

Product Overview

The C2 is an advanced analog controller for proportional valves and voice-coil type motors. It provides flexible PID with feed forward tuning of closed-loop systems. It is primarily used in conjunction with Enfield Technologies' proportional pneumatic valves. The C2 has a fully analog foundation to provide real time, high fidelity control. A digital graphical user interface with LCD and push-buttons provide easy user control. The system also has provisions for special factory configuration to communicate with industrial and digital networks. The C2 is available with an on-board driver (C2d) or as a controller-only (C2s).



C2 Pneumatic Systems Controller

Features

- Digital/Analog hybrid electronics PID w/ feed-forward
- Integrator reset (Anti-windup)
- Graphical user interface
 - Backlit white-on-blue LCD display
 - Membrane keypad:
 - 4 soft-keys, increase/decrease, valve disable
 - Adjustable displayed units of measure
 - Easy-to-use menu structure
- Save and Recall up to 10 Gain Settings
- Ramp generator for basic profiles
- Optional onboard valve driver
 - Highly efficient PWM
- Adjustable Deadband
- Adjustable dither frequency & amplitude
- Independent signal scaling for flexible and command input options
- Function-Specific, Proprietary Cables
- Adjustable Units of Measure
- Local Power Switch
- Available ± 10 Vdc Feedback Reference

Typical Applications

- High-Performance Pneumatic Systems:
 - Position Control
 - Motion/Speed Control
 - Flow Control
 - Force Control
 - Pressure Control
- Voice coil Actuator
- DC motor controller

Industries

- Laboratory Test & Measurement
- Industrial Automation
- Animatronics
- Medical Equipment/Devices
- Analytical Devices

Available Models:

C2s = Pneumatic Device Controller *without* optional onboard valve driver

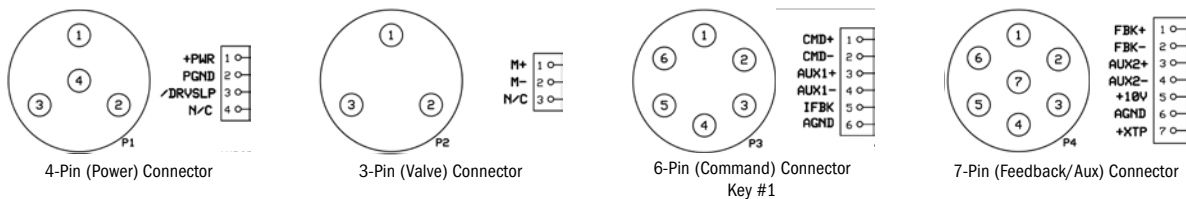
C2d = Pneumatic Device Controller *with* optional onboard valve driver

Specification	Value	
Physical Characteristics	SI Units	Imperial Units
Mass (Weight)	0,455 kg	(16 oz)
Approximate Physical Dimensions (L x W x H)	166 mm x 111 mm x 55 mm	6.54" x 4.37" x 2.17"
Materials	Anodized Aluminum (6060), ABS Plastic, and Electronic Components	

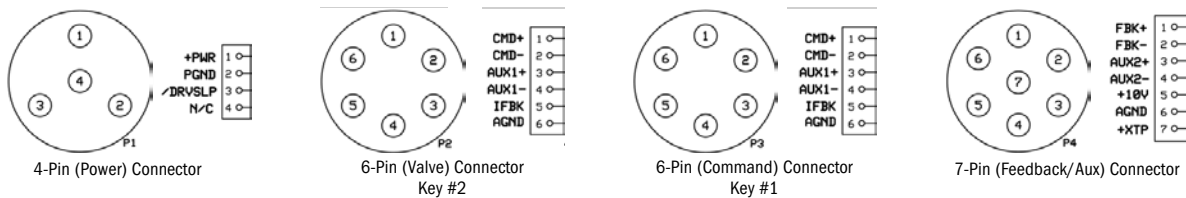
Electrical Characteristics		
Power (maximum output wattage)	30W Max	
Current	1.0A Max	
Supply Voltage	18 to 36Vdc, 24 Vdc Nom.	
Input Impedance	120 kΩ	
Electrical Connections	Alden PL500 3-Pin (Valve) ¹ Alden PL500 4-Pin (Power) ¹ Alden PL500 6-Pin (Command–Key #1, Valve–Key#2) ¹ Alden PL500 7-Pin (Feedback/Aux) ¹	
Input Signal Ranges	-10 Vdc to 10 Vdc -5 Vdc to 5 Vdc 0 Vdc to 5 Vdc 0 Vdc to 10 Vdc 0 mA to 20 mA 4 mA to 20 mA	
Output Signals	0 to 5 Vdc Command Effort	
Optional Valve Driver (C2d models)	PWM @ Supply Voltage 39 kHz 40 Hz to 4.0 kHz ±1.25 A Max	

Environmental Characteristics		
Environmental Protection Class	IP45 (IEC 60529)	
Temperature	0°C – 70°C	32°F – 158°F
Humidity	5% - 65% RH	

C2d Electrical Connections (with motor driver)



C2s Electrical Connections (without motor driver)



¹ Interconnect with proprietary, function-specific M2 cables from Enfield Technologies (sold separately).