DP102-V / DP102-mA
DIGITAL POTENTIOMETER

Attention Risk of Danger, Warning	High Voltage, Risk of Electric Shock	Double / Reinforced Insulation	NOT Litter	CE Mark

TECHNICAL SPECIFICATION

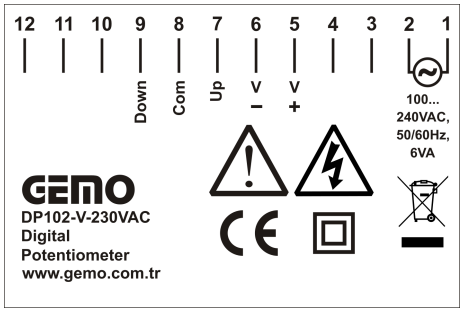
- **Dimensions** : 35x77mm
- **Panel Cut-out** : 29x71mm
- **Display** : 4 Digits 7 Segment
- **Analog Output** : 0-10V (DP102-V) or 4-20mA (DP102-mA) (Should be specified while ordering)
- **0-10V Load Imped.** : >5K
- **4-20mA max. Voltage** : <10V
- **Resolution** : DP102-V; 2mV (0-10V), DP102-mA; 4µA (4-20mA)
- **Accuracy** : ± % 1 ; (Over full scale)
- **User Control** : Via Up/Down Front Panel Keys or Up/Down Digital Inputs
- **Digital Inputs** : Dry contact input only
- **Supply Voltage** : 100..240VAC, 50-60Hz or 24VDC/AC.
- **Power Consumption** : < 6VA
- **Humidity** : 80% up to 30ºC, then linearly decreases to 50% at 50ºC (non-condensing)
- **Altitude** : < 2000 m
- **EMC** : EN 61000-6-1, EN 61000-6-3 (Only light industrial environment)
- **Safety** : EN 61010-1; Pollution degree 1, measurement category I, (Only light industrial environment, double/reinforced isolated, non-conductive pollution environment)
- **Protection Class** : IP20; according to EN 60529
- **Operation Temp.** : 0 .. 50 ºC
- **Storage Temperature** : -10ºC .. 60ºC (no icing)
- **Weight** : < 0.5 kg
- **Keys** : Micro switch
- **Torque for screwing** : Max. 0.5 N.m

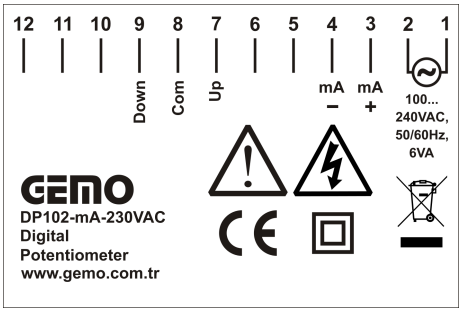
ERROR MESSAGES:

- **E.FLS** / **Err:** Hardware failure, do NOT use device
- **E.CAL** / **Err:** Hardware failure, do NOT use device
- **E.EPr** / **Err:** Memory failure, do NOT use device

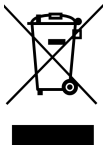
WARNINGS:

- Analog output of this device may generate undesirable signal level (i.e. out of scale and/or range) for a short while after power on.
- Analog output of this device may generate undesirable signal level (i.e. out of scale and/or range) if a hardware failure happens or if supply voltage is out of range.
- Analog output of this device may generate undesirable signal level (i.e. out of scale and/or range) if an error message is displayed on the LED display.
- For such reasons, do not directly use the analog output of this device to control a task. In your applications, always use separate and independent mechanical / electromechanical / electronic devices/apparatus to support this device. For example, if you use the analog output of this device to control the speed of a motor driver, use an external forward/backward switch and/or an emergency switch to enable the motor driver while you monitore the correct operation of the motor driver. For example, do not enable motor driver via the external forward/backward switch and/or the emergency switch if you read an error message on the LED display of this device.





INSTALLATION, USE and WARNINGS



- This device and its packing is NOT litter and may NOT be disposed of with domestic waste. Please return this device and its packing to an appropriate recycling point at the end of its service life.
- Please read this user manual carefully and completely before installation and use. Please take into consideration all warnings mentioned in this manual.
- DP102-V and/or DP102-mA is suitable only for permanent panel type mounting
- Installation and use of this device must be done by qualified, authorized and trained technical personnel only.
- Inspect device carefully before installation. Do not install and use broken and defective devices.
- Do not disassemble device. Do not make any repair on any part of the device. There is no accessible part inside the device. Please contact to manufacturer for broken and defective devices.

- Do not use device in environments subject to flammable, explosive and corrosive gases and/or substances.
- This device is designed for applications only in industrial environments. This device is not suitable for medical and residential use. This device is not suitable for use related with human health and safety. This device is not suitable for automotive, military and marine use.
- Do not allow children and unauthorized people to use this device.
- Before installation and any technical work, disconnect the power supply and mains connections.
- Check the power supply voltage level before power on, and make sure voltage level is in specified limits. Check quality of neutral line. Improper neutral line may give permanent damage to the device.

- Connect an external power switch and an external fuse (1A, 250VAC) to the power supply line that are easily accessible for rapid intervention.
- Use appropriate cables for power supply and mains connections. Apply safety regulations during installation.
- Install the device in a well ventilated place. Install the device permanently into a proper panel cut-out. Fix the device with two fasteners supplied with the device. Only front panel must be accessible after installation is completed.
- Do not operate the device other then the environmental conditions given in Technical Specification.
- Do not operate the device in environments that may cause conductive pollution.

- Take precautions against negative environmental conditions like humidity, vibration, pollution and high/low temperature during installation.
- Keep device, signal cables and communication cables away from circuit breakers, power cables and devices/cables emitting electrical noise. Use shielded and twisted signal and communication cables and connect shield to earth ground on device side. Keep length of signal and communication cables less than 3m.
- In your applications, always use separate and independent mechanical and/or electromechanical devices/apparatus to support DP102-V and/or DP102-mA to handle emergency cases.

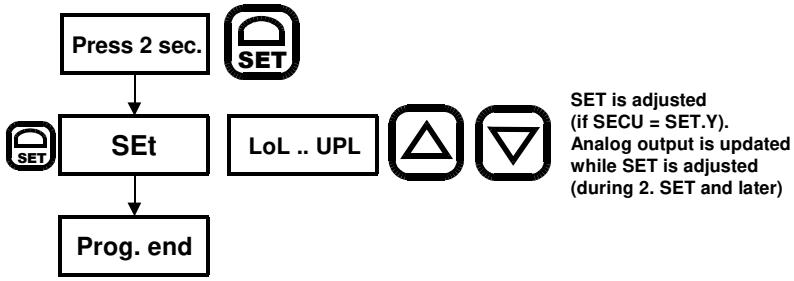
- Use insulated cable end-sleeves at the end of cables screwed to the device connector terminals.
- Maximum torque for screwing; 0.5 N.m.
- Please check www.gemo.com.tr for latest device and documentation updates regularly. All updates and all information are subject to change without notice.

GENERAL SPECIFICATION

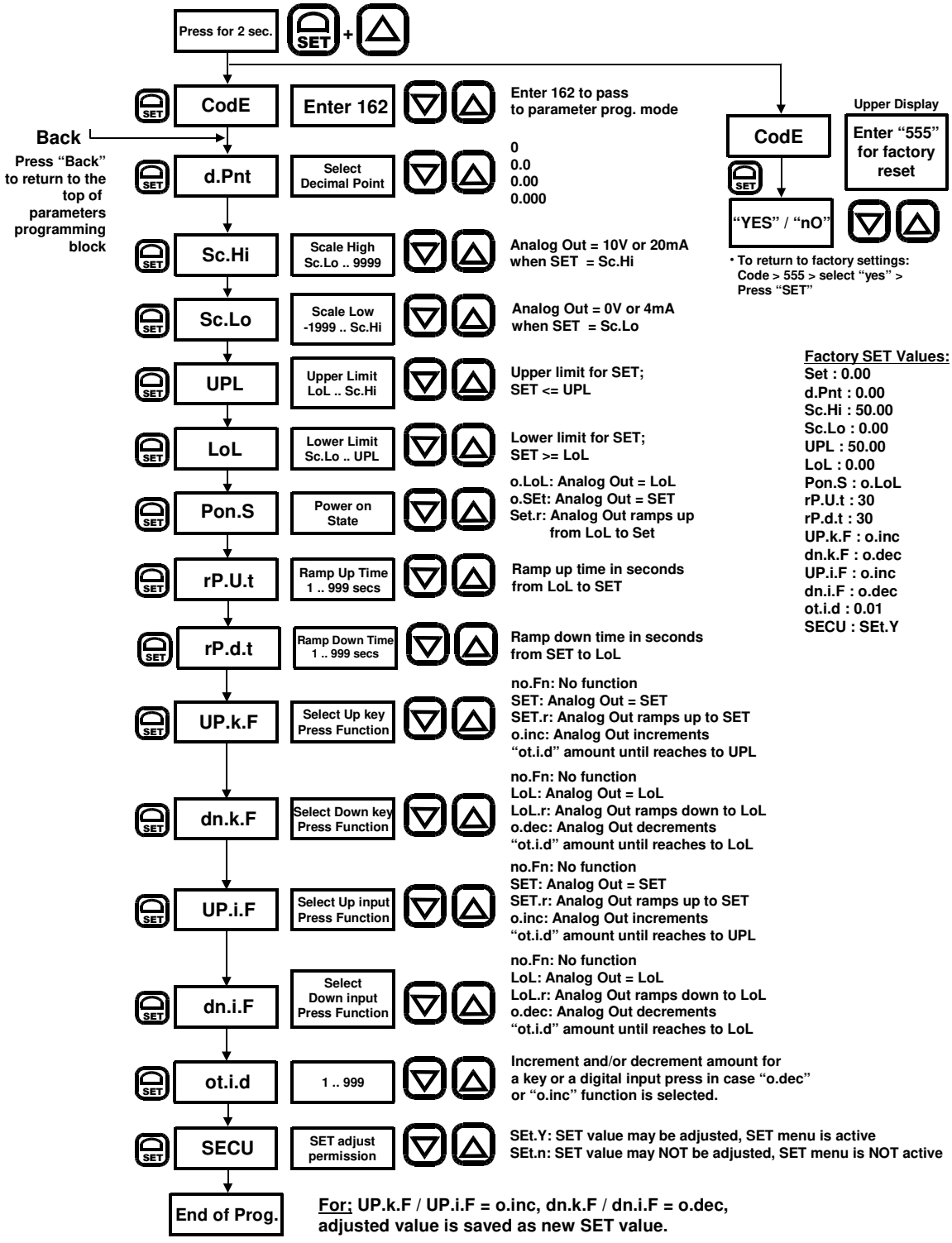
- This device is designed for basic control applications only in industrial environments.
- µP based, digital potentiometer
- Analog output: 0-10V or 4-20mA; should be specified during order
- Menu entry and analog output control via front keys
- Analog output control via digital inputs
- Adjustable scale upper and lower level
- Adjustable upper and lower limit for SET
- Separate function selection for the front keys and digital inputs to control analog output
- Password protection
- SECU setting for enable/disable SET adjust menu entry.
- High accuracy
- EEPROM memory to store settings
- Easy connection with plug-in connectors

Gürbüzoğlu Elektronik San. ve Tic. Ltd. Şti.
Çamlıtepe Cad. No:297 / 3-4 Siteler, Ankara, Türkiye
Tel: +90-312-3503900, Fax: +90-312-3511117
http://www.gemo.com.tr
e-posta: info@gemo.com.tr

PROGRAMMING SET



PROGRAMMING OTHER PARAMETERS



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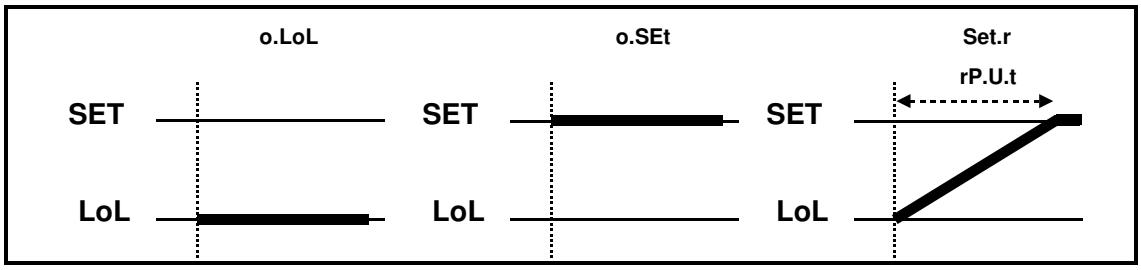
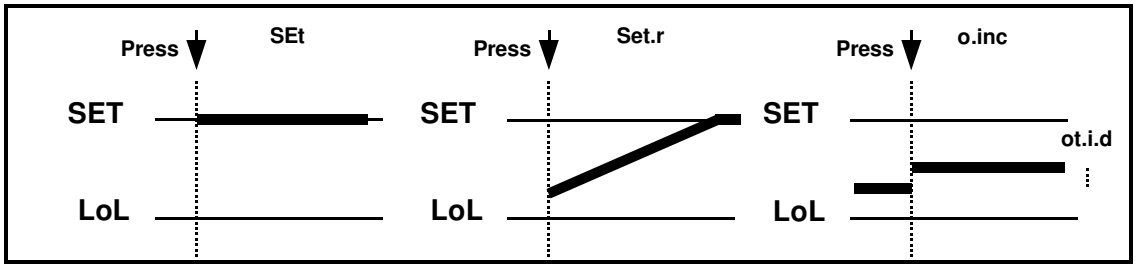
OPERATION

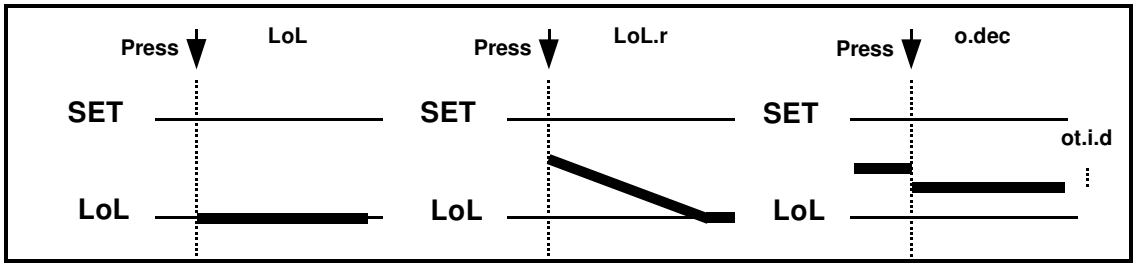
Analog Output after Power on (Pon.S Parameter)



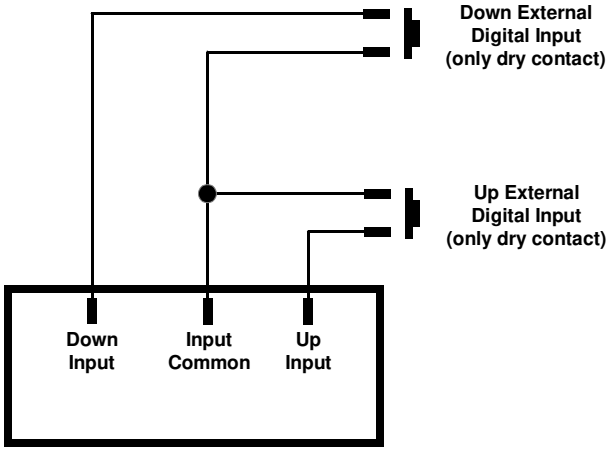
Up Key and Up Digital Input Functions (UP.k.F and UP.i.F Parameters)



Down Key and Down Digital Input Functions (dn.k.F and dn.i.F Parameters)



External Digital Input Connection



CLAEANING

Do not use any solvents (alcohol, thinners, benzine, acid, etc.) or corrosive substances to clean the device. Use only a dry and clean non-abrasive cloth. Before cleaning, disconnect the power supply and mains connections.

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