

Selec PIC101A

Selec PIC101A Digital Process Indicator User Manual

1. INTRODUCTION

The Selec PIC101A is a micro-controller based 4-digit process indicator designed for precise measurement and display of various industrial process parameters. This device accepts multiple input types and features two programmable setpoints with individual relays for control applications. This manual provides essential information for the safe and efficient installation, operation, and maintenance of your PIC101A Digital Process Indicator.

2. PRODUCT OVERVIEW

The PIC101A is engineered for reliability and ease of use in industrial environments. Key features include:

- **Display:** A clear 4-digit, 7-segment digital display for process value indication.
- **Control Keys:** Three intuitive keys for digital setting and configuration.
- **Input Versatility:** Supports multiple input types including Voltage (0-10V DC) and Current (0-20mA & 4-20mA DC).
- **Programmable Setpoints:** Two independent setpoints with individual relay outputs for process control.



This image displays the front panel of the Selec PIC101A Digital Process Indicator. It features a black casing with the 'Selec' logo on the left and 'PIC101' on the right. The central element is a bright red 4-digit, 7-segment LED display, currently showing '101.0'. Below the display are three orange push-buttons: a square button on the left, a downward-pointing triangle in the middle, and an upward-pointing triangle on the right. These buttons are used for configuration and operation.

3. SPECIFICATIONS

Parameter	Specification
Display	4-digit, 7-segment digital display
Keys	3 keys for digital setting
Input Type (PIC101A-VI-230)	Voltage: 0 - 10V DC; Current: 0 - 20mA & 4- 20mA DC
Sampling Time	250 ms
Input Filter (FTC)	0.2 to 9.9 sec
Resolution	Decimal point position selectable: 1/0.1/0.01/0.002
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 75°C (-4°F to 167°F)
Humidity (non-condensing)	95% RH
Supply Voltage	230V AC ± 20%, 50/60 Hz
Power Consumption	5VA max @230V AC
Indication Accuracy (PIC101A-VI-230)	±0.5% of F.S., ±1 digit (F.S. = Full Scale)

4. SETUP AND INSTALLATION

Proper installation is crucial for the accurate and safe operation of the PIC101A. Always ensure power is disconnected before beginning installation.

4.1 Safety Precautions

- Ensure all wiring is performed by qualified personnel.
- Verify correct voltage and current ratings before connecting power.
- Avoid installing the device in areas with excessive vibration, moisture, or extreme temperatures outside the specified operating range.
- Ensure adequate ventilation around the unit.

4.2 Mounting

The PIC101A is designed for panel mounting. Cut a suitable opening in the control panel according to the device's dimensions. Secure the unit using the provided mounting clamps.

4.3 Wiring

Refer to the wiring diagram provided with the product packaging for specific terminal connections. General wiring guidelines:

- **Power Supply:** Connect the 230V AC supply to the designated power terminals.
- **Input Signal:** Connect your process sensor (voltage or current output) to the appropriate input terminals. Ensure correct polarity for DC signals.
- **Relay Outputs:** Connect control circuitry to the relay output terminals. Note that these are potential-free contacts.
- Ensure all connections are tight and secure to prevent intermittent operation or damage.

5. OPERATING INSTRUCTIONS

Once installed and wired, the PIC101A is ready for operation. The device's functions are controlled via the three front panel keys.

5.1 Power On

Apply power to the unit. The display will illuminate and show the current process value after a brief self-test sequence.

5.2 Reading the Display

The 4-digit display shows the measured process value. The decimal point position can be configured as per the resolution setting.

5.3 Setting Parameters

The three keys (typically 'Set', 'Up', 'Down' or similar functions) are used to navigate menus and adjust parameters such as:

- **Input Type:** Select between voltage or current inputs.
- **Scaling:** Adjust the display range to match your sensor's output and desired engineering units.
- **Decimal Point:** Configure the position of the decimal point.
- **Setpoints:** Program the two independent setpoint values for relay activation.
- **Hysteresis:** Set the hysteresis for relay operation to prevent rapid switching.
- **Input Filter:** Adjust the filter time constant to stabilize readings in noisy environments.

Consult the detailed programming guide (usually supplied with the product) for specific menu structures and parameter

adjustment procedures.

6. MAINTENANCE

The Selec PIC101A is designed for minimal maintenance. Regular checks can help ensure its longevity and accurate performance.

6.1 Cleaning

Clean the front panel with a soft, damp cloth. Do not use abrasive cleaners, solvents, or harsh chemicals, as these can damage the display or casing. Ensure no liquid enters the device.

6.2 Environmental Conditions

Ensure the operating environment remains within the specified temperature and humidity ranges. Excessive dust or corrosive atmospheres can affect performance over time.

6.3 Internal Components

The device contains no user-serviceable parts. Do not attempt to open or repair the unit, as this will void the warranty and may expose you to electrical hazards.

7. TROUBLESHOOTING

If you encounter issues with your PIC101A, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Display is blank or off	No power supply; Incorrect wiring; Blown fuse (internal)	Check power connections and voltage. Verify wiring. If fuse is suspected, contact support.
Incorrect or fluctuating readings	Incorrect input type setting; Sensor malfunction; Loose input wiring; Electrical noise; Incorrect scaling	Verify input type setting. Check sensor operation. Inspect input wiring. Increase input filter (FTC) setting. Re-check scaling parameters.
Relay not activating	Setpoint not met; Incorrect setpoint value; Hysteresis setting too wide; Relay output wiring issue; Relay malfunction	Verify process value relative to setpoint. Check setpoint and hysteresis settings. Inspect relay output wiring. If relay is faulty, contact support.
Keys unresponsive	Temporary software glitch; Physical damage to keys	Cycle power to the unit. If problem persists, contact support.

If the problem persists after attempting these solutions, please contact customer support for further assistance.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the documentation provided with your purchase or contact your authorized Selec distributor or reseller. Ensure you have your product model number (PIC101A) and purchase details available when contacting support.

For additional resources and product information, you may visit the official Selec website or contact Instrukart Holdings, the seller, for assistance.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question