

UDC2500 Universal Digital Controller

Model Selection Guide

New! Easy To Use UDC2500 1/4 DIN Single Loop Controller

The UDC2500 Controller packs new powerful features while retaining all the simplicity, flexibility and the industry standard HMI of the UDC2300 Controller that it replaces.

Many new optional features include:

- NEMA 4X, IP66 Front Face
- Built-in infrared communications port for configuring with a Pocket PC or Laptop
- PC Based Configuration Tools
- Ethernet Communications
- Limit Model Available
- Thermocouple Health Monitoring
- Accutune III (Fast/Slow, Heat/Cool)



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.

UDC2500 Controller

Key Number I II III IV V VI

_____ - _____ - _____ - _____ - _____ - _____

KEY NUMBER - UDC2500 Single Loop Controller

Description
Digital Controller for use with 90 to 250Vac Power
Digital Controller for use with 24Vac/dc Power

Selection	Availability	Stocking P/N	If Applicable
DC2500	↓		
DC2501	↓		

TABLE I - Specify Control Output and/or Alarms

Output #1	None (Can be used as an indicator only) Current Output (4 to 20ma, 0 to 20 ma) Electro Mechanical Relay (5 Amp Form C) Solid State Relay (1 Amp) Open Collector transistor output Dual 2 Amp Relays (Both are Form A) (Heat/Cool Applications)
Output #2 and Alarm #1 or Alarms 1 and 2	No Additional Outputs or Alarms One Alarm Relay Only E-M Relay (5 Amp Form C) Plus Alarm 1 (5 Amp Form C Relay) Solid State Relay (1 Amp) Plus Alarm 1 (5 Amp Form C Relay) Open Collector Plus Alarm 1 (5 Amp Form C Relay)

0 _	•	•	
C _	•	•	
E _	•	•	
A _	•	•	
T _	•	•	
R _	•	•	
_ 0	•	•	
_ B	•	•	
_ E	•	•	
_ A	•	•	
_ T	•	•	

TABLE II - Communications and Software Selections

Communications	None Auxiliary Output/Digital Inputs (1 Aux and 1 DI or 2 DI) RS-485 Modbus Plus Auxiliary Output/Digital Inputs 10 Base-T Ethernet (Modbus RTU) Plus Auxiliary Output/Digital Inputs
Software Selections	Standard Functions, Single Display Dual Display with Auto/Manual Set Point Programming (12 Segments) Dual Display, Auto/Manual Limit Controller (Includes Dual Display Option)
Reserved	No Selection
Infrared interface	None Infrared Interface Included (Can be used with a Pocket PC)

0 _ _ _	•	•	
1 _ _ _	•	•	
2 _ _ _	•	•	
3 _ _ _	•	•	
_ 0 _ _	•	•	
_ A _ _	•	•	
_ B _ _	•	•	
_ L _ _	a	a	
_ _ 0 _	•	•	
_ _ _ 0	•	•	
_ _ _ R	•	•	

TABLE III - Input 1 can be changed in the field using external resistors

Input 1	TC, RTD, mV, 0-5V, 1-5V
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA
	TC, RTD, mV, 0-5V, 1-5V, 0-20mA, 4-20mA, 0-10V
Input 2	None 0-5V, 1-5V, 0-20mA, 4-20mA

Selection	Availability		If Applicable Stocking P/N
	DC 2500	2501	
1 __	•	•	
2 __	•	•	
3 __	•	•	
_ 00	•	•	
_ 10	b	b	

TABLE IV - Options

Approvals	CE, UL and CSA (Standard)
	CE, UL, CSA and FM
	CE Only
Tags	None
	Stainless Steel Customer ID Tag - 3 lines w/22 characters/line
Future Options	None
	None
	None

0 _ _ _ _	•	•	
1 _ _ _ _	c	c	
2 _ _ _ _	•	•	
_ 0 _ _ _	•	•	
_ T _ _ _	•	•	
_ _ 0 _ _	•	•	
_ _ _ 0 _	•	•	
_ _ _ _ 0	•	•	

TABLE V - Product Manuals

Manuals	Product Information on CD - English
	English (Hard Copy) Manual (51-52-25-127)
	French (Hard Copy) Manual (51-52-25-127-FR)
	German (Hard Copy) Manual (51-52-25-127-DE)
	Italian (Hard Copy) Manual (51-52-25-127-IT)
	Spanish (Hard Copy) Manual (51-52-25-127-SP)
Certificate	None
	Certificate of Conformance (F3391)

0 _	•	•	
E _	•	•	
F _	b	b	
G _	b	b	
I _			
S _	b	b	
_ 0	•	•	
_ C	•	•	

TABLE VI

No Selection	None
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0	•	•	
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RESTRICTIONS

Restriction Letters	Available Only With		Not Available With	
	Table	Selection	Table	Selection
a	I	E _		
	I	A _		
	I	T _		
Limit Controller Restrictions/Comments: 1. FM approved units with communications are limited to read only. 2. UL listed for regulatory use only.				
b			II	_ L _ _
c	II	_ L _ _	I	C _ , R _

ORDERING INSTRUCTIONS: These are provide 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.

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Supplemental Accessories & Kits

Description		Part Number
Bezel Assembly and Bezel Gasket		51453143-501
Display/Keyboard (with IR)		51452758-502
Dual Display with Auto/Manual		50004634-501
SPP (includes Dual Display, Auto/Manual)		50004634-502
Power/Output PWA with 2 E-M Relays (90-264 Vac Operation)		51452822-502
Power/Output PWA with 2 E-M Relays (24 Vac/dc Operation)		51452822-503
Auxiliary Output/Digital Input/RS-422/485 Communications PWA		51452810-501
Auxiliary Output/Digital Input/Ethernet Communications PWA		51452816-501
MCU/Inputs PWA (with 2nd Input and IR) for Controllers		51452801-503
MCU/Inputs PWA (with IR) for Limit Controllers		51452801-504
Electro-Mechanical Relay		30755306-501
Open Collector Output PWA		30756679-501
Solid State Relay		30756725-501
Current Output PWA		51452804-501
Dual Electromechanical Relay PWA		51452807-501
Ethernet Adaptor Board Kit		50009071-501
Case Assembly (including Mounting Kit with four brackets)		51452759-501
Varistor (MOV) 120 Vac		30732481-501
Varistor (MOV) 240 Vac		30732481-502
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 for UDC2500		50001619-001
Panel Bracket Kit		50004821-501
Product Information on CD	All Languages	51453375-501
Quick Start Manual (2 page) Standard & Limit Controller	English	51-52-25-124
Product Manual	English	51-52-25-127
Limit Controller Manual	English	51-52-25-118