# PKP-1300-SI

**PKP-1300-SI** is a compact keypad based on CAN protocol. It comes equipped with three keys with interchangeable 15 mm inserts. The keypad is 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.

## SOFTWARE FEATURES

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

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

**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.

**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.

**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.

## 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. Thousands 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.

**Independent Key –** The device is able to support any multiple pressure key combination.

Icons shown on this keypad are for visual demonstration only.

## STANDARD FEATURES

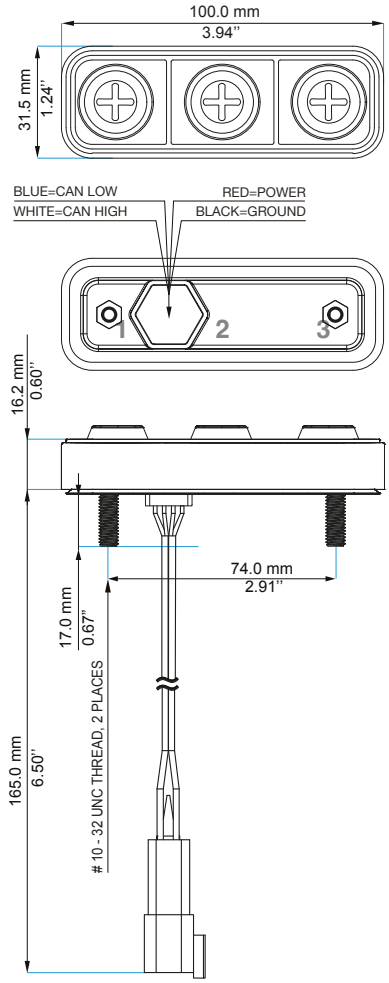
- Reconfigurable keys
- Replaceable icon inserts
- Configurable LED
- High intensity LED status indicators
- LED backlit icons
- Multicolor indicator rings
- Laser etched icons
- Programmable functions (momentary, toggle, scroll...)
- Thousands of stock icons to choose from
- Vertical or horizontal mount
- Protected from inverted polarity

## SOFTWARE FEATURES

- Change CAN keypad addresses independently
- Periodic status transmission
- Heartbeat
- Event status transmission
- LED acknowledgement
- Address claim transmission
- CANopen and J1939 communication protocol
- Plug-and-play reconfigurability
- Detailed user manuals available

## OTHER BENEFITS

- Specific connectors and cables are available on request




MOUNTING NOTES:
Nuts thread: 2x #10-32
Maximum torque: 1,8Nm - 16lbf-in

All connection wires are the same length

WIRE SIDE

## CONNECTOR STANDARD PINOUT

| PIN | COLOUR | FUNCTION |
|---|---|---|
| 1 | Blue | CAN L |
| 2 | White | CAN H |
| 3 | Back | 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.

## SPECIFICATIONS FOR STANDARD KEYPADS

| ELECTRICAL | PKP-1300-SI |
|---|---|
| Supply Voltage | 12-24Vdc Nominal (8-32VDC) |
| Standby Current | <10 mA @12V <1mA @24V |
| Communication BUS | CANopen, J1939 |
| MTBF | 274046 hours (in accordance with MIL-HDBK-217-operating environment ground mobile) |

| MECHANICAL | PKP-1300-SI |
|---|---|
| Standard Connector | Deutsch DT04-4P |
| Switch Life | 3 million operations |
| Mounting Studs | 2x #10-32 Stainless Steel |
| Rubber Specs | Silicone rubber with polyurethane hardcoat |
| PCB | 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 |
| Mechanical Shock Test | IEC 60068 2-27 3-axis X,Y,Z 50Gs 11ms |
| Vibration Test | IEC 60068 2-6 3-axis X,Y,Z 10-150Hz 0.15mm |
| UV Protection | UVB 400 hours |
| Salt Spray | Per ASTMB117 |
| Chemical Resistance | Engine Cleaner, Isopropyl Alcohol, Suntan Lotion, Multi-Purpose Cleaner, Muriatic Acid |
| Ingress protection Rating | IP67/IP69K |
| Weight | 90 gr (Inserts excluded) |

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