

# GE Sensing

## Features

- Measure or source 0 to 24 mA
- Accuracy 0.01% of reading
- Dual mA and % readout, linear or flow
- Step, span check, valve check, ramp
- 60 VDC measurement and continuity
- Hart® compatible

The UPS III is a rugged and extremely compact loop calibrator. Measuring 3 in x 5 in (77 mm x 129 mm) and weighing just 9.7 oz (275 g), it fits comfortably in a shirt pocket. It is an essential tool for loop testing, instrument maintenance and valve set-up, with an easy to read display and simple to use time saving features.

# UPS III Druck Loop Calibrator

UPS III is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



# GE Sensing

## Graphic Display

The graphic display with menu-driven interface is easier to use than traditional knobs, switches, multi-function keys and dual key sequences.

## Measure or Source 0 to 24 mA

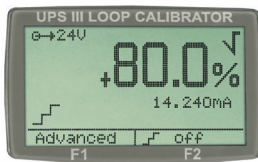
An internal 24 V loop supply is available in both measure and source modes, essential during plant shutdowns.

## Accuracy 0.01% of Reading

This includes 12 month stability and temperature effects. The UPS III can maintain a 4:1 calibration ratio with the latest instrumentation and is typically 20 to 80 times more accurate than a Digital Multi-Meter (DMM).

## Simultaneous % Readout

Displays mA and the percentage value of 4 to 20 mA or 0 to 20 mA. The UPS III also converts mA readings to % flow. This is not possible with many loop calibrators.



## Step, Span Check and Value Check

Step quickly through linearity tests and zero/span adjustments. In valve mode, seating can be checked and the positioner set.

| Step Mode             | 0%          | 25%  | 50% | 75%   | 100%       |
|-----------------------|-------------|------|-----|-------|------------|
| 4 to 20 mA linear     | 4           | 8    | 12  | 16    | 20         |
| 0 to 20 mA linear     | 0           | 5    | 10  | 15    | 20         |
| 4 to 20 mA flow       | 4           | 5    | 8   | 13    | 20         |
| 0 to 20 mA flow       | 0           | 1.25 | 5   | 11.25 | 20         |
| 4 to 20 mA span check | 4           | –    | –   | –     | 20         |
| 0 to 20 mA span check | 0           | –    | –   | –     | 20         |
| 4 to 20 mA valve      | 3.8, 4, 4.2 | –    | 12  | –     | 19, 20, 21 |

## Auto Step and Ramp

Outputs have adjustable rates (1 to 599 s) for single-handed loop testing, valve set-up and slew rate checks.

## “Fast Set” Output

Allows values to be set to within 0.001 mA using the arrow keys. Holding a key quickly ramps the output to the next value. The system is ideal for alarm trip tests.

## 60 VDC Measurement

For loop diagnostics and maintenance of voltage output instruments.

## Continuity and Switch Test Facility

This reduces DMM dependence when fault finding, checking loop integrity and testing switches.

## Hart Compatible

Internal 235  $\Omega$  loop resistor (menu selectable)

## EMC compliance to EN 61326-1

Complies with heavy industry standard. Most loop calibrators are only suitable for light industrial use.

## Other Features

- Adjustable display contrast
- Adjustable resolution
- Uses industry standard AA batteries
- Battery voltage and battery low indicator
- Information screen reports serial number, software version and calibration date
- Primary reading in mA or %
- Auto power off (enable or disable)
- Pin protected closed case calibration
- Optional protective over-boot with bench stand, hanging loop and quick connect belt clip
- Optional AC line adaptor

# UPS III Specifications

## Performance

| Function              | Range          | Resolution | 1 year Accuracy <sup>1</sup><br>% rdg + counts | Remarks                              |
|-----------------------|----------------|------------|--|--------------------------------------|
| Source mA             | 24 mA          | 0.001      | 0.01% + 2                                      | V-max<br>75V                         |
| Source mA<br>and 24V  | 24 mA          | 0.001      | 0.01% + 2                                      | R-max<br>1 k $\Omega$<br>at 20 mA    |
| Measure               | 24 mA          | 0.001      | 0.01% + 2                                      | V-max<br>mA 75V                      |
| Measure mA<br>and 24V | 24 mA          | 0.001      | 0.01% + 2                                      | R <sub>measure</sub><br>15 $\Omega$  |
| Measure V             | 60 V           | 0.001      | 0.02% + 4                                      | R <sub>measure</sub><br>1 M $\Omega$ |
| Continuity            | < 100 $\Omega$ |            |  | 1 mA<br>current                      |

<sup>1</sup>Accuracy includes temperature effects 62°F to 80°F (17°C to 27°C). For use outside these limits add 0.0015%/°F (0.003%/°C).

## Electrical

### Power Supply

4 x 1.5 V AA-size alkaline batteries (standard) or universal power supply (see option B)

### Battery Life

75 hours in read mode, 18 hours at 12 mA

### Auto Power Down

30 minutes after last key press

### Low Battery Warning

Battery symbol displayed

### Open Loop

Flashes "open loop"

### Loop Resistance High

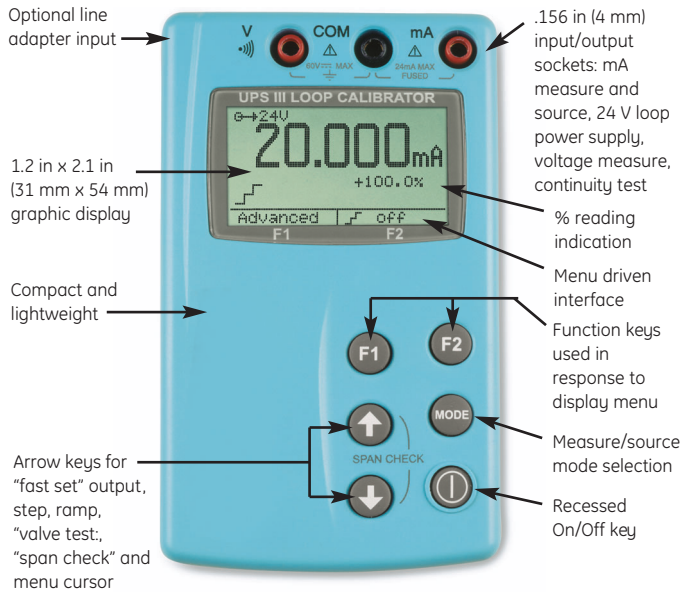
Flashes "check loop  $\Omega$ "

### Out of Range

Displays <<<< (under), >>>> (over)

### Hart Resistor

235  $\Omega$  menu selectable loop resistor



Optional line adapter input

1.2 in x 2.1 in (31 mm x 54 mm) graphic display

Compact and lightweight

Arrow keys for "fast set" output, step, ramp, "valve test," "span check" and menu cursor

.156 in (4 mm) input/output sockets: mA measure and source, 24 V loop power supply, voltage measure, continuity test

% reading indication

Menu driven interface

Function keys used in response to display menu

Measure/source mode selection

Recessed On/Off key

## Environmental

### Calibration Reference

72°F (22°C)  $\pm 2^\circ\text{F}(\pm 3.6^\circ\text{C})$ /RH 45%  $\pm 15\%$

### Operating Temperature

14°F to 122°F (-10°C to 50°C)

### Relative Humidity

0% to 90% non-condensing

### Conformity

EN 61010, /EN 61326-1:1997 + A1:1998, CE marked

## Physical

### Housing Material

High impact ABS

### Dimensions (w x h x d)

3 in x 5 in x 1 in (77 mm x 129 mm x 24 mm)

### Weight

9.7 oz (275 g) including batteries

### Display

Graphic LCD, 1.2 in x 2.1 in (31 mm x 54 mm)

### Electrical Terminals

Gold plated, 4 mm sockets

# UPS III Specifications

## Options

### (A) Protective Over-boot–P/N UNO-38023

This nitrile rubber over-boot provides maximum impact protection. A bench stand, hanging loop and two-part “quick fit” belt attachment are incorporated into the design.

### (B) Carry Case–P/N UNO-38016

AC line adapter to power the UPS III

### (C) Mains Adaptor–P/N 191-129

A universal mains input adaptor to power the UPS III

## Supplied As Standard

The UPS III is supplied as standard with a certificate of calibration, user guide, test leads, and a set of alkaline batteries.

## Calibration Standards

Instruments manufactured by GE are calibrated against precision equipment traceable to International Standards.

## Related Products

### Portable Field Calibrators

A comprehensive range of portable pressure, temperature and electrical field calibrators

### Laboratory and Workshop Instruments

A comprehensive range of pressure indicators and controllers. Also included are pressure industrial deadweight testers and GE Ruska high precision controllers and primary standard piston gauges.

### Pressure Transducers and Transmitters

A wide range of pressure transducers and transmitters including analog, digital and Hart/Smart devices. Please contact GE for further information.

## Ordering Information

### Please state the following:

- Model–UPS III
- Option part numbers (if required). Please order as separate items.



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