

# 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

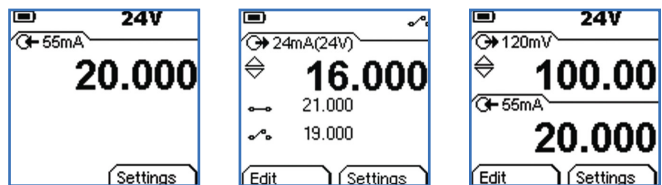
Energize transmitters and control loops

### 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)



©2008 GE. All rights reserved.  
920-128C

All specifications are subject to change for product improvement without notice. GE® is a registered trademark of General Electric Co. Other company or product names mentioned in this document may be trademarks or registered trademarks of their respective companies, which are not affiliated with GE.

[www.gesensing.com](http://www.gesensing.com)