

General

Weight	0.8 kg
Temperature range	-40 to +85 °C
Protection	outdoor, chassis
Voltage supply	9 - 32 Vdc
Current consumption (idle)	160 mA (24V) 240 mA (12V)

Communication interfaces

CAN buses	5
Protocols	ICP (IQAN CAN Protocol) SAE J1939, Generic CAN
Ethernet	10 base T

Outputs

Max number of outputs	36
Proportional outputs	
Current output pairs	10
Type	current closed loop
Signal range	100 - 2500 mA
Dither frequency	70 - 1000 Hz
Resolution	1 mA
PWM outputs (HS)	8
Type	high side switch
Max load	2 A (single)
PWM outputs (LS)	20
Type	low side switch
Max load	2.5 A (single)
PWM outputs (LS)	8
Type	low side switch
Max load	300 mA

Inputs

Max number of inputs	50
Voltage inputs	28
Signal range	26 x 0 - 5 Vdc 2 x 0 - 32 Vdc
Resolution	12 bit
Current-loop inputs	4
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	12 (up to 18)
Signal high	4 Vdc - 32 Vdc
Signal low	0 - 1 Vdc

Connector

Type, C1	1 x Molex MX123, 66 pos.
Type, C2	1 x Molex MX123, 73 pos.

Application

The IQAN-MC43 controller is a large I/O count module in the MC4 family. It is best for bigger applications such as total vehicle control (all hydraulic functions) when it is desired to have the controller centrally located to save valuable space.

The IQAN-MC43 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-MC43 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.

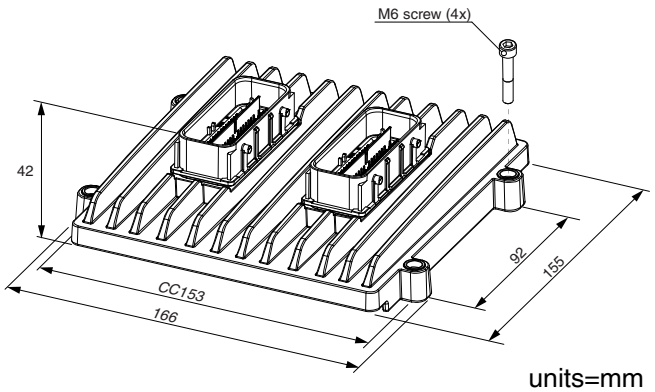
The IQAN-MC43 has 10 double proportional outputs for controlling valves. These outputs can control up to 10 bi-directional proportional valve sections or 10 single solenoid devices (ex. proportional cartridge valves).

The unit also has 8 high-side PWM outputs and 20 low-side PWM outputs.

The IQAN-MC43 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 MC43 uses 66 position and 73 position Molex MX123 high reliability connectors, made for harsh environment and high vibration applications.

Description	Ordering PN
IQAN-MC43	20085113
IQAN-MC43-FS	20085123



units=mm

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