PKP-3500-SI-MT

CANbus KEYPAD WITH 2 ROTARY ENCODERS

PKP-3500-SI-MT is a new direction in CANbus keypads. This all new design comes equipped with thirteen push buttons with replaceable icon inserts, plus two rotary encoders that are also push enabled.

Thanks to four additional analog and digital inputs, it is possible to connect 5V sensors directly to the CANbus network through the keypad.

The compact layout and inclusion of the rotary encoders allows for significant dash space saving while expanding the functionality of the vehicle.

PKP-3500-SI-MTR
Includes 2 rotary encoders with a rubber knob that allows for a standard PKP-SI insert to be fitted.

PKP-3500-SI-MTP
Includes 2 rotary encoders with a solid plastic knob.

SOFTWARE FEATURES

CAN Keypad Addresses – Assign any valid CAN address to the keypad.

J1939 Address Claim Transmission – Keypads no longer have to be pre-programmed to a specific address. This enables customers that work in applications in the field without access to a GUI to use any replacement keypad on-hand. The keypad can be configured to automatically announce its address and accept a new address assignment as appropriate.

Event Status Transmission – The keypad can send messages to the BUS indicating a button press or a button release event has occurred.
This confirmation allows digital systems to have the same input acknowledgements as that of the latching position of a mechanical switch.

Periodic Status Transmission – The keypad sends a continuous broadcast of messages indicating the press or release status of each button at that instance. The frequency of these messages can be adjusted within a wide range.

Periodic Heartbeat – The keypad sends a continuous broadcast of messages indicating it is functioning correctly. The frequency of these messages can be adjusted within a wide range.

CANopen Communications Protocol – Fully compliant with Device Profile 401d.

HARDWARE FEATURES

4 additional 5V inputs - Allows the possibility to connect items such as analogue active sensors (such as pressure and temperature sensors), discrete switches (highside/lowside) and Hall Effect sensors.

Independent LED indicator lights – Each rotary encoder has 16 Blue LED light indicators, while all 13 pushbuttons are equipped with RGB LED rings. All LEDs can be independently programmed.

UV Protected – UVB 400 hours: Keypad is highly resistant to deterioration caused by exposure to sunlight.

The keypad's symmetrical design and spacing between keys makes it easier to install multiple keypads alongside one another.

STANDARD FEATURES

- Reconfigurable keys
- LED state & status configurable
- Vertical or horizontal mount
- LED backlit icons
- Multicolor indicator rings
- Laser etched icons
- ON/OFF, momentary, toggle & scroll
- Encoders

SOFTWARE FEATURES

- Change CAN keypad addresse independently
- Periodic status transmission
- Heartbeat
- Event status transmission
- LED acknowledgement
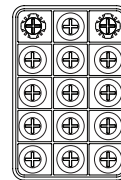- Address claim transmission
- CANopen and J1939

OTHER BENEFITS

- Programmer's manual available to help support
- Knob customization
- plug-and-play reconfigurability
- Encoder led colour customized

SPECIFICATIONS FOR STANDARD KEYPADS
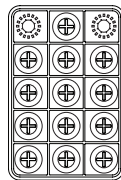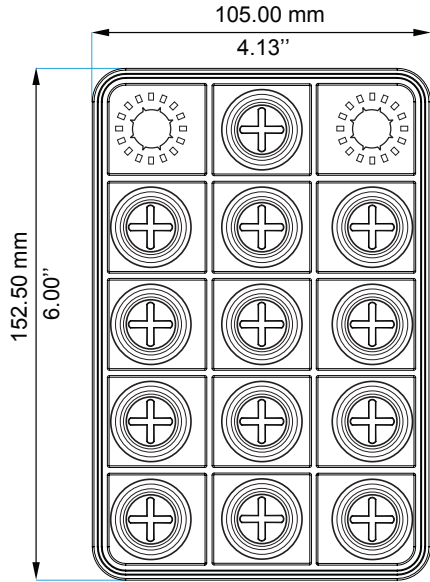
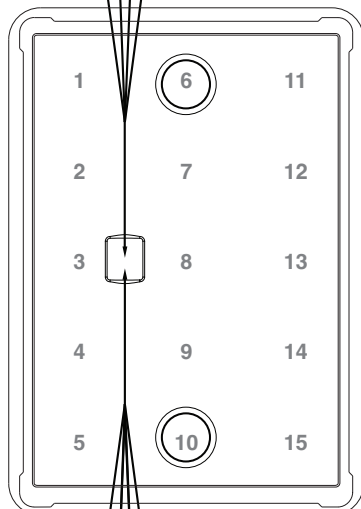| ELECTRICAL	PKP-3500-SI-MTP	PKP-3500-SI-MTR
Supply Voltage	12-24Vdc Nominal (8-32VDC)	
Standby Current	<50 mA	
Communication BUS	CANopen, J1939	

MECHANICAL

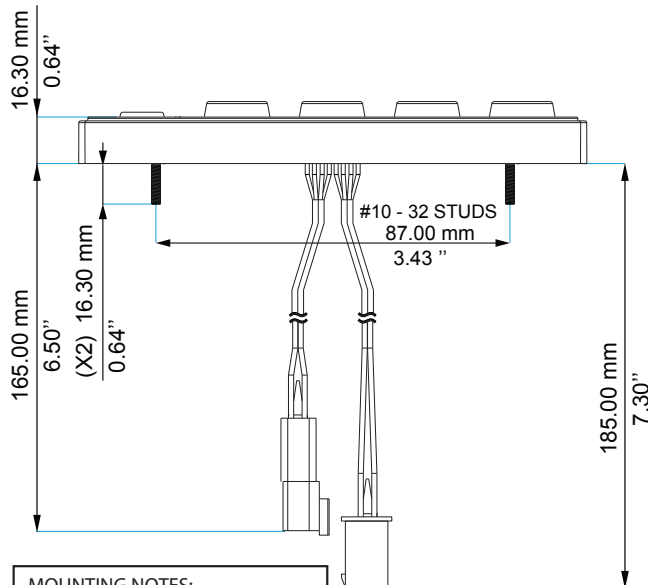|	
Connector	Deutsch DT04-4P + Molex 39-01-3069
Switch Life	3 million operations
Mounting Studs	#10-32 Steel
Keypad	Silicone rubber with polyurethane hardcoat
PC Board	1,6mm thick, Nema Grade FR-4, double clad with 1oz copper
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°C to +85°C According to table 2 of ISO16750-4
Humidity	0 to 98% (no condensation)
UV Protection	UVB 400 hours
Salt Spray	Per ASTMB117
Chemical Resistance	Deet, Engine Cleaner, Isopropyl Alcohol, Suntan Lotion, Multi-Purpose Cleaner, Orange Citrus Cleaner, Muriatic Acid
Weight	300 gr (Inserts excluded)

PKP-3500-MTX

105.00 mm
4.13"

152.50 mm
6.00"

BLACK=GROUND   WHITE=CAN HIGH
RED=POWER   BLUE=CAN LOW

1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

RED=POWER +5V   GREY=IN2
YELLOW=IN0   GREEN=IN3
BLUE=IN1   BLACK=GROUND

16.30 mm
0.64"

165.00 mm
6.50"

(X2) 16.30 mm
0.64"

#10 - 32 STUDS
87.00 mm
3.43"

185.00 mm
7.30"

MOUNTING NOTES:
Nuts thread: #10-32
Maximum torque: 1,8Nm - 16lbf-in

NOTE: ALL CONNECTION WIRES
ARE THE SAME LENGTH

PKP-3500-MTP

15.50 mm
0.60"

Ø16.00 mm
0.63"

PKP-3500-MTR

20.90 mm
0.82"

Ø19.00 mm
0.75"
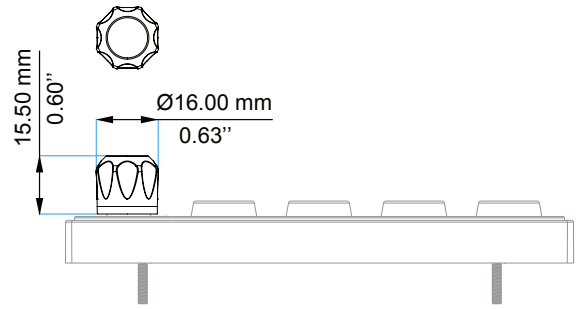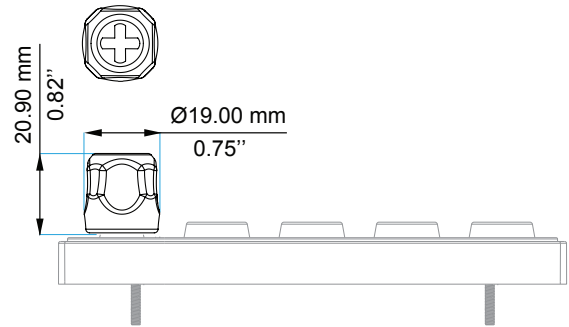
CONNECTORS STANDARD PINOUT

WIRE SIDE

PIN	COLOUR	FUNCTION
1	Blue	CAN L
2	White	CAN H
3	Black	Negative battery
4	Red	Vbatt. (12-24V)

WIRE SIDE

PIN	COLOUR	FUNCTION
1	Red	Power +5V
2	Yellow	IN0
3	Blue	IN1
4	Grey	IN2
5	Green	IN3
6	Black	GND

The one illustrated above is the standard pinout; however, some keypads may be supplied with alternative pinouts or connectors.

blink
M A R I N E