

DR3702 Digital Pressure Gauge Manual



1.Overview

The 3702 series digital pressure gauge provides a 4-20mA pressure transmit or RS485 communication, which make the unique pressure gauge is suitable for remote monitoring. and the gauge adopts high-performance diffused silicon pressure sensor and high-performance digital processing circuit, so it has the characteristics of high anti-interference, the performance is also stable and reliable.

The operating instructions contain important information and safe operating requirements.

The digital pressure gauge must be used within its scope of application 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 shall not be liable for any damage caused by the use of products that do not conform to the intended use, the non-compliance with the operating instructions, the assignment of unqualified technicians or the repair of digital pressure gauges by unauthorized persons.

Standard: JB / T7392-2006DIGITAL PRESSURE GAUGE.

Technical Parameter

Measurement range: -0.1MPa---0MPa~0.01MPa---100MPa

Overload: 200%FS or 110MPa (minimum)

Medium Type: Gas, water, oil, pure liquid

Pressure type: gauge pressure (standard), absolute pressure or sealed gauge pressure

Display digits: Four digits display

Pressure accuracy: $\pm 0.1\%$ FS / $\pm 0.2\%$ FS / $\pm 0.5\%$ FS (standard)

Long Stability: $\pm 0.20\%$ FS(1 year)

Power supply: 24VDC

Signal Output: 4-20mADC(Two wires) or 4-20mADC(Two wires)+RS485

Shell material: SUS304 stainless steel

Sensor material: SUS316L stainless steel

Compensation temperature: 0 °C ~ + 50 °C

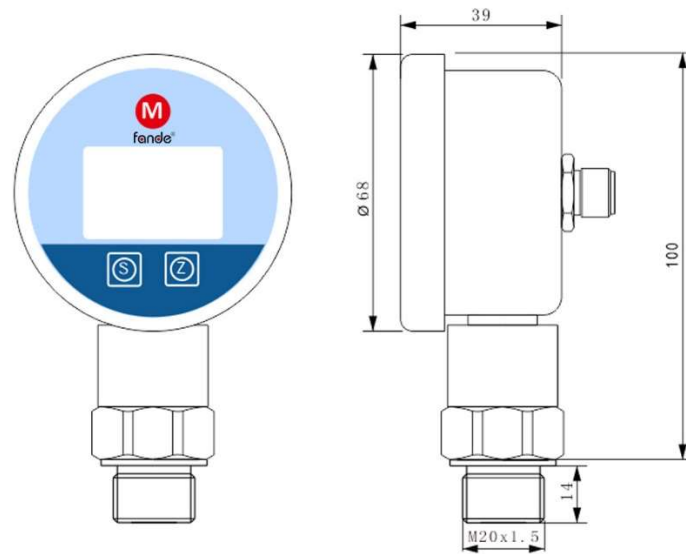
Operating temperature: - 20 °C ~ + 80 °C

Storage temperature: - 20 °C ~ + 60 °C

Storage humidity: 45 ... 75 % relative humidity (non-condensing)

Protection grade: IP54

Outline



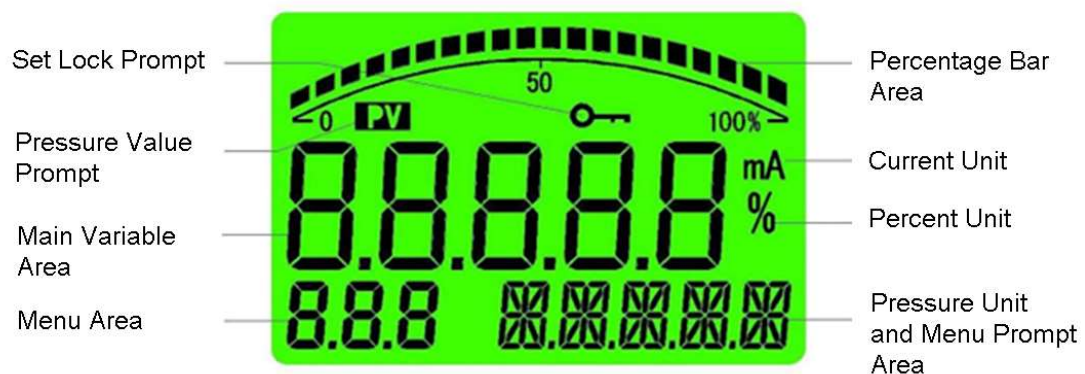
Electrical System

Power supply: See the product label for details (The power supply must meet the requirements of relevant standards, and the power supply system should be reliable.)

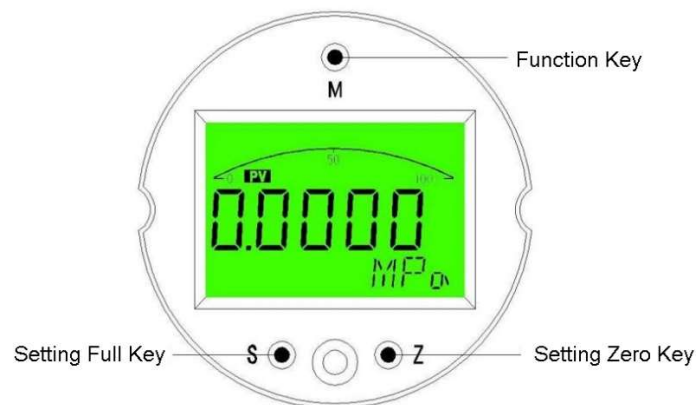
4-20mA DC Two-wire current type:

Red: Power is positive Black: Signal Output is positive

Display Area Description



Button function description



Function key "M"

- In measurement mode, short press "M" to enter the password setting.
- In measurement mode, press "M" and hold for 5 seconds to enter the main variable clearing zero (ie, PV clearing zero).
- In setting mode, short press to enable parameter modification, the modified parameter flashes, short press again to confirm the parameter modification, and the modified parameter stops flashing.

Setting Zero key "Z"

- In measurement mode, short press to modify the mode (display pressure value or current value).
- In measurement mode, press and hold for 5 seconds to enter setting zero function (ie, calibrate the transmitter zero point).
- In the setting mode, it is the function of setting parameter shift and minus one, continuously shift or minus one when long press.

Setting Full Key "S"

- In measurement mode, short press to modify the mode (display pressure value or current value).
- In measurement mode, press "S" and hold for 5 seconds to enter the setting full range function (that is, to calibrate the full point of the transmitter).
- In the setting mode, it is the function of adding one to the setting parameters value, and the continuous shift or increases one when pressing and holding it for a long time.

Shortcut key Function

The instrument has three quick functions: clearing the main variable, active zero-point migration, and full point active migration, which is convenient for users to quickly set up on site.

Main Variable Clearing Zero

The main variable clearing zero, that is the PV clearing zero, which is the zero point under the relative atmospheric pressure, not the zero point of the sensor range. Put the transmitter directly under atmospheric pressure, press and hold the "M" key for more than 5 seconds, you can enter the main variable clearing function, as shown in the right figure, the menu area displays "P=0", through the "S" key and "Z" key to select the desired operation, the prompt area will display correspondingly:



- "NO" does not clear the main variable;
- "YES" to clear the main variable;
- "RESET" restores the zero point before the reset operation;

Zero Active Migration

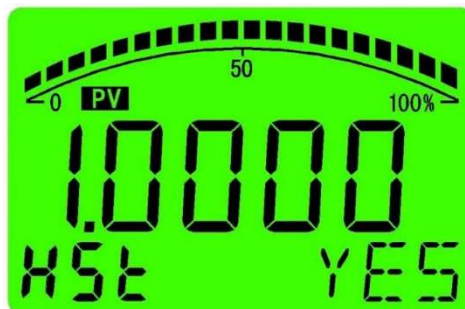
Zero-point active migration is to set the current pressure as the zero-point output of the transmitter, apply zero-point pressure to the transmitter, press and hold the "Z" key for more than 5 seconds, the meter will alternately display the current pressure value and the zero-point output current value, such as shown on the right, the menu area displays "LSt", select the desired operation through the "S" and "Z" keys, and the prompt area displays accordingly:



- "NO" does not perform zero-point active migration;
- "YES" for zero-point active migration;

Full point active migration

Full-point active migration is to set the current pressure as the full-point output of the transmitter, apply full-point pressure to the transmitter, and press and hold the "S" key for more than 5 seconds, the meter will alternately display the current pressure value and full-point output. The current value, as shown in the right figure, the menu area displays "HSt", select the operation to be performed through the "S" key and the "Z" key, and the prompt area displays accordingly:



"NO" does not perform full-point active migration;

"YES" for full-point active migration;

Fault



Notice!

Once the failure of the product cannot be eliminated, the digital pressure gauge must be disassembled immediately.

- ▶ Make sure that there is no pressure or signal to prevent the device from continuing to operate.
- ▶ Contact the manufacturer.



warn!

The meter is used in dangerous places such as toxic, harmful, high temperature and high pressure.

- ▶ Follow the relevant operating instructions.
- ▶ Wear the necessary protective equipment.

In the event of any fault of the meter, first check whether the meter is installed correctly from both the pressure connection and the electrical connection.

Common faults and solutions are as follows:

Faults	Reason	Solution
No signal	Cable disconnection	Check connection
Signal exceeds full scale	Over pressure	Please follow the range
Error is high	Over ambient temperature	Use within the allowable range
Signal no changes	Meter is damaged	Replace the meter
Signal jump	There are EMC interference sources on site, such as frequency converters	Use shielded cable