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DEVILBISS

SB-E-9-220 iss 1

II 1 G EEx ia IIC T4

Operation Manual
DGI PRO - Digital ATEX approved Spraygun Pressure Gauge

Important

Read and follow all instructions and Safety Precautions before using this equipment

Description

The DGI PRO Digital Pressure Gauge is an intrinsically safe device, approved to ATEX regulations **94/9/EC**, protection level; **II 1 G EEx ia IIC T4, Suitable for use in Zones 0, 1 and 2.**
It is supplied with Swivel Nut Female Universal 1/4 connection to the Spraygun and 1/4 Universal Male fitting for the air supply. The Gauge is powered by a non-replaceable battery. It has a battery life expectancy of a minimum of 2 years working life under normal single shift working conditions.

Important: *This gauge is suitable for use with both waterbased and solvent based coating materials and cleaners. It's Category 1 rating means in can be cleaned in an enclosed Spraygun washing machine. DO not totally immerse this device in solvent or cleaner as it may cause blockage of the internal passageways and affect the accuracy.*

Model Variants	
DGIPRO-502-BAR	Display reading in bar
DGIPRO-502-PSI	Display reading in psi

Specification

Air supply connection	- Universal $^1/_4$ BSP and NPS
Maximum static inlet pressure	- 12 bar (175 psi)
Service temperature	- 0 to 40°C
Weight	- 155g
Materials of Construction	
Housing	- Die cast Aluminium, Nickel/Chrome plated
Swivel Connector	- Stainless Steel/ Steel Nickel Plate
Threaded Connector	- Brass Nickel Plate
Window	- Toughened Glass

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SAFETY WARNINGS

Fire and explosion

Solvents and coating materials can be highly flammable or combustible when sprayed. **ALWAYS refer to the coating material suppliers instructions and COSHH sheets before using this equipment.**

Users must comply with all local and national codes of practice and insurance company requirements governing ventilation, fire precautions, operation and house-keeping of working areas

Static Electricity can be generated by fluid and/or air passing through hoses, by the spraying process and by cleaning non- conductive parts with cloths. To prevent ignition sources from static discharges, earth continuity must be maintained to the Gauge and Spraygun. It is essential to use conductive hoses.

Misuse

Do not attempt to dismantle the Gauge under any circumstances. **The battery is non-replaceable.** In the event of a premature failure, return the unit to your distributor.

The fitting of non-original spares may create hazards. Use only spares and accessories as detailed in this bulletin.

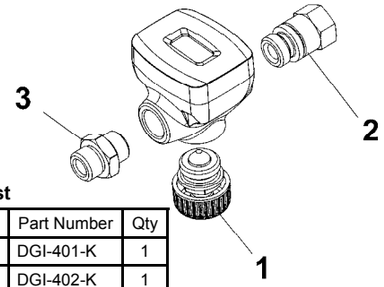
The product can be cleaned using a gun washing machine. However, this equipment should not be left inside gun washing machines for prolonged periods of time or immersed totally in solvent or cleaning material.

Do not over pressurise the gauge beyond its maximum working pressure (see specification). This may result in a failure of the unit and possible injury to the user.

If the plating is damaged and exposes the base metal, do not use in a hazardous (zoned) area.

Installation

1. Attach air hose to connector (3). Recommended hose size 8 mm bore. The hose must be conductive and electrical bond from the Spraygun to earth should be checked with an ohmmeter. A resistance of less than $10^6\Omega$ is recommended.
2. Air supply should be filtered and regulated.
3. Attach the Gauge to the Spraygun with Swivel connector.
4. Quick Disconnect connectors can be fitted to the gauge connections. Only use those fittings which are listed in the accessories section. Ensure alternative manufactures connections are made of conductive materials, or they may create a hazard and invalidate ATEX certification.



Parts List

Ref. No	Description	Part Number	Qty
1	Flow Valve	DGI-401-K	1
2	Swivel Connector	DGI-402-K	1
3	Air Inlet Connector	DGI-8-K	1

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Operation

1. Turn flow valve (1) clockwise until fully wound in.
2. With the hose connected, turn on air supply.
3. Open the flow valve (1) by turning anticlockwise and trigger the Spraygun (air only). The gauge will show a reading in 0.05 bar increments. Adjust the flow valve until the required pressure value is displayed.
4. Use an inlet air pressure of 2 bar for DeVilbiss GTI compliant and HVLP Aircaps. The pressure at the Aircap will be 0.7 bar (10psi) for HVLP Aircaps.
5. If using the MPV QD system between the gauge and the Spraygun, allowance must be made for the additional pressure drop across the QD. Add 0.2 bar to the gauge reading to compensate.
6. The gauge can be cleaned in a gunwash machine whilst attached to the Spraygun. Do not leave in for long periods or immerse the gauge totally in solvent or cleaners. This may affect the accuracy of the gauge by clogging the internal air passages.

Note:
The Gauge will show a reading whilst there is pressure in the air supply. It is recommended to either turn off the air supply or disconnect the gauge whilst not in use. This will increase the battery life of the gauge.

Maintenance

1. ***The only replaceable parts are the 2 connectors and the Flow Valve. The housing must not be dismantled. Any attempt to dismantle the housing will invalidate the warranty***
2. Turn off air supply and relieve pressure in the airline, or if using QD system, disconnect from airline.
3. To remove the Air inlet connector (3), use a 17mm ring spanner or socket.
4. When re-fitting, apply Loctite 242 Nutlock Thread locking adhesive or equivalent to the thread. Make sure the end with the cone is to the outside.
5. To remove the Swivel Connector (2), use a 6mm hexagon key. To refit, apply Thread locking adhesive as in section 4.

Accessories

MPV-60 Swivel QD Male Stem with 1/4 female thread

MPV-10 QD Male Stem with 1/4 female thread

MPV-424 QD Male Stem with 1/4 male thread

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EC Declaration of Conformity

We: ITW Finishing UK
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As the manufacturer of the:

Digital Pressure Gauge Model DGi and DGiPRO

Declare, under our sole responsibility, that the equipment to which this document relates is in conformity with the following standards or other normative documents:

EN 50014:1997/A2:1999
EN 50020:2002

And thereby conform to the protection requirements of Council 94/9/EC relating to ***Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres protection level, II 1 G EEx ia IIC T4***

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Authorised by:

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