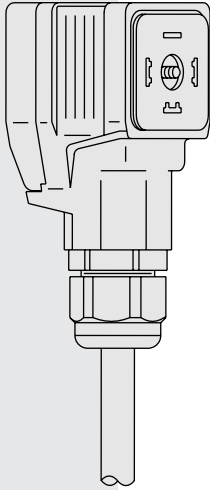


Proportional Valve Controller—DIN Coil Mount—



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.

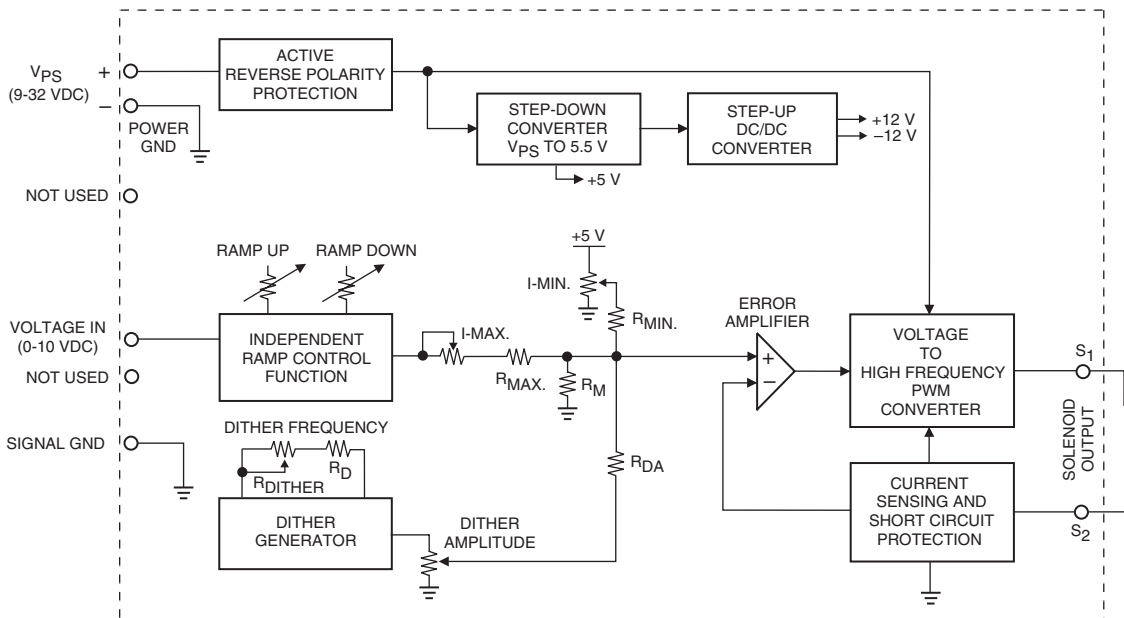
RATINGS

- 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

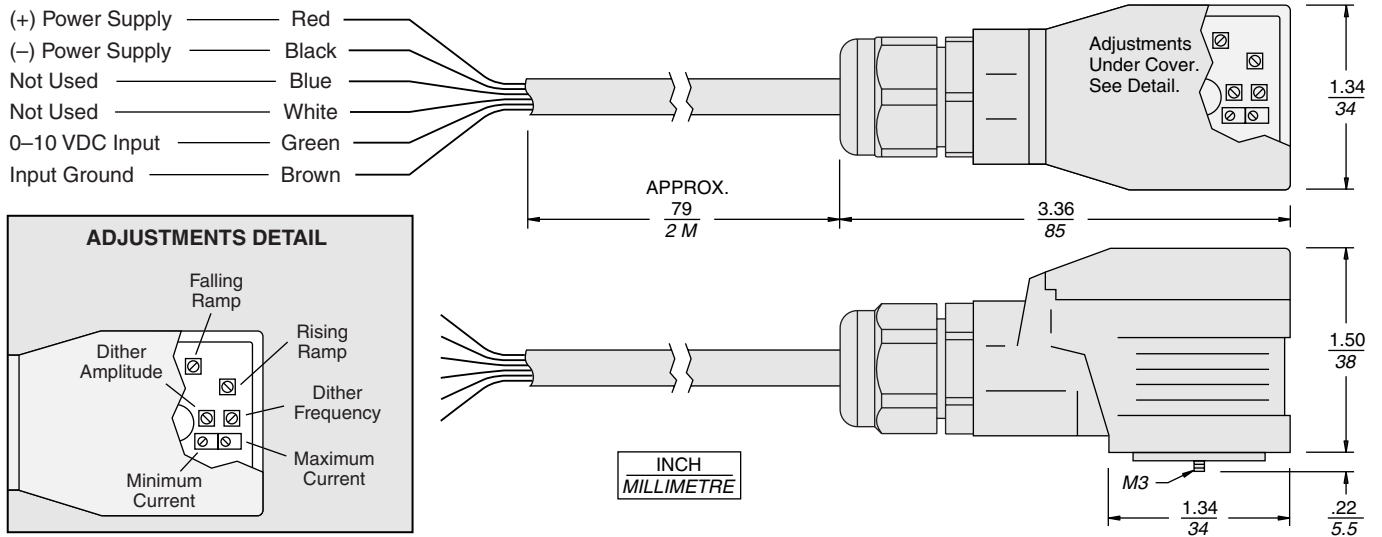
- Plug Housing:** Polyamide
- Plug Lid:** Polycarbonate
- Weight:** 30 g (1.06 oz.) without cable
- Connections:** Mounted cable with unterminated wires provided; Length: approximately 2 meters (79")

SCHEMATIC



0-10 VDC Input

DIMENSIONS



CONNECTIONS

For Complete Set-Up Instructions, see page 3.439.1

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 |