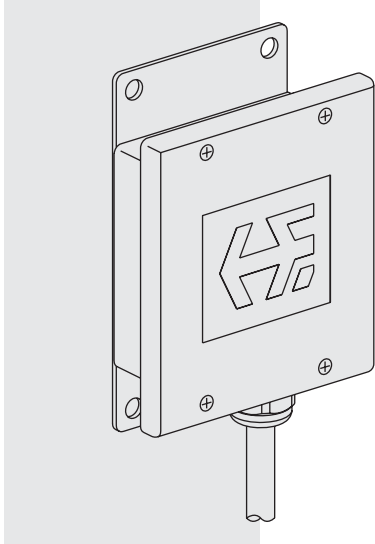


# Proportional Valve Controller—Metal Housing—



## DESCRIPTION *0–10 VDC Input*

A metal box-style control amplifier for controlling HydraForce proportional valves. The metal housing is IP67 rated. Remote mounting is required.

## OPERATION

This control module uses closed-loop current control with superimposed dither to supply a proportional valve solenoid with a proportional control signal. The input signal to this controller can be from a 0–10 VDC source.

## FEATURES

- Adjustments accessible under removable cover.
- LED indication of output power level, input level and power on/off.
- One unit covers supply voltages from 9 to 32 VDC.
- No internal fuses; circuit limits current electronically.
- Short circuit proof and reverse polarity protected.
- Can be disconnected from coil when powered.
- Maximum current adjustment does not affect minimum current setting.
- Filter eliminates electrical noise.
- Independent ramp adjustments.
- Dither frequency and amplitude are adjustable for maximum valve performance.

## RATINGS

**Supply Voltage:** 9–32 VDC

Coil rating must be matched with supply voltage:  $R_{COIL} \leq (V_{SUPPLY} - 1.5 V) / I_{MAX}$ .

**Control Input Signal:** 0–10 VDC

**Input Resistance:** 250K Ohms

**Output Current:** up to 1200 mA

**Minimum Current Range:** 0–150 mA, adjustable

**Maximum Current Range:** 400–12000 mA, adjustable

**Ramp Up and/or Down:** 0.01–5.0 seconds, independently adjustable

**Dither Frequency:** 70–350 Hz, adjustable

**Dither Amplitude:** 0–10% of maximum current, adjustable

**Operating Conditions:** –40° to 85°C; 0 to 85% relative humidity

## GENERAL SPECIFICATIONS

**Metal Housing:** Conformal coated; IP67 rated

**Weight:** Metal Box without cable: 400 g (14.1 oz.)

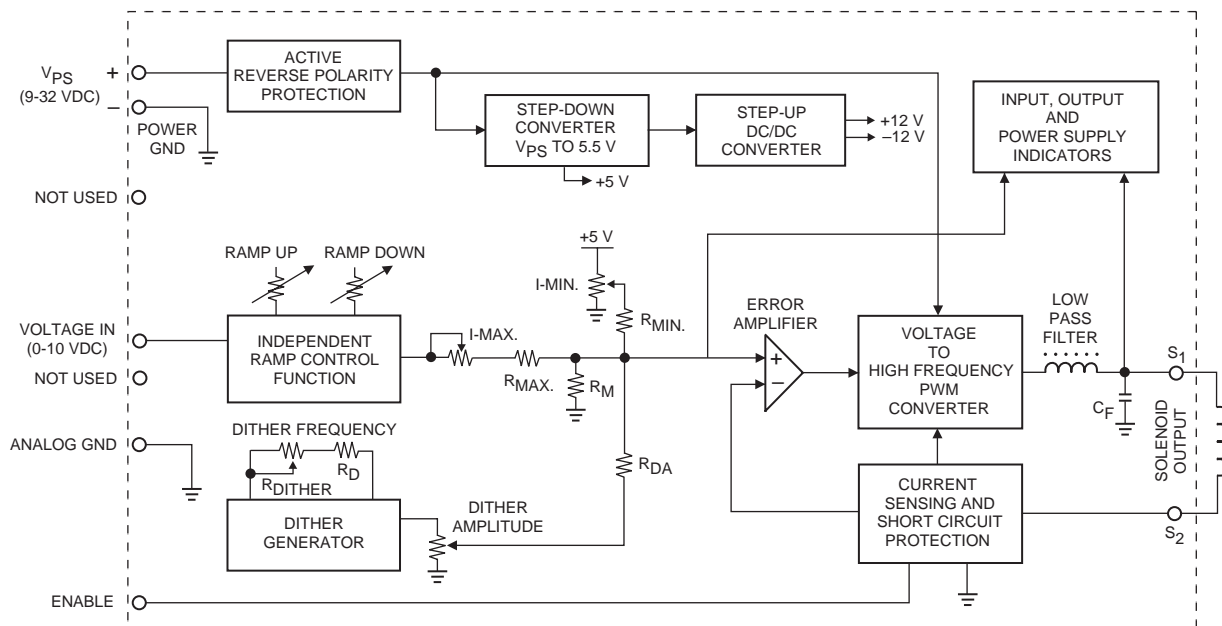
**Connections:** Mounted cable with unterminated wires provided; Length: Approx. 1.5 meters (59")

### CSA and CE Listings:

CSA C22.2 No. 14-M91

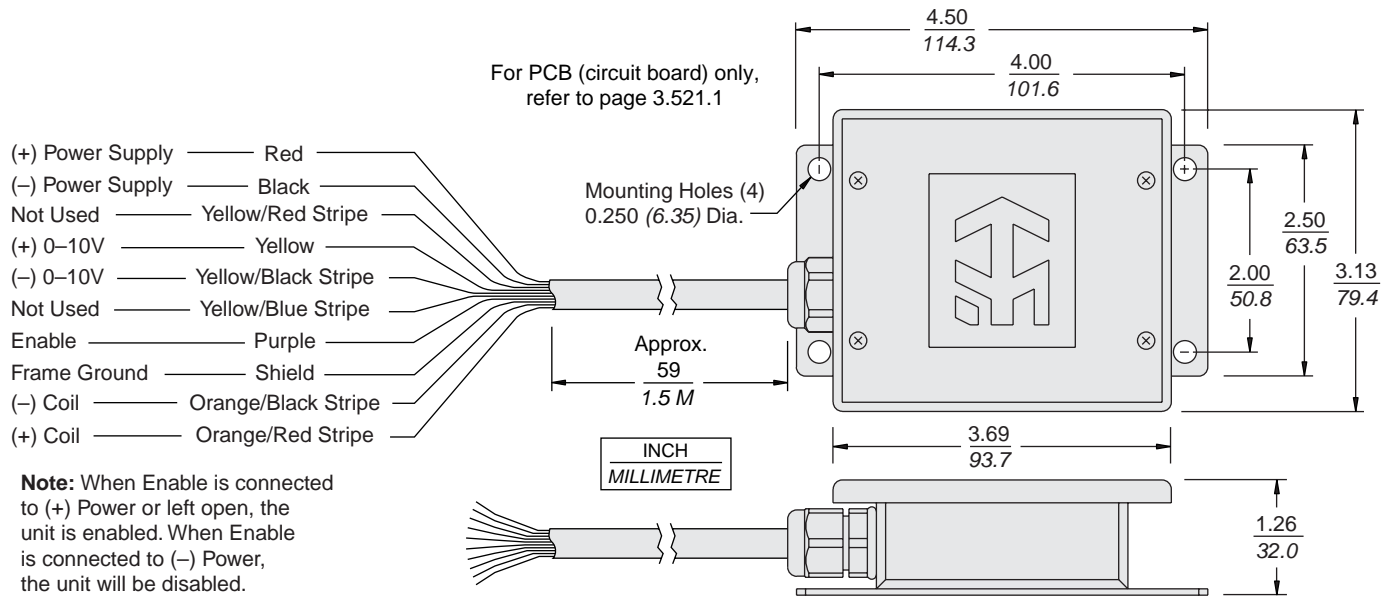
CE: EN 50081-2, EN50082-2

## SCHEMATIC



# 0-10 VDC Input

## DIMENSIONS



## CONNECTIONS

For Complete Set-Up Instructions, see page 3.439.1

**Basic Setup:** Controller is shipped with ramp trim pots fully counterclockwise to eliminate ramping. Use I-Min. screw to set minimum speed with minimum control input. Use I-Max. screw to set maximum speed with 100% of control input.

### 0 to 10 VDC Control

Supplied by User	Wire Color
(+) Power	Red
(-) Power	Black
Not Used	Yellow/Red Stripe
(+) 0-10V	Yellow
(-) 0-10V	Yellow/Black Stripe
Not Used	Yellow/Blue Stripe
Enable	Purple
Frame Gnd.	Shield
(-) Coil	Orange/Black Stripe
(+) Coil	Orange/Red Stripe

## TO ORDER

Part Number	Output	I-Min. Setting	I-Max. Setting
4000182	1200 mA Max.	0 to 150 mA	400 to 1200 mA