Sensing

Features

- Pressure ranges from 10 in H_2O to 10,000 psi (25 mbar to 700 bar)
- 0.05% full scale (FS) all-inclusive accuracy
- Optional 0.01% FS premier accuracy
- Fully interchangeable; no set-up
- Impact resistant, elastomer protected
- Robust, weatherproof and simple to use

Applications

- Remote pressure sensor for IDOS compatible instruments
- Applications: test, measurement, monitoring and calibration
- Expands instrument ranges and capability

The IDOS Universal Pressure Modules (UPM) are robust and simple to use.

Highly accurate IDOS are housed in tough functional cases, providing dependability along with plug and play connectivity.

They provide a cost effective solution for expanding instrument ranges, adding pressure measurement capability and addressing more applications.

Intelligent Digital Output Sensors™ (IDOS)

Druck Universal Pressure Modules

IDOS is a Druck product.

IDOS Specifications

Compatible Products

The DPI 800 Series of robust, highly reliable and simple to use hand-held indicators and calibrators address a broad range of applications with the following features:

	DPI 800	DPI 802	DPI 811	DPI 812	DPI 820	DPI 821	DPI 822	DPI 832	DPI 841	DPI 842
Features	P	P	RTD		°F (°C)	TC		mA/V	Hz	
Indicator (measure pressure)	✓	✓								
Calibrator (measure or source)			✓	✓		✓	✓	✓	✓	✓
Thermometer (dual input T1, T2, T1 - T2)					✓					
mA measure with 24 V loop power		✓		✓			✓	✓		✓
Switch test		✓		✓			✓	✓		✓
HART resistor		✓		✓			✓	✓		✓
Programmable step and ramp output			✓	✓		✓	✓	✓		✓
Hold, scaling, max/min/avg, filter, scaling, tare	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25 pressure units, flow scaling, leak test	✓	✓	❶	❶	❶	❶	❶	❶	❶	❶
1000 points data memory, RS232					✓					
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 *With IDOS UPM connected*

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 812 RTD loop calibrator can become a fully featured pressure calibrator.

Instrument Range Expansion
Simply achieved by adding modules

DPI 800 Series *IDOS UPM* *DPI 150*

DPI 150 Pressure Indicator

A high precision, simple to use bench or panel mounted indicator suitable as a secondary standard

Features

- Barometer*
- IEEE-488* and RS232
- Analog output, V and mA*
- Airspeed indication
- Hold, maximum/minimum and average
- Filter, scaling and tare
- 25 pressure units plus 5 user
- Leak test

Applications

- Sensor calibration
- Instrument calibration
- Test/measurement
- System monitoring
- Autmated production test and calibration
- Pressure data logging
- Leak testing

**Optional feature*

Pressure Range	G/D	G	A	Media +	Media –	*Accuracy %FS S	*Accuracy %FS P
±10 in H_2O (25 mbar)	✓			❷	❸	0.1	0.03
.±1, 3, 5, or 10 psi (70, 200, 350, or 700 mbar)	✓			❷	❸	0.075	0.03
5 psi (350 mbar)			✓	❷		0.1	N/A
-15 to 15 or 30 psi (-1 to 1 or 2 bar)	✓			❷	❸	0.05	0.01
30 psi (2 bar)			✓	❷		0.075	N/A
-15 to 50, 100, 150 or 300 psi (-1 to 3.5, 7, 10 or 20 bar)		✓		❶		0.05	0.01
100, 300 psi (7, 20 bar)			✓	❶		0.075	N/A
500, 1000, 1500, 2000 or 3000 psi (35, 70, 100, 135, 200 bar)		✓		❶		0.05	0.01
5000 or 10,000 psi (350 or 700 bar) Sealed gauge		✓		❶		0.05	N/A

G = gauge, A = absolute, G/D = gauge/differential; calibrated referenced to atmosphere maximum line pressure 30 psi (2 bar). ❶Stainless steel compatibility ❷Non-corrosive gas/fluid ❸Non-corrosive gas. (N/A = not available). Accuracy assumes regular zero correction.

IDOS Specifications

*IDOS UPM–S Standard Accuracy
Total accuracy including calibration uncertainty, operation over 32°F to 122°F (0°C to 50°C) and one year stability. Negative calibration included.

*IDOS UPM–P Premier Accuracy
Precision over 65°F to 82°F (18°C to 28°C), for operation from 41°F to 113°F (5°C to 45°C) 0.014% full scale (FS), 0.075% for ranges 10 in H_2O to 10 psi (25 to 700 mbar)

Stability 0.01% reading/year
(0.03% for ranges 10 in H_2O to 5 psi (25 to 350 mbar)

Calibration uncertainty 50 ppm of reading.
Negative calibration optional

Overpressure (maximum transient/intermittent pressure)
5 psi (350 mbar) and below 4 x FS
10 to 10,000 psi (700 mbar to 700 bar) 2 x FS
Maximum working pressure: 1.1 x FS

Pressure Connections
G 1/8 female; M5 reference on G ranges above 30 psi (2 bar)
1/8 NPT female; 10-32 UNF reference on G ranges above 30 psi (2 bar)

Electrical Connection
3 ft (1 m) cable with locking instrument connector

Operating Temperature
14°F to 122°F (-10°C to 50°C)

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

Shock and Vibration
BS EN61010:2001. Pressure Equipment Directive (PED), Class SEP. CE marked.

EMC
BS EN61326-1:1998 + A2:2001

Safety
Electrical BS EN61010:2001. PED, Class SEP. CE marked.

Size (l x w x h) and Weight
5 in (maximum) x 2.3 in x 1.7 in
(130 mm x 60 mm x 45 mm), .53 to .71 lbs (240 to 325 g)

Options

(A) Negative Calibration
UPM P module ranges 300 psi (20 bar) and below.

Please refer to pressure range table for ranges and accuracies.

Ordering Information

Please state the model number IDOS UPM S for the standard accuracy version or IDOS UPM P for the premier accuracy version followed by the range, G/D, G or A and G 1/8 female or 1/8 NPT female.

Each unit is supplied with calibration certificate and user guide.

Per avere più informazioni
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