



Model I-7021

Model I-7021, I-7021P

12-bit/16-bit Analog output Module

I-7000 is a family of network data acquisition and control modules. They provide analog to digital, digital to analog, digital input/output, timer/counter and other functions. The modules can be remotely controlled by a set of commands. The I-7021 is a single-channel analog output module that uses the D/A converter to convert the digital data into analog output signal with 12-bit resolution and current readback function. The I-7021D is a 7021 with 4½ digit LED display. The I-7021P is similar with I-7021 but enhanced the resolution into 16 bits.

Specifications

Analog Input

- **Photo-isolation: 3750 Vrms**
- Channels: 1
- Output type: mA, V
- Output range: 0 to 20mA , 4 to 20mA and 0 to 10V
- Effective Resolution: 12-bit for I-7021, **16-bit for I-7021P**
- Accuracy: $\pm 0.1\%$ of FSR for I-7021
 $\pm 0.02\%$ of FSR for I-7021P
- Read back accuracy: $\pm 1\%$ of FSR
- Resolution: $\pm 0.02\%$ of FSR for I-7021
 $\pm 0.002\%$ of FSR for I-7021P
- Zero drift:
 - Voltage output: $\pm 30\mu\text{V}/^\circ\text{C}$ for I-7021
 $\pm 10\mu\text{V}/^\circ\text{C}$ for I-7021P
 - Current output: $\pm 0.2\mu\text{A}/^\circ\text{C}$
- Span temperature Coefficient: $\pm 25\text{ppm}/^\circ\text{C}$ for I-7021
 $\pm 5\text{ppm}/^\circ\text{C}$ for I-7021P
- Programmable output slope:
 - 0.125 to 1024 mA/second
 - 0.0625 to 512 V/second
- Current load resistance:
 - Internal power: 500 ohms
 - External 24V: 1050 ohms
- Isolation: 3000V DC

Feature/Benefits

- 3000VDC isolated analog input
- Programmable Power On value of analog output
- Programmable slew rate
- Software calibration
- Dual Watchdog

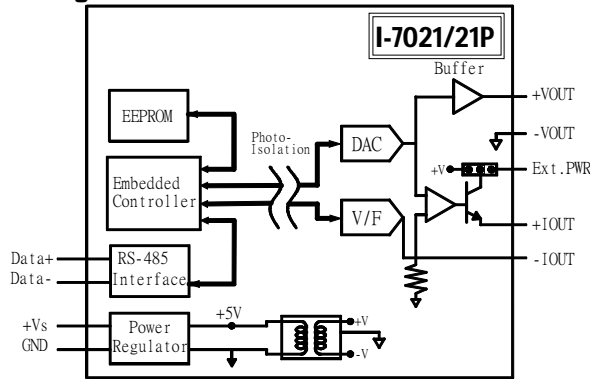
PIN Assignments

+IOUT	1		
-IOUT			
+VOUT			
-VOUT			
Ext.PWR			
INIT*			
(Y)DATA+			
(G)DATA-			
(R)+Vs			
(B)GND	10		





Block Diagram



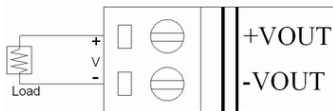
RS-485 Connector

Asynchronous 2-wire half-duplex
Pluggable terminal block: Pitch 5.08mm

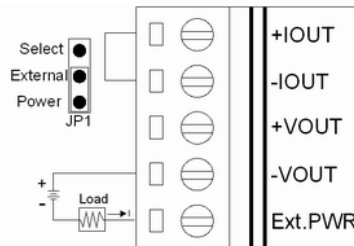
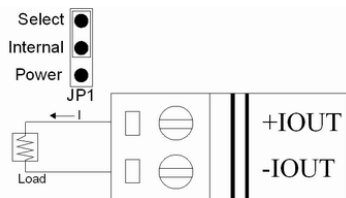
Baud Rate

1.2K/2.4K/4.8K/9.6K/19.2K/38.4K/57.6K/115.2K bps

**Wire Connection
Voltage output**



current output



Power Requirements

Power input: +10~+30Vdc input

Power Consumption

1.8Watt for I-7021, I-7021P

Environmental

Storage temperature: -25°C to 80°C
Operation temperature: -20°C to 75°C
Humidity: 5 to 95%, non-condensing

