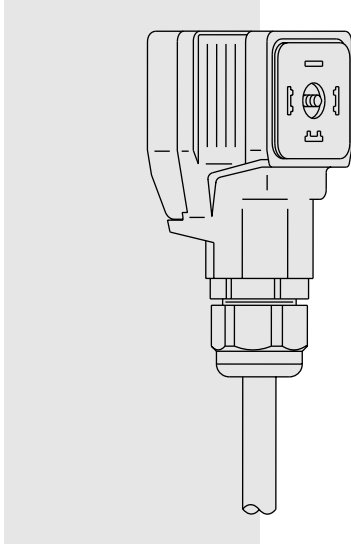


## Proportional Valve Controller—DIN Coil Mount—



### DESCRIPTION *0–10 VDC Input*

A convenient, plug-mounted control amplifier for controlling HydraForce proportional valves that have solenoids with DIN 43650A/ISO 4400 electrical connectors.

### 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

- Mounts directly to solenoid coils with DIN 43650A connectors.
- IP65 weather resistant when used with base gasket (supplied).
- Adjustments accessible with a removable cover.
- 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.
- Independent ramp adjustments and internal supply for potentiometer.
- 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:** 225K Ohms

**Output Current:** up to 2000 mA (see ordering info.)

**Minimum Current Range:** 0–500 mA (adjustable; see ordering info.)

**Maximum Current Range:** 600–2000 mA (adjustable; see ordering info.)

**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

**Environmental Protection:** IP65 with cover and base gasket installed

### GENERAL SPECIFICATIONS

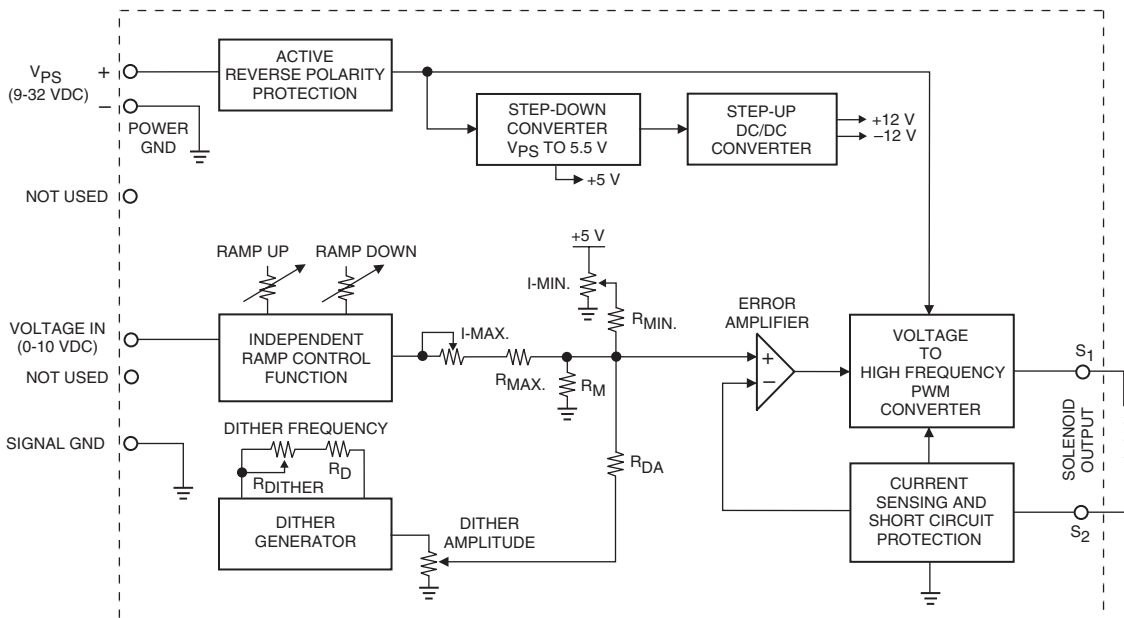
**Plug Housing:** Polyamide

**Plug Lid:** Polycarbonate

**Weight:** 30 g (1.06 oz.) without cable

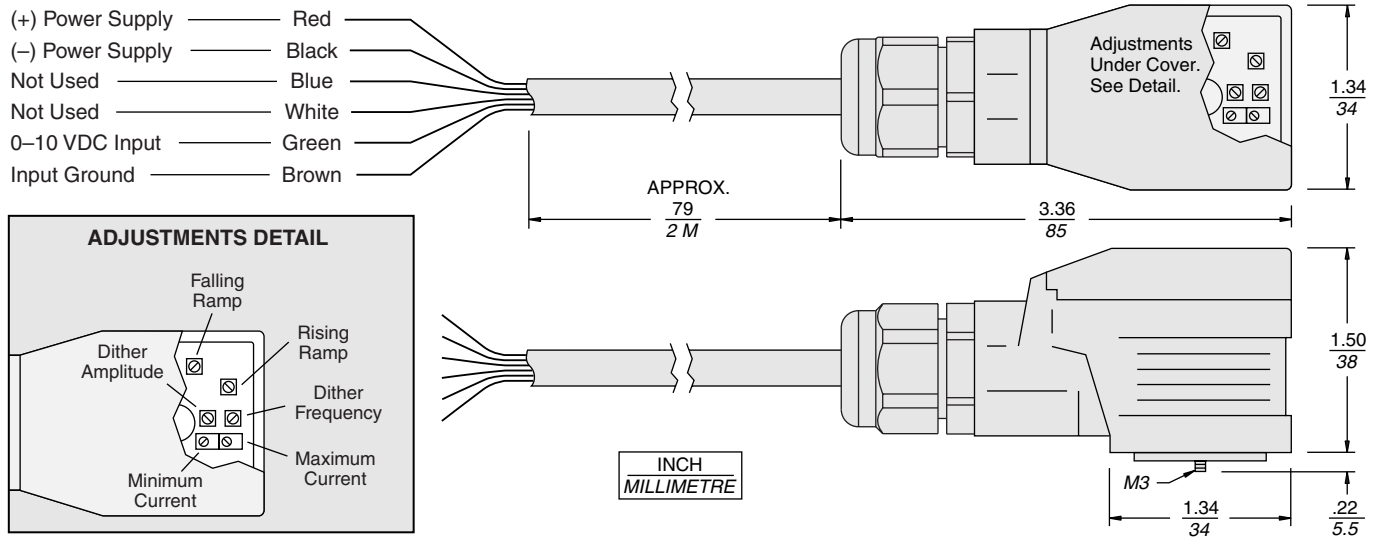
**Connections:** Mounted cable with unterminated wires provided; Length: approximately 2 meters (79")

### SCHEMATIC



# 0-10 VDC Input

## DIMENSIONS



## CONNECTIONS

For Complete Set-Up Instructions, see page 3.560.1

### Basic Setup:

Turn ramp screws 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	Blue
Not Used	White
(+) 0-10V	Green
(-) 0-10V	Brown

## TO ORDER

Part Number	Output	I-Min. Setting	I-Max. Setting	Cable Length
4000070	2000 mA Max.	0 to 500 mA	600 to 2000 mA	2 meters
4000165	1200 mA Max.	0 to 150 mA	400 to 1200 mA	2 meters