

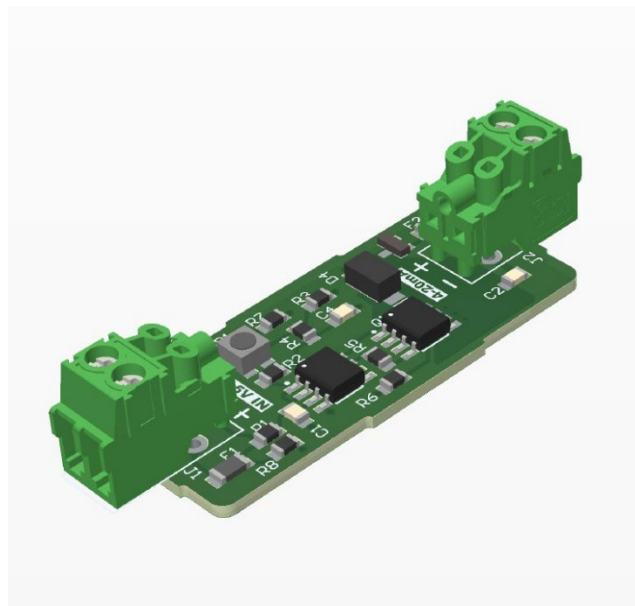


TOKYO DEVICES

TDFA6075P

1-5V Input, 4-20mA Output, 2-wire Current Sink, Analog Signal Converter

Revision 1.0.1



TDFA6075P is a signal converter that converts voltage signals in the range of 1-5V to current signals in the range of 4-20mA. It is suitable for industrial sensors with current or voltage analog signals.

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1. Specifications

Name	Value	Notes
Input Voltage Range	1-5V	
Min. Input Voltage	-0.3V	
Max. Input Voltage	5.5V	
Input Resistance	100k Ω	
Power Supply Voltage	24V	
Output Current Range	4-20mA	*also serves as power consumption
Accuracy	1 FS%	*Vin=24V
Frequency Response	> 1KHz	*-3dB
Terminal Contact	Screw terminal (M2)	
Wire Compatibility	0.2-1.5mm ² , 16-24 AWG	
Surge Protection	Yes	
Reverse Protection	Yes	
Operating Temperature Range	-10~55°C	
Dimensions	TBD	

2. Board Layout

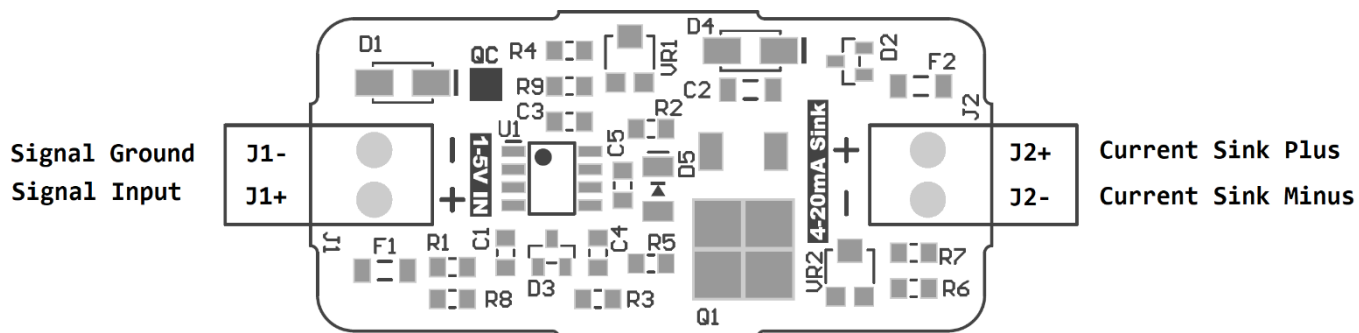


Figure 1 Board Layout

Table 1 Pin Assignment

Symbol	Name	Description
J1	J1-	Signal Ground
J1	J1+	Signal Input (1-5V)
J2	J2-	Current Signal Output (Minus)
J2	J2+	Current Signal Output (Plus)

3. How to Use

1. Prepare a 24V DC power supply and a DC ammeter. Connect the power supply's positive terminal (+) to the ammeter's positive terminal (+), then connect the ammeter's negative terminal (-) to J2+ on TDFA6075P, and finally connect J2- on TDFA6075P to the power supply's negative terminal (-).
2. Prepare a variable voltage source or signal generator capable of producing an output voltage in the range of 1-5V. Connect this voltage source to J1 on TDFA6075P.
3. Apply a voltage within the 1-5V range to J1 and observe the current value on the ammeter. Verify that the current value changes proportionally to the applied voltage.

4. Product Customization Services

Tokyo Devices offers customization of circuit board exteriors, functionalities, and performance based on customer needs. For more details, please check the "Customization" on the Tokyo Devices website.

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