Honeywell

UDC3500 Universal Digital Controller

Model Selection Guide

New! Easy To Use UDC3500 1/4 DIN Single & Dual Loop Controller

The UDC3500 Controller packs new powerful features while retaining all the simplicity and flexibility of the industry standard UDC3300 Controller. Many new features include:

- NEMA 4X, IP66 Front Face Protection
- Built-in infrared communications port for configuring with a Pocket PC or Laptop
- PC Based Configuration Tools
- Ethernet Communications
- 20 Segment Set Point Programming
- One or Two Loops of Control
- Real Time Clock

UDC3500 Controller

Instructions

- Select the desired key number. The arrow to the right marks the selection available.
- Make the desired selections from Tables I through VI using the column below the proper arrow. A dot (•) denotes availability.

Key Number		I		II		III		IV		V		VI
_ _ _ _ _ _	-	_ _	-	_ _ _ _	-	_ _ _	-	_ _ _ _ _	-	_ _		_

KEY NUMBER - UDC3500 Single & Dual Loop Controller

Description	Selection	Availability		If Applicable Stocking P/N
Digital Controller for use with 90 to 250Vac Power + Current Output #1	DC3500	↓		
Digital Controller for use with 24Vac/dc Power + Current Output #1	DC3501		↓	

TABLE I - Specify optional Output and/or Alarms

Output #2	None	0 _	•	•	
	Current Output (4 to 20mA, 0 to 20 mA) (Current Output #3)	C _	•	•	
	Electro Mechanical Relay (5 Amp Form C)	E _	•	•	
	Solid State 1 Amp (Zero-Crossing Type)	A _	•	•	
	Open Collector transistor output	T _	•	•	
	Dual 2 Amp Relays (Form A) (Heat/Cool, Pos Prop, TPSC, Relays 1 & 2)	R _	•	•	
Relay Outputs #3, #4 and #5	None	_ 0	•	•	
	Three (3) E-M Relay (5 Amp Form C)	_ E	•	•	

TABLE II - Communications and Software Selections

Communications	None	0 _ _ _	•	•	
	Current Output #2 + (4) Digital Inputs	1 _ _ _	•	•	
	Current Output #2 + (4) Digital Inputs + Modbus RS-485	2 _ _ _	•	•	
	10 Base-T Ethernet (Modbus RTU) + (4) Digital Inputs	3 _ _ _	•	•	
Software Selections	Standard Functions, Includes Accutune	_ 0 _ _	•	•	
	Math Option	_ A _ _	•	•	
	Set Point Programming (1 Program, 20 Segments)	_ B _ _	•	•	
	Set Point Programming Plus Math (1 Program, 20 Segments)	_ C _ _	•	•	
	HealthWatch	_ D _ _	•	•	
	SPP + HealthWatch (1 Program, 20 Segments)	_ E _ _	•	•	
	Math + HealthWatch	_ F _ _	•	•	
	SPP + Math + HealthWatch (1 Program, 20 Segments)	_ G _ _	•	•	
Enhanced	Enhanced SPP (4 Programs, 20 Segments each)	_ H _ _	•	•	
	Enhanced SPP + Math (4 Programs, 20 Segments each)	_ J _ _	•	•	
	Enhanced SPP + HealthWatch (4 Programs, 20 Segments each)	_ K _ _	•	•	
	Enhanced SPP + Math + HealthWatch (4 Programs, 20 Segments each)	_ L _ _	•	•	
Loops of Control	Single Loop	_ _ 0 _	•	•	
	2 Loops + Internal Cascade	_ _2 _	•	•	
Real-Time Clock	None	_ _ _ 0	•	•	
	Real-Time Clock (RTC)	_ _ _ C	•	•	

TABLE III - Input types can be changed in the field

		Selection	Availability DC	3500 ↓	3501 ↓	If Applicable Stocking P/N
Input 1	TC, RTD, mV, 0-5V, 1-5V	1 _ _	•	•	
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA	2 _ _	•	•	
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA, -1-1V, 0-10V	3 _ _	•	•	
Input 2	None	_ 0 _	•	•	
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA	_ 1 _	•	•	
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA, -1-1V, 0-10V	_ 2 _	•	•	
	Two HLAI instead of 1 LLAI	_ 3 _	•	•	
	Relative Humidity (Requires Input 2)	_ 5 _	**b**	**b**	
	Carbon, Oxygen or Dewpoint (Requires Input 2)	_ 6 _	**b**	**b**	
Input 3	None	_ _0	•	•	
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA	_ _1	•	•	
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA, -1-1V, 0-10V	_ _2	•	•	
	Two HLAI instead of 1 LLAI	_ _3	•	•	
	Slidewire Input for Position Prop. (Requires Dual Relay Output)	_ _4	**a**	**a**	

TABLE IV - Options

Approvals	CE (Standard)	0 _ _ _ _	•	•	
	CE, UL and CSA	1 _ _ _ _	•	•	
Tags	None	_ 0 _ _ _	•	•	
	Stainless Steel Customer ID Tag - 3 lines w/22 characters/line	_ T _ _ _	•	•	
Special Options	None	_ _ 0 _ _	•	•	
	Custom Calibration (0.05%) For one Range Type Only (**Note 1)**	_ _ 1 _ _	•	•	
Future Options	None	_ _ _ 0 _	•	•	
	None	_ _ _ _ 0	•	•	

TABLE V - Product Manuals

Manuals	Product Information on CD - (English)	0 _	•	•	
	English Manual (Hard Copy)	E _	•	•	
	French Manual (Hard Copy)	F _			
	German Manual (Hard Copy)	G _			
	Italian Manual (Hard Copy)	I _			
	Spanish Manual (Hard Copy)	S _			
Certificate	None	_ 0	•	•	
	Certificate of Conformance (F3391)	_ C	•	•	

TABLE VI

	None	0	•	•	

Note 1: The specific range and input actuation to be calibrated to 0.05% must be specified for each input.
Form F3399 Supplemental Data must be completed. This form can be downloaded from the Honeywell SalesNet site or Global Technical Services site: >http://content.honeywell.com/ipc/faq/<
Only one range type can be calibrated for each input. All other universal ranges will remain at 0.10%.

ORDERING INSTRUCTIONS: These are provided as guidance for ordering such as those listed

1. Part numbers are provided to facilitate Distributor Stock.
2. Orders may be placed either by model selection or by part number.
3. Part numbers are shown within the model selection tables to assist with compatibility information.
4. Orders placed by model selection are systematically protected against incompatibility.
5. Compatibility assessment is the responsibility of the purchaser for orders placed by part number.
6. Items labeled as N/A are not available via the stocking program and must be ordered by model selection.

RESTRICTIONS

Restriction Letters	Available Only With		Not Available With	
	Table	Selection	Table	Selection
a	I	R _		
b	III	1 _ _		

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Supplemental Accessories & Kits

Description		Part Number
Bezel Assembly and Bezel Gasket		51453143-503
Display/Keyboard (with IR)		51452845-501
Power/Output PWA with Current Out #1 and E-M Relay (90-264 Vac)		51452831-501
Power/Output PWA with Current Out #1 and E-M Relay (24 Vac/dc)		50006376-501
Optional Analog Input PWA		51452825-501
2nd Current Output/Digital Inputs/RS-422/485 Communications PWA		51452837-502
Digital Inputs/Ethernet Communications PWA		51452840-501
MCU/Inputs PWA		51452828-502
Electro-Mechanical Relay		30755306-501
Open Collector Output PWA		30756679-501
Solid State Relay		30756725-501
3rd Current Output PWA		51452834-501
Dual Electromechanical Relay PWA		51452807-501
Optional Relay PWA (Relays 3, 4 & 5)		51452843-501
Ethernet Cable Jack Assembly (DONGLE)		50002382-501
Ethernet Adaptor Kit		50010425-501
Case Assembly (including Mounting Kit with four brackets)		51452846-501
Varistor (MOV) 120 Vac		30732481-501
Varistor (MOV) 240 Vac		30732481-502
Thermocouple Input Cold Junction Resistor Assembly		51453364-501
4-20 mA Input Resistor Assembly (250 ohm)		30731996-506
0-10 Volt Input Resistor Assembly (100K pair)		30754465-501
Mounting Kits (12 Brackets)		51452763-501
DIN Adaptor Kit		30755223-003
Process Instrument Explorer Software		50001619-001
Math Software Upgrade		50004636-501
SPP Software Upgrade		50004636-502
Healthwatch		50004636-503
Two Loops/Cascade		50004636-504
Battery Replacement Kit		51453140-501
Panel Bracket Kit		50004821-501
Product Information on CD	All Languages	51453375-501
Quick Start Manual (2 page) Standard	English	51-52-25-130
Product Manual	English	51-52-25-120