CungSu DX19-DMP331P

Instruction Manual for CungSu DX19-DMP331P

Model: DX19-DMP331P

1. Introduction

This manual provides essential information for the safe and effective use of the CungSu DX19-DMP331P component. Please read this manual thoroughly before installation and operation to ensure proper functionality and to prevent damage or injury.

2. Safety Information

Observe the following safety precautions to prevent personal injury and damage to the product or connected equipment:

- Ensure all power is disconnected before installation or maintenance.
- Installation and wiring should only be performed by qualified personnel.
- Do not exceed the specified electrical ratings (voltage, current, power).
- Operate the device within its specified environmental conditions (temperature, humidity).
- Protect the device from physical shock, excessive vibration, and corrosive substances.
- This device contains sensitive electronic components. Handle with care to avoid electrostatic discharge (ESD) damage.
- Refer to local and national electrical codes for proper installation.

3. Product Description

The CungSu DX19-DMP331P is a new and sealed electronic component, specifically a pressure sensor or transmitter, designed for industrial automation applications. It is supplied with a factory seal, ensuring its integrity upon delivery.
Key features include:

- Part Number: DX19-DMP331P
- Product Status: New with Factory Seal.
- Designed for integration into various systems requiring precise pressure measurement.

- Well-packed in a protective box for safe transport.

4. Specifications

Detailed technical specifications for the DX19-DMP331P are provided below. These specifications are crucial for proper system integration and operation.

Figure 1: Product label with technical specifications.

Technical Data

Parameter	Value
Model Number	DX19-DMP331P
Input Range	-150 to 150 mbar relative
Output Signal	4-20 mA (2-wire)
Supply Voltage (Versorgung)	10 - 28 VDC
Pin Assignment (Pinbelegung)	Ub+ (Pin 1); Ub- (Pin 2)
Operating Temperature (T)	20°C (as marked on label, typical operating range may vary)
Certifications	ULus LISTED, CE, ATEX (IBExU1GATEX1068 X, IECEx IBEx 12.0027X)
ATEX Rating	Ex 1G Ex ia IIC T4 Ge, Ex ia IIIC T135°C Da
ATEX Electrical Parameters	Ui: 28 VDC, Ii: 93 mA, Pi: 680 mW; Ci: 0 nF, Li: 0 µH, Cgnd: 27 nF
Serial Number (SN)	11638878

Parameter	Value
Manufacturer (on label)	BD-Sensors-Str. 1, 95199 Thierstein, Germany
Date First Available	April 28, 2025

5. Setup and Installation

Proper setup is critical for the performance and longevity of the DX19-DMP331P. Follow these general guidelines:

1. **Unpacking:** Carefully remove the component from its packaging. Inspect for any visible damage.
2. **Mounting:** Mount the device securely in a location that is free from excessive vibration, direct heat sources, and corrosive environments. Ensure adequate space for wiring and maintenance.
3. **Wiring:**
    - Ensure power is OFF before connecting any wires.
    - Connect the positive supply (Ub+) to Pin 1.
    - Connect the negative supply (Ub-) to Pin 2.
    - For 2-wire current output (4-20 mA), ensure the receiving device is correctly configured to read this signal.
    - If applicable, connect the shield (Schirm) to a proper ground to minimize electrical interference.
    - Use appropriate wire gauges and insulation for the application.
4. **Pressure Connection:** Connect the pressure port of the device to the system where pressure is to be measured. Ensure a leak-free connection.
5. **Environmental Considerations:** Ensure the operating environment is within the specified temperature and humidity ranges. For ATEX certified applications, adhere strictly to the specified hazardous area requirements.

6. Operating Instructions

Once installed and wired correctly, the DX19-DMP331P operates by converting the measured pressure into a proportional 4-20 mA current signal.

- **Power On:** Apply the specified supply voltage (10-28 VDC). The device will begin to output a current signal corresponding to the measured pressure.
- **Signal Interpretation:**
    - 4 mA typically corresponds to the lower end of the pressure range (-150 mbar).
    - 20 mA typically corresponds to the upper end of the pressure range (150 mbar).
    - Intermediate current values represent pressures within this range.
- **Monitoring:** Continuously monitor the output signal using a compatible control system (e.g., PLC, DCS, data logger) to ensure proper system operation.
- **Calibration:** While the device is factory calibrated, periodic system calibration may be required depending on the application and industry standards. Refer to your system's calibration procedures.

7. Maintenance

The DX19-DMP331P is designed for reliable operation with minimal maintenance. However, periodic checks can help ensure optimal performance:

- **Visual Inspection:** Regularly inspect the device and its connections for any signs of physical damage, corrosion, or loose wiring.
- **Cleaning:** Keep the device clean and free from dust, dirt, and debris. Use a soft, dry cloth for cleaning. Do not use abrasive cleaners or solvents.
- **Connection Integrity:** Periodically check that all electrical and pressure connections are secure and free from leaks.
- **Environmental Check:** Ensure the operating environment remains within the specified limits.

Warning: Do not attempt to open or repair the device. Doing so will void the warranty and may lead to damage or unsafe conditions.

8. Troubleshooting

If you encounter issues with the DX19-DMP331P, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
No output signal (0 mA)	No power supply; Incorrect wiring; Device failure.	Verify supply voltage (10-28 VDC); Check wiring connections (Pin 1: Ub+, Pin 2: Ub-); If power and wiring are correct, the device may be faulty.
Incorrect output signal	Incorrect pressure range applied; Faulty receiving instrument; Device calibration drift.	Ensure applied pressure is within -150 to 150 mbar range; Test receiving instrument with a known signal source; Consider professional calibration if drift is suspected.
Fluctuating output	Unstable power supply; Electrical interference; Pressure fluctuations in the system.	Check power supply stability; Ensure proper shielding and grounding; Investigate pressure source for instability.
Physical damage	Impact; Improper handling; Environmental stress.	Replace the damaged unit. Ensure proper handling and installation to prevent future damage.

If the problem persists after attempting these steps, please contact customer support.

9. Warranty and Support

The CungSu DX19-DMP331P is sold by Realing US, a company focused on factory automation business. They are devoted to providing excellent customer service.

- **Customer Service:** For any issues regarding the product, you are welcome to send a message to the seller, Realing US.
- **Returns:** The product typically has a 30-day return policy for refund/replacement. Please refer to your purchase terms for specific details.
- **Protection Plans:** Optional protection plans may be available for purchase separately.

For the most up-to-date warranty information and support options, please refer to your purchase documentation or contact the seller directly.