

# UDC 6300 Process Controller



# UDC 6300 – Compact, Powerful and Easy to Use

The UDC 6300 is Honeywell's easy-to-use, yet powerful process controller. From stand-alone control to a solution fully digitally integrated with Honeywell's SCAN 3000 or TDC 3000<sup>x</sup> distributed control systems, the UDC 6300 is suited for a variety of applications.

The UDC 6300 provides all the power you need in a process controller, yet it's easy to configure, install and operate. Designed to handle continuous process applications, the 6300 provides all the benefits you expect from a Honeywell LeaderLine controller:

- fast installation and start-up
- application flexibility
- improved process quality and efficiency
- operator confidence
- Honeywell quality and global support.

You get all the power you need: multilingual prompts, flexible math options, preconfigured algorithms, logic, and ACCUTUNE™ adaptive tuning. These features and more make UDC 6300 the easiest-to-use process controller you'll find anywhere.

## Clear Operator Interface for Efficient Operation

UDC 6300 features bright displays, and a sealed, splashproof keyboard for a rugged and informative operator interface:



## Industry-Specific Experience

At Honeywell, we focus on key industries for which we supply effective, time-proven industrial automation solutions. These industries include:

- Hydrocarbon Processing
- Oil and Gas
- Chemicals and Pharmaceuticals
- Pulp and Paper
- Food and Consumer Goods
- Power Generation
- Manufactured Goods

Honeywell's commitment to these industries is illustrated the world over. For example, our products help:

- refineries produce more than half the world's supply of gasoline
- paper mills turn out 40-million metric tons of pulp and paper each year
- fifteen of the world's largest chemicals companies achieve manufacturing competitiveness.

Our market-specific approach gives you the benefit of practical knowledge of your industry, challenges, and process.

## Standard panel mounting – shorter case depth (72 x144 DIN bezel)

Dual displays show process values, multilingual prompts, PV tag and ID tag

Display loop one, loop two, or both

Bargraphs display setpoint, process variable and output values

Three local setpoints, plus remote; or computer setpoint

Display flashes during alarm condition

Manual/automatic control mode indicator

Alarm indicators

Sealed tactile feedback keyboard; security code prevents tampering

Alarm acknowledge key

## The Best Controller Available for the Process Industries

Honeywell's UDC 6300 process controller combines reliability and flexibility. The 6300 features traditional Honeywell quality, and it's versatile enough to meet a broad range of control needs in a variety of industries and applications.



**Pulp and Paper** – Kamyrdigester, paper machine, bleaching, dry stock blending and brown stock washing; cascade and ratio applications.



**Fine Chemicals** – Steam desuperheaters, batch reactor cascade control, evaporator control, flow ratio control, mass flow compensation, and steam and fuel supply pressure control.



**Power Generation** – Utility boilers, package boilers, water treatment, ash and liquid waste handling, metering pump control.



**Oil and Gas** – Pipeline booster stations, gas plants, platforms, metering stations, and terminal operations.



**Metals** – Reheat furnace control for air temperature, fuel/air ratio, zone, high override, low override; heat treating and electric furnaces.



**Hydrocarbon Processing** – Pipeline booster station, flow ratio, mass flow compensation, pressure, and evaporator.



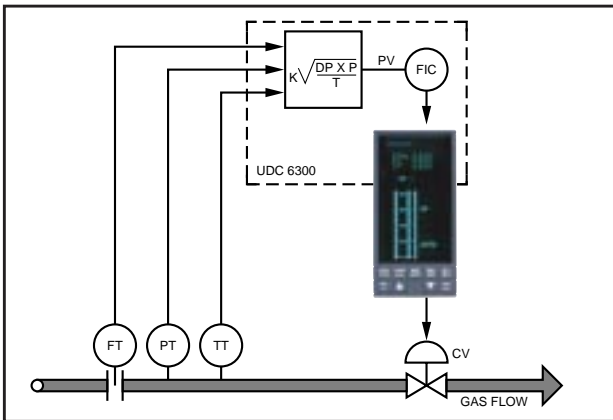
**Consumer Goods** – Tablet coaters, sterilizers, freeze driers, lyophilizers, and simple cooker and fryer control; large scale cooking and frying operations, flow ratio, temperature and pressure, food storage, tobacco dryers, retorts, evaporator, baking ovens, and crystallizers.

# Addressing Your Needs Today and Tomorrow

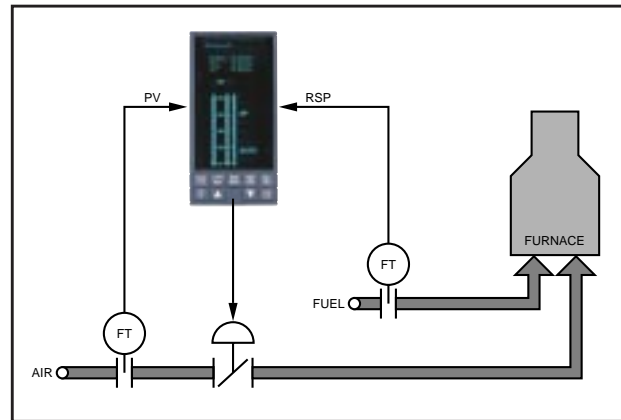
The modular design of UDC 6300 saves you money because it allows you to purchase only the power required for your application. The controller can be easily and economically upgraded if your needs should change tomorrow.

## Standard Features

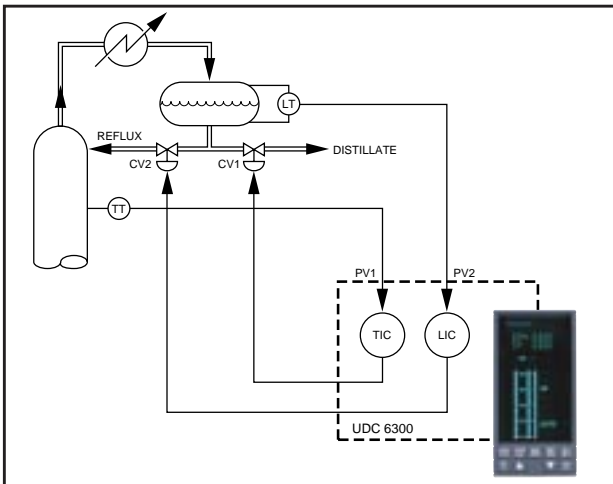
- Compact, shallow depth
- Feed forward control
- 3 local setpoints
- Remote setpoints
- 2 sets of tuning constants
- Configurable security code
- CE Mark compliant
- Configurable fail-safe output
- Alarm indication and acknowledgement
- Selectable scan rate
- Square root, ratio, bias, digital filtering
- 4 analog inputs
- PV Hot Start
- Configurable ID tag
- Multilingual prompts
- Setpoint ramp rate
- Configurable output rate limit



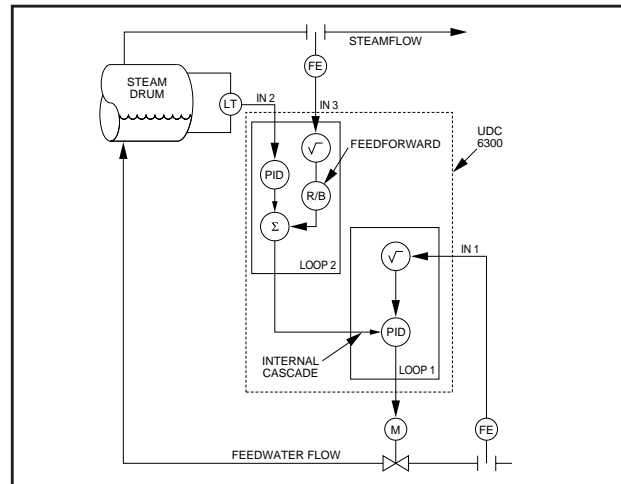
One UDC 6300 provides control plus mass flow compensation.



Metered fuel/air ratio.



Distillation column reflux control two loops in one UDC 6300.



Boiler drum level control – cascade plus feedforward.

## Additional Features

- ACCUTUNE adaptive tuning
- Transmitter power
- Output override
- Second current output
- Communications interface
- Direct TC or RTD input
- Dual-loop control/Internal cascade
- Math functions
  - Input/output characterization
  - Deadtime
  - Totalization
  - Gain scheduling
  - 5 logic blocks
- Digital inputs and outputs
- Pulse inputs

## UDC 6300 Is Easy To Configure From the Keyboard...

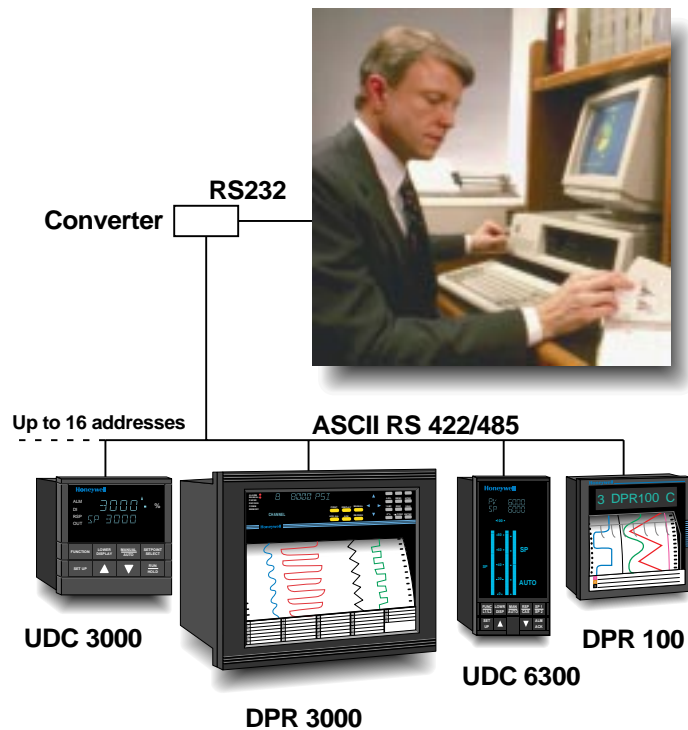
- Add/subtract
- Weighted average
- Multiply/divide
- High-low select
- Feed forward
- Flow compensation
- Totalization
- Square root
- Gain scheduling
- 8-segment input/output characterizers (2)
- Polynomial equation input characterization
- Dead time
- 5 logic blocks

Pre-engineered control functions are enabled via straightforward prompts in English, German or French.

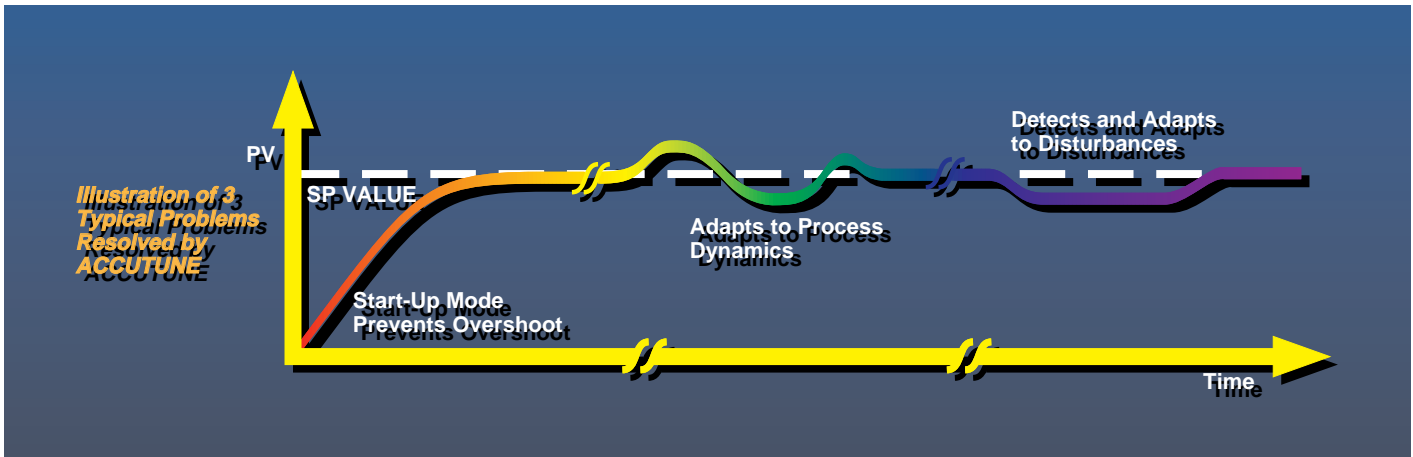


## Or From Your PC...

Honeywell's LeaderLine PC Software offers a cost-effective and efficient means to monitor, archive, and configure Honeywell's LeaderLine controllers and recorders using a Windows\*-based personal computer. On-line or off-line device configuration allows the operator to change configuration parameters from pull-down menus. The familiar environment and the on-line help utility allow even first-time users to quickly configure UDC controllers for their application.







## Automatic Loop Tuning Maintains Precise Control

ACCUTUNE, Honeywell's innovative adaptive tuning feature is a powerful rules-based expert system that automatically tunes the controller for peak operating efficiency. ACCUTUNE lines-out your process quickly and adjusts PID parameters as required.

When enabled, ACCUTUNE continuously monitors your process, adjusting the PID constants when necessary to maintain optimum controller response. Your process runs closer to specified setpoints – helping your company produce higher quality products with greater yields, saving valuable raw materials, and reducing energy costs.

A few simple keystrokes is all it takes to put ACCUTUNE to work for you; detailed process knowledge is not required. Two tuning criteria selections, "normal" or "fast", are available to match the controllers response to the control strategy.

## The LeaderLine Commitment

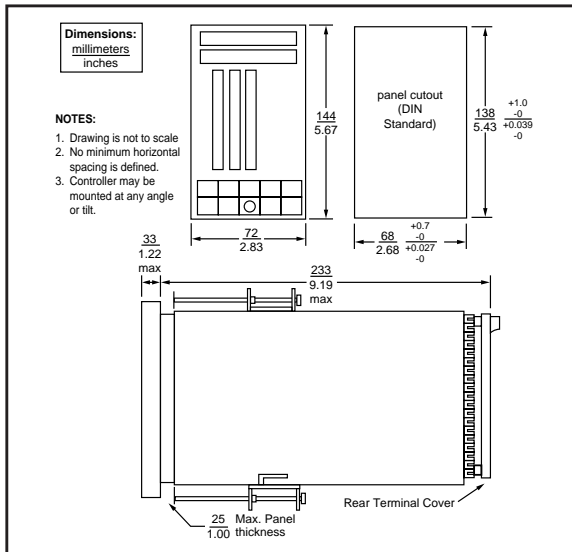
UDC 6300 Process Controller is a member of Honeywell's proven LeaderLine family of controllers and recorders. All LeaderLine instruments are engineered to offer maximum performance for minimum investment. To qualify as a member of the LeaderLine, a controller or recorder must:

- Offer the best price/performance ratio of any instrument in its class.
- Be priced below all competitive instruments in its class.
- Feature Honeywell quality, assured by a two-year warranty program, a toll-free "Help" program, and a customer support network second to none.
- Provide functionality targeted to market segments so customers never need to buy more capability than they need.
- Include comprehensive, easy-to-follow product manuals.

Find out how UDC 6300 can improve your application. Call 1-800-288-7491 or contact your Honeywell account manager or distributor.

## Condensed Specifications (some features are optional)

<b>4 Analog Inputs</b> <ul style="list-style-type: none"> <li>– 1 to 5 Vdc, 4-20mA or 10 to 50 mA</li> <li>– Isolated from all other inputs and outputs</li> </ul>	<b>Serial Communications Link</b> <ul style="list-style-type: none"> <li>– RS485 TDC 3000 Integration – DMCS</li> <li>– RS422/485— 15 drops</li> </ul>
<b>Universal Input — isolated</b> <ul style="list-style-type: none"> <li>– Thermocouple – Millivolts or Volts</li> <li>– RTD – Pulse</li> </ul>	<b>Transmitter Power</b> <ul style="list-style-type: none"> <li>– 24Vdc ± 2V</li> <li>– 50mA dc for one or two transmitters</li> </ul>
<b>1 or 2 Current Outputs</b> <ul style="list-style-type: none"> <li>– 4-20mA dc</li> <li>– Isolated</li> </ul>	<b>Accuracy</b> <ul style="list-style-type: none"> <li>– ±0.01% of span for linear inputs</li> <li>– ±0.02% of span typical for T/C and RTD inputs</li> </ul>
<b>4 Universal Digital Inputs /Outputs</b> <ul style="list-style-type: none"> <li>– Open-collector outputs or digital inputs</li> <li>– Externally powered</li> </ul>	<b>Temperature Stability</b> <ul style="list-style-type: none"> <li>– ±0.005% per F° typical</li> </ul>
<b>2 Digital Inputs</b> <ul style="list-style-type: none"> <li>– User configurable</li> <li>– Isolated</li> </ul>	<b>Pulse Input</b> <ul style="list-style-type: none"> <li>– Range: 1Hz to 25K Hz</li> </ul>
<b>Math Functions</b> <ul style="list-style-type: none"> <li>– summer</li> <li>– weighted average</li> <li>– multiplier/divider</li> <li>– hi/lo select</li> <li>– input/output characterization</li> <li>– logic</li> <li>– totalization</li> </ul>	<b>Power Consumption</b> <ul style="list-style-type: none"> <li>– 20 VA maximum</li> </ul>
	<b>Splashproof faceplate</b>
	<b>Power Requirements</b> <ul style="list-style-type: none"> <li>– 24Vdc, 120 Vac or 240 Vac</li> </ul>
	<b>CE Mark Compliant</b> <ul style="list-style-type: none"> <li>– Full conformity with CE directives</li> </ul>



For complete product specifications please request document 51-52-03-13.

*Specifications are subject to change without notice.*

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**Honeywell**

### Industrial Automation and Control

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