



DC Powered Digital Pressure Gauge with Dual Alarms

DPG104



INSTRUCTION SHEET

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Introduction

DPG104 is an integrated pressure gauge with display and control used to monitor hydraulic fluids. It monitors the pressure via the resistance measured on an isolation membrane. The output signal is amplified by a high-precision, low-temperature drift amplifier. The signal is then fed into a high accuracy A/D converter for the microprocessor to process and then show on the LED display.

This flexible, simple to operate digital pressure gauge is safe, reliable, and easy to debug. The DPG104 is widely used in hydro-power, water, petroleum, chemical, mechanical, hydraulic, and other industries.

Features

- High resolution, 4-digit LED display
- 100mm standard gauge dial
- 220V / 3A relay output

Specifications

Note, if the fluid being measured exceeds 80°C, select the high temperature accessory.

- **Measuring Range**
-0.1~0~100MPa

- **Accuracy Range**
±0.25% for gauge pressure >5psi
±0.5% FS for all others including absolute, compound gauge, and Vacuum ranges

- **Overload Pressure**
150%~200%

- **Pressure Type**
A/G/D

- **Stability**
≤0.1% FS per year

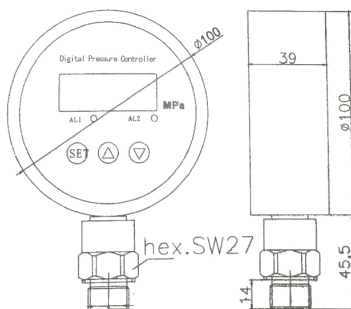
- **Power Supply**
13 to 30VDC

- **Display**
4 digits

- **Screen Size**
0.56" LED

- **IP Rating**
IP40
- **Relative Humidity**
≤90%
- **Operating Temp**
-30°C ~ 80°C
- **Fluid Temp**
-40°C ~ 150°C
- **Response Time**
< 30ms
- **Thread Size**
1/4 NPT Male
- **Thread Material**
SS316
- **Output (S) model**
4-20mA

Dimensions



Mechanical Installation

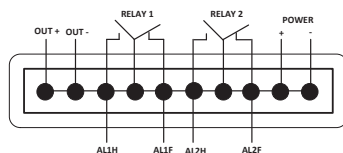
Install directly on the hydraulic pipe line. Other size connectors can be ordered. In high vibration / shock environments, pressure pipe joints can be mechanically decoupled through the use of hoses.

NOTE: Vertical installation is required when the measuring range is less than 100kPa.

Electrical Installation

Notes to prevent Interference

- Keep connection as short as possible
- Use shielded wire
- Avoid direct access to the wiring of the user's device or devices causing interference.
- When using mini hoses, ground the shell separately



Alarms

The DPG104's are provided with two SPDT relays that provide the user the capability to have each alarm have a normal acting (normally closed) and reverse acting (normally open) output." As a fail safe in the event of a sensor power down, the normally closed relay output will enable the alarm.

Operating Instructions

The programming menu uses the following terms to describe the various settings

- AL1H: Switch 1 pull-on value
- AL1L: Switch 1 drop-out value
- AL2H: Switch 2 drop-in value
- AL2L: Switch 2 drop-out value
- FILT: Filter coefficient to prevent spurious pulses triggering switch inputs

To make changes:

- Press SET button until LED display says LOCK
- Press ▼ or ▲ to enter the password (0001)
- Press SET to enter the selected menu (AL1H, AL1L, AL2H, AL2L, FILT)
- Press ▼ or ▲ to change the value.

NOTE: If you press and hold the SET button for 30 seconds while editing the settings, you will exit Setup mode and no changes will be saved.

NOTE: In order to offset the gauge back to zero, press the middle button for 5 seconds, then the display will be back to zero.