PIDA700 Controller

The PIDA700 Controller replaces the obsolete Foxboro 61H and 62H controllers. The PIDA700 output is a configurable function of the difference between the input(s) and a setpoint (dial, internal, or external).

The PIDA700 is a solid-state analog amplifier that provides a selectable combination of proportional, reset (integral), and/or derivative control capabilities. The new Version 5 PIDA700 provides a printed circuit configuration card in place of the earlier wiring array, and has zero drift in Manual Mode. Internal jumpers and the configuration card allow the PIDA700 to match the operation of virtually any of the Foxboro 61H or 62H controllers.

MODULE ASSEMBLIES

FEATURES and OPTIONS

- Configuration card (replaces Version 4 wiring array)
- Fast/slow control in manual with no-drift feature
- Custom setpoint dial markings (see below)
- Balanceless-bumpless AUTO/MANUAL transfers
- Range Switches for improved adjustment sensitivity
- Reset and Derivative On/Off switches for easier tuning
- Output meter, Deviation, or Process meter
- Derivative or Lag action on process changes only
- Mode Panel located on the side of the controller
- Batch control circuitry with adjustable limits

- Configuration can match OEM pinouts and functions
- Input(s): one, two, or three; type; and range
- Output range and filters
- Deviation signal output
- Proportional Only or PRD modes
- Lag function in place of Derivative function
- Tracking (Repeater) mode with remote enable
- External Auto/Manual select, indicating contacts
- Setpoint: dial, internal pot, external pot or voltage
- Standard or custom setpoint range
NUSI 500 Series
Proportional, Integral, & Derivative Controller

SETPOINT DIAL MARKING OPTIONS (others available)

/A02  /A03  /A06  /A11

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Power Supply Voltage:</td>
<td>85 to 132 Vac, 47 to 63 Hz; or 110 to 170 Vdc</td>
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<td>Voltage Effects:</td>
<td>Less than 0.25% within the specified voltage range</td>
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<td>Power Consumption:</td>
<td>27 W, 50 VA (maximum)</td>
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<td>Accuracy:</td>
<td>Within 0.5% of setpoint dial position</td>
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<td>Repeatability:</td>
<td>Better than 0.25% of output span</td>
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<tr>
<td>Time Response:</td>
<td>Less than 20 ms with filters bypassed</td>
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<td>Surge Withstand:</td>
<td>No damage when the waveform of IEEE-472-1994 is applied</td>
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<tr>
<td>Ambient Temperature:</td>
<td>40 °F to 122 °F (5 °C to 50 °C) (operating)</td>
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<tr>
<td></td>
<td>−40 °F to 185 °F (−40 °C to 85 °C) (storage)</td>
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<tr>
<td>Temperature Effects:</td>
<td>Less than 0.5% within the specified temperature range</td>
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<tr>
<td>Relative Humidity:</td>
<td>0% RH to 95% RH, non-condensing</td>
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<tr>
<td>Pressure:</td>
<td>Atmospheric</td>
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HOW TO ORDER

The model number and configuration typically should be specified as follows:

Example: PIDA700-1/A02

700-“x” selects the module assembly (default: “-1”; see diagrams on the opposite side of this sheet)

Add “/1” to include the optional Loop Power Supply (default: no LPS)
Add “/Ann” to select the setpoint dial marking (default: “/A02,” = scale of 0 to 100)
Add “/Cnn” to select the appropriate configuration card

Specify additional configuration as needed.