

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.

Key Number I II III IV V VI

_____ - _____ - _____ - _____ - _____ - _____

UDC2500 Controller

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 |
|--------------|------|

| | | | |
|---|---|---|--|
| 0 | • | • | |
|---|---|---|--|

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.

UDC2500 Universal Digital Controller

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 |

Distributed by:



888.858.3647 | relevantsolutions.com