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MCX06D electronic controller

MCX06D is fitted with LED display, graphic LCD display, or without display. It is an electronic controller that holds all the typical functionalities of MCX controllers in the compact size of 4 DIN modules: programmability, connection to the CANbus local network, Modbus RS485 serial communication interface

Programmable	Protection degree	CAN bus	Graphic display	Multilanguage	MYK connection	Modbus RS485
PRG	IP40	CAN	23.6 → 24.0			485

General features

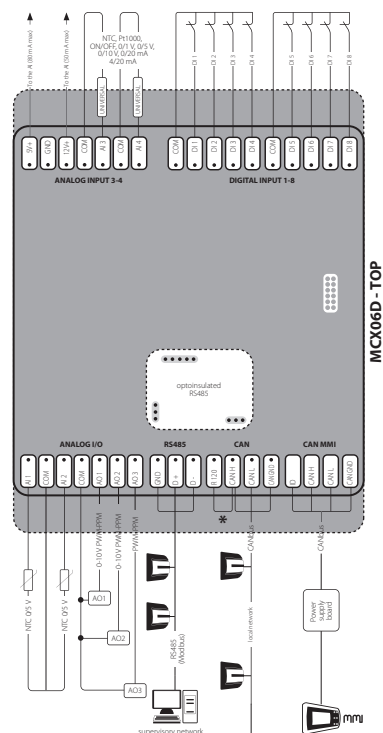| MCX06D	
Features	**Value**
ANALOG INPUTS	
NTC, 0/1V, 0/5V	2
Universal (NTC, Pt1000, 0/1V, 0/5V, 0/10V, ON/OFF, 0/20mA, 4/20mA) selectable via software	2
Total number	4
DIGITAL INPUTS	
Voltage-free contact	8
Total number	8
ANALOG OUTPUTS	
0/10Vdc, PWM, PPM selectable via software	2
PWM, PPM selectable via software	1
Total number	3
DIGITAL OUTPUTS	
SPST relay 5A (normally open contacts)	5
SPST relay 8A (changeover contacts)	1
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 (DIN modules)	4
Mounting	DIN bar

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Technical specifications

POWER SUPPLY:

- 20/60Vdc and 24Vac ±15% 50/60Hz. Maximum power consumption: 6W, 9VA
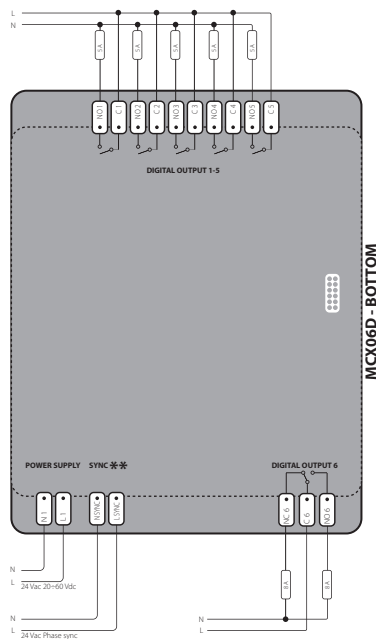- Insulation between power supply and the extra-low voltage: functional

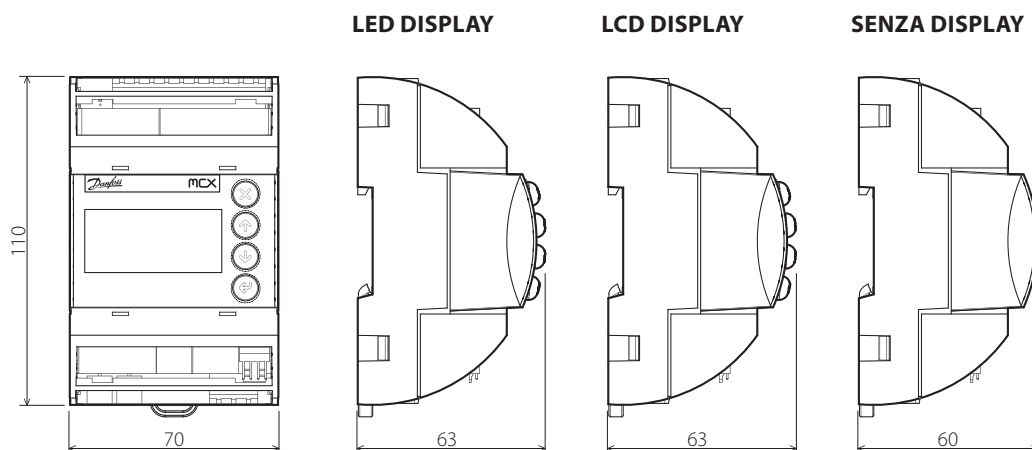| MCX06D			
I/O	Type	Number	Specifications

Digital outputs	Relay	6	Insulation between relays 1 to 5: functional
			Insulation between relay 6 and the other relays: reinforced
			Insulation between relays and the extra-low voltage parts: reinforced
			Total current load limit: 33A
			C1-NO1, C2-NO2, C3-NO3, C4-NO4, C5-NO5
			Normally open contact relays 5A:
			  - characteristics of each relay:
			    5A 30Vdc / 250Vac for resistive loads - 100.000 cycles
			    0,7A 250Vac for inductive load - 100.000 cycles with cos(phi) = 0,5
			    UL: 250Vac - 3A resistive - 1.5FLA - 9.0LRA - 144VA pilot duty 30.000 cycles
			NC6-C6-NO6
			Changeover contacts relay 8A:
			  - characteristics of each relay:
			    8A 250Vac for resistive loads - 100.000 cycles
			    4A 250Vac for inductive loads - 100.000 cycles with cos(phi) = 0,6
			    UL: 240Vac - 6A resistive - 4.9FLA - 29.4LRA - 470VA pilot duty 30.000 cycles

Digital inputs	Voltage free contact	8	**DI1, DI2, DI3, DI4, DI5, DI6, DI7, DI8** Current consumption: 5mA

Analog outputs	0/10V, PWM, PPM	2	**AO1, AO2**
			Analog outputs selectable via software between:
			  - pulsing output, synchronous with the line, at modulation of impulse position (PPM) or modulation of impulse width (PWM):
			    6.8V open circuit
			    voltage (1kΩ minimum load)
			  - pulsing output, at modulation of impulse position (PPM) with range 100Hz to 500Hz:
			    6.8V open circuit
			    voltage (1kΩ minimum load)
			  - 0/10Vdc non optoinsulated output, referred to the ground: 10mA maximum loads

	PWM, PPM	1	**AO3**
			Analog outputs selectable via software between:
			  - pulsing output, synchronous with the line, at modulation of impulse position (PPM) or modulation of impulse width (PWM):
			    6.8V open circuit
			    voltage (1kΩ minimum load)
			  - pulsing output, at modulation of impulse position (PPM) with range 100Hz to 500Hz:
			    6.8V open circuit
			    voltage (1kΩ minimum load)

Analog inputs	NTC, 0/1V, 0/5 V	2	**AI1, AI2**
			Analog inputs selectable via software between:
			  - NTC temperature probes, default: 10kΩ at 25°C
			  - pressure transducers with 0/5V output

	Universal	2	**AI3, AI4**
			Universal analog inputs selectable via software between:
			  - ON/OFF (current: 20mA)
			  - 0/1V, 0/5V, 0/10V
			  - 0/20mA, 4/20mA
			  - NTC (10kΩ at 25°C)
			  - Pt1000
			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

TOP BOARD

BOTTOM BOARD

*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: when AO is used as synchronised output, the sync input must be in phase with the load on AO

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Dimensions

	LED DISPLAY	LCD DISPLAY	SENZA DISPLAY

110

70   63   63   60

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

LCD DISPLAY

- display mode: STN blue transmissive

- backlight: white LED backlight adjustable via software

- display format: 98x64dots

- active visible area : 29.4x19.2mm

- contrast: adjustable via software

KEYBOARD

- number of keys: 4

- keys function is settled by the application software

Product part numbers

MCX06D	
CODE ***	DESCRIPTION
080G0108	MCX06D, 24V, LED, S
080G0109	MCX06D, 24V, LED, RS485, RTC, S
080G0111	MCX06D, 24V, LCD, S
080G0112	MCX06D, 24V, LCD, RS485, RTC, S
080G0114	MCX06D, 24V, S
080G0115	MCX06D, 24V, RS485, RTC, S

***NOTE: single pack codes (S) include standard kit connectors.
Is also available industrial pack codes (I) that don't include standard kit connectors

Note

Note