GE
Measurement & Control

Druck DPI 612 Flex Series

Range Flexible Pressure Calibrators

These fully self-contained pressure test and calibration systems have interchangeable pressure modules for flexible ranging, generate pneumatic or hydraulic pressures, measure process signals and supply loop power. They provide all the convenience of the Druck DPI 610/615 series with significantly improved generation capabilities, higher accuracy and simplified touch screen operation.

Features

- The complete pressure calibration tool: pump, measure, analyse
- Best in class Pressure accuracy
- Fast and dependable from vacuum to 1000 bar/15000 psi
- Easy to use touch screen
- No in-the-field leaks with quick-to-fit pressure adaptors & hoses

Druck DPI 612 Flex Series

Range Flexible Pressure Calibrators

The Druck DPI 612 Flex series is the fifth generation in the DPI 600 family, which was first introduced in 1984. The DPI 600 family revolutionized test and calibration by providing all the tools for pressure generation and signal measurement in self-contained portable packages. The DPI 600 soon became the industry workhorse and today it is simply known as the "Druck."

Building on the technical legacy and more than three decades of experience in pressure sensor development and calibration, the DPI 612 Flex series provides all the convenience and reliability of a true "Druck," yet offers interchangeable pressure modules, higher accuracy and significantly improved pressure generation.

Dependable and efficient pressure generation
Three model choices to generate from 95% vacuum to 1000 bar/ 15000 psi

- 20 bar/300 psi in 30 seconds
- 100 bar/1500 psi without gas bottles and regulators
- 1000 bar/15000 psi hydraulic pressure

Flexible pressure ranging – swap the module not the instrument

- Re-range for different applications and expand the system over time
- 31 interchangeable pressure modules from 25 mbar/10 inH20 to 1000 bar/15000 psi
- Accuracy from 0.005% FS
- "Hot swap" without tools, seals or cables

For convenience and to protect your budget, the pressure modules are fully interchangeable between the DPI 612 Flex series and the DPI 620 Genii multi-function calibrator / communicator series.

Leak free, field serviceable pressure connections

- "Quick-to-fit" pressure adaptor/hose system requires no tools or sealing

Simple touch screen operation

- Application DASHBOARD, quick TASK selection and FAVOURITES storage
- Fast, three touch set-up for any application
- Calculates PASS/FAIL errors, documents results and interfaces with calibration software

Precision engineering

Performance is a function of precision engineering

The innovative design of the DPI 612 Flex series pressure systems achieves efficient generation and precise control through the use of carefully selected materials with high tolerance machining and perfect finishes.

The choice of case materials and precision moulding ensures that DPI 612 Flex are rugged and weatherproof.

State-of-the-art analogue and digital microelectronics contribute both accuracy and processing power to provide a class leading pressure and electrical capability with unique pressure re-ranging and simple-to-use interface.

Performance is a function
of precision engineering

Pressure generation

Quick, effortless and dependable

There are three models in the Druck DPI 612 Flex series to generate pressures from 95% vacuum to 1000 bar/ 15000 psi. Their dependable, high performance pressure systems provide quick and easy generation with great accuracy.

- **DPI 612 pFlex:** 95% vacuum to 20 bar/300 psi
- **DPI 612 pFlexPro:** 95% vacuum to 100 bar/1500 psi
- **DPI 612 hFlexPro:** 0 to 1000 bar/15000 psi

The pFlex pneumatic versions have a simple selector to let you convert from vacuum to pressure and with the high efficiency hand pumps and volume adjusters you can generate accurate pressure quickly and with ease.

The hFlex hydraulic version has an internal reservoir for hydraulic oil or water, a priming pump to expel air from the connected system and an intensifier to quickly and easily generate pressure.

- They're fast, 20 bar/300 psi pneumatic or 1000 bar/15000 psi hydraulic in less than 30 seconds
- Generate 100 bar/1500 psi without potentially dangerous bottled gas
- Ergonomic design and a detachable hand/shoulder strap make the DPI 612 Flex equally at home in the field or on a calibration bench
- Proven mechanical designs provide simple-to-use, dependable systems with long service life

Pressure range flexibility

The closest thing to a pressure multi-meter

The DPI 612 Flex utilises PM 620 interchangeable pressure modules allowing in-field re-ranging to the highest accuracy and most suitable range for any application

- Field interchangeable, automatic detection
- Simple screw fit: no tools, sealing or cables required
- 31 ranges: 25 mbar/10 inH2O to 1000 bar/15000 psi
- Accuracy from 0.005% FS e.g. 0.001 bar/0.015 psi error @ 20 bar/300 psi

The PM 620 is the latest development in digital output sensor technology and incorporates key innovations to allow pressure re-ranging without the need for tools, sealing, cables or user set-up. The modules cost a fraction of fixed range instruments and can be calibrated independently, so you can benefit from reduced inventory, shared resources, lower cost of ownership and less down-time for annual calibration checks.

Pressure accuracy

Druck technology throughout

Using advanced "Druck" silicon technology from the flagship DPI 620 Genii series, the PM 620 interchangeable pressure modules achieve up to 0.005% FS accuracy.

Taking stability and temperature errors into account over the one year calibration period, the DPI 612 Flex is more than twice as accurate as its predecessor. This is expressed as a total uncertainty to give you complete confidence in the measurement accuracy between annual calibrations.

Electrical capability

Just as important as pressure accuracy

The DPI 612 Flex series combines the comprehensive electrical measurement and sourcing capability of the DPI 610 series, with higher accuracy and simplified connections.

	P_1	P_2 IDOS	mA	V	mV	10Vdc	24V	Switch
Measure	✓	✓	✓	✓	✓			✓
Source	✓		✓			✓	✓	

P_2 IDOS is an optional external pressure sensor

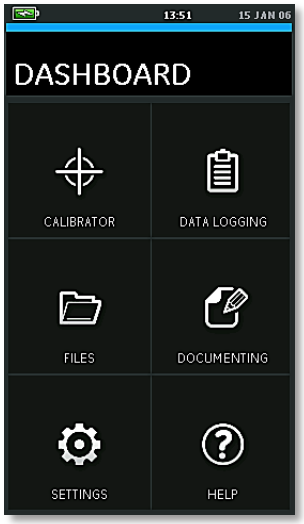
- The DPI 612 Flex electrical measurement accuracy includes one year stability, temperature errors and calibration uncertainty, making it three times more accurate than the DPI 610 series.
- For ease of use the electrical connectors have been rationalised to four 4mm sockets.

Quick-to-fit pressure connections

No more leaks, service downtime or frustration

Making leak-tight, pressure connections is inevitably frustrating. The DPI 612 Flex series have quick-to-fit adaptor and hose systems with time-saving advantages over conventional methods:

- All adaptors, hoses and accessories, including the dirt and moisture traps, are quick and simple to fit. No tools or sealing are required and connections are leak free every time.
- A damaged thread on an instrument pressure port often necessitates a costly repair and significant downtime. With the DPI 612 quick-to-fit system damaged adaptors are very simply replaced in-the-field.
- Making leak tight connections wastes time and for several joints, it can take longer than a calibration. The DPI 612 Flex system is proven to significantly reduce set-up time.



Simplified touch screen

How many key presses to configure your calibrator for the next job?

DPI 612 Flex calibrators have the same user interface design as the unique and award-winning DPI 620 Genii (Measures magazine innovative product of 2014).

- The DASHBOARD allows quick application selection without menus or special keys - just tap the app.
- The TASK menu provides a library of popular configurations, so from the calibrator screen three simple gestures will completely reconfigure the DPI 612 Flex for the next job.
- From the FAVOURITES menu it's even quicker to access regularly used and customised TASKS.
- The touch screen only shows function keys when they're required, making it quicker and simpler to use than complex keypads with special function keys and key combinations.
- Application connection diagrams can be viewed on screen.

Typical TASK

Output mA

Measure pressure

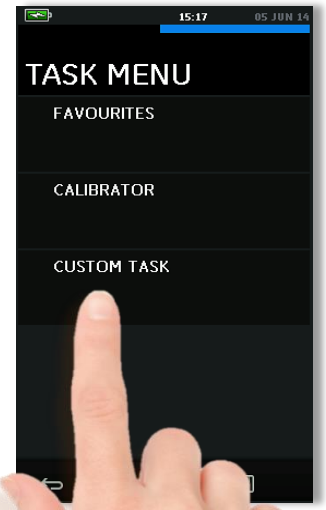
Check box to add this TASK to FAVOURITES

Connections for mA lit in green

Easy as 1, 2, 3

1) Swipe from right to left

2) Touch a menu choice



3) Touch to select a TASK

Fully documenting

Let the calibrator do the work
The DPI 612 Flex is a simple-to-use "everyday" tool for maintaining and calibrating pressure instruments and due to its processing power and advance software, the automation of procedures reduces even the most complex task to a few simple user actions.

- Automated calibration procedures
- PASS/FAIL error analysis
- Multi-channel data logging
- 8Gb (nominal) user memory
- Connectivity with leading calibration and maintenance software including 4Sight from GE

Save time by automating your calibration procedures
Procedures generated by calibration management software can be downloaded to the DPI 612 Flex. These are presented as a list of work orders and when selected, each one will configure the DPI 612 Flex to calibrate a specific device and report a PASS/FAIL condition. The data is recorded digitally ready to be uploaded to the management software.

Using the DPI 612 Flex with automated procedures significantly reduces calibration time, from typically 40 minutes to less than 10 minutes including the time to set-up. Further time is saved when evaluating the data and creating calibration reports because these operations are automated within the software.

Avoid surprises and re-work with PASS/FAIL error analysis
The error of a device being tested is displayed live with a PASS or FAIL indication. Zero and span adjustments can be evaluated in the field as they are made.

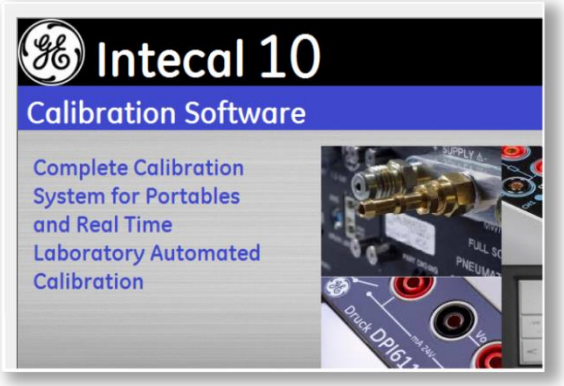
Diagnosing faults? Data log multiple channels
Data from three channels can be logged simultaneously by manually touching a record button or automatically at a user set interval. Data can be reviewed on screen or the data file can be transferred to a PC for further analysis.

Calibration software

Connect to leading calibration and maintenance software
The DPI 612 Flex integrates with leading calibration and maintenance software including Intecal and 4Sight from GE. Typically such applications provide an automated and paperless solution to calibration and realise significant benefits including reduced operating costs, regulatory compliance and improved process efficiency.

Intecal calibration management software

Intecal is a simple to use single PC application which provides an asset data base with defined procedures that can be downloaded to the DPI 612 calibrator. It will automate your calibration process and provide accurate audit ready data.



- User accounts and access levels
- Asset database
- Automated scheduling
- Defined procedures
- Supports portable field and fixed workshop calibrators
- Data analysis, certificate generation, archiving
- Extensive connectivity including the DPI 611, DPI 612, DPI 620 and PACE series of instruments

Please visit www.gemeasurement.com/test-calibration/software/intecal-calibration-management-software for more information and a free 30 day trial.

4Sight calibration and maintenance software

4Sight is the new state-of-the-art, integrated, web-based Software as a Service (SaaS).

- Maintains compliance with industry standards
- Provides a full-time and date stamped audit trail
- Significantly reduces your operating costs
- Provides automated paperless solutions
- Ensures that you are always ready for an audit
- Optional web hosting means no IT overhead

4Sight is a scalable solution from a single user to multiple users across multiple sites to give you total control for all your calibration and maintenance tasks.

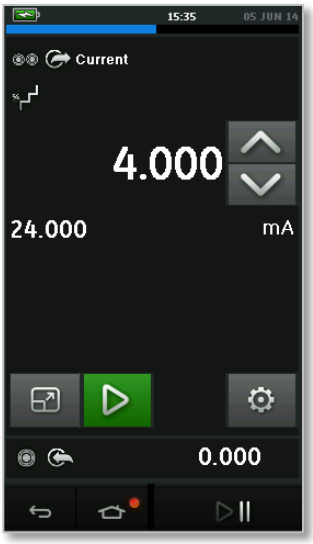
4Sight will help you comply with regulations, reduce running costs and improve process efficiency. As your calibration manager, its automated workflow, robust data and complete traceability will significantly reduce calibration and maintenance costs.

Please visit www.gemeasurement.com/test-calibration/software/4sight-calibration-and-maintenance-software for more information.

Advanced features

Step and ramp mA output: Simply configured for simulating transmitters into control loops, testing valve positioners and checking safety systems. The function has programmable end points, manual or automatic sequencing and the following options for quick set-up:

- **% step:** The step size is defined as a percentage. For example 25% provides five test points.
- **Defined step:** The step size is set as a mA value.
- **Span check:** Toggles between zero and span.
- **Ramp:** A linear ramp with programmable travel and dwell times - perfect for dynamically testing switches.

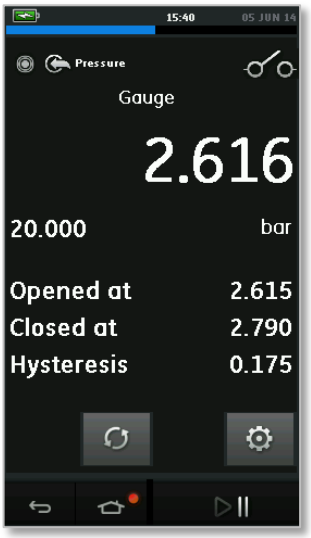


25% step manual advance

RAMP automatic cycle

Nudge: Makes a small incremental change to a mA output - great for determining trip values.

Switch test: Captures pressure switch actuation and de-actuation values and calculates the hysteresis.



Pressure leak test: Set the settle and run times then automatically test for leaks. The start and end pressures are reported along with the pressure drop and leak rate.

Max/min: Captures maximum and minimum values and calculates the mean.

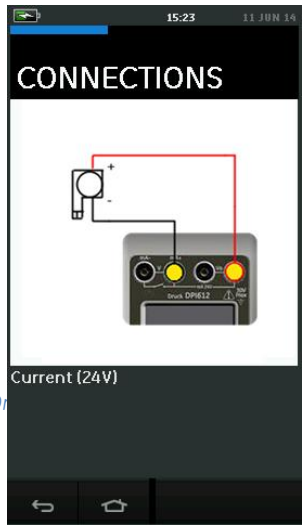
Relief valve: Captures the venting pressure of a relief valve.

Scaling: Scales the measured value into a process value. For example, mA expressed as %. Flow correction is available for scaling differential flow transmitter outputs.

Resolution: Adjustable from four to seven digits this matches the displayed value to that of the test device for easy comparison.

Help: The DPI 612 Flex is provided with a multi-lingual quick user guide to get you up and running without delay. For convenience, the full manual is stored digitally within the instrument and can be transferred to a PC for viewing or printing.

In the help application you can also view wiring connection diagrams.



DPI 612 pFlexPro

Quick-to-fit pressure adaptor system (no tools required or seals)

Interchangeable pressure module

Electrical connections for measuring mA, mV, V and detecting switch contacts.

Full colour touch screen display

On/Off/Sleep

Anti-slip feet (front and rear)

Pressure/vacuum selector

Pump

Pressure release and non-return valve

10V DC regulated supply and 24V loop power

Hand strap attachment

USB master and slave sockets

Protective cover

Hand strap attachment

Combined pressure intensifier and fine adjustment

DPI 612 pFlex

Pressure release valve

Pressure/vacuum selector

Pump

Volume adjuster for precise pressure setting

DPI 612 hFlexPro

Reservoir refill valve

Pressure release valve

Priming pump

Internal fluid reservoir

Combined pressure intensifier and fine adjustment

Non-return valve

Druck DPI 612 Flex Series Specifications

DPI 612 pFlex low to medium pressure pneumatic calibrator with range flexibility

This model is ideal in low to medium pressure applications from a few mbar/psi to 20 bar/300 psi.

Ordering information Product name	Model	Range	Pressure range (g = gauge, abs = absolute) bar	psi	Rechargeable battery CC3800GE	Hose IOHOSE-NP1	Carry case IO620-CASE-3	Dirt moisture trap IO620-IDT621
DPI 612								
	PFX							
		The following standard DPI 612 pFlex kits include a PM 620 pressure module and accessories as indicated ✓						
		2A	0 to 2 abs	0 to 30 abs	✓	✓	✓	✓
		7A	0 to 7 abs	0 to 100 abs	✓	✓	✓	✓
		20A	0 to 20 g/abs	0 to 300 g/abs	✓	✓	✓	✓
		1G	-1 to 1 g	-14.5 to 15 g	✓	✓	✓	✓
		2G	-1 to 2 g	-14.5 to 30 g	✓	✓	✓	✓
		7G	-1 to 7 g	-14.5 to 100 g	✓	✓	✓	✓
		10G	-1 to 10 g	-14.5 to 150 g	✓	✓	✓	✓
		20G	-1 to 20 g	-14.5 to 300 g	✓	✓	✓	✓
		For other pressure range and accessory combinations please use the "00" pressure range and order PM 620 pressure modules and accessories as separate items.						
		00	Pressure module not included		✓			
		Each DPI 612 pFlex includes battery charger (IO620-PSU), carrying strap (IO612-STRAP), test leads (IO61X-LEADS), user guide and calibration certificate.						
		Ranges shown as g/abs can be used in sealed gauge or absolute mode via a software feature						
		Please refer to the PM 620 pressure module specification table for pressure accuracies						

DPI 612 pFlex general specification	
Maximum working pressure	20 bar / 30 psi pneumatic
Maximum vacuum	-95% of atmospheric pressure
Pressure media	Non-corrosive gases
Pressure connection	Quick-to-fit connection system. G1/8 female and 1/8 NPT female adaptors are provided
Size and weight	350 mm x 170 mm x 145 mm (13.7 in x 6.7 in x 5.7 in) excluding accessories 3.4 kg (7.5 lb) including battery and pressure module
Generation system	Pressure/vacuum selector, high efficiency pump, fine adjuster, precision release valve

Druck DPI 612 pFlexPro low to high pressure pneumatic calibrator with range flexibility

This model excels in a wide range of applications from a few mbar/psi through to 100 bar/1500 psi. It retains the low to medium pressure capability of the pFlex, but incorporates an advanced generation system extending its range five times. The pressure intensifier makes generating pressures from a few mbar/psi through to 40 bar/600 psi much quicker and easier and on the occasions when high pressure is required from a clean gas source, the pFlexPro is a safe and easy-to-transport alternative to bottled gas.

Ordering information Product name	Model	Range	Pressure (g = gauge, abs = absolute) bar	psi	Rechargeable battery CC3800GE	Hose IO620-HOSE-P1	Carry case IO620-CASE-3	Dirt moisture trap IO620-IDT622	Pressure relief valve IO620-PRV-PX
DPI 612									
	PFP								
		The following standard DPI 612 pFlexPro kits include a PM 620 pressure module and accessories as indicated ✓							
		20A	0 to 20 g/abs	0 to 300 g/abs	✓	✓	✓	✓	-P3
		20G	-1 to 20 g	-14.5 to 300 g	✓	✓	✓	✓	-P3
		35G	0 to 35 g	0 to 500 g	✓	✓	✓	✓	-P4
		70G	0 to 70 g	0 to 1000 g	✓	✓	✓	✓	-P5
		100G	0 to 100 g	0 to 1500 g	✓	✓	✓	✓	-P5
		For other pressure range and accessory combinations please use the "00" pressure range and order PM 620 pressure modules and accessories as separate items.							
		00	Pressure module not included		✓				
		Each DPI 612 pFlexPro includes battery charger (IO620-PSU), carrying strap (IO612-STRAP), test leads (IO61X-LEADS), user guide and calibration certificate. *Ranges shown as g/abs can be used in sealed gauge or absolute mode via a software feature* *Please refer to the PM 620 pressure module specification table for pressure accuracies*							

DPI 612 pFlexPro general specification	
Maximum working pressure	100 bar / 1500 psi pneumatic
Maximum vacuum	-95% of atmospheric pressure
Pressure media	Non-corrosive gases
Pressure connection	Quick-to-fit connection system. G1/8 female and 1/8 NPT female adaptors are provided
Size and weight	350 mm x 170 mm x 160 mm (13.7 in x 6.7 in x 6.3 in) excluding accessories 4.1 kg (9 lb) including battery and pressure module
Generation system	Pressure/vacuum selector, high efficiency pump, pressure intensifier/fine adjuster, non-return valve, precision release valve

Druck DPI 612 hFlexPro very high pressure hydraulic calibrator with range flexibility

This model generates hydraulic pressure to 1000 bar/15000 psi using water or mineral oil from its internal reservoir.

Ordering information Product name	Model	Range	Pressure (g = gauge, abs = absolute) bar	psi	Rechargeable battery CC3800GE	Hose kit IO620-HOSE-H1	Carry case IO620-CASE-3	Pressure relief valve IO620-PRV-HX
DPI 612								
	HFP							
		The following standard DPI 612 hFlexPro kits include a PM 620 pressure module and accessories as indicated ✓						
		200G	0 to 200 g	0 to 3000 g	✓	✓	✓	-H2
		350	0 to 350 g/abs	0 to 5000 g/abs	✓	✓	✓	-H3
		700	0 to 700 g/abs	0 to 10000 g/abs	✓	✓	✓	-H4
		1000	0 to 1000 g/abs	0 to 15000 g/abs	✓	✓	✓	-H5
		For other pressure range and accessory combinations please use the "00" pressure range and order PM 620 pressure modules and accessories as separate items.						
		00	Pressure module not included		✓			
		Each DPI 612 hFlexPro includes battery charger (IO620-PSU), carrying strap (IO612-STRAP), test leads (IO61X-LEADS), fluid bottle, user guide and calibration certificate. *Ranges shown as g/abs can be used in sealed gauge or absolute mode via a software feature* *Please refer to the PM 620 pressure module specification table for pressure accuracies*						

DPI 612 hFlexPro general specifications	
Maximum working pressure	1000 bar / 15000 psi hydraulic
Pressure media	De-mineralized water or mineral oil (ISO viscosity grade < 22). 100cc internal reservoir
Pressure connection	Quick-to-fit connection system with G1/8 female and 1/8 NPT female adaptors
Size and weight	350 mm x 170 mm x 170 mm (13.7 in x 6.7 in x 6.7 in) excluding accessories 4.7 kg (10.4 lb) including battery and pressure module
Generation system	Priming pump, pressure intensifier/fine adjuster, non-return valve, precision release valve

Electrical measurement and source

	Total uncertainty 10°C to 30°C (50° to 86°F) for one year %Rdg + %FS		Additional error 10°C to 30°C & 30°C to 50°C (14°F to 50°F and 86°F to 122°F) %FS/°C	Resolution
Measure mode				
DC Voltage				
+/- 200 mV	0.018	0.005	0.001	0.001
+/- 2000 mV	0.018	0.005	0.001	0.01
+/- 20 V	0.018	0.005	0.001	0.00001
+/- 30 V	0.018	0.005	0.001	0.0001
Current				
+/- 20 mA	0.015	0.006	0.001	0.0001
+/- 55 mA	0.018	0.006	0.001	0.0001
Source mode				
DC Voltage				
10V (Fixed, 25mA max.)	0	0.1	0	0.001
24V (Fixed, 25mA max.)	0	1	0	0.001
Current				
0 to 24 mA	0.018	0.006	0.001	0.001
0 to 24 mA (internal loop power)	0.018	0.006	0.001	0.001

FS = full scale. Rdg = reading
Total uncertainty includes reference standard uncertainty, temperature errors, NLH&R and typical long term stability for one year (K=2).

General Specifications

Display	Size: 110 mm (4.3in) diagonal. 480 x 272 pixels. LCD colour display with touch screen
Internal memory	8Gb (nominal) user memory for automated procedures, calibration data and data log files
Languages	English (default), Chinese, Dutch, French, German, Italian, Japanese, Korean, Portuguese, Russian, Spanish
Pressure units	25 pressure units are available for the user to select (country restrictions may apply) Calibration certificates are provided with data in three pressure units based on bar, psi (or inH2O or inHg depending on range) and Pa
Operating temperature	-10° to 50°C (14° to 122°F). 0° to 40°C (32° to 104°F) when powered from optional mains adaptor IO620-PSU. For DPI 612 hFlexPro +4 to +50°C (39 to 122°F) with water as media
Storage temperature	-20° to 70°C (-4° to 158°F). For DPI 612 hFlexPro +4 to +70°C (39 to 158°F) with water as media
Ingress protection	IP 54. Protected against dust and splashing water from any direction
Humidity	0 to 90% RH none condensing. To Def Stan 66-31, 8.6 cat III
Shock / vibration	BS EN 61010-1:2010 / MIL-PRF-28800F CLASS 2. 1 m drop tested
Altitude	Up to 2000m
EMC	BS EN 61326-1:2013
Electrical safety	BS EN 61010-1:2010
Pressure safety	Pressure Equipment Directive - Class: Sound Engineering Practice (SEP)
Enclosure materials	Polycarbonate, polyamide, polypropylene, acrylic, cotton
Approved	CE marked
Power supply	Lithium-ion battery GE Part number: CC3800GE supplied as standard; Capacity: 3800 mAh 14.1Wh. Nominal voltage: 3.7 V. Charge temperature: 0° to 40°C (32° to 104°F) Discharge temperature: -10° to 60°C (14° to 140°F). Charge/discharge cycles: > 500 > 70% capacity. Battery eliminator / charger (GE part number: IO620-PSU) supplied as standard. Alternatively 8 AA alkaline cells (not supplied)
Battery life	For lithium-ion battery 12 to 26 hours depending on functions For AA alkaline cells 18 to 26 hours depending on functions
Connectivity	USB type A, USB type mini B

External pressure modules

IDOS (intelligent digital output sensor) pressure modules can be connected via a USB converter P/N IO620-USB-IDOS to provide a second measurement channel or to isolate the pressure media from the generation systems.

Multiple parameter display capability

The display can be configured to show a maximum of three simultaneous reading windows as follows: pressure, electrical measurement or electrical source, IDOS external pressure module

PM 620 Interchangeable Pressure Module

The PM 620 is the latest development in digital output sensor technology incorporating a number of key innovations to allow pressure re-ranging of compatible equipment. A simple screw fit makes both the pressure and electrical connections without the need for tools, sealing tape, cables or plugs and digital characterisation allows interchangeability without set-up or calibration.

PM 620 pressure module specification and recommended use

Model	Pressure range		Precision (NLHR) %FS	Total uncertainty 0° to 50 °C (32° to 122°F) for one year %FS			Media	Recommended PM 620 pressure module and IO620-PRV-XX pressure relief valve (PRV)					
								Pneumatic				Hydraulic	
								DPI 612 pFlex (20 bar/300 psi max)		DPI 612 pFlexPro (100 bar/1500 psi max)		DPI 612 hFlexPro (1000 bar/15000 psi max)	
Ordering information													
PM 620	bar	psi	gauge	absolute	gauge	absolute		PM 620	PRV	PM 620	PRV	PM 620	PRV
Gauge ranges (referenced to atmosphere)													
+/- 0.025 g	+/-10 inH$_2$0 g		0.09		0.1		1	✓		✓			
+/- 0.07 g	+/-1 g		0.025		0.047		1	✓		✓			
+/- 0.2 g	+/-3 g		0.02		0.045		1	✓	P1	✓	P1		
+/- 0.35 g	+/-5 g		0.02		0.044		2	✓	P1	✓	P1		
+/- 0.7 g	+/-10 g		0.015		0.041		2	✓	P1	✓	P1		
+/- 1 g	-14.5 to 15 g		0.015		0.041		2	✓	P1	✓	P1		
-1 to 2 g	-14.5 to 30 g		0.015		0.025		2	✓	P6	✓	P6		
-1 to 3.5 g	-14.5 to 50 g		0.01		0.025		2	✓	P2	✓	P2		
-1 to 7 g	-14.5 to 100 g		0.01		0.025		2	✓	P7	✓	P7		
-1 to 10 g	-14.5 to 150 g		0.005		0.025		2	✓	P7	✓	P7		
-1 to 20 g	-14.5 to 300 g		0.005		0.025		2	✓	P3	✓	P3		
0 to 35 g	0 to 500 g		0.005		0.025		2			✓	P4		
0 to 70 g	0 to 1000 g		0.005		0.025		2			✓	P5	✓	H2
0 to 100 g	0 to 1500 g		0.005		0.025		2			✓	P5	✓	H2
0 to 135 g	0 to 2000 g		0.005		0.025		2					✓	H2
0 to 200 g	0 to 3000 g		0.005		0.025		2					✓	H2
Absolute ranges (referenced to vacuum)													
0 to 0.35 a	0 to 5 a			0.03		0.08	2	✓P1		✓P1			
0 to 1.2 a	0 to 35 inHg a			0.02		0.07	2	✓P1		✓P1			
0 to 2 a	0 to 30 a			0.015		0.052	2	✓P1		✓P1			
0 to 3.5 a	0 to 50 a			0.015		0.05	2	✓P6		✓P6			
0 to 7 a	0 to 100 a			0.015		0.05	2	✓P7		✓P7			
Dual use sealed gauge and absolute*													
0 to 10 a	-14.5 to 150 a		0.005	0.015	0.025	0.047	2	✓P7		✓P7			
0 to 20 a	-14.5 to 300 a		0.005	0.015	0.025	0.047	2	✓P3		✓P3			
0 to 35 a	0 to 500 a		0.005	0.015	0.025	0.047	2			✓P4			
0 to 70 a	0 to 1000 a		0.005	0.015	0.025	0.047	2			✓P5		✓H2	
0 to 100 a	0 to 1500 a		0.005	0.015	0.025	0.046	2			✓P5		✓H2	
0 to 135 a	0 to 2000 a		0.005	0.015	0.025	0.046	2					✓H2	
0 to 200 a	0 to 3000 a		0.005	0.015	0.025	0.046	2					✓H2	
0 to 350 a	0 to 5000 a		0.005	0.015	0.025	0.049	2					✓H3	
0 to 700 a	0 to 10000 a		0.005	0.015	0.025	0.049	2					✓H4	
0 to 1000 a	0 to 15000 a		0.005	0.015	0.025	0.049	2					✓H5	

FS = full scale
NLH&R = Non-linearity, hysteresis and repeatability
Media 1 compatible with non-corrosive gas/fluid
Media 2 Compatible with stainless steel
** The reading can be referenced to ambient air pressure, allowing the same module to be switched between absolute and sealed gauge measurement*
DPI 612 Flex pressure resolution is adjustable from 4 to 7 digits.
Total uncertainty includes reference standard uncertainty, temperature errors, NLH&R and typical long term stability for one year (K=2).

PM 620 General Specification (where different from DPI 612 Flex general specification)

Maximum intermittent pressure	2 x full scale pressure
Maximum working pressure	110% of full scale pressure
Ingress protection	IP 65 (protected against dust and jets of water)
Size and weight	L. 56 mm. Dia. 44 mm. 106 g

Ordering Information

Please provide the ordering information highlighted in the specification tables. For example, to order a standard DPI 620 pFlexPro kit with a 300 psi gauge pressure module order **DPI 612, PFP, 20G**. This will include the accessories indicated in the DPI 612 pFlexPro specification table.

To order a DPI 612 Flex with a different pressure module to those indicated in the specification table, for example, 0.35 bar gauge, use **DPI 612, PFX, 00** and then order the pressure module **PM 620, 0.35 bar g** and any accessories as a separate items.

Accessories

Note – accessories identified by * are supplied as standard with applicable DPI 612 models except DPI 612-XXX–00. Please refer to the specification tables.

***Carrying case (P/N IO620-CASE-3)**
A protective carrying case with shoulder strap and large pocket for accessories.

Spare/replacement rechargeable battery (P/N CC3800GE)
Spare/replacement lithium ion battery for the DPI 611 and DPI 612 Flex series.

Spare/replacement mains adaptor (P/N IO620-PSU)
A universal input mains adaptor connects to the DPI 612 to charge battery and power the instrument. Input voltage 100 to 240 VAC 50/60 Hz. Mains socket adaptors are provided.

Battery charging station (P/N CX6100GE)
This external battery charging station and universal input mains adaptors allows a spare battery to be charged independently of the DPI 612 for minimum instrument down time. A complete charge cycle takes approximately 6.5 hours. *(CX6100GE Not available in Korea).*

USB cable (P/N IO620-USB-PC)
Connects the DPI 612 to a PC.

IDOS to USB converter (P/N IO620-IDOS-USB)
Allows connection of an IDOS universal pressure module to the DPI 611. P/N IO620-USB-PC is also required to connect the converter to the DPI 612 USB port.

USB to RS 232 cable (P/N IO620-USB-RS232)
Connects the DPI 612 to an RS 232 interface.

***Dirt and moisture trap**
Prevents contamination of the DPI 612 pFlex pneumatic systems and cross contamination from one device under test to another. The trap connects directly to the DPI 612 pFlex pressure port and replicates the quick fit connection for compatibility with the hose and adaptor kits. ***Not for use with DPI 612 hFlex models.***

***P/N IO620-IDT621**: Maximum working pressure 20 bar / 300 psi.

***P/N IO620-IDT622:** Maximum working pressure 100 bar / 1500 psi.

Quick-to-fit hose and adaptor system
These high pressure hoses and adaptors are compatible with the pressure ports of the DPI 612 Flex, DPI 611 and DPI 620 series and are quick-to-fit without tools or sealing.

***IOHOSE-NP1**: Pneumatic hose 1m/3.28ft. Maximum pressure 40 bar/600 psi.

***IOHOSE-NP2**: Pneumatic hose 2m/6.56ft. Maximum pressure 40 bar/600 psi.

***P/N IO620-HOSE-P1**: Pneumatic hose 1m/3.28ft. Maximum pressure 400 bar/5800 psi.

P/N IO620-HOSE-P2: Pneumatic hose 2m/6.56ft. Maximum pressure 400 bar/5800 psi.

***P/N IO620-HOSE-H1:** Hydraulic hose 1 metre/3.28 ft. Maximum pressure 1000 bar/15000 psi.

P/N IO620-HOSE-H2: Hydraulic hose 2 metre/6.56 ft. Maximum pressure 1000 bar/15000 psi.

P/N IO620-BSP: Pressure adaptors G1/8 male and G1/4 male, G1/4 female, G3/8 female and G1/2 female.

P/N IO620-NPT: Pressure adaptors 1/8" male and 1/4"male, 1/4" female, 3/8" female, and 1/2" female.

P/N IO620-MET: 14 mm female and 20 mm female.

P/N IO620-COMP Comparator adaptor
For greater efficiency, two test devices can be connected at the same time. The adaptor connects to the pressure port of the DPI 612 and provides two outlet ports.

***Pressure relief valve**
Protects the PM 620 pressure module and the device under test from overpressure.

Part number	Compatible model	Factory setting bar	Factory setting psi	Adjustable range bar			Adjustable range psi		
IO620-PRV-P1	PFX / PFP	1	15	0.2	to	1	3	to	15
IO620-PRV-P2	PFX / PFP	5	100	3	to	7	45	to	100
IO620-PRV-P3	PFX / PFP	30	435	16	to	32	230	to	460
IO620-PRV-P4	PFP	60	870	30	to	60	435	to	870
IO620-PRV-P5	PFP	100	1500	60	to	100	870	to	1500
IO620-PRV-P6	PFX / PFP	3	45	1.1	to	3	16	to	45
IO620-PRV-P7	PFX / PFP	12	170	6.1	to	12	90	to	170
IO620-PRV-P8	PFX / PFP	18	260	12.1	to	18	175	to	260
IO620-PRV-H1	HFP	50	725	10	to	50	145	to	725
IO620-PRV-H2	HFP	200	3000	50	to	200	725	to	2900
IO620-PRV-H3	HFP	400	6000	200	to	400	2900	to	5800
IO620-PRV-H4	HFP	700	10000	300	to	700	4350	to	10000
IO620-PRV-H5	HFP	1000	15000	600	to	1000	8700	to	15000

Screen protector (P/N IO61X-PROT)

Replacement touch screen stylus (P/N IO61X-STYLUS)

Replacement test lead set (P/N IO61X-LEAD)

Replacement shoulder strap (P/N IO612-STRAP)

Intecal calibration management software (P/N INTECAL10)
Simple to use, single PC installation of Intecal supporting portable field calibrators including the DPI 612 and fix workshop/laboratory calibration systems including PACE pressure controllers. Compatible with Windows XP, 7 and 8 with 32 or 64 bit operating systems. Please refer to the Intecal datasheet for more information.

Related Products

For information on the wide range of pressure, temperature and electrical test and calibration equipment please visit our web site at www.ge-mcs.com/en/pressure-and-level.

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