Electronic Controller

The Bimba Electronic Controllers provide 10 VDC regulated power to the Position Feedback Cylinder. Four models are available for AC or DC input and voltage or current output. Each controller offers both dual set point and scaled analog output functions. The controllers are strictly analog in nature and are **not** closed loop motion controllers.

The Bimba electronic controller is ideal for applications where:

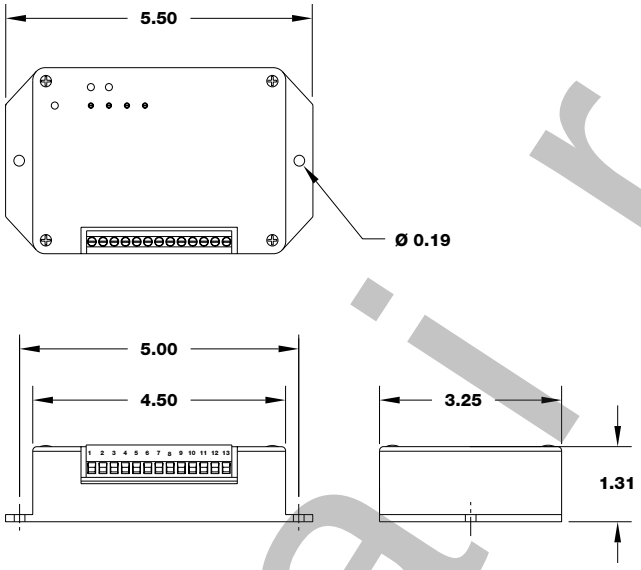
- The main system controller being used to interface with the PFC does not have the required 1 Mohm input impedance.
- The application requires a fast responding scalable analog output signal.
- Accuracy is not a key consideration (± 0.030" or higher).
- The customer desires to cycle between two variable set points without needing to stop and hold a position.

Typical applications include web tensioning or dancer arm control. The Bimba electronic controller would be used as an interface between the PFC cylinder and the customers web tensioning or dancer arm controller.

Model	Input Power	Scalable Output
120AC4-20mA	120 VAC	4 - 20 mA
120AC0-10DC	120 VAC	0 - 10 VDC
12/24DC4-20mA	12-24 DC	4 - 20 mA
12/24DC0-10DC	12-24 DC	0 -10 VDC

Bimba Electronic Controller

Dimensions



Electronic Controller Specifications

Auxiliary Power Requirement:
- AC Models ..... 100 to 135 VAC (115 VAC Input)
  200 to 270 VAC (230 VAC Input)
- DC Models ..... 11.8 to 26 VDC (12/24 VDC Input)

Power Requirement:
- AC Models ..... 5 VA maximum (120 to 230 VAC)
- DC Models ..... 1.2 VA maximum (12 VDC)
  2.4 VA Max (24 VDC)

Frequency Range ..... 50/60 HZ

Transducer Excitation Voltage ..... 10 VDC (Nominal)

Electrical Connections ..... 13 position Euro Style terminal block

Dielectric Strength:
- AC Models ..... 2000 VAC (All Inputs to all Outputs)
  2000 VAC (Terminals to case)
- DC Models ..... 2000 VAC (All Inputs to relay Outputs)
  2000 VAC (terminals to Case)
- Note: The Negative power supply connection is common to the analog signal output.

Transient Protection ..... All inputs and outputs are designed to withstand transient energy levels normally associated with Category III service locations as defined by IEC 644. Industrial installations that are typical of this environment would include most distribution, feeder or branch circuit connections that are not located at the immediate service entrance.

Shipping Weight ..... Approx. 12 oz.

Operating Temperature Range ..... (-30°C to +70°C) -22°F to 160° F
(0°C to +70°C) 32°F to 160° F for 12 VDC Operation

Storage Temperature Range ..... (-40°C to +85°C) -40°F to 185° F

Enclosure Dimensions ..... 1.31" H x 5.50" W x 3.25" D

Electronic Controller Specifications

Position Feedback Control Module

Unless noted otherwise:

Ambient Temperature	=	(25°C) 77°F Nominal
Aux Power (AC Models)	=	120 VAC, 60 HZ
Aux Power (DC Models)	=	24 VDC

Relay Outputs

Control Limit Set Point Range ..... 2 independent adjustments settable from 0 to 100% of cylinder stroke

Temperature Influence on Control Limits .....±0.01% stroke /°C (-30°C to +70°C)

Output Contact Ratings .....5 A, 250 VAC, 0.8 power factor (general use)
5 A, 30 VDC (resistive)
360 VA, 240V, 0.4 power factor (Pilot Duty)

Output Contact Configuration.....2 independent form C (SPDT) relays
Each relay has a corresponding control limit set point adjustment

Response Time (Excluding Bounce)

Operate Time	=	8 mS TYP/12 mS maximum
Release Time	=	4mS TYP/6 mS maximum

Mechanical Life ..... 20,000,000 operations minimum

Analog Outputs

Output Load Specifications ..... 0 to 10 VDC @ 10 mA maximum
4 to 20 mA @ 500 Ω maximum loop resistance
350 Ω for 12 VDC input

Zero Offset Adjustment Range ..... ±5V (10 VDC output)
±8mA (4 to 20 mA output)

Gain Adjustment Range ..... From 0.5 to 2.0 times input signal

Output Limits ..... 13v typical (10 VDC output)
25mA typical (4 to 20 mA output)

Temperature Influence on Analog Output ..... <±0.02% Full Scale Output /°C (-30°C to +70°C)

Output Ripple ..... <0.2% of Full Scale Output

Response Time (0 to 90% of final value)

0 to 10 VDC	=	2mS TYP/3 mS maximum
4 to 20 mA	=	2 mS TYP/3 mS maximum