The PV621, 622 and 623 Pressure Generating Stations

Features
- A uniquely capable, re-rangeable and self contained pressure test system
- Advanced pressure generation
  - 95% vacuum to 20 bar (300 psi) pneumatic
  - 95% vacuum to 100 bar (1,500 psi) pneumatic
  - 0 to 1000 bar (15,000 psi) hydraulic
- Stand alone replacements for hand pumps
- Bench top use as comparators
- Safe and Hazardous area Versions available

There are three pressure generation stations: the PV621, a pneumatic pressure generator for pressures 95% vacuum to 20 bar (300 psi); the PV622, a pneumatic pressure generator for pressures 95% vacuum to 100 bar (1,500 psi); and the PV623, a hydraulic pressure generator for pressures up to 1,000 bar (15,000 psi). Each pressure station is designed for stand-alone operation as a pressure generator and can replace conventional hand pumps to provide greater efficiency and ease of use. They can also be used on the workbench as comparators.

Combining any of the pressure stations with a PM620 pressure module and the DPI620 calibrator creates a uniquely capable, self-contained pressure calibrator.

PV621G, PV622G and PV623G Specification

<table>
<thead>
<tr>
<th>Feature</th>
<th>PV621G</th>
<th>PV622G</th>
<th>PV623G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum pressure (pneumatic)</td>
<td>20 bar (300 psi)</td>
<td>100 bar (1,500 psi)</td>
<td>1,000 bar (15,000 psi)</td>
</tr>
<tr>
<td>Pressure media</td>
<td>non-corrosive gases</td>
<td>Non-corrosive gases</td>
<td>De-mineralized water or mineral oil (ISO viscosity grade &lt; 22)</td>
</tr>
<tr>
<td>Operating temperature (pneumatic)</td>
<td>-10°C to 50°C (14°F to 122°F)</td>
<td>-10°C to 50°C (14°F to 122°F)</td>
<td>-20°C to 70°C (-4°F to 158°F)</td>
</tr>
<tr>
<td>Storage temperature (pneumatic)</td>
<td>For water +4°C to +50°C (39°F to 122°F)</td>
<td>For water +4°C to +50°C (39°F to 122°F)</td>
<td>Must be empty of water</td>
</tr>
<tr>
<td>Shock and vibration (hydraulic)</td>
<td>EN 60101-1:2010</td>
<td>MIL-PRF-28800F for Class II equipment, 1 m drop tested</td>
<td></td>
</tr>
<tr>
<td>Pressure safety</td>
<td>Pressure equipment directive class SEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size and weight</td>
<td>450 mm x 280 mm x 235 mm, PV621G 2.65 kg, PV622G 3.30 kg, PV623G 3.75 kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PV621-IS, PV622-IS and PV623-IS Specification (where different from above table)

<table>
<thead>
<tr>
<th>Feature</th>
<th>PV621-IS</th>
<th>PV622-IS</th>
<th>PV623-IS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum pressure (pneumatic)</td>
<td>20 bar (300 psi)</td>
<td>100 bar (1,500 psi)</td>
<td>1,000 bar (15,000 psi)</td>
</tr>
<tr>
<td>Operating temperature (pneumatic)</td>
<td>-10°C to 40°C (14°F to 104°F)</td>
<td>-10°C to 40°C (14°F to 104°F)</td>
<td>-10°C to 40°C (14°F to 104°F)</td>
</tr>
<tr>
<td>Approval</td>
<td>BASEFA 10ATEX0011X</td>
<td>IECEx BAS 10.0003X</td>
<td>Page 11 of 46 TR0753 Issue 1</td>
</tr>
</tbody>
</table>

99 Washington Street
Melrose, MA 02176
Phone 781-665-1400
Toll Free 1-800-517-8431
Visit us at www.TestEquipmentDepot.com
**Model PM620-IS “pressure range” and “type”**
Intrinsically safe pressure module supplied with calibration certificate. Please state model number, pressure range and type gauge or absolute e.g., PM620-IS 20 bar (300 psi gauge) (see page 11 for pressure ranges)

**Model PV621-IS**
Intrinsically safe pneumatic pressure generating station vacuum to 20 bar (300 psi)

**Model PV622-IS**
Intrinsically safe pneumatic pressure generating station vacuum to 100 bar (1,500 psi)

**Model PV623-IS**
Intrinsically safe hydraulic pressure generating station vacuum to 0 to 1,000 bar (15,000 psi)

The PV621-IS, 622-IS and 623-IS are supplied with G1/8 female and 1/8 NPT female adaptors, carry strap, and quick reference guide. In addition, the PV623-IS includes a plastic refill bottle for hydraulic fluid

**Model PM620 “pressure range” and “type”**
Pressure module supplied with calibration certificate. Please state model number, pressure range and type gauge or absolute e.g., PM620 20 bar (300 psi gauge) (see page 11 for pressure ranges)

**Model PV621G**
Pneumatic pressure generating station vacuum to 20 bar (300 psi)

**Model PV622G**
Pneumatic pressure generating station vacuum to 100 bar (1,500 psi)

**Model PV623G**
Hydraulic pressure generating station 0 to 1,000 bar (15,000 psi)

The PV621G, 622G and 623G are supplied with G1/8 female and 1/8 NPT female adaptors, carry strap, and quick reference guide. In addition, the PV623G includes a plastic refill bottle for hydraulic fluid

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**PV621, 622, 623 and MC620 Accessories**

*Note: unless otherwise stated the following accessories are suitable for hazardous area use*

**Dirt moisture trap**
Prevents contamination of the PV621 and 622 pneumatic systems and cross contamination from one device under test to another. The IDT connects directly to the PV621 and 622 pressure port and replicates the quick fit connection for compatibility with the hose and adaptor kits.

P/N IO620-IDT621: Maximum working pressure 20 bar (300 psi)
P/N IO620-IDT622: Maximum working pressure 100 bar (1,500 psi)
Pressure relief valve
When fitted to a PV62X pressure station a relief valve protects the PM620 pressure module and the device under test from overpressure.

Relief Valve Table

<table>
<thead>
<tr>
<th>Part number</th>
<th>For use with</th>
<th>Factory setting</th>
<th>Adjustable range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>bar</td>
<td>psi</td>
</tr>
<tr>
<td>IO620-PRV-P1</td>
<td>PV621G PV622G</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>IO620-PRV-P2</td>
<td>PV621G PV622G</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>IO620-PRV-P3</td>
<td>PV621G PV622G</td>
<td>10</td>
<td>435</td>
</tr>
<tr>
<td>IO620-PRV-P4</td>
<td>PV622G</td>
<td>60</td>
<td>870</td>
</tr>
<tr>
<td>IO620-PRV-P5</td>
<td>PV622G</td>
<td>100</td>
<td>1,500</td>
</tr>
<tr>
<td>IO620-PRV-P6</td>
<td>PV622G</td>
<td>3</td>
<td>45</td>
</tr>
<tr>
<td>IO620-PRV-P7</td>
<td>PV622G</td>
<td>12</td>
<td>170</td>
</tr>
<tr>
<td>IO620-PRV-P8</td>
<td>PV621G PV622G</td>
<td>18</td>
<td>260</td>
</tr>
<tr>
<td>IO620-PRV-H1</td>
<td>PV623G</td>
<td>50</td>
<td>725</td>
</tr>
<tr>
<td>IO620-PRV-H2</td>
<td>PV623G</td>
<td>200</td>
<td>3,000</td>
</tr>
<tr>
<td>IO620-PRV-H3</td>
<td>PV623G</td>
<td>400</td>
<td>6,000</td>
</tr>
<tr>
<td>IO620-PRV-H4</td>
<td>PV623G</td>
<td>700</td>
<td>10,000</td>
</tr>
<tr>
<td>IO620-PRV-H5</td>
<td>PV623G</td>
<td>1,000</td>
<td>15,000</td>
</tr>
</tbody>
</table>

Pneumatic hose
Pneumatic hose terminated with quick fit connectors compatible with the test point adaptors supplied with the PV62XG, MC620G and the adapter sets.

Safe area use
P/N IO620-HOSE-P1: 1 m/3.28 ft pneumatic hose.
Maximum pressure 20 bar/300 psi
P/N IO620-HOSE-P2: 2 m/6.56 ft pneumatic hose.
Maximum pressure 20 bar/300 psi
P/N IO620-HOSE-P1-IS: 1 m/3.28 ft pneumatic hose.
Maximum pressure 400 bar (5,800 psi)
P/N IO620-HOSE-P2-IS: 2 m/6.56 ft pneumatic hose.
Maximum pressure 400 bar (5,800 psi)

Hazardous area use
P/N IO620-HOSE-P1-IS: 1 m/3.28 ft pneumatic hose.
Maximum pressure 400 bar (5,800 psi)
P/N IO620-HOSE-P2-IS: 2 m/6.56 ft pneumatic hose.
Maximum pressure 400 bar (5,800 psi)

Hydraulic hose
A high pressure hydraulic hose rated to 1,000 bar (15,000 psi) and terminated with quick fit connectors compatible with the test point adaptors supplied with the PV62XG, MC620G and the adapter sets. The hose is self sealing to avoid leakage when disconnected.

Safe area use
P/N IO620-HOSE-H1: 1 m/3.28 ft hydraulic hose
P/N IO620-HOSE-H2: 2 m/6.56 ft hydraulic hose

Hazardous area use
P/N IO620-HOSE-H1-IS: 1 m/3.28 ft hydraulic hose
P/N IO620-HOSE-H2-IS: 2 m/6.56 ft hydraulic hose

Pressure adaptor set
A set of test point adaptors to connect the tool less quick fit PV62XG, MC620G and the extension hoses to the device under test.

P/N IO620-BSP: G1/8 male and G¼ male, G¼ female, G3/8 female and G½ female
P/N IO620-NPT: 1/8" male and ¼" male, ¼" female, 3/8" female, and ½" female
P/N IO620-MET: 14 mm and 20 mm female

P/N IO620-CASE-4) Modular system transit case
A rigid transit case with wheels and an extendable handle. Accommodates two PV62XG pressure stations, DPI620G, MC620G and PM620 modules, with ample storage space for accessories. Size: 736 mm x 554 mm x 267 mm. Weight: 8.5 kg empty

Pressure station carrying case
A protective carrying case with shoulder strap and large pocket for accessories. Also accommodates the assembled system including the DPI620G and PM620.

P/N IO620-CASE-3: Safe area use
P/N IO620-CASE-3-IS: Hazardous area use

(P/N IO620-CASE-4) Modular system transit case
A rigid transit case with wheels and an extendable handle. Accommodates two PV62XG pressure stations, DPI620G, MC620G and PM620 modules, with ample storage space for accessories. Size: 736 mm x 554 mm x 267 mm. Weight: 8.5 kg empty
(P/N IO620-COMP) Comparator adaptor
Allows the PV62XG pressure station to be used as a comparator. The adaptor connects to the stations pressure port and provides two outlet ports for making gauge comparisons. Compatible with the test point adaptors supplied with the PV62XG and the adaptor sets.

(P/N IO620-BLANK) Blanking plug
Allows the PV621G and 622G to be used as pressure generators independently of the DPI620G and PM620 by blanking the PV62XG pressure module port. Not required for the PV623G as the port is self-sealing.

(P/N IO620-104 ADAPT)
DPI 104 Gauge adaptor
Allows a DPI 104 digital pressure gauge to be connected to the PV62XG pressure module port in place of DPI620G and PM620 to provide a simple low cost pressure calibrator.