| K500

Platform Control System for battery powered scissor lift

Introduction

The K500 Platform Control System provides the reliability required in demanding applications such as Mobile Elevating Work Platforms; K500 is committed to the full control of DC battery powered self-propelled scissor lift. The key parts of the K500 Kit are the PCU500 (Platform Control Unit) and the ECU500 (Electronic Control Unit). The 2 units have been conceived as building block elements able to connect a variety of digital and analog machine interfaces such as joysticks, sensors, limit switches, LEDs , motor controller, pushbuttons, e-stop, alarms and control them through a CAN-bus system. K500, the evolution of the K300, includes many improvement such as more Input/output available , LCD display, gyroscope+accelerator integrated and GPS.

PCU500
Platform Control Unit

ECU500
Electronic Control Unit

Main Features

- Four push button switches with LED backlit indicators
- Direction control switches integrated in the joystick grip
- LCD Display for an easy setting and control
- Emergency Stop Pushbutton
- Support CAN & USB
- Support analog current & analog voltage multiplex Input
- Support hardware Watch-Dog & real time clock
- Support gyroscope & accelerate sensors

Custom modifications

- Custom overlay graphics
- Custom grip
- 40 functionally configurable Input/Output signals

SPECIFICATIONS

Electrical

	PCU500	ECU500
Supply Ratings	**System Voltage:** 12V or 24V DC **Voltage Range:** 10V~36V	
	Max. output voltage: V supply DC	N/A
	Certified to CE regulations	
Other Electrical Characteristics	N/A	**Automotive grade MCU:** 16bit/32MHz,256-KB flash memory & 32-KB SRAM memory **ESD:** +/- 6KV Contact, +/-8KV Air Discharge per IEC 61000-4-2 **Functional safety:** Design for PL-d (loading function), refer to BS EN ISO13849

Mechanical

	PCU500	ECU500
Operating temperature	-20 °C to 70 °C	
Protection Level	IP65 (after installed)	IP65
Life	Joystick > 5 million cycles Pushbuttons > 1million cycles	N/A

PCU500 Platform Control Unit

Connector: 6 Pin, SIBAS HQ-005-M; Pin Current Rating 7.5Amps

Pin 1	Ground
Pin 2	Serial Data High
Pin 3	E-Stop Out (+24V out)
Pin 4	+24V in
Pin 5	Serial Data Low
Pin 6	Unused

ECU500 Electronic Control Unit

Connectors: CN1 = 35 Pin, AMP 776231-1; CN2 = 14Pin, AMP 776262-1, Pin Current Rating 10Amps; gold plating on mating area of pins

CN1 Connector

Pin	Description	Pin	Description	Pin	Description
CN1-A1	0-24V Digital Input	CN1-B1	Datalink_Plus	CN1-C1	Datalink_Minus
CN1-A2	0-24V Digital Input	CN1-B2	0-24V Digital Input	CN1-C2	24V Power Input
CN1-A3	2.5A/24V Digital Output	CN1-B3	CGND	CN1-C3	Analog Multiplex Input
CN1-A4	24V Power Input	CN1-B4	Analog Voltage Input	CN1-C4	Analog Voltage Output
CN1-A5	24V Power Input	CN1-B5	0-5V Digital Input	CN1-C5	0-5V Digital Input
CN1-A6	2.5A/24V Digital Output	CN1-B6	2.5A/24V Digital Output	CN1-C6	2.5A/24V Digital Output
CN1-A7	2.5A/24V Digital Output	CN1-B7	2.5A/24V Digital Output	CN1-C7	2.5A/24V Digital Output
CN1-A8	2.5A/24V Digital Output	CN1-B8	2.5A/24V Digital Output	CN1-C8	2.5A/24V Digital Output
CN1-A9	Analog Voltage Output	CN1-B9	Alarm_out	CN1-C9	2.5A/24V Digital Output
CN1-A10	0-24V Digital Input	CN1-B10	0-24V Digital Input	CN1-C10	0-24V Digital Input
CN1-A11	Analog Multiplex Input	CN1-B11	0-24V Digital Input	CN1-C11	0-24V Digital Input
CN1-A12	0-24V Digital Input			CN1-C12	0-24V Digital Input

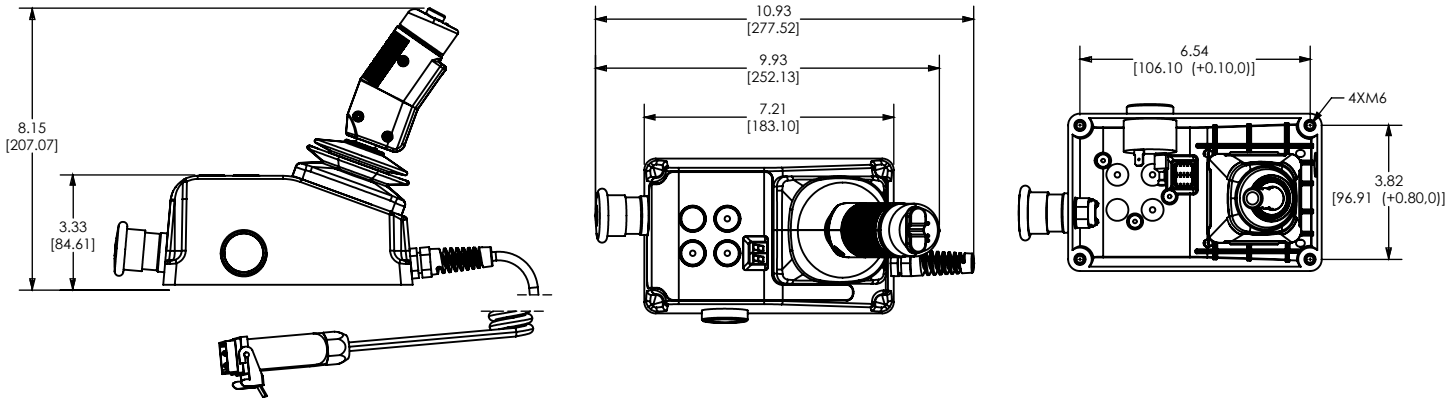
CN2 Connector

Pin	Description
CN2-A1	2.5A/24V Digital Output
CN2-A2	Analog Voltage Input
CN2-A3	5V Power Output
CN2-A4	CAN1H
CN2-A5	CAN1L
CN2-B1	Analog Current Input
CN2-B2	Analog Current Input
CN2-B3	2.5A/24V PWM Output
CN2-B4	2.5A/24V PWM Output
CN2-C1	Analog Voltage Output
CN2-C2	0-24V Digital Input
CN2-C3	0-24V Digital Input
CN2-C4	0-24V Digital Input
CN2-C5	2.5A/24V PWM Output

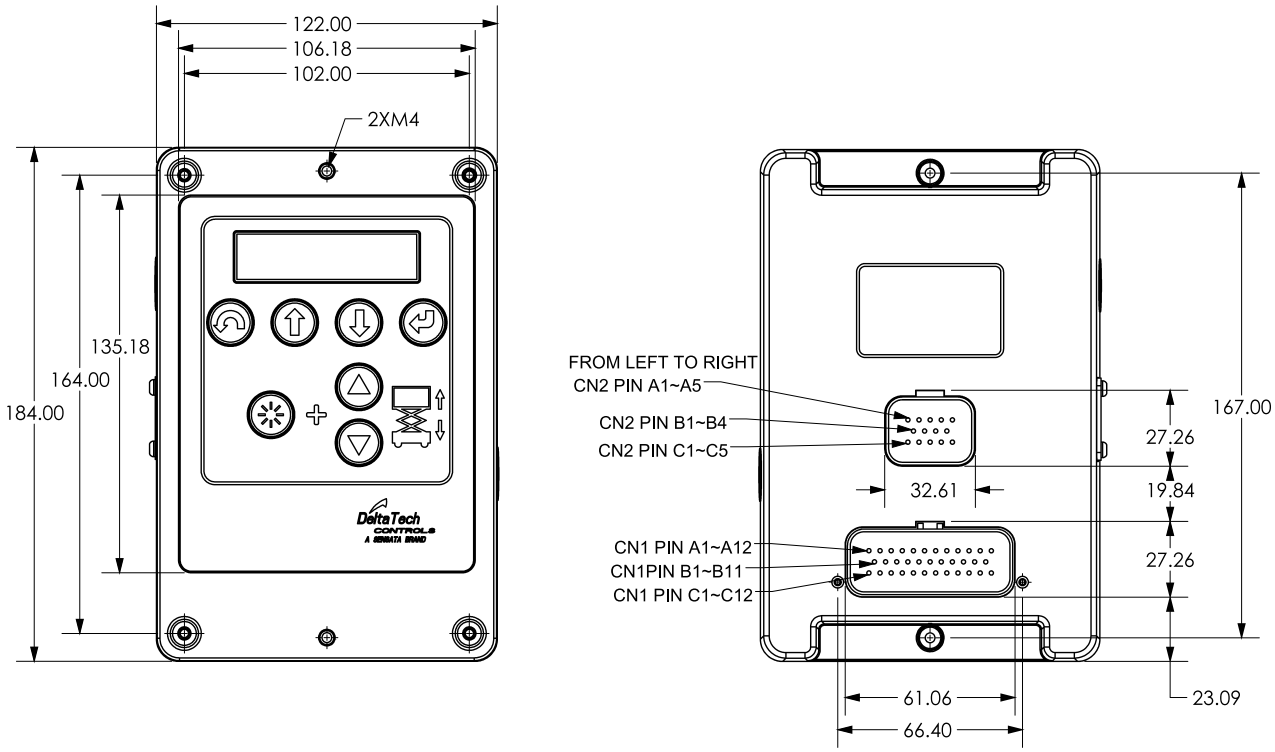
DIMENSIONS

All dimensions are in inches [millimeters]

PCU500 Platform Control Unit



ECU500 Electronic Control Unit



ORDERING OPTIONS

Part Number	Product	Description
K500-VR1	K500	Platform Control Kit for DC vehicle

(A) ***K500 Kit includes:***

Part Number	Product	Description
P500-VR1	PCU500	Platform Control Unit
E500-VR1	ECU500	Electronic Control Unit
8C40002CC0005-01	MC300	Accessory - Motor Controller 24/36V 275Amp

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