²)
Instrument for the Molex crimp code 69008-0982 (20-24 AWG)
Instrument for the Molex crimp code 69008-0983 (26-30 AWG)
- CAN connector
4 way Molex Wire-to-board type (87369-0400) crimping contact type:
Molex: (50212-8000) section cable AWG24-30 (0.20-0.05mm²)
Instrument for the Molex crimp code 63811-1200
- CAN/485 connector
8 way Molex Wire-to-board type (87369-0800) crimping contact type:
Molex: (50212-8000) section cable AWG24-30 (0.20-0.05mm²)
Instrument for the Molex crimp code 63811-1200
- Power supply connector
2 way Molex KK type (09-50-8021) crimping contact type:
Molex: (08-50-0105) section cable AWG18-24 (0.82-0.20mm²)
Molex: (08-50-0107) section cable AWG22-26 (0.32-0.13mm²)
Instrument for the Molex crimp code 69008-0953
- Digital output 1-6 connector
12 way Molex Minifit Jr. type (39-01-2125) crimping contact type:
Molex: (39-00-0077) section cable AWG16 (1.30mm²)
Molex: (39-00-0038) section cable AWG18-24 (0.82-0.20mm²)
Molex: (39-00-0046) section cable AWG22-28 (0.32-0.08mm²)
Instrument for the Molex crimp code 69008-0724

USER INTERFACE

LED DISPLAY

- type: LED display with two groups of digits and 18 icons
- colour of digits: green
- colour of the alarm/warning icons: red
- color of the other icons: yellow/amber
- the meaning of the icons and digits is settled by the application software
- dimensions: 45x17mm



KEYBOARD

- number of keys: 4
- keys function is settled by the application software

PRODUCT PART NUMBERS

CODE	DESCRIPTION
080G0065	MCX06C, 24V, LED, S
080G0066	MCX06C, 24V, LED, RS485, RTC, S