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Ranco O16-108

Ranco O16-108 Pressure Control Switch Instruction Manual

Model: O16-108 | Brand: Ranco

1. Introduction

This manual provides comprehensive instructions for the safe and effective installation, operation, and maintenance of the Ranco O16-108 Pressure Control Switch. Please read this manual thoroughly before attempting to install or operate the device. Retain this manual for future reference.

2. Safety Information

WARNING: Electrical shock hazard. Disconnect power before installation or servicing. Installation and servicing must be performed by qualified personnel only. Failure to follow these instructions could result in serious injury or death.

- Always wear appropriate personal protective equipment (PPE).
- Ensure all wiring conforms to local and national electrical codes.
- Do not exceed the specified electrical ratings of the device.
- Verify proper grounding to prevent electrical hazards.

3. Product Overview

The Ranco O16-108 is a robust pressure control switch designed for industrial applications. It features a durable housing, a clear pressure scale for precise adjustments, and a capillary tube for remote pressure sensing. This device is engineered to provide reliable switching based on detected pressure changes.

Figure 1: Ranco O16-108 Pressure Control Switch. The image displays the main control unit with a visible pressure scale (showing values like 10, 15, 20, 30, 40, 50 in PSI and bar), the Ranco logo, and a capillary tube extending from the bottom, coiled, and terminating in a brass fitting. The scale indicates "CLOSES ON PRESSURE RISE" and "SWITCH LOW EVENT".

4. Setup and Installation

Proper installation is crucial for the optimal performance and longevity of the Ranco O16-108. Consult a qualified technician for installation if you are not experienced with electrical and pressure systems.

4.1 Mounting

- Mount the control unit in a location free from excessive vibration, moisture, and extreme temperatures.
- Ensure adequate clearance for wiring and adjustments.
- Use appropriate fasteners to secure the unit firmly to a stable surface.

4.2 Pressure Connection

- Connect the capillary tube's brass fitting to the pressure source.
- Ensure a leak-free connection. Do not bend the capillary tube sharply, as this can damage the sensing element.
- The capillary tube transmits pressure changes to the control unit.

4.3 Electrical Wiring

- Refer to the wiring diagram provided with the product (not included in this manual) for specific connections.
- Connect power supply and load wires to the appropriate terminals. The contact type is Normally Open (NO) and the terminal is SPDT (Single Pole Double Throw).
- Ensure all connections are secure and insulated.

5. Operating Instructions

The Ranco O16-108 operates automatically based on the set pressure points. Adjustments are made via the visible scale on the front of the unit.

5.1 Setting Pressure Points

- Identify the desired cut-in and cut-out pressure values for your application.
- Use a small screwdriver or adjustment tool (if required) to move the indicators on the pressure scale to the desired settings. The scale shows values in both bar and PSI.
- The device is designed to close on pressure rise, meaning the switch will activate when the pressure reaches the set point.
- The "SWITCH LOW EVENT" and "MINUS DIFF" markings on the scale relate to setting the differential pressure.

5.2 Manual Operation / Reset (if applicable)

While the primary operation is automatic, some Ranco pressure controls may feature a manual reset or test button. If present, this button allows for manual activation or resetting of the switch. Consult the specific product labeling for details on any manual functions.

6. Maintenance

The Ranco O16-108 is designed for minimal maintenance. Regular inspections are recommended to ensure continued reliable operation.

- **Visual Inspection:** Periodically check the unit for any signs of physical damage, corrosion, or loose connections.
- **Cleaning:** Keep the exterior of the control unit clean and free of dust and debris. Use a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Capillary Tube:** Inspect the capillary tube for kinks, damage, or leaks. Ensure it is securely connected at both ends.

7. Troubleshooting

If the Ranco O16-108 is not functioning as expected, review the following common issues before contacting support.

- **Device not switching:**
  - Check power supply to the unit.
  - Verify wiring connections are correct and secure.
  - Ensure the pressure is within the set operating range.
  - Inspect the capillary tube for damage or blockages.
- **Inaccurate pressure readings:**
  - Confirm the capillary tube is properly installed and free of leaks.
  - Check for external factors affecting pressure sensing (e.g., temperature fluctuations at the sensing point).
- **Unit appears damaged:**
  - Do not attempt to repair internal components. Contact a qualified service technician.

8. Specifications

Feature	Detail
Brand	Ranco
Model Number	O16-108
Product Dimensions (L x W x H)	4.25 x 6.5 x 2.5 inches
Item Weight	1.3 Pounds
National Stock Number	5930-00-708-1968
Operation Mode	Auto
Contact Type	Normally Open
Connector Type	Screw Terminal
Terminal	SPDT (Single Pole Double Throw)
Circuit Type	1-way
Actuator Type	Push Button (likely for reset/test or internal mechanism)
Contact Material	Copper
International Protection Rating	IP00

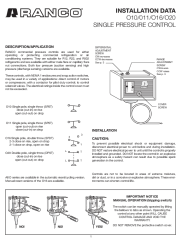
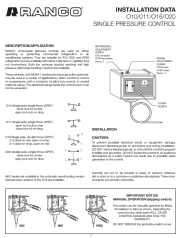
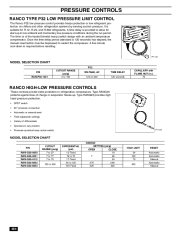
9. Warranty and Support

For warranty information, technical support, or service inquiries regarding your Ranco O16-108 Pressure Control Switch, please contact Ranco customer service or your authorized Ranco distributor. Keep your purchase receipt

and model number handy when contacting support.

Manufacturer: RANCO

Related Documents - O16-108

	Ranco O10/O11/O16/O20 Single Pressure Control Installation Data Comprehensive installation data, wiring, settings, and specifications for Ranco O10, O11, O16, and O20 single pressure controls used in commercial refrigeration and air conditioning systems. Includes mounting instructions, capillary care, control wiring, adjustment procedures, and detailed specifications.
	Ranco Single Pressure Control Installation Data Installation data for Ranco single pressure controls (010, 011, 016, 020). Covers description, application, installation, wiring, and control settings for various refrigerants and pressure ranges.
	Ranco, Johnson Controls, and Danfoss Refrigeration Controls Catalog Comprehensive catalog of Ranco, Johnson Controls, and Danfoss temperature and pressure controls, including low pressure limit controls, high-low pressure controls, electronic controls, defrost controls, and accessories for refrigeration systems.
	Ranco ETC Two Stage Electronic Temperature Control - NEMA Type 4X Installation Data Installation data, specifications, operation, and troubleshooting for the Ranco ETC Two Stage Electronic Temperature Control, NEMA Type 4X. This control is designed for commercial HVAC and refrigeration, offering dual-stage temperature control, LCD display, keypad programming, and a NEMA 4X watertight enclosure for outdoor use.
	Ranco ETC Single Stage Electronic Temperature Control Installation Instructions Comprehensive installation, operation, and troubleshooting guide for the Ranco ETC Single Stage Electronic Temperature Control. Covers product details, applications, features, specifications, ordering, programming, lockout switch, wiring diagrams, and sensor information for HVAC and refrigeration systems.
	Ranco Bottom Dump Trailer Operation, Maintenance & Parts Manual Comprehensive guide for Ranco Bottom Dump Trailers covering operation, maintenance, parts, electrical, air brake, and suspension systems. Essential for proper use and upkeep.