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IQAN-TOC2 **I/O Modules**

Electronic Control Systems



ENGINEERING YOUR SUCCESS.

Application

The IQAN-TOC2 is a task oriented controller in the IQAN product group. The IQAN-TOC2 replaces valve driver modules and cards for a wide variety of proportional valves or other devices. This unit is designed for ease of setup, weather resistance, and safety.

The IQAN-TOC2 is a general purpose unit that can control two bi-directional valve sections or two cartridge solenoids simultaneously. The IQAN-TOC2 communicates with a variety of input and output devices. It has current mode (current closed-loop) or PWM mode (voltage open-loop) output for proportional valve control. The analog inputs accept signals from joysticks or potentiometers. Two digital inputs can be used to read switches.

Properties

Ease of setup

The IQAN-TOC2 has a simple mechanical interface for calibration. With a preloaded personality from the factory, setup can be easily performed on the machine using a screwdriver. Adjustments possible include threshold, maximum output and slopes. The IQAN-TOC2 may also be connected to a PC or Palm device and programmed using IQANdevelop software to change the functionality of the controller. This advanced feature allows the IQAN-TOC2 to be used in more demanding applications.

Weather resistance

The housing is designed to be rugged, but light and has a sealed, automotive AMP junior-power timer connector. The IQAN-TOC2 has a membrane to prevent condensation inside the housing. This controller is designed for the outdoor environment.

Safety

The IQAN-TOC2 is made using selected components and conforms to strict international requirements.

Diagnostics: If an error is detected an LED on the top of the controller flashes a sequence to indicate the nature of the error.

General

Weight	0.2 Kg
Operating temperature	-40 to +70 °C
Protection	outdoor use
Voltage supply	9 - 34 Vdc
Current consumption (idle)	60 mA (28 Vdc) 40 mA (14 Vdc)
Data interface	mechanical encoder or RS232 using IQANdevelop
VREF output (28V)	4.9 - 5.1Vdc, 30 mA

Outputs

Current / PWM outputs	
Number	2 double
Type current mode	current - closed loop
PWM mode	voltage - open loop
Min. threshold	50 mA
Max. load	3000 mA
Frequency range	25 - 333 Hz
Resolution	1 mA

Inputs

Voltage inputs	
Number	2
Signal range	0 - 5 Vdc
Resolution	5 mV
Digital inputs	
Number	2
Signal high	4Vdc - V _{BAT}
Signal low	0 - 1Vdc

Ordering part number

IQAN-TOC2	5010028
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Environmental Protection

EMI

ISO 11452-2 (immunity vs EM field)
ISO 14982 (radiated emission)
ISO 11452-4 (immunity vs injected RF)
ISO 7637-2,-3 (immunity vs supply transients)

ESD

EN 61000-4-2 (external)

Mechanical environment

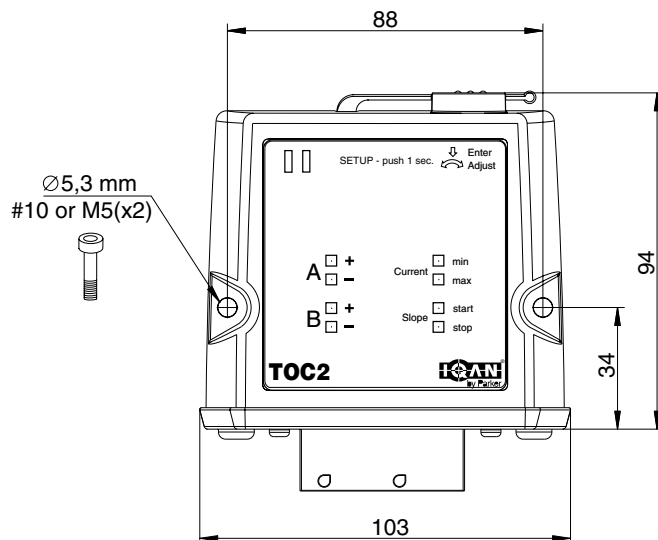
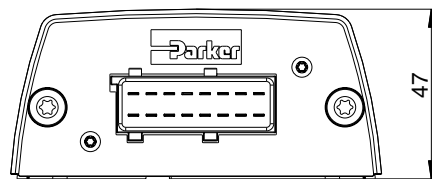
IEC 68-2-64 Fh (random)
IEC 68-2-29 Eb (bump)

Climate environment

IEC 68-2-18 Rb2 (water)
IEC 68-2-30 Db (var1, damp, cyclic)
IEC 68-2-3 Ca (damp, heat steady state)
IEC 68-2-2 Bb (heat)
IEC 68-2-1 Ab (cold)
IEC 68-2-14 Nb (change of temperature)

Chemical environment

IEC 68-2-52 Kb (salt mist, cyclic)



unit = mm



WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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