

PKP-LI Series

PKP-1500-LI

PKP-2200-LI

PKP-2400-LI

AUTOMOTIVE - MARINE



CANopen
J1939



DESIGN YOUR OWN
PROTOTYPE ONLINE

FLEXIBLE - SMART - RUGGED

PKP-1200-LI, PKP-1500-LI, PKP-2200-LI and PKP2400-LI are a compact keypads based on CAN protocol. They come equipped with keys with interchangeable 24 mm inserts. The keypads are water and dust resistant, and can be installed both inside and outside the cockpit. RGB led lights and the ease with which icons can be switched in and out make it possible for the user to customize each key in a wide range of variations.



Icons shown on this keypad are for visual demonstration only.

SOFTWARE FEATURES

CAN and RS485 Keypad Addresses – Assign any valid CAN and RS485 address to the keypad. Communicate on either BUS simultaneously.

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 in a wide range.

Online Set-up – An online set-up system makes it possible to select and design your own prototype, then order it directly on blinkmarine.com.

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

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

HARDWARE FEATURES

IP67/IP69K waterproof rating – Guaranteed to be dust tight and sealed against water immersion to a depth of 1 meter for up to 1 hour. The IP69K rating provides protection against high pressure water at high temperature spray downs.

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

Customizable inserts – The replacement system for individual inserts makes modifying the keypad layout simpler and more economical. Hundreds of different stock inserts can be viewed at blinkmarine.com, and it is possible to order customized ones.

A membrane compensation valve which self compensate the internal pressure within the keypad, alleviating mechanical stresses that can be produced by shifts in external temperatures.

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

The rubber is molded on the backside in such a way that it acts as a gasket, blocking liquids and preventing them from leaking in through the attachment holes located on the support upon which the keypad is installed.

STANDARD FEATURES

- Reconfigurable keys
- Relegendable buttons
- LED state & status configurable
- Vertical or horizontal mount
- Flush or front mount
- LED backlit icons
- Multicolor indicator rings
- Laser etched icons
- ON/OFF, momentary, toggle & scroll
- Hundreds of stock icons to choose from





SOFTWARE FEATURES

- Change CAN or RS485 keypad addresses independently
- Periodic status transmission
- Heartbeat
- Event status transmission
- LED acknowledgement
- Address claim transmission
- RS485, CANopen and J1939

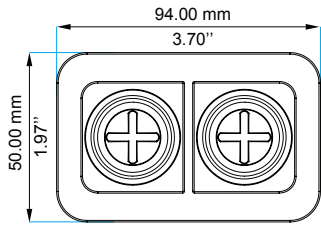
OTHER BENEFITS

- Programmer's manual available to help support
- plug-and-play reconfigurability
- Available in fixed legends

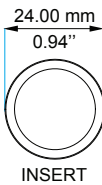
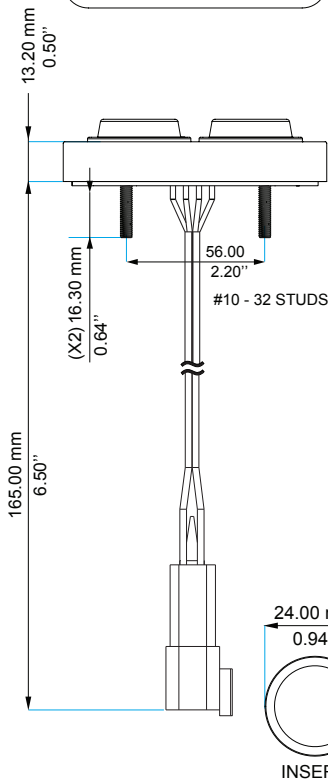
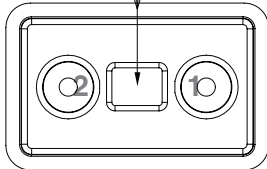
SPECIFICATIONS FOR STANDARD KEYPADS

| |  |  |  |  |
|---------------------------|---|---|---|---|
| | PKP-1200-LI | PKP-1500-LI | PKP-2200-LI | PKP-2400-LI |
| ELECTRICAL | | | | |
| Supply Voltage | 12-24Vdc Nominal (8-32VDC) | | | |
| Standby Current | <50 mA | | | |
| Communication BUS | RS485, CANopen, J1939 | | | |
| MTBF | 257154 hours | 000000 hours | 000000 hours | 208253 hours |
| | (in accordance with MIL-HDBK-217 - operating environment Ground Mobile) | | | |
| MECHANICAL | | | | |
| Connector | Deutsch DT04-4P | | | |
| 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 ASTM B117 | | | |
| Chemical Resistance | Deet, Engine Cleaner, Isopropyl Alcohol, Suntan Lotion, Multi-Purpose Cleaner, Orange Citrus Cleaner, Muriatic Acid | | | |
| Ingress Protection Rating | IP67/IP69K | | | |
| Weight | 94* gr | 170* gr | 150* gr | 230* gr |

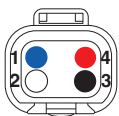
* (Inserts excluded)



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



CONNECTOR STANDARD PINOUT



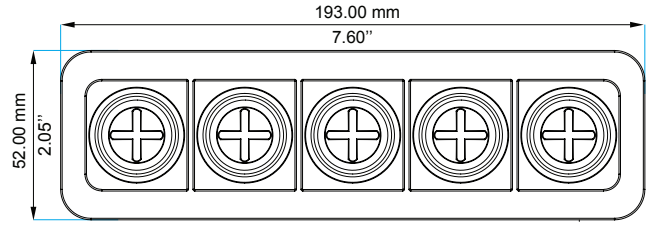
WIRE SIDE

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

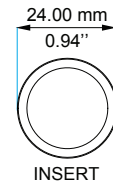
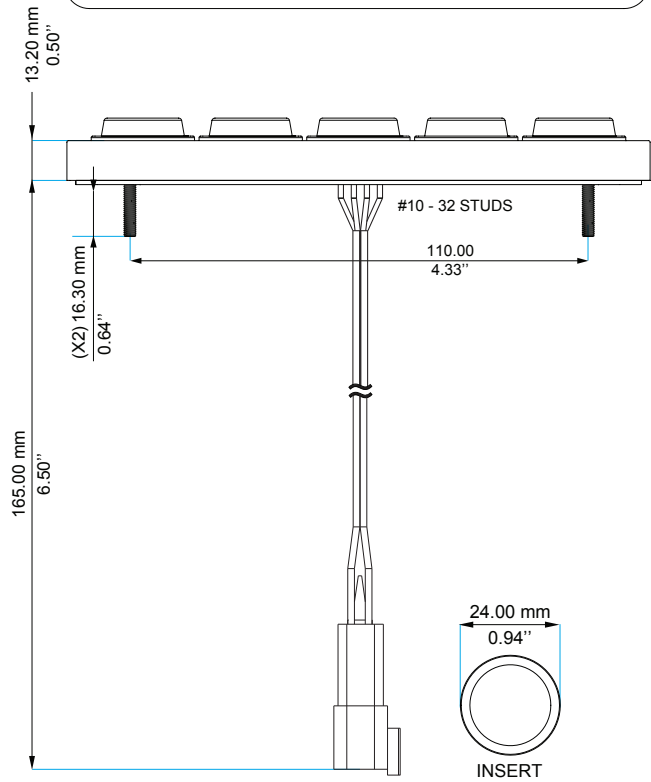
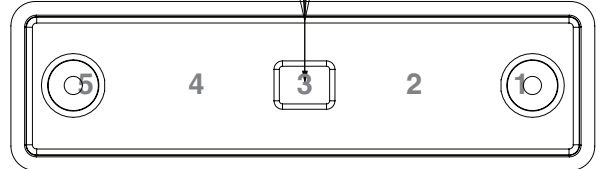
The one illustrated above is the standard pinout; however, some keypads may be supplied with alternative pinouts or connectors.

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

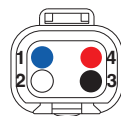
NOTE:
ALL CONNECTION WIRES
ARE THE SAME LENGTH



GREEN= TxRx-(RS485) ORANGE= TxRx+(RS485)
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CONNECTOR STANDARD PINOUT



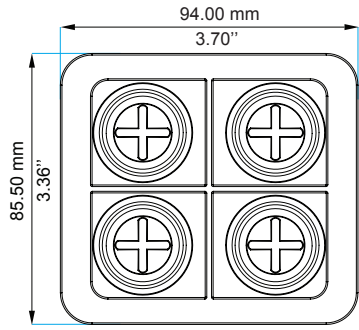
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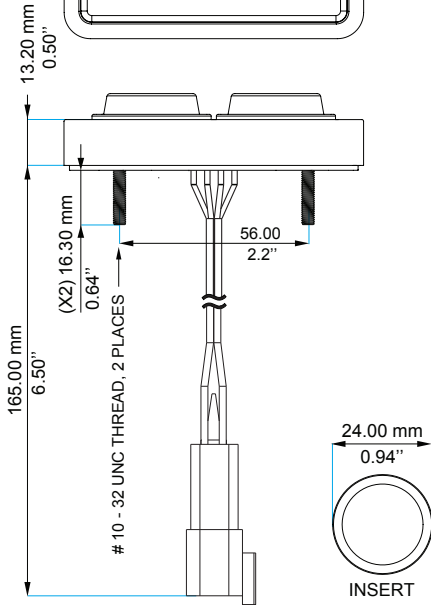
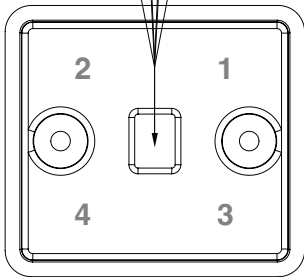
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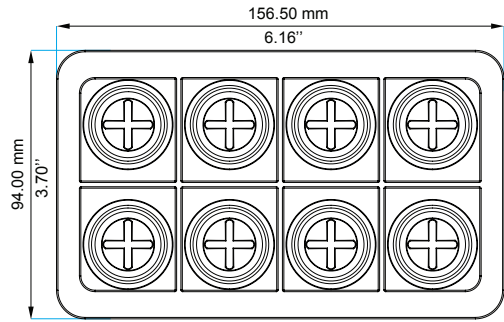
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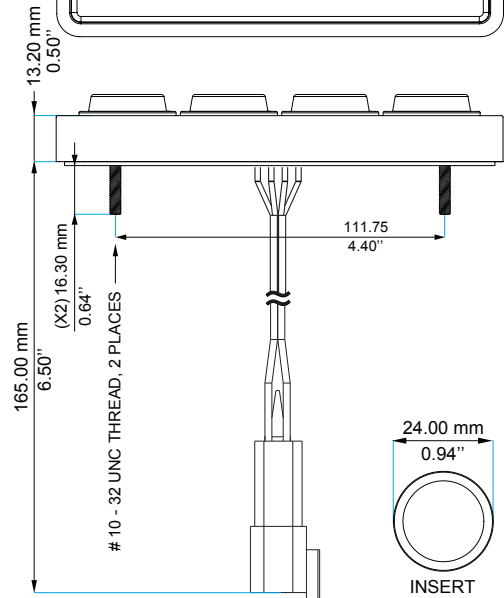
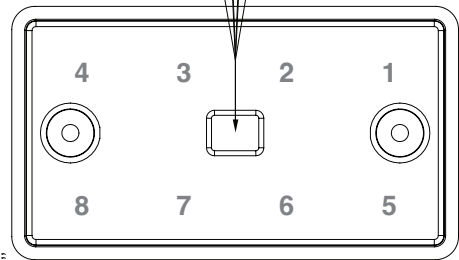
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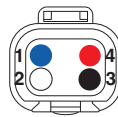
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