



UPS-III IS

Druck loop calibrator

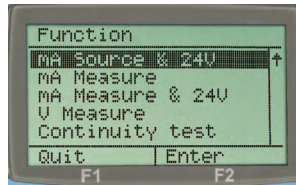
The UPS III IS is a rugged and extremely compact loop calibrator. It measures 3.5 in x 5.5 in x 1.7 in (90 mm x 140 mm x 42 mm) and weighs just 16.2 oz (460 g). It is an essential tool for loop testing, instrument maintenance and valve set-up, with an easy-to-read display and simple-to-use time saving features.

Features

- ATEX/IEC intrinsically safe
- Measure or source 0 to 24 mA
- Accuracy 0.015% of reading
- Dual mA and % readout, linear or flow
- Step, span check, valve check, ramp
- 50 VDC measurement and continuity
- HART® compatible

Graphic display

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



Measure or source 0 to 24 mA

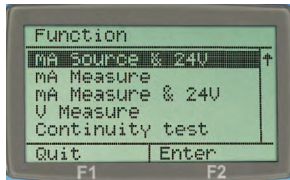
An internal loop supply is available in both measure and source modes, essential during plant shutdowns.

Accuracy 0.015% of reading

This includes 12 month stability and temperature effects. The UPS III IS can maintain a 4:1 calibration ratio with the latest instrumentation and is typically 10 to 40 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 IS 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 actuator 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 seconds) 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.

50 VDC measurement

For loop diagnostics and maintenance of voltage output instruments.

HART® Compatible

Internal 220 S loop resistor (menu selectable)

EMC Compliance to EN 61326

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
- Leather case with carry strap. (Note: the UPS III IS must be used in the case for hazardous area use)

UPS-II IS specifications

Performance

Function	Range	Resolution	1 year accuracy ¹ % rdg + counts	Remarks
Source mAr	24 mA	0.001	0.015% + 2	V max 30V
Source mA and 2IV	24 mA	0.001	0.015% + 2	R max 650 Ω at 20 mA
Measure mA	24 mA	0.001	0.015% + 2	V-max 30 V
Measure mA and 2IV	24 mA	0.001	0.015% + 2	R _{measure} 15 Ω
Measure V	50 V	0.001	0.015% + 4	R _{measure} 1 MΩ
Continuity	<100 Ω	-	-	0.5 mA current

¹Accuracy includes temperature effects 63°F to 81°F (17°C to 27°C). For use outside these limits add 0.015%/°F (0.003%/°C).

Electrical

Power supply

4 x 1.5 V AA-size alkaline batteries (see certificate for type)

Battery life

60 hours in measure mode, 14 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

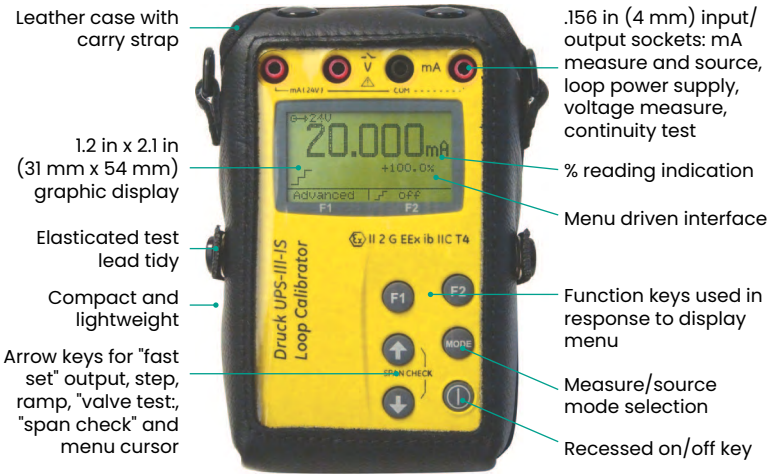
Flashes “check loop Ω”

Out of range

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

HART resistor

220 Ω menu selectable loop resistor



Environmental

Calibration reference

72°F (22°C) ±9°F(±5°C)/RH 45% ±15%

Operating temperature

14°F to 104°F (-10°C to 40°C)

Relative humidity

0% to 90% non-condensing

Conformity

EN 61010, EN 61326:1997 + A1 (1998) + A2 (2001) + A3 (2003), CE marked
Certified for use in hazardous areas
ATEX: II 2G Ex ib IIC T4 (-10°C<Ta<+40°C) Certificate number BASEEFA 06ATEX0224X
IEC: Ex ib IIC T4 (-10°C<Ta<+40°C)
Certificate number IECEx BAS 06.0053X

Physical

Housing material

High impact ABS

Dimensions (w x h x d)

3.5 in x 5.5 in x 1.7 in (90 mm x 140 mm x 42 mm)

Weight

16.2 oz (460 g) including batteries and leather case

Display

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

Electrical terminals

Gold plated, 4 mm sockets

UPS-III IS specifications

Supplied as standard

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

Calibration standards

Instruments manufactured by Druck 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 Pressurements industrial dead weight testers and Druck 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 Druck for further information.

Ordering information

Please state the following:

Model—UPS III IS