

# GE Sensing

## Features

- Dual reading capability: source mA, mV or V and simultaneously measure mA or capture switch trip values
- Measure or source mA, mV and V
- 24V loop supply to power transmitters and loops
- Large backlit display, menu driven interface
- HART® loop resistor
- Robust and weatherproof
- Compact, simple to use, easy to carry
- Convenient, one-handed operation
- Secure grip, impact resistant, elastomer protected
- Plug/play connector for Intelligent Digital Output Sensor (IDOS™) Universal Measurement Modules

## Applications

- Process instrument test and maintenance
- Control loop setup and diagnostics
- Set-up DCS, PLC and signal conditioners
- Valve positioner adjustment

The DPI 800 Series is a complete range of advanced, robust and simple to use hand-held instruments. Highly cost effective, these tools are ideal for test/calibration of many popular process parameters. Advanced features and technical innovations address more applications in less time and deliver results you can rely on.

# DPI 832

## Druck Electrical Loop Calibrator

DPI 832 is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Sensing.



# DPI 832 Specifications

	DPI 800	DPI 802	DPI 811	DPI 812	DPI 820	DPI 821	DPI 822	DPI 832	DPI 841	DPI 842
<b>Type</b>	P	P	RTD	°F (°C)	TC			mA/V		Hz
Indicator (measure pressure)	✓	✓								
Calibrator (measure or source)			✓	✓		✓	✓	✓	✓	✓
Thermometer (dual input T1, T2, T1 - T2)					✓					
<b>Dual Capability</b>										
mA measure with 24 V loop power		✓		✓			✓	✓		✓
Switch test		✓		✓			✓	✓		✓
HART resistor		✓		✓			✓	✓		✓
IDOS Universal Measurement Modules	①	①	①	①	①	①	①	①	①	①
<b>Features</b>										
Programmable step and ramp output			✓	✓		✓	✓	✓	✓	✓
Hold, scaling, max/min/avg, filter, alarm, tare	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25 pressure units, flow scaling, leak test	✓	✓	②	②	②	②	②	②	②	②
1000 point data memory, RS232	③	③	③	③	✓	③	③	③	③	③
<b>Applications</b>										
Measurement and monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Indicator, controller and recorder testing	✓	✓	✓	✓		✓	✓	✓	✓	✓
Transmitter maintenance and calibration		✓		✓			✓	✓		✓
Process loop set-up and maintenance		✓		✓			✓	✓		✓
Switch, trip and safety system testing		✓		✓			✓	✓		✓

① Optional (please refer to IDOS datasheet) ② When fitted with IDOS pressure module  
③ Optional (please refer to accessories IO800E)

## Instrumentation Test and Loop Maintenance

### DPI 832 Electrical Loop Calibrator

Measures or sources mA, mV, V and captures switch trip values. It is the ideal instrument for process technicians to check and maintain transmitters, control loops, DCS, PLC input cards and signal conditioners.

### Programmable Step and Ramp Outputs

Simplify calibrations and facilitate system diagnostic checks. The ramp output provides a stimulus for rate of change indicators.

### Adjustable "Nudge" Value

Provides an incremental output for accurately setting valve positioners and testing switches, relays, trips and alarms

### Simultaneous Dual Readings

Simplify transmitter set-up and calibration; for example, source mV, V or mA and measure mA

### Advanced Features

Hold, maximum/minimum/average (with time stamp), scaling, tare (offset) and damping filter facilitate system checks and troubleshooting

### Two Independent 24 V Power Supplies

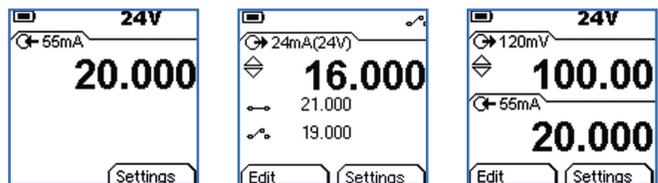
Energize transmitters and control loops

### Automatic Switch Test

Captures open/closed trip values providing a fast and highly accurate "safety system" check

### HART Resistor

Can be switched into the loop when required for a HART digital communicator and avoids the inconvenience of carrying a 250 Ω resistor



## IDOS Flexibility

### Intelligent Digital Output Sensor (IDOS)

Universal Pressure Modules are available from 10 in H<sub>2</sub>O to 10,000 psi (25 mbar to 700 bar).

### Total Flexibility

IDOS modules can be used with any compatible instrument; for example, a DPI 832 electrical loop calibrator can become a fully featured pressure calibrator.

# DPI 832 Specifications

## Plug and Play

Modules are interchangeable between instruments, requiring no set-up or instrument calibration.

*Please refer to IDOS Universal Pressure Modules data sheet.*

Measure	Accuracy*
0 to 120.00 mV	0.02% of reading + 2 counts
0 to 30.000 V	0.03% of reading + 2 counts

Source	Accuracy*
0 to 120.00 mV	0.02% of reading + 2 counts
0 to 12.000 V	0.02% of reading + 2 counts
0 to 24.000 mA	0.02% of reading + 2 counts
Temperature Coefficient	14°F to 50°F, 86°F to 122°F, 0.0017% FS/°F (-10°C to 10°C, 30°C to 50°C, 0.003% FS/°C)

The following are available independently or simultaneously with the above ranges

Measure	Accuracy*
0 to 55.000 mA	0.02% of reading + 3 counts
Switch Detection	Open and closed. 2 mA current
Loop Power Output	24 V ±10% (35 mA maximum)
HART mA Loop Resistor	250 Ω (menu selection)
Electrical connectors	4 mm sockets

\* Accuracy includes operation from 50°F to 86°F (10°C to 30°C), one year stability and calibration uncertainty.

## DPI 800 Series Common Specification

### Operating Temperature

14°F to 122°F (-10°C to 50°C)

### Storage Temperature

-4°F to 128°F (-20°C to 70°C)

### Humidity

0% to 90% non-condensing, Def Stan 66-31, 8.6 Cat III

### Shock and Vibration

BS EN61010:2001, Def Stan 66-31, 8.4 Cat III

### EMC

BS EN61326-1:1998 + A2:2001

### Safety

Electrical BS EN61010:2001. CE marked

### Display

Graphic LCD with backlight. Resolution 99999

### Size and Weight

7.1 in x 3.3 in x 2 in (180 mm x 85 mm x 50 mm),  
14 oz (400 g)

### Batteries

3 AA alkaline, >60 hours mV, V measure, 11 hours mA source (24 V @ 12 mA)

## Accessories

### IO800A

Soft fabric carrying case with accessory pocket

### IO800B

Belt clip, wrist strap/hanging loop and bench stand

### IO800C

NiMh batteries with charger (charged externally)

### IO800E

Data logging upgrade and RS232 lead

**Log Data** periodically (1 second to 23 hours 59 minutes 59 seconds) or manually by key press. **Review data** on-screen or upload to a PC via the RS232 interface. No software purchase is necessary as standard Microsoft® applications provide data transfer (HyperTerminal) and analysis (Excel). Alternatively, print directly to a compatible serial printer. **Real time clock** hh:mm:ss with mm/dd/yy (yy/mm/dd) date format. **Memory:** 1000 single or 750 dual reading screens with date and time. **Header tag:** 6 user characters to identify groups of readings. **RS232:** 19.2 k baud, 8 data bits, 1 stop bit, no parity, Xon/Xoff. **Data output:** comma separated ASCII.

# DPI 832 Specifications

## Ordering Information

Please state the model number DPI 832 and accessories as separate items.

Supporting Services (order as separate items)

*Each unit is supplied with batteries, test leads, calibration certificate and user guide.*

## Related Products

GE is a world leader in the design and manufacture of pressure, temperature and electrical field calibrators, laboratory/workshop calibration equipment and pressure sensors.

## Supporting Services

Our highly trained staff can support you, no matter where you are in the world. We can provide training, nationally accredited calibration - both initially and at periodic intervals - extended warranty terms, maintenance and even rental of portable or laboratory calibrators. Further details can be found in [www.gesensing.com/productservices/service.htm](http://www.gesensing.com/productservices/service.htm)



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