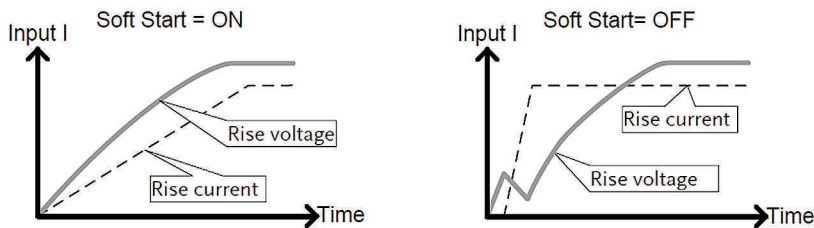




The PEL-3031E, a programmable and single channel electronic load, provides 1V~150V/60A and the load capability of 300W. Inheriting the LCD panel and operational interface of the PEL-3000 series, the PEL-3031E is easy to operate and has an excellent panel layout. The PEL-3031E, developed by GW Instek, is an economical electronic load which meets low to middle power application requirements.

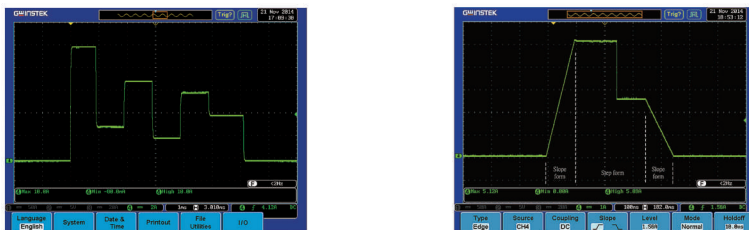
PEL-3031E is not only ideal for charger/adaptor manufacturers with the requirements of over 60mA constant current load and measurement applications, but also for manufacturers of various power supply components and portable charging devices which demand the standby power consumption greater than 60mA. For manufacturers who require charger/adaptor with the constant current load and measurement applications lower than 60mA, we recommend the PEL-3000 series which has three current levels to meet low power consumption application requirements.

SOFT START



The soft start setting is used to limit the amount of input current at start-up. It can increase test reliability & stability.

SEQUENCE FUNCTION



When operating the Sequence Function, PEL-3031E follows the time and load settings of step1, step2, step3, etc. so as to realize different load current variation.

Ramp function of PEL-3000E is able to set the current transition. When turned on, the current takes on a slope form; when turned off, the current takes on a step form.

PEL- 3031E

FEATURES

- 7 Operating Modes : CC, CV, CR, CP, CC+CV, CR+CV, CP+CV
- Fully Programmable with Normal and Fast Sequences
- Soft Start
- Max. Slew Rate : 2.5A/ μ s
- Dynamic Mode
- Protection: OVP, OCP, OPP, OTP, RVP, UVP
- Remote Sense
- Integrated Meter
- External Voltage or Resistance Control
- Rear Panel BNC Trigger IN/OUT
- Analog External Control
- USB/GPIB(Optional)



Front



Rear Panel

APPLICATIONS

- Charger And Battery Applications
- DC/DC Converters and Adapter Applications
- Electronic Component Tests Such as Switch/Relay/Fuse
- Wire Harness(Resistance Measurement, Endurable Test)

SPECIFICATIONS

| | | | |
|--------------|---|--|---|
| | Power Range Voltage Current Min. Operating Voltage(dc) | 300W Low 1 ~ 150V 0 ~ 6A 1V ~ 6A | 300W High 1 ~ 150V 0 ~ 60A 1V ~ 60A |
| STATIC MODE | Constant Current Mode Range Setting Range Resolution Accuracy | 0 ~ 6A 0 ~ 6.12A 0.2mA (T ^{*1})±(0.1% of set + 0.1% of F.S) + Vin/500kΩ (Full scale of high range) | 0 ~ 60A 0 ~ 61.2A 2mA (T ^{*1})±(0.1% of set + 0.2% of F.S) + Vin/500kΩ (Full scale of high range) |
| | Constant Resistance Mode Range Setting Range Resolution(30000 Steps) Accuracy | 60S ~ 0.002S(0.01666Ω ~ 500Ω)(300W/15V) ; 6S ~ 0.0002S(0.1666Ω ~ 5kΩ)(300W/150V) 60S ~ 0.002S(0.01666Ω ~ 500Ω)(300W/15V) ; 6S ~ 0.0002S(0.1666Ω ~ 5kΩ)(300W/150V) 0.002S(15V) ; 0.0002S(150V) (T ^{*1})±(0.3% of set + 0.6S) + 0.002mS | |
| | Constant Voltage Mode Range Setting Range Resolution Accuracy | 1 ~ 15V 0 ~ 15.3V 0.5mV (T ^{*1})±(0.1% of set + 0.1% of F.S) (Full scale of Low range) | 1 ~ 150V 0 ~ 153V 5mV (T ^{*1})±(0.1% of set + 0.1% of F.S) (Full scale of High range) |
| | Constant Power Mode Range Setting Range Resolution Accuracy | 3W ~ 30W(6A) 0W ~ 30.6W 1mW (T ^{*1})±(0.6 % of set + 1.4 % of f.s (Full scale of H range)) + VinΛ2/500 kΩ | 30W ~ 300W(60A) 0W ~ 306W 10mW |
| | | | |
| DYNAMIC MODE | General T1 & T2 Accuracy Slew Rate (accuracy 10%) Slew Rate Resolution Slew Rate Accuracy of Setting | 0.05mS ~ 30mS/Res : 1μS ; 30mS ~ 30S/Res : 1mS 1μS/1mS ± 200ppm 0.001 ~ 0.25A/μS 0.001A/μS ±(10% + 15μs) *1 Time to reach from 10 % to 90 % when the current is varied from 2 % to 100 % (20 % to 100 % in L range) of the rated current. | 0.05mS ~ 30mS/Res : 1μS ; 30mS ~ 30S/Res : 1mS 1μS/1mS ± 200ppm 0.01 ~ 2.5A/μS 0.01A/μS |
| | Constant Current Mode Current Setting Range Current Resolution Current Accuracy | 0 ~ 6A 0 ~ 6.12A 0.2mA ±0.8% F.S. | 0 ~ 60A 0 ~ 61.2A 2mA ±0.8% F.S. |
| | Constant Resistance Mode Range Setting Range Resistance Resolution Resistance Accuracy | 60S ~ 0.002S(0.01666Ω ~ 500Ω)(300W/15V) ; 6S ~ 0.0002S(0.1666Ω ~ 5kΩ)(300W/150V) 60S ~ 0.002S(0.01666Ω ~ 500Ω)(300W/15V) ; 6S ~ 0.0002S(0.1666Ω ~ 5kΩ)(300W/150V) 30000 steps ±(1%set + 0.6S) + 0.002mS | |
| MEASUREMENT | Voltage Readback Range Resolution Accuracy | 0 ~ 15V 0.5mV (T ^{*1})±(0.1% of rdg+0.1% of F.S)(Full scale of Low range) | 0 ~ 150V 5mV (T ^{*1})±(0.1% of rdg+0.1% of F.S)(Full scale of High range) |
| | Current Readback Range Resolution Accuracy | 0 ~ 6A 0.2mA (T ^{*1})±(0.1% of rdg+0.1% of F.S)(Full scale of High range) | 0 ~ 60A 2mA (T ^{*1})±(0.1% of rdg+0.2% of F.S)(Full scale of High range) |
| GENERAL | Trigger In/out Terminal(BNC) Current Monitor Output Analog External Control Soft Start Sequence(Normal/Fast) Preset Data Protection | YES YES YES YES YES 10 Sets OCP, OPP, UVP, OVP, OTP, REV | |
| OTHER | Power Source Interface Dimensions & Weight | 100 ~ 120VAC/ 200 ~ 240VAC, 47 ~ 63Hz USB, GPIB(Optional), Analog external control 213.8(W) x 124.0(H) x 400.5(D)mm, Approx. 7.5Kg | |

Note : *1 - If the ambient temperature is over 30 °C or below 20 °C, then T = ± |t - 25 °C| x 100ppm/°C x Set
If the ambient temperature is in the range of 20°C~30°C, then T = 0 (t is the ambient temperature)

Specifications subject to change without notice. EL-3000EGD1DH

ORDERING INFORMATION

PEL-3031E 300W Programmable D.C. Electronic Load

ACCESSORIES

CD ROM(User Manual, Programming Manual, Quick Start Guide)x1, Power Cord (Region dependent), Front Terminal Washers-spring Washer(M6)x2, GTL-105A Remote Sense Cables, Red x 1, Black x 1

OPTIONAL ASSESSORIES

GTL-248 GPIB cable, 2.0m
GTL-246 USB cable, Type A – Type B
PEL-010 Dust Filter
PEL-004 GPIB option

Global Headquarters

GOOD WILL INSTRUMENT CO., LTD.

No.7-1, Jhongsing Road, Tucheng Dist., New Taipei City 236, Taiwan
T +886-2-2268-0389 F +886-2-2268-0639
E-mail: marketing@goodwill.com.tw

China Subsidiary

GOOD WILL INSTRUMENT (SUZHOU) CO., LTD.

No. 521, Zhujiang Road, Snd, Suzhou Jiangsu 215011 China
T +86-512-6661-7177 F +86-512-6661-7277
E-mail: marketing@instek.com.cn

Malaysia Subsidiary

GOOD WILL INSTRUMENT (M) SDN. BHD.

27, Persiaran Mahsuri 1/1, Sunway Tunas,
11900 Bayan Lepas, Penang, Malaysia
T +604-6309988 F +604-6309989
E-mail: sales@goodwill.com.my

Europe Subsidiary

GOOD WILL INSTRUMENT EURO B.V.

De Run 5427A, 5504DG Veldhoven, THE NETHERLANDS
T +31(0)40-2557790 F +31(0)40-2541194

U.S.A. Subsidiary

INSTEK AMERICA CORP.

5198 Brooks Street Montclair, CA 91763, U.S.A.
T +1-909-399-3535 F +1-909-399-0819
E-mail: sales@instekamerica.com

Japan Subsidiary

TEXIO TECHNOLOGY CORPORATION.

7F Towa Fudosan Shin Yokohama Bldg., 2-18-13 Shin
Yokohama, Kohoku-ku, Yokohama, Kanagawa,
222-0033 Japan
T +81-45-620-2305 F +81-45-534-7181
E-mail: info@texio.co.jp

Korea Subsidiary

GOOD WILL INSTRUMENT KOREA CO., LTD.

#1406, Ace Hightech-City B/D 1Dong,
Mullae-Dong 3Ga 55-20, Yeongduengpo-Gu, Seoul, Korea
T +82-2-3439-2205 F +82-2-3439-2207
E-mail : gwinstek@gwinstek.co.kr

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