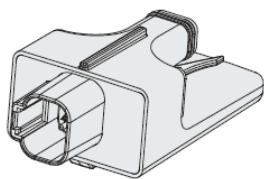




Overview



Description

A compact, plug-in style, microprocessor-based valve driver designed for use in hydraulic proportional valve applications. The EVDR-0101A drives a single coil to a user-defined metering profile using an independent signal. The profile provides either a straight-line or multi-sloped output that you configure with HF-Impulse: an easy-to-use software tool available as a free download at www.hydraforce.com/electronics. An output LED indicator is located on the front.

Operation

The controller accepts an input from commonly available analog or digital operator interface devices (joystick, potentiometer, sensors, etc.) The input signal drives the output current, enabling accurate and proportional metering of the hydraulic valve. As the input changes, the output follows the defined metering profile, allowing optimum system response. Built-in diagnostics detect fault conditions that automatically deactivate the output. The controller has an LED output indicator.

Diagnostic Features

- Any input below 8.5 Vdc causes the controller to default to safe mode of "valve off."
- 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 personalities to suit the needs of specialized applications. All are configured with HF-Impulse software. Choose one that best fits your needs.

EGDR-0101A: Generator applications.

EVDR-0101A - General purpose valve driver.

ETDR-0101A - Transmission/clutch profile applications.

Ratings

Electrical Parameters

Power requirements	9 to 32 Vdc
Output current	50 to 2000 mA - Note: Continuous 3000 mA - Note: For one sec.

Processor and Memory

Processor	ARM 32-bit Cortex [®] , [®] -M0 CPU, 48 MHz
Flash memory	32 kB
RAM	4 kB

Properties

Mating connectors	Deutsch DT06-4S - Note: Input DT04-2P - Note: Output
Output indicator	Red LED
Environmental rating	IP67
Unit weight	0.079 kg (0.175 lb) - Note: without connectors



I/O

Number of inputs	1
Number of outputs	1

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)

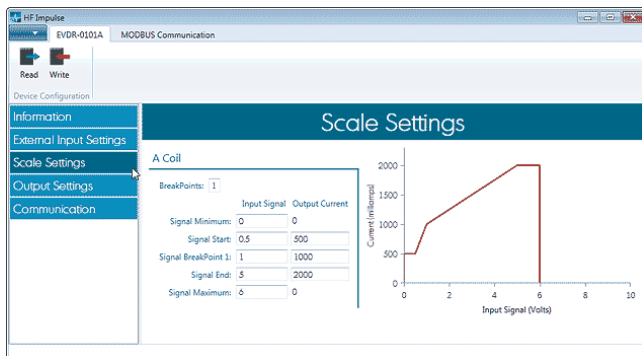
Control Inputs - Digital

Switch	Switch to battery Switch to open Switch to ground
PWM	0 to 100% - Note: 50 to 4000 Hz
Frequency	20 to 10 000 Hz

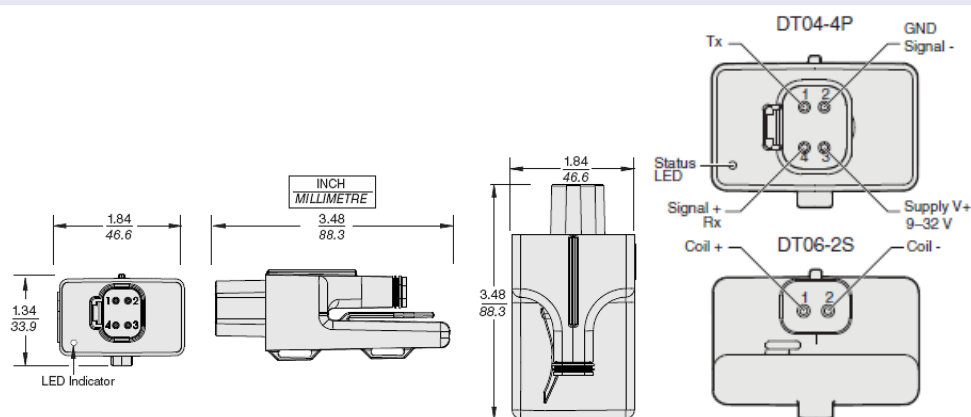
Outputs

Current control	50 to 2000 mA
PWM control	0 to 100% - Note: Duty cycle
PWM frequency range	40 to 400 Hz

Configuration Example



Dimensions





To Order

Single Valve Driver Model EVDR-0101A: Part No. 4204800 (NOTE: If purchasing the EGDR-0101A for the first time, we suggest purchasing both the USB-TTL programming adapter and the test harness)

Configuration Software for EVDR-0101A â€” HF-Impulse: Free download from www.hydraforce.com/electronics.

Mating Connector Kit â€” DT06-4S: Part No. 4001953

Mating Connector Kit â€” DT04-2P: Part No. 4001958 (For remote installation)

USB-TTL Programming Adapter: Part No. 4000285

Test Harness: Part No. 4000286 (For testing and bench operation)

Temperature Sensor â€” ERT 120: Part No. 4206200

Mating Connector Kit for ERT 120 Temperature Sensor â€” Deutsch Model DTM06-2SPart No. 4001970