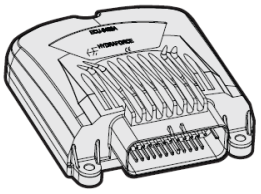
Overview



Description

The **ECU-0408A** is a fully programmable control unit featuring 15 flexible I/O pins: 4 PWM outputs and up to 11 configurable inputs of analog, digital or frequency (see table). All outputs are capable of driving up to 3 amps, and 3 one amp current feedbacks are available for closed-loop operation. It features a 100 MHz 16/32 bit processor, and has the ability to communicate using CAN Open communication protocol.

NOTE: Refer to Input/Output table below for pin configuration capability. Refer to ECU-0408A Technical Reference Manual for specific data and ratings of individual inputs and outputs.

Features

- CE Certified, complies with WEEE, European Community Directive 2002/96/EC/for waste electrical and electronic equipment, RoHS, European Community Directive 2011/65/EU restricting hazardous substances, and certified to normal automotive E17 (EMC) standards for electromagnetic compatibility.
- Reliable operation in real-world temperature conditions
- Robust, light, leak proof, chemical- resistant zinc/plastic enclosure.
- Three-point anchorage mounts firmly even on irregular surfaces.
- Inputs and outputs are protected against short circuits.
- Internal diagnostic capability to detect overvoltage and overheating.

Ratings

Electrical Parameters

Operating voltage	8.5 to 33 Vdc	**- Note:** Nominal supply voltage 12/24 Vdc
Idle power consumption	1.3 W	**- Note:** 24 VDC, no external load
Reference voltage outputs	+5 Vdc	**- Note:** Limit 270 mA all pins (total 2)

Processor and Memory

Processor	16/32 bit CPU, 100 MHz	
Flash memory	1600 kB	
RAM	138 kB	**- Note:** 112 kB for PLCopen application variables
Non-volatile memory	2 kB	
PLCopen application size	768 kB	**- Note:** max

Diagnostics and Protection

Diagnostic functions	Supply voltage Unit temperature Ref voltage monitoring
Protection functions	Overvoltage protection Short-circuit protection for outputs

Promming and Software

Programming	CODESYS 2.3 or HF-Impulse
Software installation	Download via CAN1

Temperature Ratings

Operating temperature range	-40 to 85 °C (-40 to 185°F)	**- Note:** Operating and storage

Properties

Unit weight	0.44 kg (0.97 lb)
Case material	Zinc / plastic
Connectors	1x AMP35 **- Note:** Grey

Environmental Ratings

Ingress protection class	IP67

Communication

Communications interfaces	1	**- Note:** CAN 2.0B

I/O

Inputs/Outputs 21 Total

MAX I/O	Digital In (SWG)	Digital In (SWB)	Pulse input	Analog input	Current feedback	PWM (source)	Digital Out (source)
4	X					X	X
4		X	X				
1	X		X				
3		X		X			
3					X		
15	5	7	4	3	3	4	4

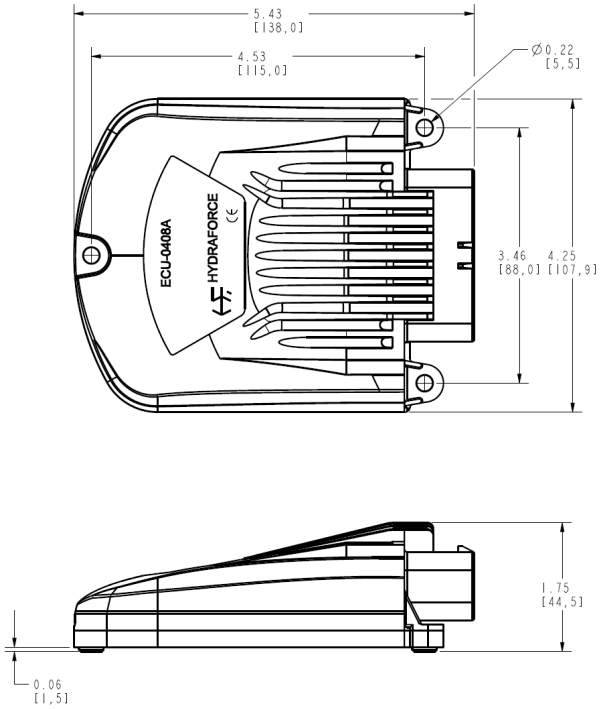
Note: The ECU-0408A has flexible I/O that can be configured in multiple ways. For more information, consult the ECU-0408A Technical Reference Manual.

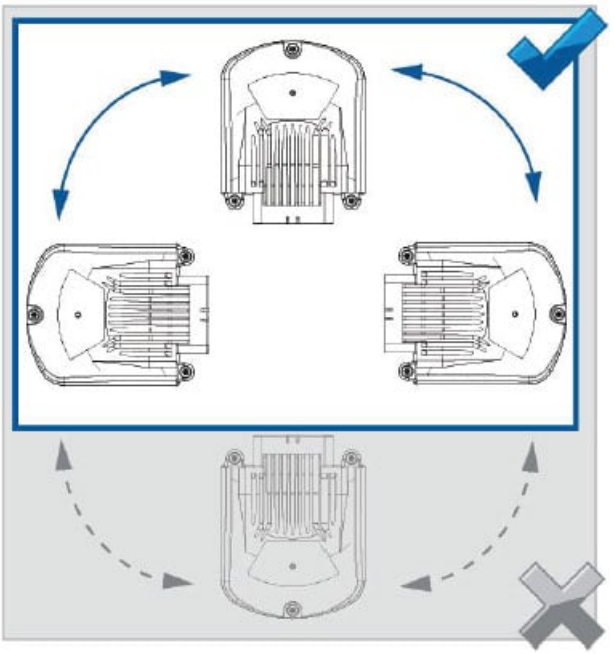
I/O pins total	15	
Outputs		
PWM/DO/DI	Qty 4	**- Note:** sourcing, up to 3 A, PWM frequency by application
Inputs		
DI/PI	Qty 4	**- Note:** Pull-down to GND
DI/PI	Qty 1	**- Note:** pull-up tp 5 V
AI/DI	Qty 3	**- Note:** 0-5 V / 0-22 mA selection by application
FB/AI	Qty 3	**- Note:** Current measuring feedback 0 to 1A

Dimensions

INCH
[mm]

OUTLINE





Note: When mounting the ECU-0408A, be sure to mount with the plug facing down or to the side. Do not mount the unit in a position where the connector side is facing up.

To Order

ECU-0408A controller: Part No. 4002815
Configuration/Test Harness: Part No. 4000306
AmpSeal Connector: 35 pin, Part No. 4000381
AmpSeal Socket/Plug:
Sockets Gold (100 pc.): Part No. 4000369
Sealing Plugs (100 pc.): Part No. 4000370
AmpSeal Test Leads:(10 each, 24" length) Part No. 4000287
USB-CAN adaptor (Kvaser): PartNo. 4000371
CoDeSys Programming Software: available from HydraForce Electronics Portal as free download.
Technical manual (download from HydraForce Electronics Portal): Part No. 7709130