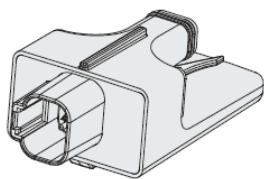




Overview



Description

A compact plug-in style, microprocessor-based valve driver designed for use in hydraulic proportional valve applications for clutch engagement, "hot shot" coil saver and soft start motor applications. It can also operate in timer-based applications (no input or input only to start a timer). The **ETDR-0101A** drives a single coil to a user-defined timing profile using a digital trigger. The profile provides a stepped output which 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.

Operation

The controller uses a digital input to start the timing sequence. As the time progresses, the output follows the defined metering profile, allowing optimum system response. You can configure six distinct time periods with corresponding output currents. The driver can apply a ramping rate when the digital input is turned off. 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 (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.

Processor and Memory

Processor	ARM 32-bit Cortex [®] , ϕ -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

Control Input

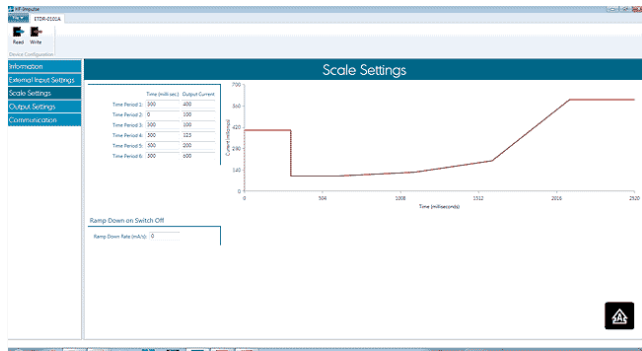
Digital	Switch to battery Switch to ground
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Control Output

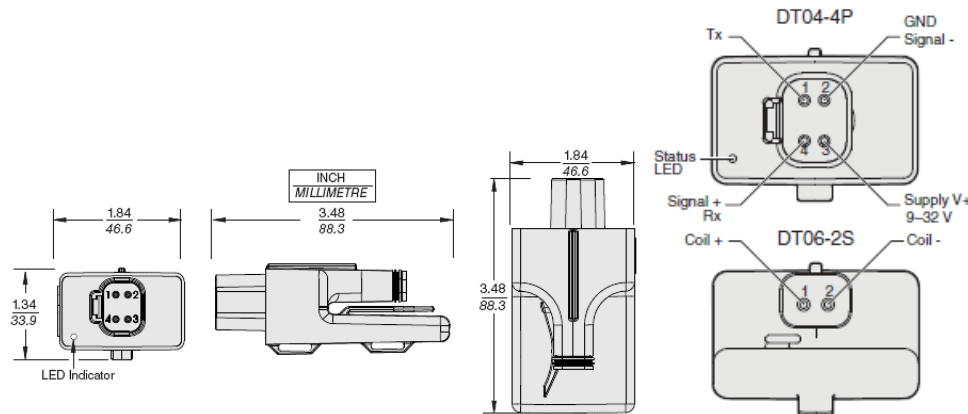
Current	50 to 2000 mA
PWM	0 to 100% - Note: Duty cycle
PWM frequency range	40 to 400 Hz



Configuration Example



Dimensions



To Order

Single Valve Driver Model ETDR-0101A: Part No. 4204810 (NOTE: If purchasing the ETDR-0101A for the first time, we suggest purchasing both the USB-TTL programming adapter and the test harness)

Configuration Software for ETDR-0101A HF-Impulse: Free download from www.hydraforce.com/electronics.

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

Mating Connector Kit 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)