PDU Keypad
Datasheet

The PDU Keypad is an intelligent and slim membrane panel designed to replace traditional switch panels in a vehicle's cockpit simplifying wiring and packaging. The PDU Keypad features 20 snap action trans-illuminated buttons in conjunction with 24 programmable LEDs with adjustable brightness control. The input and output states of the keypad are transmitted / received via CAN 2.0B allowing the system to full flexibility with many ECUs & controllers. Used in conjunction with a Life Racing PDU the keypad blends easily with 'PDU Setup' schematic software allowing for quick and easy system integration.

Outputs:

- 20 switch outputs over CAN

Inputs:

- 24 configurable LED indicators with adjustable brightness

Interfaces:

- 1 CAN 2.0B interface

Power Supply:

- 6 to 32V input range with reverse polarity protection

Physical:

- 9way D-Type connector
- Ruggedised plastic moulded case
- Splash resistant for motorsport fluids
- Optional M12 cutout holes for additional physical switches
- Maximum dimensions 170x105x35mm
- Operating Temperature -25 to 85
- Total mass ~210g

Sticker Kit:

A sticker kit is supplied with every keypad in six colours for custom layouts.

CAN Information:

By default, keypads will be supplied with a 1Mbit baud rate and using frames 740h and 741h. If two keypads will be used on the same application, or an alternative baud rate is needed then this must be specified at order.

Command Frame (to keypad) : 740h(v2.1) 750h(v2.2)

This frame must be received by the keypad more frequently than once per second. Recommended minimum 10Hz maximum 100Hz. If one second elapses without the keypad receiving this frame the keypad will turn off all LEDs and the three external low power outputs.

  B0 : future use send 00h
  B1 : bits 7..0 set LEDs 24..17
  B2 : bits 7..0 set LEDs 16..9
  B3 : bits 7..0 set LEDs 8..1
  B4 : value 0..100 sets LED power 0..100% in 1% steps
  B5 : future use send 00h
  B6 : future use send 00h
  B7 : future use send 00h

Status Frame (from keypad) : 741h(v2.1) 751h(v2.2)

This frame is sent by the keypad when the Command Frame is received.

  B0 : future use send 00h
  B1 : bits 7..0 are keypad button 24..17
  B2 : bits 7..0 are keypad button 16..9
  B3 : bits 7..0 are keypad button 8..1
  B4 : value 0..100 is LED power 0..100% in 1% steps
  B5 : bits 7..0 are LEDs 24..17
  B6 : bits 7..0 are LEDs 16..9
  B7 : bits 7..0 are LEDs 8..1

Keypad buttons are internally validated and debounced.

Ordering Information:

| Description	Part number
LR PDU Keypad	ANC-C01
9way connector kit	CON-B08

Wiring Information:

Connector 1

Mating connector: Harting 09670094701
Connector Crimps: Harting 09670008277
Connector Hood: TE 5745171-2

Pin	Gauge	Signal Name	Signal Notes
1	20-24AWG	DO NOT CONNECT	NOT IN USE
2	20-24AWG	Battery Supply	Positive battery supply
3	20-24AWG	CAN LO	CAN communication port
4	20-24AWG	CAN HI	CAN communication port
5	20-24AWG	Power Ground	Negative battery supply
6	20-24AWG	DO NOT CONNECT	NOT IN USE
7	20-24AWG	DO NOT CONNECT	NOT IN USE
8	20-24AWG	DO NOT CONNECT	NOT IN USE
9	20-24AWG	DO NOT CONNECT	NOT IN USE

Dimensions:
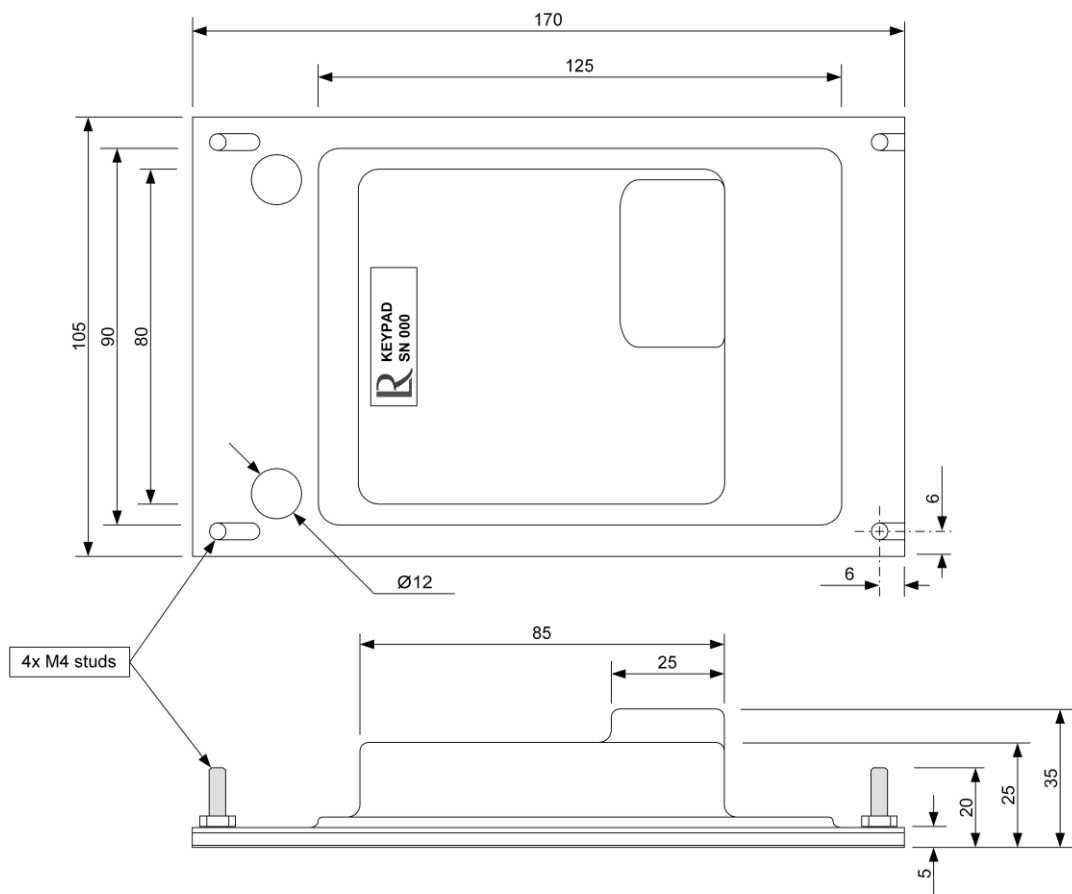
Warranty and Servicing:

- This equipment comes with a 1 year warranty against manufacturing defects and failures however misuse or damage will not be covered under warranty.