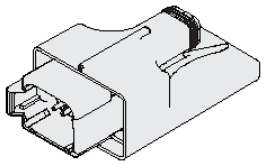
Overview



Description

A compact plug-in style, microprocessor based, valve driver designed for use in hydraulic proportional valve applications. Configurable to drive either one or two coils using SAE J1939 CAN input or an independent signal. The**EVDR-0201A** proportionally controls one or two coils to a user-defined metering profile. The profile provides either a straight-line or multi-sloped output that you configure with *HF-Impulse* software: an easy to use, web-accessible configuration tool available as a free download at www.hydraforce.com/electronics. Two output LEDs are located on the front.

Operation

The controller accepts inputs from commonly available analog or J1939 CAN operator interface devices (joystick, potentiometer, sensors, etc.). The input signal drives the output current to the user-defined ramp rate, enabling accurate and proportional metering of the hydraulic valve. As the input changes, the output follows the defined metering profile, allowing optimum system response. You can configure the unit for direct valve operation. Built-in diagnostics detect fault conditions that automatically deactivate the outputs.

Diagnostic Features

- Any supply voltage below 8.5 Vdc causes the controller to default to the valve-off mode.
- The driver output drops and holds at the inactive stand-by condition.

Any short or open circuit condition is automatically detected as an error.

- When the fault is corrected, the controller returns to standard operation.

Multiple Personalities

The EVDR controller is available in multiple configurations (personalities) to suit the needs of specialized applications. Choose the one that best fits your needs.
EVDR-0201A - General Purpose.
EDFR-0201A - Fan Control.
ECDR-0201A - Configurable.

Ratings

Electrical Parameters

Power requirements	9 to 32 Vdc
Output current	0 to 2000 mA **- Note:** Continuous

Processor and Memory

Processor	ARM 32-bit Cortexâ„¢-M3 CPU, 72 MHz
Flash memory	64 kB
RAM	20 kB

Properties

Mating connectors	Deutsch DT06-8SA **- Note:** Input DT04-2P **- Note:** Output
Output indicator	2 Red LEDs
Environmental rating	IP69K
Operating temperature	â€“40 to 85 °C (â€“40 to 185 °F)
Unit weight	0.079 kg (0.175 lb) **- Note:** without connectors

I/O

Number of inputs	1
Number of outputs	2

Communications

SAE J1939	PGNs 61440 to 65535

Control Inputs - Analog

Voltage	0 to 5 Vdc 0 to 10 Vdc
Current	0 to 20 mA 4 to 20 mA
Resistive	0 to 6000 Ohm
Temperature	ERT 120 (HydraForce temperature sensor)

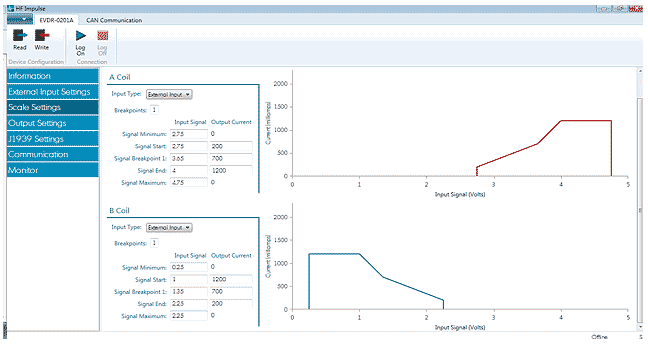
Control Inputs - Digital

Switch	Switch to battery Switch to open Switch to ground
PWM	0 to 100% **- Note:** 60 to 5000 Hz
Frequency	60 to 10 000 Hz

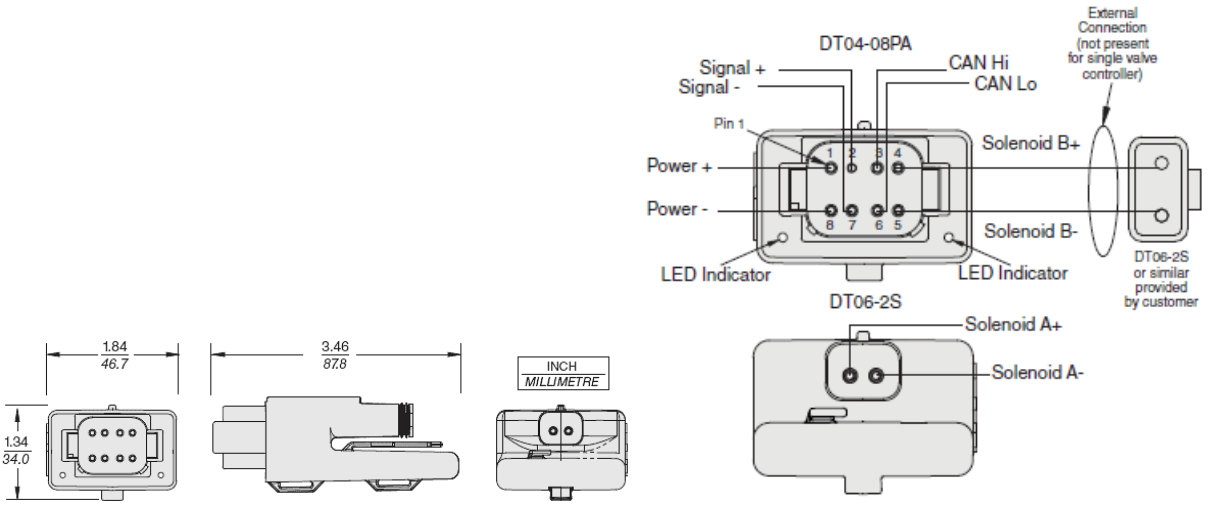
Outputs

Current control	0 to 2000 mA
PWM control	0 to 100% **- Note:** Duty cycle
PWM frequency range	40 to 400 Hz

Configuration Example



Dimensions



To Order

Dual Valve Driver Model EVDR-0201A: Part No. 4204700
Configuration Software for EVDR-0101A â€" HF-Impulse: Free download from www.hydraforce.com/electronics.
Mating Connector Kit: Part No. 4001955
Test Harness: Part No. 4000304 (For testing and bench operation)
USB-CAN Programming Adapter: Kvaser Leaf Lite HS â€" Part No. 4000371, also available from www.kvaser.com
Temperature Sensor â€" ERT 120: Part No. 4206200
Mating Connector Kit for ERT 120 Temperature Sensor â€" Deutsch Model DTM06-2S: Part No. 4001970
Conversion Harness - to convert from EVDR1: Part No. 4000426
For remote mounting, use connectors: DT04-2P (Part No. 4001958) and DT06-2S (Part No. 4001417)