



GE Druck

DPI 821 / 822

Thermocouple/Loop Calibrator

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.

- Measure and source T/Cs
- Advanced C/J compensation
- Temperature test and maintenance
- Transmitter calibration
- Loop set-up and diagnostics
- Switch verification

Cold junction compensation eliminates transient errors (patent pending)

mA measure, switch test and 24V loop power

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 IDOS Universal Measurement Modules

DPI 821/822

Thermocouple/Loop Calibrator

Features	Pressure		Temperature				
	DPI 800	DPI 802	RTD		T/C		
			DPI 811	DPI 812	DPI 820	DPI 821	DPI 822
Indicator (measure)	✓	✓					
Calibrator (measure or source)			✓	✓	✓	✓	✓
Thermometer (dual input and differential)					✓	✓	✓
mA measure with 24V loop power		✓		✓			✓
Switch test		✓					✓
HART® resistor		✓		✓			✓
IDOS Universal Measurement Modules	①	①	①	①	①	①	①
Programmable step and ramp output			✓	✓	✓	✓	✓
Hold, Max/Min/Avg, Filter, Alarm, Tare	✓	✓	✓	✓	✓	✓	✓
25 pressure units plus 5 user, Leaktest	✓	✓	②	②	②	②	②
1000 point data memory, RS 232					✓		
Applications							
Measurement & monitoring	✓	✓	✓	✓	✓	✓	✓
Indicator, controller & 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 With IDOS pressure module connected.

Temperature test and measurement

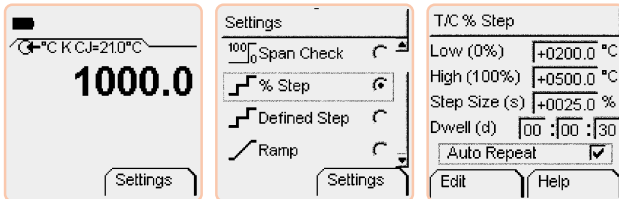
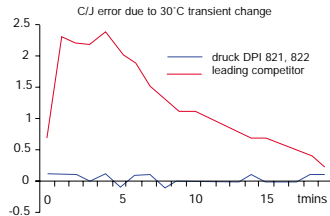
DPI 821 Thermocouple Calibrator measures or simulates sensors and is the ideal tool for checking probes, indicators and controllers.

Unique cold junction compensation

eliminates ambient temp. errors. (Patent pending).

Advanced features

Eg. Step, Ramp, Max/Min/Avg, Hold for system checks and troubleshooting.



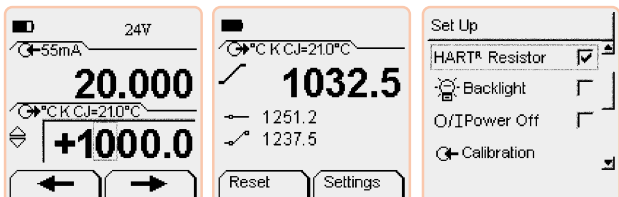
Temperature instrumentation and loop maintenance

DPI 822 Thermocouple Loop Calibrator additionally provides simultaneous T/C output and mA measurement for transmitter and loop maintenance.

24V loop power supply energises 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.



flexibility

IDOS (Intelligent Digital Output Sensor) Universal Pressure Modules are available from 70 mbar to 200 bar.

Total flexibility means IDOS modules can be used with any compatible instrument, for example, a DPI 822 loop calibrator can become a fully featured pressure calibrator.

Plug and Play modules are interchangeable between instruments requiring no set-up or instrument calibration.

Please refer to IDOS Universal Pressure Module datasheet.

Type	Standard	Range	*Accuracy
K	IEC 584	-270 to 1370°C	0.6°C
J	IEC 584	-210 to 1200°C	0.5°C
T	IEC 584	-270 to 400°C	0.3°C
B	IEC 584	50 to 1820°C	1.0°C
R	IEC 584	-50 to 1769°C	1.0°C
S	IEC 584	-50 to 1769°C	1.4°C
E	IEC 584	-270 to 1000°C	0.4°C
N	IEC 584	-270 to 1300°C	0.6°C
L	DIN 43710	-200 to 900°C	0.3°C
U	DIN 43710	-200 to 600°C	0.3°C
C		0 to 2320°C	1.0°C
D		0 to 2495°C	1.0°C
mV		-10 to 100mV	

DPI 821 and 822

specification

***Accuracy:** Total accuracy for 1 year. (Best figure for range).

Cold junction error: 0.2°C max for 30°C change in ambient.

Thermocouple connector: Mini-jack socket.

DPI 812 only

mA measure: 0 to 55 mA 0.02% rdg + 3 counts.

Includes 1 yr stability. Outside 10 to 30°C add 0.002%FS/°C.

24V loop power: +/-10% (35 mA maximum).

Switch detection: Open and closed. 2 mA whetting current.

HART® resistor: Menu selectable 250 ohm resistor.

DPI 800 series common specification

Operating temperature: -10 to 50°C.

Humidity: 0 to 90% non-condensing (Def Stan 66-31, 8.6 cat III).

Ingress protection: IP 54 dust and splashing water.

Shock and vibration: Def Stan 66-31, 8.18 and 8.4 cat III.

EMC: EN61326-1 :1997 + A1 :1998 + A2: 2001.

Safety: Electrical EN61010:2001. CE marked.

Display: Graphic 48 X 48 mm LCD with backlight. 99999 resolution.

Size and weight: 180 x 85 x 50 mm, 500g.

Batteries: 3 x AA alkaline. > 80 hrs measure. > 10 hrs 24V source.

Accessories

IO800A: Carry case: Soft fabric case with accessory pocket.

IO800B: Belt clip, wrist strap/hanging loop and bench stand

IO800C: NiMh batteries with charger: Batteries charged externally.

Ordering information

Please state model number DPI 821 or 822 and accessories as separate items. Note: Each unit is supplied with batteries, calibration certificate and user guide. The DPI 822 includes a set of electrical test leads.

Related products

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

Continuing development can mean specification changes without notice Agent: