Honeywell

# UDC1200 and UDC1700
# MICRO-PRO SERIES
## UNIVERSAL DIGITAL CONTROLLERS

51-52-03-35 05/06 **PRODUCT SPECIFICATION SHEET**

## OVERVIEW

The UDC1200 & UDC1700 are microprocessor-based 1/16 DIN and 1/8 DIN controllers which combine a high degree of functionality and reliability at low cost.
They are fully dedicated to monitor and control temperatures, pressures and levels in a wide range of applications such as the plastics and food industries, furnaces, packaging and environmental chambers. The large and easy-to-read dual 4-digit display and tactile keypad make the UDC1200 and UDC1700 easy to configure and use. Their outstanding flexibility enables you to configure any unit for any application and change it if required.
For the thousands of satisfied UDC1000/1500 users, the UDC1200/ 1700 controllers are downward-compatible to existing UDC1000/1500 applications and installations.


## FEATURES

### Dual display
Two 4-digit displays with 7 LED segments, each configurable for:
- PV and SP (non adjustable)
- PV and SP (adjustable)
- PV and Ramping SP
- PV only

### Easier to configure
Two different configuration levels (configuration mode and set-up mode) provide easy access to parameters. A 4-digit security code prevents unauthorized changes.

### Moisture resistant front-face
Meets NEMA 3 / IP66 front-face protection against dust and water.

### Universal input
Accepts nine different types of thermocouples, RTDs, current and volt linear inputs. All inputs are configurable as standard.

### Universal power supply
The UDC1200 and UDC1700 can operate on any line voltage from 90 Vac to 264 Vac at 50/60 Hz. A 24/48 Vac/dc model is available as an option.

### Easy Upgrade
All the option boards are jumper free and auto detected by the instrument.

### Easy output selection
All the outputs (including the control output) of the instrument can be changed to meet the exact customer's needs.

### Alarm strategy
Two soft alarms on PV, deviation high/low/absolute. A special loop alarm is also provided to detect faults in the control loop by continuously analyzing the PV response to the control output. Alarm inhibit is available on power up and setpoint switching.

### Manual/Automatic mode
Manual control (via bumpless transfer) is enabled by simply pressing the front-face AUTO/MAN key. The "SET" LED flashes and the output power is displayed on the lower display. Output can be adjusted with the upper and lower keys.

### Pre-tuning & self-tuning strategy
Pre-tuning is used to set up the PID parameters close to the optimum values which might be used by the self-tuning algorithm to subsequently optimize the tuning parameters.

### Limit controller
Packaged in 1/16 DIN, the UDC1200 limit controller is designed to provide a safety cut-out and optional alarms for use in a wide variety of applications.

### Transmitter Power supply
This option can be used to supply power to transmitters.

**Up to five outputs**
The UDC1200 and UDC1700 provide up to three outputs for time and current proportioning, duplex mode (heat/cool), PV or SP retransmission, and alarms. The UDC1200 TPSC can support 4 outputs and the UDC1700 TPSC 5 outputs by using dual relay boards.

**Setpoint ramp**
According to a defined ramp rate, the SP ramps the current setpoint to the new targeted setpoint.

**Dual setpoint**
Dual setpoint option is available on the UDC1200 and UDC1700. The current setpoint is selected by a digital input. This option is exclusive with UDC1200 limit model remote alarm reset.

**Communication**
An optional RS485 communications interface is available on the UDC1200 and UDC1700. It provides a link between up to 32 units and a host computer through ASCII or Modbus RTU protocol at up to 19200 baud.

**Remote Setpoint**
The UDC1200 and UDC1700 supports a basic remote setpoint. The remote setpoint can be a mA or Vdc input. The UDC1700 in its DC17R version has a universal input. Therfore, it also supports mV and Ohms inputs.

**Highly secure**
A non-volatile memory based on EEPROM technology ensures data integrity during loss of power supply, with retention of more than 100 years. A 4-digit security code prevents unauthorized or accidental change.

## OPTIONAL FEATURES

The following can be selected via the Model selection Guide (see page 7):

- RS485 ASCII or Modbus RTU comm
- Digital Input
- Output 2 & Output 3
- Power Supply 24/48 Vac/dc
- 24V Transmitter Power supply
- Remote Setpoint

## PHYSICAL DESCRIPTION

The UDC1200 controller is housed in a 110 mm (4.33 inches) deep case with the standard UDC gray bezel. It can be mounted in a 1/16 DIN panel cutout. The UDC1700 controller is housed in a 100 mm (3.94 inches) deep case and can be mounted in a 1/8 DIN panel cutout. By using the pre-assembled mounting fixture delivered with the unit, you can easily and securely install the controller into the panel cutout. Modular plug-in construction allows rapid access and saves time. All inputs and outputs are connected on the rear terminal block by screws.


UDC170

Upper display : 4 characters dedicated to show the PV. In configuration mode, it shows the parameter value or selection.

Lower display : 4 characters dedicated in normal operation mode to display the SP. In configuration mode, it displays the parameter name.


UDC120


Selects manual or automatic mode. Becomes « Reset » on UDC1200 Limit model.


Allows operator mode parameters to be scrolled. In combination with the «Upper» key, allows configuration mode or Setup mode to be entered.

Increases setpoint, output or configuration parameter values.

Decreases setpoint, output or configuration parameter values.

## OPERATOR INTERFACE

Four display combinations are offered to the operator. The upper 4-digit 7-segment display is always dedicated to monitor the PV. The lower display can show:

- SETPOINT (read only)
- SETPOINT (adjustable)
- RAMPING setpoint (ramp mode)
- BLANK

# UNIVERSAL INPUTS

All input types are available on any unit. Selection among the various types of inputs is made by prompt configuration. As soon as the Process Variable reaches the value of the input range limits, the controller displays a message. A sensor break indication is also provided. A configurable digital filter is available from 0.5 seconds to 100.0 seconds.

# OUTPUTS

Four types of outputs [RELAY, Dual Relay (TPSC version only), SSR driver or DC linear] are selectable, through the model selection guide or by adding a plug-in module for outputs 1, 2 and 3.

# OUTPUTS ALGORITHMS

The UDC1200 and UDC1700 are available with the following output algorithms :

- *Time proportional:* ON/OFF or time proportional with electromechanical relay SPDT 2 A or SSR driver (open collector).
- *Current proportional:* Supply directly proportional current or volt signal to the final control elements which require 0-20 mA, 4-20 mA, 0-10 V or 0-5 V.
- *Time proportional duplex:* Three duplex modes can be selected, either ON/OFF duplex or time proportional duplex (heat/cool with two proportional bands, two cycle times and deadband) or TPSC.
- *Current proportional duplex:* In addition to the first current/voltage output, a second similar output with its own proportional band is provided.
- *Current/Time or Time/Current duplex:* Provides a variation of traditional time or current duplex mode by mixing current and time proportioning together.

# CONTROL ALGORITHMS

Four control algorithms can be set up through the configuration menu:

- On/Off
- PID
- PD + MR
- TPSC

The TPSC (Three Position Step Control) control algorithm is dedicated to control valve positioning without slidewire feedback from the motor shaft.

# CONFIGURATION

There are two levels of configuration. The SET-UP mode allows modification of current parameters such as tuning parameters, alarm values, setpoint limit, ramp enable, auto-manual mode enable; auto-pretune enable.
The CONFIGURATION mode is more oriented to unit personality: input selection, output usage, alarm type, communication address and lockout code.

The operator mode screens are only selectable via the configuration software. For instance, the alarm value screen can be moved from setup mode to normal operator mode if desired.

# CONTROL MODE

Manual or automatic mode with bumpless transfer is standard feature. In manual mode, the operator can directly control the output through the two front face keys (raise and lower keys). The output value is monitored on the lower display.

# ALARMS

Any outputs can be used as an alarm. Two electromechanical single pole double throw relays can activate external equipment when alarm setpoints are reached. An LED is also activated on the front-face. A direct or reverse acting alarm output can be configured. A logical combination of the two alarms: OR, AND or hysteresis (active when both alarms are active, becomes inactive when both alarms are inactive) can be set which associates the two alarms status before energizing the relay. In order to detect a defective control loop, the controller can supply a special loop alarm control by continually monitoring the PV response to output demand. A timer is automatically set up when any output is on saturation mode. When the timer reaches twice the reset time with no PV response, then the loop alarm is activated. With this soft alarm, there is no need for a heater breaker, saving wiring time and costs.

# DISPLAY

Dual, four-digit LED display with decimal point location configurable up to three places for linear ranges only.

# LIMIT CONTROLLER

The UDC1200 1/16 DIN limit controller provides a latched relay output which is activated when process parameters either exceed or fall bellow the desired value, providing a failsafe cut-off which has to be manually reset before the process can continue.

The UDC1200 limit controller can be configured to be either a “high limit” unit where the relay will de-energize when the PV is above the limit setpoint, or a “low limit” where the relay will drop out when the PV falls below the setpoint.

A LED indicator shows when limits have been exceeded, and when the relay is latched out.

The optional digital input allows a remote reset function.

# REMOTE SETPOINT MODEL

The UDC1700 1/8 DIN "R" model controller has available a second input that accepts either a linear or potentiometer input signal as a remote setpoint. The input signals accepted are field-configurable and are : 0-5 V, 1-5 V, 0-10 V, 2-10 V, 0-20 mA, 4-20 mA (factory set), 0-50 mV, 10-50 mV, 0-100 mV, or 0-2000 ohms. This allows the controller to act as a "slave" controller accepting a setpoint value from a 'master' device such as a PLC or setpoint programming controller (such as the DCP50, DCP100, DCP300, or DCP550 series). The UDC1700R also includes a standard digital input allowing remote switching between the local setpoint and the remote setpoint value. Also standard in this model is "fuzzy" autotune software that minimizes process variable overshoot when responding to a setpoint change.

# PC SOFTWARE

The UDC1200 & 1700 are supported with PC software allowing you to quickly configure your device using configuration wizards, or to perform diagnostics.

**SPECIFICATIONS** (Applies to both UDC1200 and UDC1700)

## Technical data

| | |
|---|---|
| **Accuracy** | 0.1 % of span ± 1 LSD |
| **Temperature Stability** | 0.01 % of span per ºC |
| **Input Signal Failure** | *Fail-safe output value:* Achieved when burnout is detected.<br>Value depends on configuration.<br>*For thermocouple and mV input detected by any lead break:* Upscale burnout<br>*For RTD:* Burnout detected by any lead break<br>*Current or volt input:* Burnout set by open circuit detection |
| **Input Impedance** | *Volt impedance:* 47 Kohms<br>*Current input:* 4.7 ohms<br>*All others:* 100 Mohms |
| **Input Sampling Rate** | Four samples per second |
| **Input Filter** | Digital filter configurable from front panel<br>0.0 (Off), from 0.5 seconds to 100.0 seconds in 0.5 seconds increment |
| **Input Resolution** | 14 bits approximately, always four times better than display resolution |
| **Input Isolation** | Universal input isolated at 2500 V from all outputs except SSR and from power supply |
| **Stray Rejection** | *Common mode rejection:* > 120 dB at 50/60 Hz<br>*Serial mode rejection:* > 500% of span at 50/60 Hz |
| **Approvals** | UL<br>FM approval on the UDC1200 limit model<br>Product design to meet CE MARK requirement |
| **Control Output Type** | ***Type available :***<br>DC linear, Electromechanical relay, Dual electromechanical relay, SSR drive (open collector)<br><br>***DC linear output :***<br>0-20 mA, 4-20 mA, 0-5 V, 0-10 V<br>*Accuracy:* ± 0.25 % (250 ohms for mA, 2 Kohms for volt)<br>*Resolution:* 80 bits in 250 ms (10 bits in 1 second typical > 10 bits in > 1 second)<br>*Load impedance:* 500 ohms maximum for current output,<br>500 ohms minimum for volt output<br>*Isolation:* Isolated 2500 V from all other inputs and outputs<br>*Range selection method:* Ffront panel code setting<br>*Temperature stability:* 0.01 % / °C<br>***Electromechanical relay:*** SPDT contact<br>*Resistive load:* 2 A at 120 V or 240 V<br>*Life time:* > 500000 operations at rated voltage/current<br>***Electromechanical relay:*** 2 SPST relays sharing a common terminal.<br>*Resistive load:* 2 A at 120 V or 240 V<br>*Life time:* > 200000 operations at rated voltage/current<br>***SSR drive/TTL:***<br>*Drive capability:* SSR > 10 Vdc into 250 ohms minimum<br>*Isolation:* Not isolated from input and other SSR output |
| **Alarms** | *Maximum number of alarms:* as per the number of outputs.<br>Alarm inhibit available on power up and setpoint switching<br>*Types:* PV high or low, band, deviation high or low, loop<br>*Combination alarms:* Logical “OR”, “AND” or hysteresis of alarms available to individual hardware output |

## Technical data (continued)

| | |
|---|---|
| **Loop Control** | *Automatic tuning type:* Pre-tune and self-tune<br>*Proportional bands:* 0 (inactive), 0.5 % to 999.9 % of input span with 0.1% increments. Two proportional bands available for duplex mode<br>*Reset:* Off or from 1s to 99 min 59 s<br>*Rate:* From 0 sec. to 99 min 59 sec.<br>*Manual reset:* from 0 to 100 % of output (single output), from –100 % to 100 % of output (dual output)<br>*Deadband:* ± 20 of PB1 + PB2<br>*ON/OFF hysteresis:* 0.1% to 10.0 % of input span<br>*Auto/manual mode:* Front key selectable with bumpless transfer between automatic and manual mode<br>*Cycle times:* Up to two cycle times available for time duplex control<br>*Selection:* 0.5, 1, 2, 4, 8, 16, 32, 64, 128, 256, or 512 seconds<br>*Setpoint ramp:* From 1 to 9999 engineering units per hour |
| **Retransmission Output** | Any output can be selected to retransmit the process value or setpoint as linear (current or voltage) output |
| **Communication Interface** | RS485 – ASCII or Modbus RTU, selectable from the menu (except for the TPSC version : Modbus only).<br>*Baud rate:* 1200, 2400, 4800, 9600 or 19200 baud<br>*Link characteristics:* 32 drops maximum, ASCII or Modbus protocols, two wires |
| **Mounting** | Plug-in with pre-assembled mounting fixture |
| **Wiring Connection** | Screw terminals on the rear of the case (combination head) |
| **Power Consumption** | 4 W |
| **Physical (UDC1200)** | *Weight:* 210 grams maximum<br>*Height:* 48 mm / 1.89 in<br>*Width:* 48 mm / 1.89 in<br>*Depth:* 110 mm / 4.33 in<br>*Cut out:* 45 mm x 45 mm / 1.77 in x 1.77 in |
| **Physical (UDC1700)** | *Weight:* 250 grams maximum<br>*Height:* 96 mm / 3.78 in<br>*Width:* 48 mm / 1.89 in<br>*Depth:* 100 mm / 3.94 in<br>*Cut out:* 45 mm x 92 mm / 1.77 in x 3.62 in |
| **Environmental** | *EMI Susceptibility:* Designed to meet EN55101<br>*EMI Emission:* Designed to meet EN55022<br>*Safety Considerations:* Designed to comply with IEC1010-1as far as applicable |
| **Front Panel Sealing** | NEMA 3 / IP66 |

## Input Actuations

| | | Ranges | |
|---|---|---|---|
| **Thermocouple types** | | **°F** | **°C** |
| (Fixed decimal) | **R** | 32 – 3198 | 0 – 1759 |
| | **S** | 32 – 3204 | 0 – 1762 |
| | **J** | -328 - 2192 | -200 - 1200 |
| | **J** | -199.9 – 999.9 | -128.8 – 537.7 |
| | **T** | -400 – 752 | -250 – 400 |
| | **T** | -199.9 – 752.0 | -128.8 – 400.0 |
| | **K** | -400 – 2503 | -240 – 1373 |
| | **K** | -128.8 – 537.7 | -199.9 – 999.9 |
| | **L** | 32 – 1403 | 0 – 762 |
| | **L** | 32.0 – 999.9 | 0.0 – 537.7 |
| | **B** | 211 – 3315 | 100 – 1824 |
| | **C** | 32 – 4208 | 0 – 2320 |
| | **N** | 32 - 2551 | 0 - 1399 |
| **RTD**: (3 wires connection) | | | |
| PT100 (IEC) $\alpha$ = 0.00385 | | -328 – 1472 | -199 – 800 |
| (Fixed decimal) | | -199.9 – 999.9 | -128.8 – 537.7 |
| **DC linear:** | | 10 – 50 mV | 0 – 50 mV |
| | | 4 – 20 mA | 0 – 20 mA |
| | | 1 – 5 V | 0 – 5 V |
| | | 2 – 10 V | 0 – 10 V |

## Operating Conditions

| | **Reference Conditions** | **Operative Limits** | **Transportation and Storage** |
|---|---|---|---|
| **Ambient Temperature** | 20 °C ± 2 °C (68 °F ± 4 °F) | 0 °C to 55 °C (32 °F to 131 °F) | –20 °C to 80 °C (–4 °F to 176 °F) |
| **Relative Humidity** | 60-70 % | 20-95 % non -condensing | |
| **Voltage** | 90-264 Vac ± 1 % | 90-264 Vac | |
| **Frequency** | 50 Hz | 50-60 Hz | |
| **Source Resistance** | < 10 ohms for thermocouple | 1000 ohms maximum for thermocouple | |
| **Lead resistance for RTD** | < 0.1 ohm/lead (PT100) | 50 ohms per lead maximum balanced | |

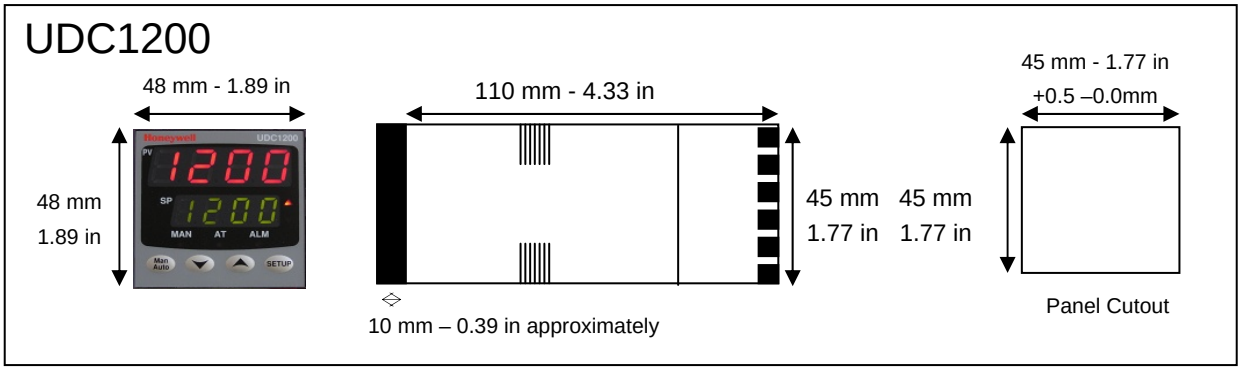
# UDC1200 Model Number interpretation

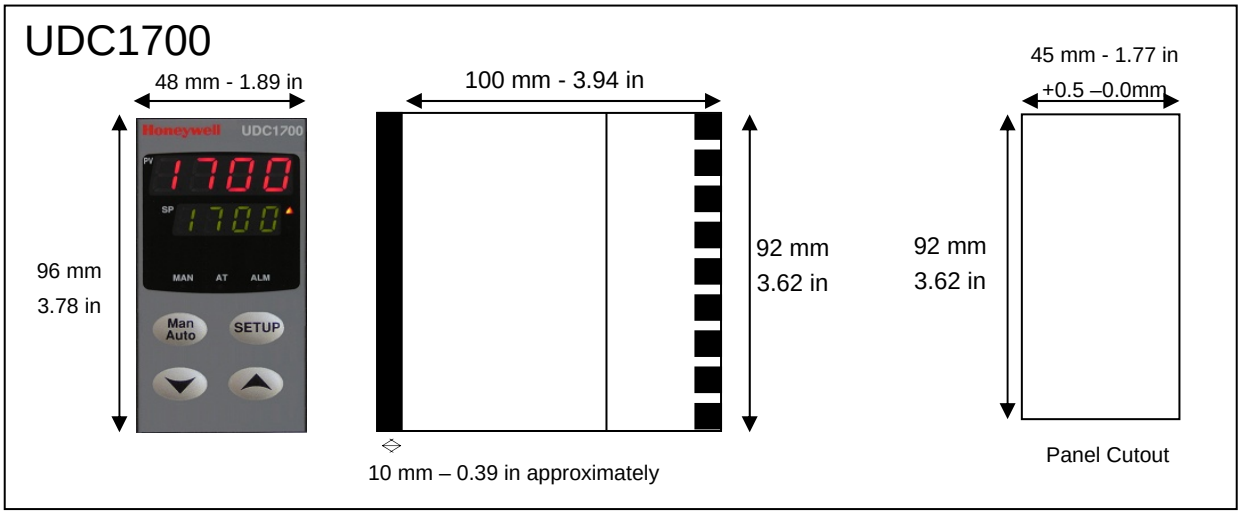
| KEY NUMBER | | Selection | Availability | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Description** | | | | | | | |
| 1/16 DIN Controller: | RTD or Linear mV | DC1201 | ↓ | | | | | |
| 48x48mm | Thermocouple | DC1202 | | ↓ | | | | |
| **Input Type** | Linear mA | DC1203 | | | ↓ | | | |
| (Field Selectable) | Linear Voltage | DC1204 | | | | ↓ | | |
| | Limit Controller (UDC1200 Style Overlay) | DC120L | | | | | ↓ | |
| | TPSC Controller (Thermocouple Factory Set) | DC120T | | | | | | ↓ |
| **TABLE I** | | | | | | | | |
| **Output 1** | Relay | 1 | • | • | • | • | • | • |
| | SSR Driver | 2 | • | • | • | • | | • |
| | Linear: 0 - 10 Volts | 3 | • | • | • | • | | • |
| | Linear: 0 - 20 mA | 4 | • | • | • | • | | • |
| | Linear: 0 - 5 Volts | 5 | • | • | • | • | | • |
| | Linear: 4-20mA | 7 | • | • | • | • | | • |
| **TABLE II** | | | | | | | | |
| **Output 2** | None | 0 | • | • | • | • | • | |
| | Relay | 1 | • | • | • | • | • | • |
| | SSR Driver | 2 | • | • | • | • | • | • |
| | Linear: 0 - 10 Volts | 3 | • | • | • | • | • | • |
| | Linear: 0 - 20 ma | 4 | • | • | • | • | • | • |
| | Linear: 0 - 5 Volts | 5 | • | • | • | • | • | • |
| | Linear: 4-20mA | 7 | • | • | • | • | • | • |
| | Dual Relay Board | 9 | | | | | | • |
| **TABLE III** | | | | | | | | |
| **Output 3** | None | 0 | • | • | • | • | • | • |
| | Relay | 1 | • | • | • | • | • | • |
| | SSR Driver | 2 | • | • | • | • | • | • |
| | Linear: 4-20mA | 7 | • | • | • | • | • | • |
| | Transmitter Power Supply (24Vdc) | 8 | • | • | • | • | • | • |
| **TABLE IV** | | | | | | | | |
| Communications | No Selection | 0 | • | • | • | • | • | • |
| | RS485 ASCII Serial Communication | 1 | • | • | • | • | • | |
| | Digital Input (SP1/SP2 Selection or DC100L Remote Reset) | 2 | • | • | • | • | • | • |
| | RS485 MODBUS Communication | 3 | • | • | • | • | • | • |
| | Basic Remote Setpoint | 4 | • | • | • | • | | • |
| **TABLE V** | | | | | | | | |
| Power Supply | Power Supply 90 to 264 Vac | 1 | • | • | • | • | • | • |
| | Power Supply 24 to 48 Vac/dc | 2 | • | • | • | • | • | • |
| **TABLE VI** | | | | | | | | |
| Manuals | English (51-52-25-123) | 0 | • | • | • | • | • | • |
| (Single sheet | French (51-52-25-123-FR) | 1 | • | • | • | • | • | • |
| Concise manuals | German (51-52-25-123-GE) | 2 | • | • | • | • | • | • |
| for UDC1200) | Italian (51-52-25-123-IT) | 3 | • | • | • | • | • | • |
| | Spanish (51-52-25-123-SP) | 4 | • | • | • | • | • | • |
| **TABLE VII** | | | | | | | | |
| Packaging | Individual Carton | 0 | • | • | • | • | • | • |
| | Bulk Pack of 10 identical models | 1 | • | • | • | • | • | • |
| | Bulk Pack of 50 identical models | 2 | • | • | • | • | • | • |
| | Bulk Pack of 100 identical models | 3 | • | • | • | • | • | • |
| **TABLE VIII** | | | | | | | | |
| Specials | UDC1200 style overlay | 0 | • | • | • | • | • | |
| | UDC1000 style overlay | 0 | | | | | | • |
| | Special Instrument (Consult Factory) | S | • | • | • | • | • | • |

# UDC1700 Model Number interpretation

| KEY NUMBER | | Selection | Availability | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Description** | | | | | | | |
| 1/8 DIN Controller: | | | | | | | | |
| 48x96mm | RTD or Linear mV | DC1701 | ↓ | | | | | |
| **Input Type** | Thermocouple | DC1702 | | ↓ | | | | |
| (Field Selectable) | Linear mA | DC1703 | | | ↓ | | | |
| | Linear Voltage | DC1704 | | | | ↓ | | |
| | TPSC Controller * | DC170T | | | | | ↓ | |
| | Remote Setpoint, Fuzzy Logic, Digital Input * | DC170R | | | | | | ↓ |
| | * factory set for thermocouple input | | | | | | | |
| **TABLE I** | | | | | | | | |
| **Output 1** | Relay | 1 | • | • | • | • | • | • |
| | SSR Driver | 2 | • | • | • | • | • | • |
| | Linear 0 to 10 Volts | 3 | • | • | • | • | • | • |
| | Linear 0 to 20 ma | 4 | • | • | • | • | • | • |
| | Linear 0 to 5 Volts | 5 | • | • | • | • | • | • |
| | Linear 4 to 20 mA | 7 | • | • | • | • | • | • |
| **TABLE II** | | | | | | | | |
| **Output 2** | None | 0 | • | • | • | • | | • |
| | Relay | 1 | • | • | • | • | • | • |
| | SSR Driver | 2 | • | • | • | • | • | • |
| | Linear 0 to 10 Volts | 3 | • | • | • | • | • | • |
| | Linear 0 to 20 ma | 4 | • | • | • | • | • | • |
| | Linear 0 to 5 Volts | 5 | • | • | • | • | • | • |
| | Linear 4 to 20 mA | 7 | • | • | • | • | • | • |
| | Dual Relay Board | 9 | | | | | • | |
| **TABLE III** | | | | | | | | |
| **Output 3** | None | 0 | • | • | • | • | • | • |
| | Relay | 1 | • | • | • | • | • | • |
| | SSR Driver | 2 | • | • | • | • | • | • |
| | Linear 0 to 10 Volts | 3 | • | • | • | • | • | • |
| | Linear 0 to 20 ma | 4 | • | • | • | • | • | • |
| | Linear 0 to 5 Volts | 5 | • | • | • | • | • | • |
| | Linear 4 to 20 mA | 7 | • | • | • | • | • | • |
| | Transmitter Power Supply (24Vdc) | 8 | • | • | • | • | • | • |
| | Dual Relay Board | 9 | | | | | • | |
| **TABLE IV** | | | | | | | | |
| | No Selection | 0 | • | • | • | • | • | • |
| Option 1 | RS485 ASCII Serial Communication | 1 | • | • | • | • | | • |
| | Digital Input (SP1/SP2 Selection) | 2 | • | • | • | • | • | • |
| | RS485 MODBUS Communication | 3 | • | • | • | • | • | • |
| | Basic Remote Setpoint | 4 | • | • | • | • | • | |
| **TABLE V** | | | | | | | | |
| Option 2 | Power Supply 90 to 264 Vac | 1 | • | • | • | • | • | • |
| | Power Supply 24 to 48 Vac/dc | 2 | • | • | • | • | • | • |
| **TABLE VI** | | | | | | | | |
| Manuals | English (51-52-25-123) | 0 | • | • | • | • | • | • |
| (Single sheet | French (51-52-25-123-FR) | 1 | • | • | • | • | • | • |
| Concise manuals | German (51-52-25-123-GE) | 2 | • | • | • | • | • | • |
| for UDC1200) | Italian (51-52-25-123-IT) | 3 | • | • | • | • | • | • |
| | Spanish (51-52-25-123-SP) | 4 | • | • | • | • | • | • |
| **TABLE VII** | | | | | | | | |
| Packaging | Individual Carton | 0 | • | • | • | • | • | • |
| | Bulk Pack of 10 identical models | 1 | • | • | • | • | • | • |
| | Bulk Pack of 50 identical models | 2 | • | • | • | • | • | • |
| **TABLE VIII** | | | | | | | | |
| Special | None | 0 | • | • | • | • | • | • |
| | Special Instrument (Consult Factory) | S | • | • | • | • | • | • |

## EXTERNAL DIMENSIONS, PANEL CUTOUT




For more information, contact Honeywell sales at (800) 343-0228. *Specifications are subject to change without notice.*

Distributor:

### Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose**. Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.