

Data Sheet

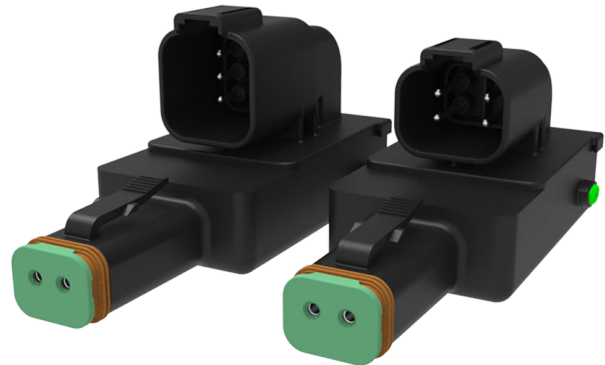
CAN to Current



CAN 2 Current (C2C) is a compact solenoid-mounted microcontroller that communicates using CANBus protocols and provides closed-loop current-control on one or two outputs. The C2C can be used with on/off and proportional solenoids and is available as either a single or dual channel device.

A single-channel device can command one coil and a dual-channel device can command two coils sequentially.

Two coils that need commanded simultaneously will require two single-channel C2Cs. Two coils that would only be controlled one at a time can be controlled by one dual-channel C2C.



Features

- Can be used with on/off or proportional solenoids
- Available as either a single or dual channel device
- ISOBus and J1939 compliant

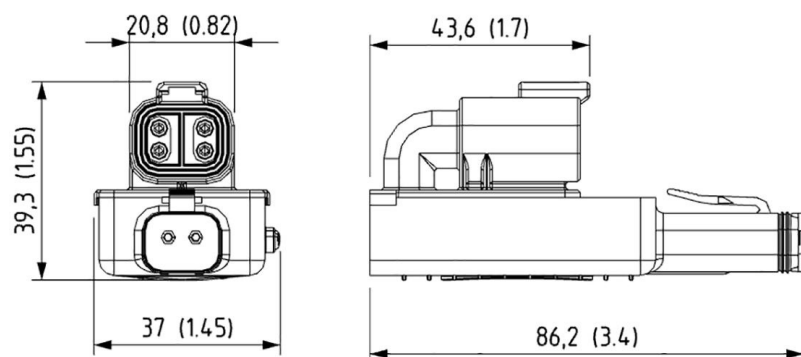
Specifications

Data	Value
Supply voltage	9-36 VDC
Peak output current	3 Amps
Continuous output current	2 Amps
Idle current	65 mA
Ambient temperature	-40° C to 90° C
ISOBus and J1939 compliant	Auxiliary Valve Command is used to command current
	Auxiliary Valve Estimated Flow is used to provide current feedback
IP rating	67

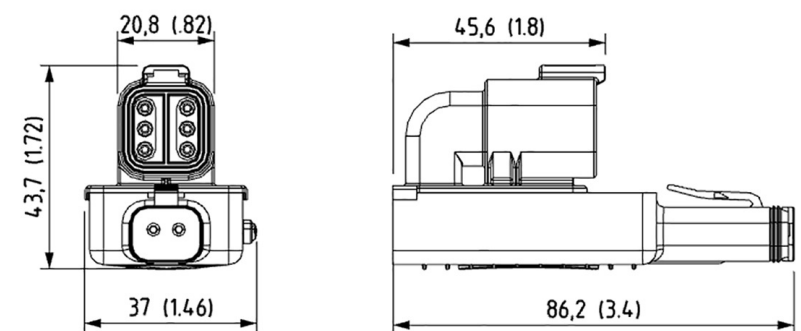
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Dimensions - mm (in)

Single channel



Dual channel

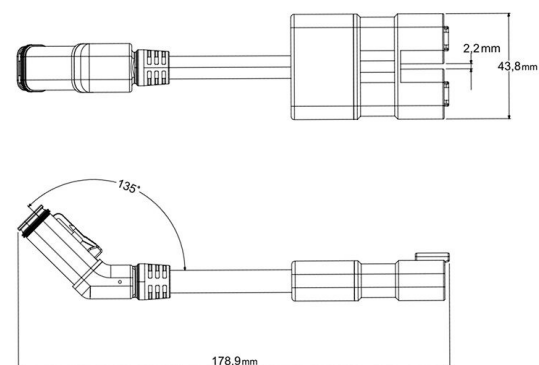


Connector types

Product	Coil connector	Cable connector
Single Channel	DT06-2S	DT04-4P
Dual Channel	DT06-2S	DT04-6P

Y cable

The Y cable can be used to daisy chain multiple single channel C2Cs. The connector has one DT06-4S and two DT04-4P. Part number: 11329381.

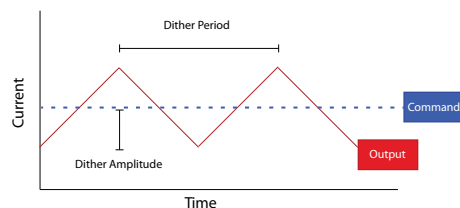


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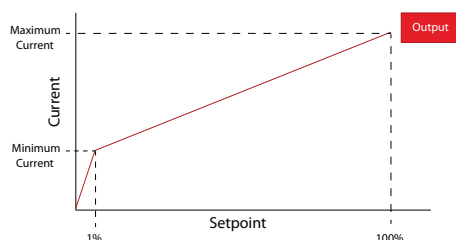
Dither

Dither frequency and dither amplitude are configurable up to 250Hz and 25% of maximum current setting (max of 3A) respectively. By default, dither is off.



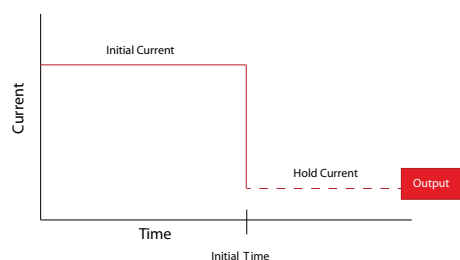
Proportional configuration

Proportional control is enabled through the Control Mode parameter. Minimum and maximum currents are configurable and the setpoint is interpolated in-between. The minimum output current is provided at the smallest non-zero setpoint that can be provided over the CANbus. For brevity, 1% is used in the example figure below.



On/off configuration

On-off control is enabled through the Control Mode parameter. The C2C device can automatically implement a “peak-and-hold” control scheme. A high current level can be used to shift the solenoid and then the current can be reduced to a lower level to hold the valve in-place, optimizing electrical power consumption. Initial current, initial time, and hold current determine the behavior of an on-off valve. Whenever 100% command is provided, the device will command the Initial Current for Initial Current Time, then command Hold Current until turned off or receiving a non 100% command. Initial Current parameter cannot be set above 3A.





Ordering information

Model code

