

## Panelicity® Series 36

Process Automation Control Made Simple  
Panel Controller 1/2 DIN (3x6)



**Panelicity® Series 36** is a powerful process panel controller in a small package with pre-defined displays, alarms, trends, and standard industrial control strategy templates. It simplifies new installations and provides updated technology for upgrades of older panel controllers.

Implement one or multiple temperature, pressure, flow, or level control loops with just one slim, 1/2 DIN (3x6) controller. This unit mounts easily and is used in areas with depth restrictions.

## Reasons to Choose Panelicity:

- Easy Installation and Configuration
- Low Total Cost
- Integrated Ethernet/Web Access
- Applications Library
- Toolkit Software for custom application development for applications not included in our standard Applications Library

## Cost Effective

**Panelicity®** saves you money. Simple, intuitive menus allow all entries from the display with minimal operator training.

Classic Automation provides the support you need with an industry leading 2-year warranty.

## Technology

- Full color touch screen with integrated PLC
- Field proven hardware with an installed base of 6,000+ units worldwide
- Advanced features such as trending and data alarm logging
- Secure backups on a USB flash drive
- Implement up to four (4) PID loops in a single controller

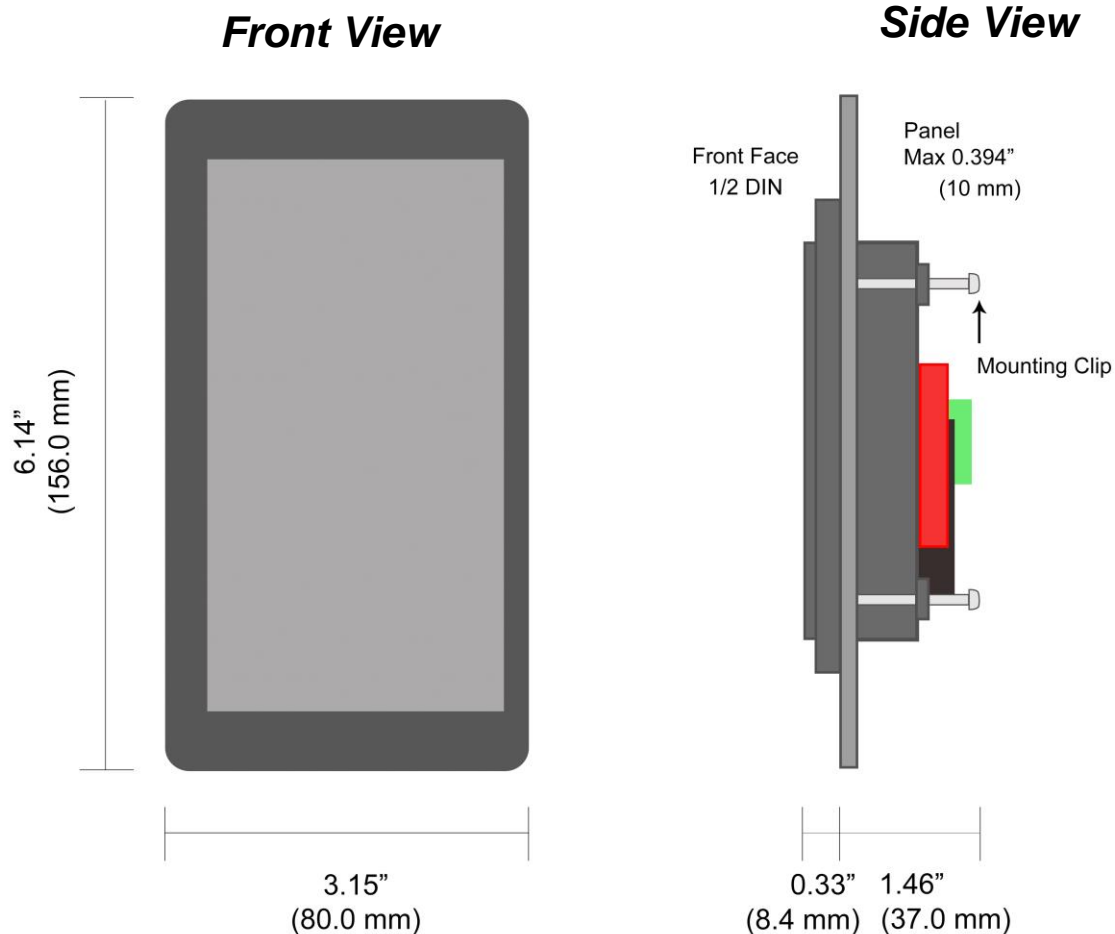
## Easy Installation

The **Panelicity**<sup>®</sup> 1/2 DIN controller extends less than 2 inches into the panel for use in areas with depth restrictions. Panel depth is 2.25 inches with an ethernet cable attached.

### Migration to **Panelicity**<sup>®</sup>

Simply replace your existing 1/2 DIN (3x6) controllers and migrate your current configurations. Trade-in a wide variety of panel controllers for credit towards a new Panelicity or send in your existing controller for repair.

## Controller Installed In Panel



A simple cutout in your panel is all that is required to install **Panelicity**<sup>®</sup>.

The controller draws low power, consuming under 500mA. The unit is slim and mounts easily. A 24V power supply is required and is an available option when ordering.

## Applications

**Panelicity**<sup>®</sup> is easy to configure for most applications using standard control strategies. Custom software is usually not required.

**Typical applications for *Panelicity*<sup>®</sup> include:**

- Industrial temperature, pressure, flow, level control
- Boiler combustion control
- Boiler level and feed water flow control
- Chemical liquid blending control for paint, inks, dyes, etc.
- Pressure control for critical loops
- Many others

## Panelicity Applications Library

### Panelicity Standard Applications

No programming is required for applications that can use the following standard Factory Configured Options (FCOs):

- Single Loop Control with Tracking Setpoint
- Single Loop Control with Fixed Setpoint
- External Set Control with Tracking Local Setpoint
- External Set Control with Non-Tracking Local Setpoint
- Ratio Set Control with Operator Setpoint Limits
- Single Loop Control with Operator Setpoint Limits
- Dual Loop Control
- Cascade Control
- Cascade Control with Operator Setpoint Limits

## Optional Applications

Data quality and process alarming are built-in features for all applications.

### Drum Control

- **Two Element Boiler Drum Level Control**

Boiler drum level is maintained. Moderate variations in steam flow are tolerated. Drum level is controlled with feedforward from the steam flow sensor.

- **Three Element Boiler Drum Level Control**

Boiler drum level is maintained. Large variations in steam flow are tolerated. Drum level is controlled by cascade with boiler feedwater flow controller and feedforward control from steam flow sensor.

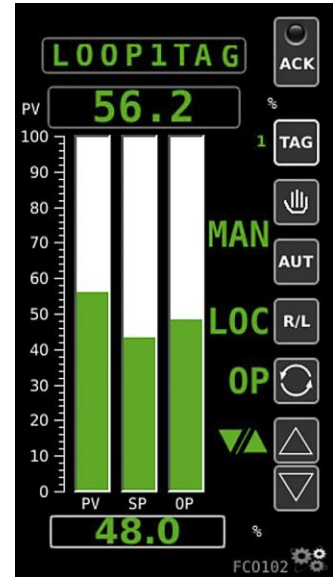
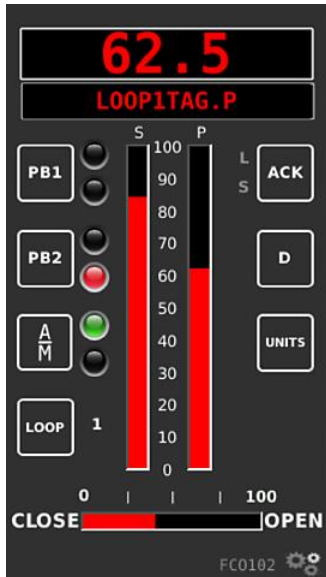
### Tank/Sump Level Control

Tank/Sump level (up to three pumps) is maintained by turning pumps on and off with input from a level transmitter or float switches. Signal can be automatically changed to float switches upon loss of the level transmitter signal. Pump up (fill) or pump down (drain) is user selectable. Simplex, Duplex, or Triplex control is available. Data quality and process alarming are built-in features.

### Customized Applications

Work with us to customize and install your Panelicity controller. Classic Automation provides engineering services to assist you with development or a complete turn-key solution. We offer Toolkit Software which includes a function library based on the Moore 352/353 libraries.

## Operator Interface



The **Panelicity**<sup>®</sup> displays feature intuitive icons for navigating menus compared to traditional 1/2 DIN (3x6) Controllers. Typical setup parameters such as I/O types, ranges, and PID parameters are logically organized without the need to learn special software. Up to 4 alarms and 5 digital outputs can be defined for each control loop. Control templates have a data entry table to document your settings for back-up. Security access authority is provided to eliminate unauthorized field changes.

## Ordering Structure

TPAC100704A **A** 4T624Vu1CA

Model ( **A** or **B** )

Model A I / O	Configurations Inputs / Outputs
2	Analog Inputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA, PT100, J, K, T, S, B,R
2	Analog Outputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA
5	Digital Outputs

Model B I / O	Configurations Inputs / Outputs
2	Analog Inputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA, PT100, J, K, T, S, B, R
2	Analog Outputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA, PWM
2	Analog Outputs 0-10V, 2-10V, 1-5V, PWM
1	Digital Input
8	Programmable Digital Inputs / Outputs
3	Analog Inputs 0-10V, 2-10V, 1-5V

## Model A

# TPAC100704A **A** 4T624Vu1CA

Preprogrammed for standard control strategies

Number of I / O	Configurations Inputs / Outputs
2	Analog Inputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA, PT100, J, K, T, S, B,R
2	Analog Outputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA
5	Digital Outputs

### Part Number:

**TPAC100704A**A**4T624Vu1CA**

Controller w/ Integrated I/O  
Touch-Screen 4.3", Vertical  
2 AI 0-10V, 2-10V, 1-5V, 0-20mA, 4-20mA, PT100, TC  
2 AO 0-10V, 2-10V, 1-5V, 0-20mA, 4-20mA  
5 DO PNP



## Model B

# TPAC100704A **B** 4T624Vu1CA

Use for Applications that require additional I/O functionality not available in the nine standard control template strategies.

Number of I/O	Configurations Inputs / Outputs
2	Analog Inputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA, PT100, J, K, T, S, B, R
2	Analog Outputs 0-10V, 2-10V, 1-5V, 0-20 mA, 4-20 mA, PWM
2	Analog Outputs 0-10V, 2-10V, 1-5V, PWM
1	Digital Input, PNP or NPN
8	Programmable Digital Inputs/Outputs, PNP
3	Analog Inputs, 0-10V, 2-10V, 1-5V

### Part Number:

**TPAC100704A **B** 4T624Vu1CA**

Controller w/ Integrated I/O  
Touch-Screen 4.3", Vertical  
2 AI 0-10V, 2-10V, 1-5V, 0-20mA, 4-20mA, PT100, TC  
2 AO 0-10V, 2-10V, 1-5V, 0-20mA, 4-20mA, PWM  
2 AO 0-10V, 2-10V, 1-5V, PWM  
1 Digital Input PNP or NPN  
8 Programmable DI/DO PNP  
3 AI 0-10V, 2-10V, 1-5V

## Accessories

### Part Numbers:

**CA-ACIN01**

5 Double-Throw Relay Output Module

**CA-CAB-11604**

Female A to Micro A – 4” Cable

**CA-TSVL 5-24-100**

24 VDC Power Supply, 5 AMP

**CA-TSVL 2-24-100**

24 VDC Power Supply, 2 AMP

**CA-BACKUP-DRIVE**

USB Flash Drive with CA Software, 8 GB

## Controller Technical Specifications

<b>Power Supply Voltage</b>	12-28VDC
<b>Power Consumption</b>	<500mA
<b>Operating Temperature</b>	32°F (0°C) to 131°F (55°C)
<b>Storage Temperature</b>	-4°F (-20°C) to 185°F (85°C)
<b>Relative Humidity</b>	5% to 95% non-condensing
<b>Front Face Rating</b>	IP65 (water resistant)
<b>Housing</b>	ABS, Polycarbonate
<b>Touchscreen</b>	Resistive, 4 wires
<b>Micro-USB</b>	Host 2.0
<b>MODBUS TCP</b>	Master/Client <i>Standard configuration allows Slave functionality</i>
<b>Panel Cutout</b>	Width 2.65" (68mm) x Height 5" (127mm)
<b>Controller Dimentions (Including Bezel)</b>	Width 3.15" (80mm) x Height 6.14" (156mm) x Depth 1.46" (37mm)  <i>*Depth is the depth behind the panel. An additional 0.25" is needed for use with Ethernet cable.</i>
<b>Ethernet</b>	10M / 100Mbit/s - auto recognition Supports patch or crossover cable
<b>Approvals</b>	CE, UL (IP65, 60730)

Analog Inputs, Universal (2)	
Type	Current
Input Range	0 to 20 mA
Resolution	0.005 mA
Impedance	8 ohm
Type	Current
Input Range	4 to 20 mA
Resolution	0.005 mA
Impedance	8 ohm
Type	Voltage
Input Range	0 to 10 VDC
Resolution	0.003 V
Impedance	500 kΩ
Type	Voltage
Input Range	2 to 10 VDC
Resolution	0.003 V
Impedance	500 kΩ
Type	Voltage
Input Range	1 to 5 VDC
Resolution	0.003 V
Impedance	500 kΩ
Type	T/C Type K
Input Range	32° F (0° C) to 2,192° F (1,200° C)
Resolution	1.8°F (1°C)
Cold Junction Compensation	Yes
Type	T/C Type T
Input Range	32° F (0° C) to 752° F (400° C)
Resolution	1.8°F (1°C)
Cold Junction Compensation	Yes
Type	T/C Type S
Input Range	32° F (0° C) to 2,912° F (1,600° C)
Resolution	1.8°F (1°C)
Cold Junction Compensation	Yes

Type	T/C Type B
Input Range	1,112° F (600° C) to 3,272° F (1,800° C)
Resolution	1.8°F (1°C)
Cold Junction Compensation	Yes
Type	T/C Type R
Input Range	32° F (0° C) to 2,732° F (1,500° C)
Resolution	1.8°F (1°C)
Cold Junction Compensation	Yes
Type	RTD, PT100E
Input Range	-40° F (-40° C) to 1,472° F (800° C)
Resolution	1.8°F (1°C)
Type	RTD, PT100R
Input Range	-40° F (-40° C) to 392° F (200° C)
Resolution	0.18°F (0.1°C)

Analog Outputs, Universal (2)	
Type	Current
Input Range	0 to 20 mA
Resolution	0.01 mA
Max Load Impedance	400 ohm
Type	Current
Input Range	4 to 20 mA
Resolution	0.01 mA
Max Load Impedance	400 ohm
Type	Voltage
Input Range	0 to 10 VDC
Resolution	0.01 V
Min Load Impedance	1kΩ
Type	Voltage
Input Range	2 to 10 VDC
Resolution	0.003 V
Impedance	500 kΩ
Type	Voltage
Input Range	1 to 5 VDC
Resolution	0.01 V
Min Load Impedance	1kΩ

Digital Outputs, (5)	
Type	PNP
Max Current Load	200 mA

Calibration configuration allows you to specify a smaller operating range for calibration for certain input types to achieve increased accuracy of the input.

## Industrial Control Strategy Templates

FCO101	Single Loop Control w/ Tracking Setpoint
FCO102	Single Loop Control w/ Fixed Setpoint
FCO103	External Set Control w/ Tracking Local Setpoint
FCO104	External Set Control w/ Non-Tracking Local Setpoint
FCO105	Ratio Set Control w/ Operator Setpoint Limits
FCO106	Single Loop Control w/ Operator Setpoint Limits
FCO107	Dual Loop Control
FCO121	Cascade Control
FCO122	Cascade Control w/ Operator Setpoint Limits

*Experience the Simplicity*