GE Infrastructure
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 GE Druck product. GE Druck has joined other GE high-technology sensing businesses under a new name– GE Infrastructure Sensing.

DPI 832 Specifications

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

❶ *Optional (please refer to IDOS datasheet)* ❷ *When fitted with IDOS pressure module*
❸ *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

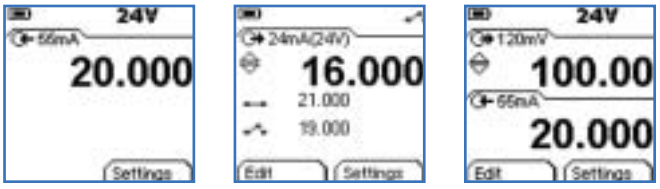
Simultaneous Dual Readings
Simplify transmitter set-up and calibration; for example, source mV, V or mA and measure mA

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_2O 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.

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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.

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DPI 832 Specifications

Ordering Information

Please state the model number DPI 832 and accessories 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.

CE

920-128A

www.gesensing.com