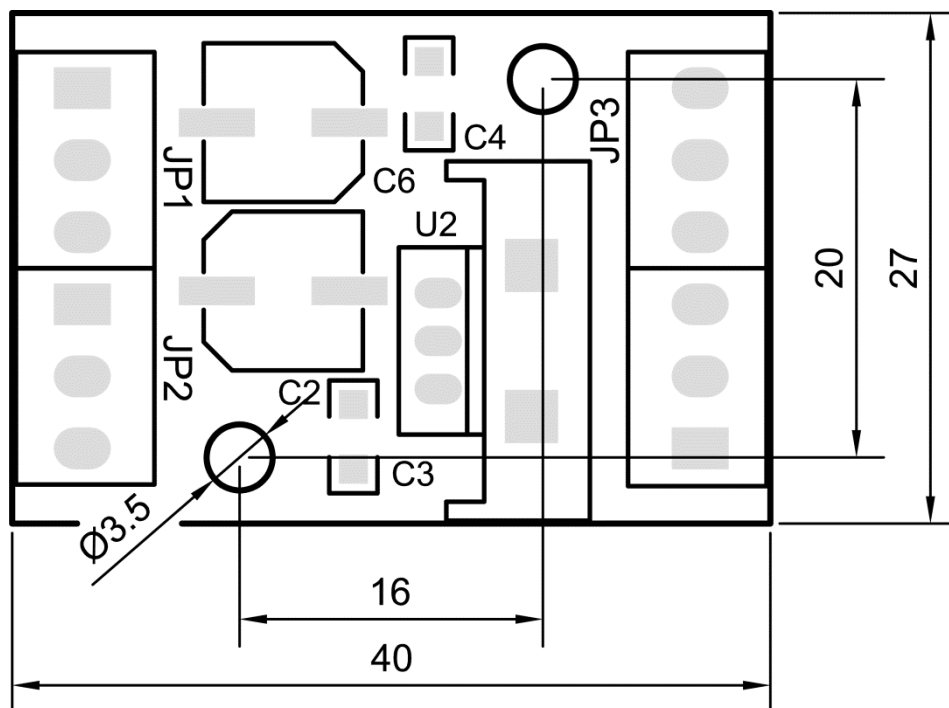


## LEETERN Filter (Instruction for using digital signal filter)

LEETERN Filter is used to filter clutter and shape signals that make control system operate steady.

Digital signal filter has two filtering channels, which can handle the two channels digital signals at the same time. It can be connected to LEETERN controllers and the dimensions are as show as follow figure:



Terminal wiring connection definitions:

JP1- Input terminal of channel 1, used to connect sensor.

- 1- GND (the square solder pad of the connector is the 1<sup>st</sup> pin)
- 2- Signal
- 3- V+

JP2- Input terminal of channel 2, used to connect sensor.

- 1- GND

2- Signal

3- V+

JP3- Filter output terminal, used to connect controller and supply power to filter.

1- GND

2- Inverted signal output of channel 2

3- reserve

4- Inverted signal output of channel 1

5- Reserve

6- V+

Reverted signal means the relationship between input and output signals are reverse. For example: input high-level signal, output low-level signal.

Because filter inverts the filtered signals, if user use filter, sensor should be NPN type. After the inversion, signal will become PNP type that controller needs.

If user DOES need to use PNP type sensor, it is recommend to use filter's two filtering channels in series. Then after two times of inversion, output signal type will be same as those input signal type.

Specifications:

1、 Input impedance: 4.7k

2、 Filtering time coefficient: 70ms

3、 Voltage range: 18-30V

4、 Output current: 200mA

5、 Operation temperature range: -40℃～ 85℃