

UDC 700 Universal Digital Controller

The smallest member of the LeaderLine® family



MEASUREMENT & CONTROL



YEAR 2000 READY

Exceptional value for time proportional or on/off control

Honeywell's UDC 700 Digital Controller delivers reliable control of less-complex processes in a space-saving 1/32 DIN size. With features like universal power, universal analog inputs, two local setpoints, and NEMA 4 / IP66 front panel protection, the UDC 700 stands apart from the competition. Options including RS485 Modbus* communications or an Alarm 2 relay give you the flexibility to choose the configuration that best meets your needs.

Saves space—The 1/32 DIN sized faceplate and shallow case depth allow the UDC 700 Controller to be installed in places where panel space is limited.

Accurate—0.1% accuracy (0.25% for T/C J and T), and temperature stability of 0.01% of span per °C ensures process parameters are closely maintained.

Automatic Tuning—Hand off PID tuning. Fit-and-forget for most type of simple application.

Easy to configure—Configuration via the faceplate is easy using the straightforward menu.

Easy to read—The UDC 700 Controller's faceplate features four 10 mm bright red or green digits for clear viewing at a distance.

Flexible—The UDC 700 can operate on any line voltage from 90 VAC to 264 VAC at 50/60 Hz. A 12-24 Vac/12-30Vdc option is also available, adding more installation flexibility.

Suitable for many applications—The UDC 700 Controller can be used to control temperature and other process variables in many industries. It's an affordable solution for controlling ovens, kilns, plastic molding and extruding machinery, extruders, dryers, packaging machinery, and much more.

Technical Data

Accuracy	<i>Measurement:</i> 0.1% of span ± 1 LSD (0.25% for Types J and T) <i>Linearization for T/C and RTD:</i> Better than $\pm 0.2^\circ\text{C}$ for decimal range; better than $\pm 0.5^\circ\text{C}$ for integer range <i>Cold Junction Compensation (T/C only):</i> Better than $\pm 1^\circ\text{C}$
Front Face Protection	IP66/ NEMA 4
Input Sampling Rate	Four samples per second
Input Isolation	Universal input isolated at 2500V from all outputs and from power supply (except for SSR Driver)
Approvals	CE and UL (standard)
Input Type	Keyboard selectable: <ul style="list-style-type: none">• Thermocouples: J, T, K, N, B, R, S• RTDs: PT100• Linear: 0-20mA, 4-20mA, 0-50mV & 10-50mV
Output Type	Up to 3 outputs Types available: - Electromechanical Relay: SPST contact with 2A at 120V or 240V (resistive load); isolated <i>Lifetime:</i> >500,000 operations at rated voltage/current - SSR Driver: >10 VDC into 500 ohms minimum (50 mA maximum); not isolated from input
Control Algorithm	PID or ON/OFF; Direct or Reverse acting NOTE: No Manual mode available.
Alarms	Alarm 1: Relay output (SPST) or SSR Driver output Alarm 2: Relay output (SPST) (mutually exclusive with communications) Alarm Types: PV high or low, Deviation high or low, Band
Communications	RS485, Modbus protocol, Half Duplex
Power supply	96 to 264 Vac 50/60Hz, 12-24Vac/12-30Vdc in option

Product Dimensions

Front Face	49 x 25mm (1.93 x 0.98 inches)
	100mm (3.94 inches)
Panel cutout	45 x 22mm (1.77 x 0.8 inches)

The reliability, accuracy and quality of Honeywell's industry-proven LeaderLine® family of controllers are second to none, offering the best total value of ownership. The UDC 700 is backed by a two-year warranty and, as with all Honeywell industrial products, is supported by the largest service network in the industry.

Honeywell provides a complete line of temperature sensors including thermocouples, RTDs, and non-contact sensors that are compatible with the UDC 700 and other industrial control products.

Honeywell

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*Modbus is a trademark of Modicon

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