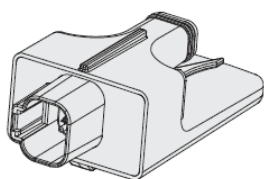## Overview

Description

A compact, plug-in style, microprocessor-based valve driver designed for use in hydraulic proportional valve applications. The **EGDR-0101A** drives a single coil in closed loop control using an independent signal. The control provides a timed ramp on startup and PID closed loop settings that you configure with *HF-Impulse* an easy-to-use software tool available as a free download at www.hydraforce.com/electronics. An LED output indicator is located on the front (see *Dimensions*).

Operation

The controller accepts an input from commonly available analog or digital operator interface devices (AC frequency detector, speed sensor, etc.) The input signal controls the output current, enabling accurate and proportional metering of the hydraulic valve. As the input changes, the PID control varies the output amperage, 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 configurations (personalities) to suit the needs of specialized applications. Choose the one that best fits your needs.
EVDR-0101A - General Purpose.
ETDR-0101A - Transmission Apps.
EGDR-0101A - Generator Control.

Ratings

Electrical Parameters

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

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

Processor and Memory

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

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

Control Inputs - Digital

PWM	0 to 100% **- Note:** 50 to 4000 Hz
Frequency	20 to 10 000 Hz

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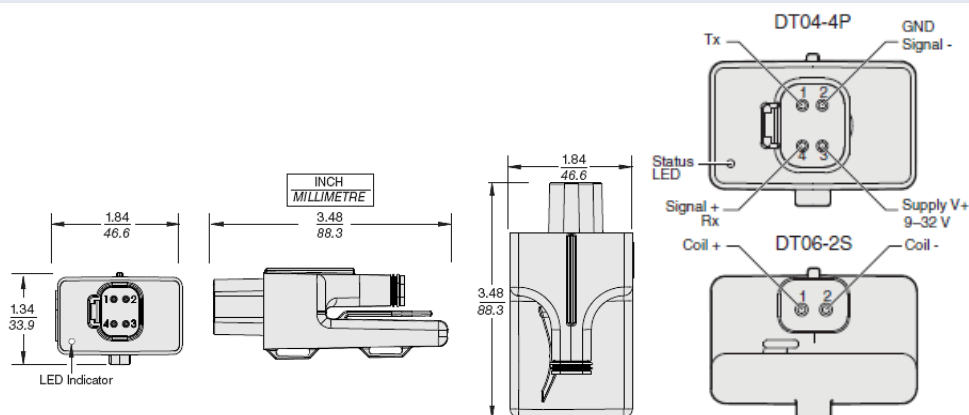
Current control	50 to 2000 mA
PWM control	0 to 100% **- Note:** Duty cycle
PWM frequency range	40 to 400 Hz

Configuration Example
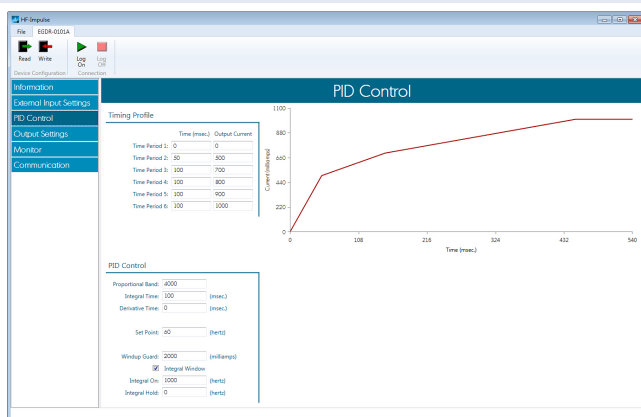
Dimensions

To Order

Single Valve Driver Model EGDR-0101A: Part No. 4204850 (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 EGDR-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)

AC Detector: EACD-1 Part No. 4208010