

IQAN-MC41

IQAN System Products



General

Weight	0.5 kg
Temperature range	-40 to +85 °C
Protection	outdoor, chassis
Voltage supply	9 - 32 Vdc
Current consumption (idle)	180 mA (24V) 250 mA (12V)

Communication interfaces

CAN buses	2
Protocols	ICP (IQAN CAN Protocol) SAE J1939, Generic CAN

Outputs

Max number of outputs	8
Proportional outputs	
Current output pairs	2
Type	current closed loop
Signal range	100 - 2500 mA
Dither frequency	70 - 1000 Hz
Resolution	1 mA
PWM outputs (HS)	4
Type	high side switch
Max load	2 A (single)
PWM outputs (LS)	4
Type	low side switch
Max load	2.5 A (single)

Inputs

Max number of inputs	18
Voltage inputs	10
Signal range	8 x 0 - 5 Vdc 2 x 0 - 32 Vdc
Resolution	12 bit
Current-loop inputs	2
Signal range	0 - 20 mA, 13 bit
Timer inputs:	
Frequency, PWM, Pulse	6
Signal high	4 Vdc - 32 Vdc
Signal low	0 - 1 Vdc
Range	0 - 50,000 Hz
Digital inputs	0 (up to 6)
Signal high	4 Vdc - 32 Vdc
Signal low	0 - 1 Vdc

Connector

Type	1 x Molex MX123, 66 pos.
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Application

The IQAN-MC41 controller is the lowest I/O count module in the MC4 family. It is best for smaller applications such as task-oriented control, implementing single features on a vehicle (e.g. valve driver for auxiliary hydraulic function).

The IQAN-MC41 is designed to be either an IEC 61508 SIL2 Functional Safety (-FS) variant, or a performance optimized, standard controller.

The 3 core CPU architecture of the IQAN-MC41 provides computational power that allows it to perform high speed (ex. 1 ms) control loops for time critical functions. Lockstep CPU and hardware redundancy offers very high real-time performance in safety critical applications.

There are Voltage inputs in 2 different scales, Current loop inputs for 4-20 mA, Timer inputs (used for frequency, PWM and pulse devices) and Digital (on-off) inputs. Voltage and Timer inputs share pin positions with Digital inputs.

The IQAN-MC41 has 2 double proportional outputs for controlling valves. These outputs can control up to 2 bi-directional proportional valve sections or 2 single solenoid devices (ex. proportional cartridge valves).

The unit also has 4 high-side PWM outputs and 4 low-side PWM outputs.

The IQAN-MC41 footprint is small enough for any installation. The enclosure is rated IP66 + IP69K and is a rugged mechanical design, sealed for outdoor use.

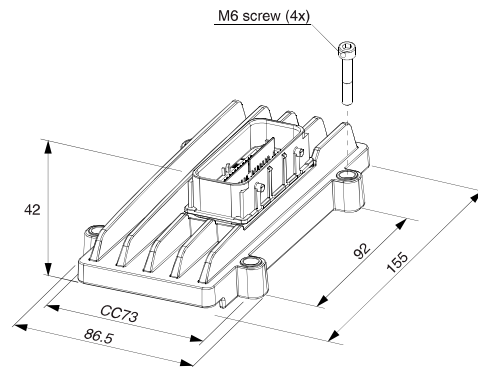
To meet the environment found in mobile machines the MC41 uses a 66 position Molex MX123 high reliability connector, made for harsh environment and high vibration applications.

Description

IQAN-MC41
IQAN-MC41-FS

Ordering PN

20085111
20085121



units=mm