

KPG119 Digital Pressure Gauge

1.Introduction

The digital pressure gauge uses high-precision diffused silicon pressure sensitive elements, and the circuit part uses a 24-bit dedicated AD processing chip and an industrial-grade MCU, which is suitable for real-time monitoring or measurement calibration of field pressure.

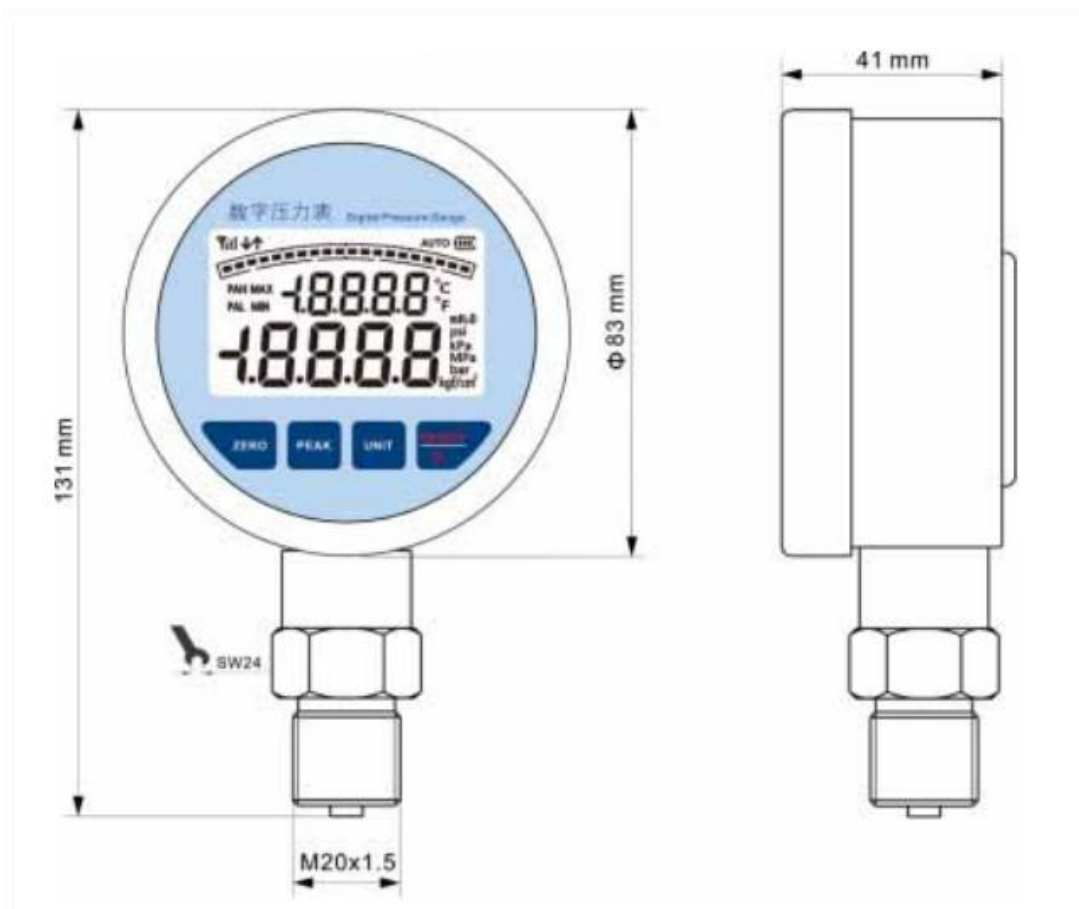
The operating instructions contain important information and safe operation requirements for the digital pressure gauge.

The digital pressure gauge must be used within its applicable scope and comply with relevant accident prevention regulations and general safety regulations.

Before using the pressure gauge, the operator must carefully read and understand the operating instructions.

The manufacturer is not responsible for any damage caused by using products that are not consistent with the intended use, not complying with the operating instructions, assigning unqualified technicians or unauthorized persons to repair the digital pressure gauge.

2.Dimensions



3. Technical Specifications

Measuring range		-0.1~100MPa
Overload		2 times full scale
Accuracy	Pressure	±0.16%FS、±0.25%FS、±0.4%FS
	Temperature	±2℃
Display		Large LCD with backlight
Resolution		4 1/2 bits
Compensation temperature		0~50℃
Ambient temperature		-10~60℃
Medium temperature		-20~80℃
Storage temperature		-20~60℃
Power supply		Two AAA batteries (3 V)
Current consumption		<1.9mA (backlight off)
Casing material		Stainless steel 304 (housing/pressure connector)
Pressure-sensing diaphragm material		Stainless steel 316L
Sealing ring material		Fluororubber
Casing protection		IP65
Menu function		Zero point reset, maximum/minimum value display, unit switching, ambient temperature display, pressure progress bar display, power display.

4. Function and Operation

4.1 Zero setting



Long press: Use the current pressure as the measurement zero point.

- The zeroing range is within 5% of the full scale;
- When the displayed zero point is deviated, use the zero point zeroing function;
- It is recommended to use the one-button zeroing function before each use.

4.2 Peak value viewing and clearing



Short press: switch between maximum and minimum values;

Long press: clear maximum or minimum value.

4.3 Unit switching (psi, kPa, MPa, bar, kgf/cm²)



Short press: Cycle through the pressure units.

After the unit is switched, the measured value will display the corresponding unit equivalent pressure.

4.4 Switch



Short press: turn on the backlight, long press: turn on/off.

5. Installation

Please select a suitable sealing method before installing the digital pressure gauge.

Make sure that the measuring medium is compatible with the instrument material.

- ▶ Do not touch the diaphragm of the sensitive element inside the pressure-inducing hole in any way.
- ▶ Do not use the instrument housing as a torque to rotate the instrument.

6. Transportation, Packing and Storage

6.1 Transportation

Check whether the digital pressure gauge is damaged due to transportation, and feedback to the dealer immediately if the damage is obvious.

6.2 Packaging

Do not remove the package before installation.

6.3 Storage

Permissible conditions for storage sites:

- Storage temperature: -20... +60°C
- Humidity: <85% relative humidity (non-condensate)

Avoid exposure to:

Direct sunlight or near a hot object;
Mechanical vibration, mechanical impact (forced down);
Soot, steam, dust and corrosive gases;
Potentially explosive environment, flammable environment.

Before storing the digital pressure gauge (after operation), remove all residual media. Some media are harmful to health, such as corrosive, toxic, harmful, radioactive, etc.

7. Maintenance and Repair

7.1 Maintenance

Turn off the power supply of the pressure gauge before replacing the battery.

Battery replacement can be done by the customer.

Battery model: two AAA alkaline batteries (3V)

The service life of the instrument battery is related to the battery capacity and the working mode of the instrument. Please refer to Article 2 of this manual.

The digital pressure gauge is maintenance-free when it is working normally.

Repairs can only be performed by the manufacturer.

7.2 Recalibration

The instrument has a calibration function. If calibration is required, please contact the dealer.

7.3 Fault code and handling method

Er-H: Exceeding the upper limit of the range, please check whether the pressure gauge measurement range is appropriate;

Er-S: Pressure sensitive element failure, return to the manufacturer for repair;

Er-D: Data loss, return to the manufacturer or the customer for self-calibration;

Er-Z: Zeroing failed, re-zeroing, refer to Article 4.1 of this manual.

8. Disassembly, repair and disposal

Residual media in the disassembly digital pressure gauge can be dangerous to people, the environment and equipment. Take adequate precautions.

8.1 Disassembly

Testing and calibration can only be disconnected after the system is depressurized.

8.2 Repair

The digital pressure gauge is strictly observed when it leaves the factory:

The products returned to the manufacturer must not contain any harmful substances (acids, alkalis, solutions, etc.).

When returning the digital pressure gauge, please use the original packaging or suitable transport packaging.

8.3 Disposal

Improper handling can put the environment at risk.

Dispose of instrument parts and packaging materials in an environmentally compatible manner in accordance with the waste disposal regulations of the specific country.