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Alpha PK2300

- 9 user-configurable digital I/O lines easily adapt to your specific system requirements
- Can be networked in a master-slave configuration
- Rugged glass-filled nylon enclosure
- DIN rail mountable or stand-alone
- Protected inputs and high-current outputs
- Resistance measurement input suitable for a variety of sensors

Using a serial port, the PK2300 interfaces easily to touchscreen displays such as the OP7100, page 34.



OP7100



The PK2300 is an ideal choice for rugged industrial applications, offering an excellent high-level control alternative to standard PLCs. User-definable I/O allows configuring multiple PK2300s differently within the same application. PK2300s can easily operate over a control network.

The PK2300's 19 I/O lines are shipped as 9 protected inputs, 8 high-current outputs, and 2 lines used for RS-485. Nine of the I/O lines are configurable, allowing combinations of level-sensitive interrupts, protected inputs, resistance measurement input, RS-485, and high-current digital outputs.

You can select the type of I/O specific to your needs. Up to 16 protected digital inputs or as many as 8 high-current outputs are possible.

Programming the PK2300

Software is developed for the PK2300 using the Dynamic C[®] 32 software development system. Please see page 6 for a complete description.

Alpha Tool Kit

The Alpha PK2300 Tool Kit contains all the hardware tools necessary for rapid development: manual with schematics, programming cable, AC adapter, and sourcing high-current driver. International orders do not include the AC adapter unless specifically requested.

PK2300 Specifications

Enclosure Size	5.00" x 2.96" x 1.81"
Operating Temp.	-40°C to +70°C
Humidity	5-95%, non-condensing
Power Requirements	9-24 V DC, 120 mA. Linear regulator
Configurable I/O*	4 of the inputs, 5 of the outputs
Digital Inputs	7-16 protected, -20 V to +24 V
Digital Outputs	3-8 high-current channels. At 25°C, a channel can sink up to 500 mA continuously. Output is subject to package power limits and duty cycle. Load limit is 48 V
Analog Inputs	1 resistance measurement input, 0-270 kΩ
Analog Outputs	PWM, 4-7 channels using digital outputs
Processor	Z180 at 9.216 MHz
SRAM	32K, surface mount (supports 512K)
Flash EPROM	128K, surface mount (supports 256K)
Counters	Software-implementable
Serial Ports	Either 2 RS-232 or 1 RS-232 (with RTS/CTS handshake) and 1 RS-485 (two-wire)
Serial Rate	Selected baud rates up to 57,600 bps
Watchdog/Supervisor	Yes
Time/Date Clock	Yes
Backup Battery	3 V lithium coin-type, 165 mA-h
Keypad and LCD	No
Expansion Port	No

* User configurable as protected digital inputs, digital outputs, RS-485 communications, and resistance measurement input.

Versions

PK2300 Full-featured SBC. Specifications stated above

PK2310 PK2300 without real-time clock or resistive measurement circuit

Options and Upgrades

DIN Rail Mounting Kit. Snap-on DIN rail mount (72 mm)

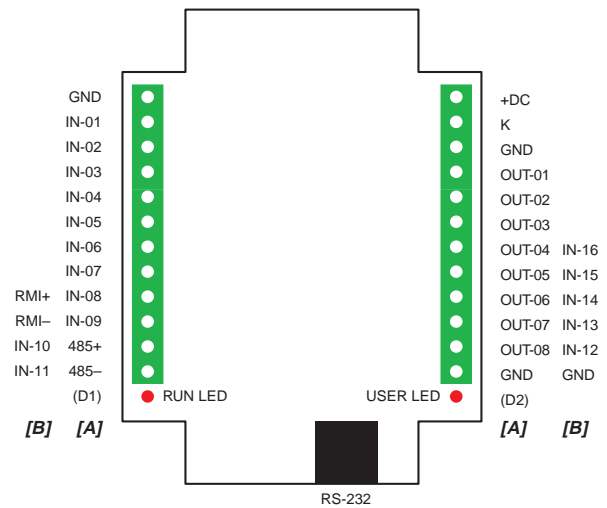
SIB2. Serial Interface Board. Allows programming through the special programming port on the PK2300, leaving other serial channels available. Includes programming cable

Thermistor. Rugged temperature sensor in a 0.25" diameter epoxy-filled PVC housing. Resistance is nominally 10 kΩ at 25°C. Accuracy is ±0.2°C in the optimal range 0°C to 70°C. Dissipates 3 mW/°C. Range is -55°C to +150°C

Sourcing Driver Kit. Provides 2 (2985) sourcing driver chips. At 25°C, a channel can source up to 250 mA continuously. Output is subject to package power limits and duty cycle. Load limit is 30 V

SRAM. 128K or 512K. Factory installed

Flash EPROM. 256K. Factory installed



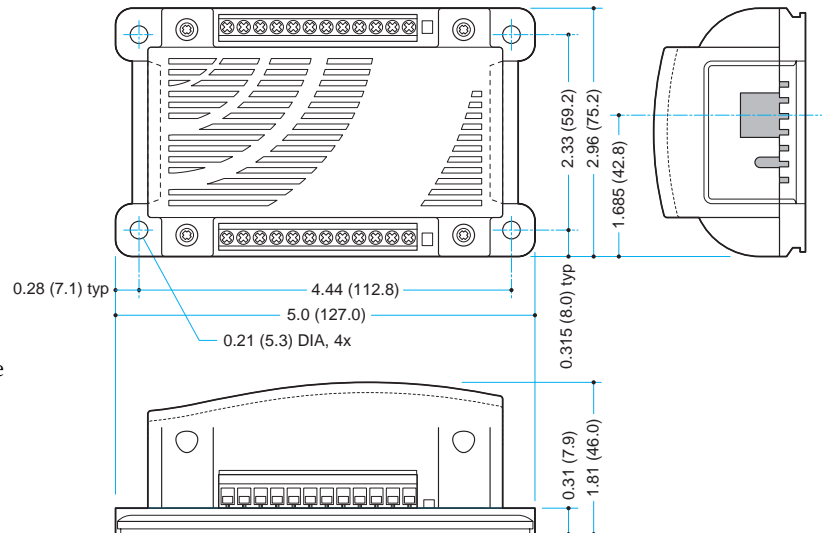
PK2300 Inputs and Outputs

Signals identified by [A] comprise the PK2300 I/O configuration as shipped. Signals identified by [B] denote alternate user configurations. You can use any combination of [A] and [B]

RMI means resistance measurement input

IN denotes protected input

OUT denotes high-current output



PK2300 Dimensions