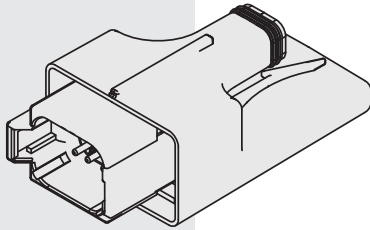


EFDR-0201A Dual/Single Valve Driver, Plug-In Style

European Commission (EC) CE



DESCRIPTION

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

OPERATION

The controller accepts inputs from commonly available sensors or J1939 CAN input. The input signal drives the output current to the user-defined ramp rate, enabling accurate control of fan speed. Reverse sequence control is provided as well. The reverse sequence changes the direction of the fan to clear debris. A variety of methods can trigger the sequence (switch input, temperature sensor, J1939 message or periodic.) The timing sequence can control the fan speed as well as the fan direction to avoid abrupt reversals. Built-in diagnostics detect fault conditions that automatically deactivate the outputs. The controller has two LED output indicators.

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

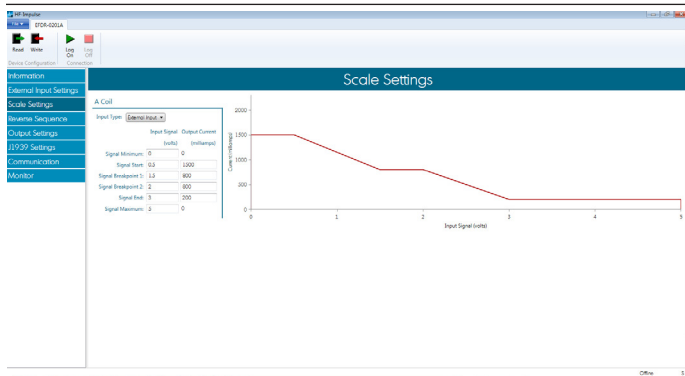
The EVDR controller is available in multiple configurations (personalities) to suit the needs of specialized applications. Visit www.hydraforce.com and choose the one that best fits your needs. All are configured with *HF-Impulse* software.

- EVDR-0201A** - General Purpose
- EFDR-0201A** - Fan Drive Applications

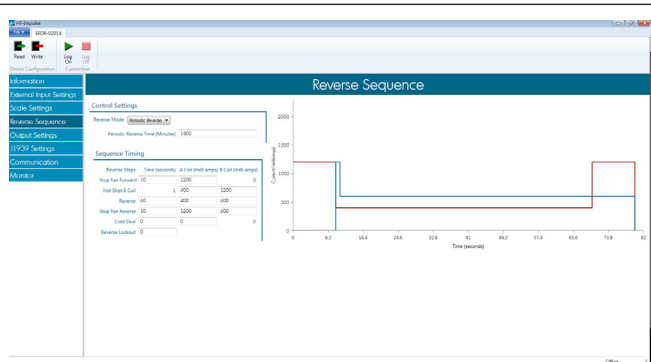
RATINGS

- Operating Temperature:** -40 to 85 °C (-40 to 185 °F)
- Molded Enclosure Dimensions:** 46.7 mm (W) x 87.8 mm (H) x 34.0 mm (D); 1.84 in. (W) x 3.46 in. (H) x 1.34 in. (D)
- Mating Connectors:** Deutsch DT06-08SA and DT04-2P
- Power Requirements:** 9 to 32 Vdc
- Control Inputs - Analog:**
 - Voltage:** 0 to 5 or 0 to 10 Vdc
 - Current:** 0 to 20 or 4 to 20 mA
 - Resistive:** 0 to 6000 ohms
 - Temperature Sensor:** ERT120 (HydraForce temperature sensor)
- Control Inputs - Digital:**
 - Switch:** Switch to battery, switch to open, switch to ground
 - PWM:** 0 to 100%, 60 to 5000 Hz
 - Frequency:** 60 to 10 000 Hz
- Control Inputs - CAN:**
 - J1939:** PGNs 61440 to 65535
- Control Outputs:**
 - Current:** 0 to 2000 mA; **PWM:** 0-100% duty cycle; 40 to 400 Hz
 - Output Indicator:** Two LEDs
- Sealing:** IP69K rated
- Weight:** 0.079 kg (0.175 lb) without connectors
- Certifications:** European Commission (EC) CE

CONFIGURATION EXAMPLES



Example of scale settings screen as shown in HF-Impulse configuration software for the EFDR-0201A.



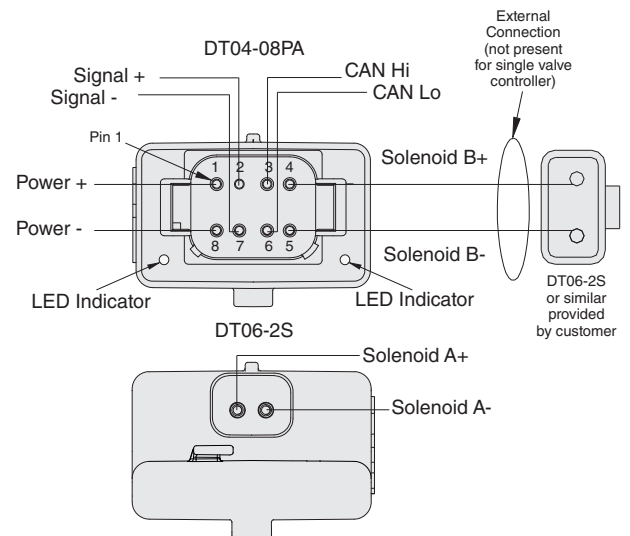
Example of fan reverse sequence screen as shown in HF-Impulse configuration software for the EFDR-0201A.

For Fan Drive Applications

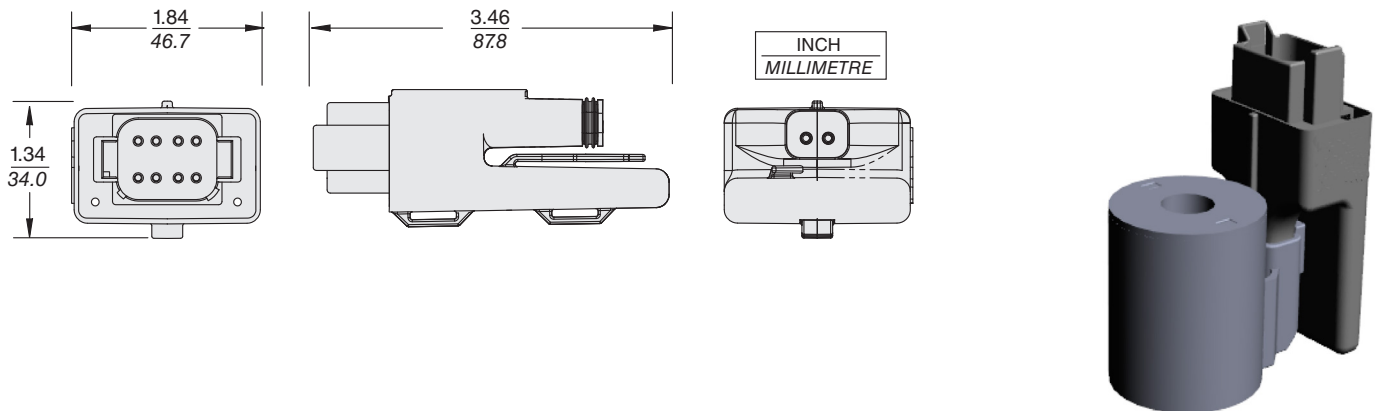
EFDR-0201A

CONNECTIONS & WIRING

Description	Interface	Pin	Mating Connector
Battery	Power + Power -	1 8	DT06-08SA
Voltage/Current/ Resistance/ Control Signal	Signal in Gnd	2 7	
CAN/J1939 Communication	CAN_HI CAN_LO	3 6	
External Solenoid	Sol B + Sol B -	4 5	
Integral Solenoid	Sol A + Sol A -	1 2	DT04-2P



DIMENSIONS & MOUNTING



EFDR-0201A Valve Driver shown installed on coil

TO ORDER

Dual/Single Valve Driver Model EFDR-0201A — Part No. **4204710**

EFDR-0201A Configuration Software - *HF-Impulse* - free download from www.hydraforce.com/electronics

Connector Kit - Part No. **4001955**

Test Harness: Part No. **4000304**

USB-CAN Adaptor: Kvaser Leaf Light (Part No. **4000371**) www.kvaser.com; ECAN-1 Wireless CANbus Interface, Part No. 4002768.

Temperature Sensor: ERT 120 (Part No. **4206200**); Mating Connector Kit for ERT 120 Temperature Sensor: Deutsch Model DTM06-2S (HF Part No. **4001970**)

IF CONVERTING FROM EFDR1 to EFDR-0201A:

Conversion Harness: Part No. **4000426**

Wiring instructions are available from www.hydraforce.com/electronics