



PK23

With 6 keys in less than 50 cm² and an attractive design, the PK23 is an extremely compact keypad that guarantees high button density and uncompromising design. The IP67 protection rating makes it perfect for outdoor installations as well. In addition to the icons for each button, it is possible to configure the color and number (from 0 to 3) of the RGB LED points present on each button.

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.

Smart LED Management – Each light spot consists of three different colored LEDs (RGB). In this way it is possible to independently adjust color and intensity gradient of light spots.

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.

Concave Keys – The ergonomic design simplifies touch navigation of the quick-pick keys.

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 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.

RGB LED – Both the LED points on each key and the backlighting can be calibrated to display various colors within the RGB spectrum.



Icons shown on this keypad are for visual demonstration only.

STANDARD FEATURES

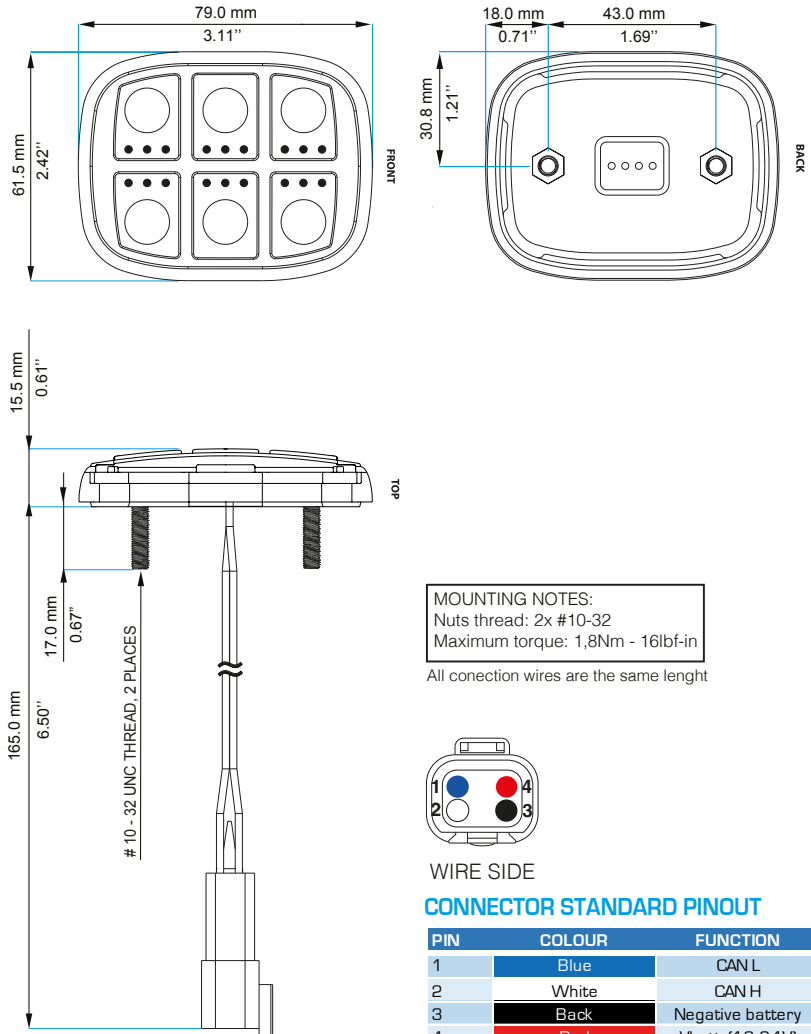
- Configurable LED
- Multicolor LED backlight
- High intensity LED status indicators
- RGB LED Indicators
- LED backlit icons
- Programmable functions (momentary, toggle, scroll...)
- Vertical or horizontal mount
- Compact design
- Protected from inverted polarity

SOFTWARE FEATURES

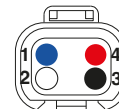
- Change CAN keypad addresses independently
- Periodic Status transmission
- Heartbeat
- Event status transmission
- LED acknowledgement
- Address claim transmission
- CANopen and J1939 communication protocol
- Plug-and-play reconfigurability
- Detailed user manuals available

OTHER BENEFITS

- Custom laser etched icons
- Specific connectors and cables are available on request



MOUNTING NOTES:
Nuts thread: 2x #10-32
Maximum torque: 1,8Nm - 16lbf-in
All conection wires are the same lenght



WIRE SIDE

CONNECTOR STANDARD PINOUT

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.

SPECIFICATIONS FOR STANDARD KEYPADS

ELECTRICAL	PK23
Supply Voltage	12-24Vdc Nominal (8-32VDC)
Standby Current	<50 mA
Communication BUS	CANopen, J1939
MTBF	142106 hours (in accordance with MIL-HDBK-217-operating environment ground mobile)

MECHANICAL	PK23
Standard Connector	Deutsch DT04-4P
Switch Life	3 million operations
Mounting Studs	2x #10-32 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 ASTM B117
Chemical Resistance	Engine Cleaner, Isopropyl Alcohol, Suntan Lotion, Multi-Purpose Cleaner, Muriatic Acid
Ingress protection Rating	IP67 / IP69K
Weight	90 gr

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