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

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.
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OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of 13 months from date of purchase. OMEGA’S WARRANTY adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time. This ensures that OMEGA’s customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA’s Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA’s WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA’s control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA:
1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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