



General

Weight	1.1 kg
Temperature range	
Operating, ambient	-40 to +85 °C
Storage, ambient	-40 to +100 °C
Protection	outdoor, chassis
Voltage supply	9 - 32 Vdc
Current consumption (idle)	160 mA (24V) 240 mA (12V)
CE marking	2004/108/EC

Communication interfaces

CAN buses	4
Protocols	Parker ICP (IQAN CAN Protocol) SAE J1939, Generic CAN

Outputs

Proportional outputs	
Current output pairs	4
Type	current closed loop
Signal range	100-2000 mA
Dither frequency	70-333 Hz
Resolution	1 mA
Digital outputs	5
Type	high side switch
Max load	3 x 3 A 2 x 1.5 A
Digital outputs (LS)	5
Type	low side switch
Max load	3 x 3 A 2 x 1.5 A

Inputs

Max number of inputs	32
Voltage inputs	
Number	16
Signal range	0 - 5 Vdc
Resolution	1.2 mV
Frequency inputs	
Number	8 (0)
Signal high	4 Vdc - 32 Vdc
Signal low	0 - 1 Vdc
Alternative configurations	Quadrature in (4) Digital in (8)
Digital inputs	
Number	8
Signal high	4 Vdc - 32 Vdc
Signal low	0 - 1 Vdc

Connector

Type	4 x DT04-18P(key A-D)
------	-----------------------

Application

The IQAN-MC31 is a master module in the IQANdesign platform. It can be used as a standalone controller, as a single bus master, or together with other IQAN master modules.

The unit is based on the IQAN-MC3 SIL2 rated controller and uses the same hardware, but with software optimized for higher speed and lower memory consumption.

The 32 bit architecture of the IQAN-MC31 provides computational capacity that allows it to perform high speed (ex. 3 ms) control loops for time critical functions. The unit is equipped with a Real Time Clock and can perform data logging functions.

The IQAN-MC31 controller has 16 voltage inputs for connection of 0-5 Vdc signals and 8 frequency inputs for speed and position sensors.

The IQAN-MC31 has 4 double proportional outputs for controlling valves. These outputs can control up to 4 bi-directional proportional valve sections or 4 single solenoid devices (ex. proportional cartridge valves).

The unit also has 5 dedicated on-off outputs that are high-side power outputs and 5 dedicated on-off outputs that are low-side outputs.

A bank of low-side, on-off outputs is typically connected to one or more of the high-side, on-off outputs and are used for low current functions.

The enclosure is designed to protect the electronics in a harsh environment on mobile machines. On the front of the unit, there are four sealed and individually keyed Deutsch DT connectors. The MC31 is designed for mounting outdoor on the chassis.

The IQAN-MC31 is a mature product and is not recommended for new installations.

Description

IQAN-MC31

Ordering PN

20077786

