

## Danfoss RT-112

# Danfoss RT-112 Manual Pressure Switch User Manual

Model: RT-112

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation, installation, and maintenance of the Danfoss RT-112 Manual Pressure Switch. The RT-112 is designed for industrial applications, including boiler, air, water, and oil systems, to monitor and control pressure.



Figure 1: Front view of the Danfoss RT-112 Manual Pressure Switch, showing the main housing and pressure connection.

## 2. SAFETY INFORMATION

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Always adhere to local regulations and safety standards when installing, operating, or maintaining the pressure switch. Failure to do so may result in injury or damage to equipment.

- Ensure power is disconnected before any installation or maintenance work.
- Only qualified personnel should perform installation and wiring.
- Verify the pressure switch ratings match the system requirements.
- Protect the device from excessive vibration, moisture, and extreme temperatures.

## 3. SETUP AND INSTALLATION

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The Danfoss RT-112 is designed for panel mounting and features a screwed connector for pressure lines.

### 3.1 Mounting

Mount the pressure switch securely to a panel using appropriate fasteners. Ensure the mounting surface is stable and free from excessive vibration.



Figure 2: The Danfoss RT-112 pressure switch shown with included mounting hardware, including screws and washers.

### 3.2 Pressure Connection

Connect the pressure line to the 3/8" screwed connector at the bottom of the unit. Use appropriate sealing tape or compound to ensure a leak-free connection.

## Pressure Connection Size 3/8"



Figure 3: Detailed view of the 3/8" pressure connection, which is a standard threaded fitting for pressure lines.

### 3.3 Electrical Wiring

The RT-112 features a Normally Open (NO) contact type and SPDT terminal. Refer to the internal wiring diagram and electrical specifications before connecting to the power supply. Ensure the power source matches the switch's current rating (10 Amps, 3 Amps) and voltage requirements.



Figure 4: Internal view of the pressure switch, displaying the electrical terminals, pressure adjustment scales, and internal components.



Figure 5: Side view of the pressure switch, highlighting the label with electrical ratings and certifications.

## 4. OPERATING INSTRUCTIONS

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The Danfoss RT-112 is a manual pressure switch, requiring manual adjustment for its setpoint and differential.

### 4.1 Setting Pressure Setpoint

To adjust the pressure setpoint, remove the cover and locate the adjustment knob. Rotate the knob to align the desired pressure value with the indicator. The internal scale provides readings in bar, psig, kg/cm<sup>2</sup>, and kPa.



Figure 6: Top view of the pressure switch, showing the manual adjustment knob used to set the pressure threshold.

## 4.2 Setting Differential

The differential setting determines the pressure difference between the cut-in and cut-out points. Adjust this setting as required for your application, typically found near the main setpoint adjustment.

## 5. MAINTENANCE

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The Danfoss RT-112 is designed for minimal maintenance. Regular inspections are recommended to ensure optimal performance and longevity.

- **Visual Inspection:** Periodically check for any signs of physical damage, corrosion, or leaks around the pressure connection.
- **Connection Integrity:** Ensure all electrical and pressure connections remain tight and secure.
- **Cleaning:** Keep the exterior of the unit clean and free from dust or debris. Do not use abrasive cleaners.
- **Calibration Check:** If precise pressure control is critical, periodically verify the switch's setpoint accuracy using a

calibrated pressure gauge.

## 6. TROUBLESHOOTING

This section provides guidance for common issues encountered with the Danfoss RT-112 pressure switch.

| Problem                              | Possible Cause  | Solution  |
|--------------------------------------|---|---|
| Switch does not activate at setpoint | Incorrect setpoint; wiring issue; pressure not reaching setpoint; clogged pressure line | Verify setpoint; check wiring connections; confirm system pressure; inspect pressure line for obstructions. |
| Switch activates erratically         | Vibration; pressure fluctuations; faulty switch   | Reduce vibration; stabilize pressure; replace switch if faulty.   |
| Leak at pressure connection          | Improper sealing; damaged threads   | Re-apply sealing tape/compound; inspect threads for damage.   |

## 7. TECHNICAL SPECIFICATIONS

| Attribute            | Value              |
|----------------------|--------------------|
| Brand                | Danfoss            |
| Model                | RT-112             |
| Operation Mode       | Manual             |
| Current Rating       | 10 Amps, 3 Amps    |
| Contact Type         | Normally Open      |
| Connector Type       | Screwed            |
| Terminal             | Spdt               |
| Circuit Type         | 2-way              |
| Mounting Type        | Panel Mount        |
| Actuator Type        | Hinge Lever        |
| Contact Material     | Copper             |
| Package Dimensions   | 9 x 4.5 x 3 inches |
| Weight               | 3.3 Pounds         |
| Date First Available | January 29, 2020   |





Figure 7: Common industrial applications for the Danfoss RT-112 pressure switch, including HVAC, turbines, heavy engineering, and air conditioning systems.

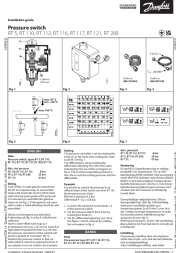
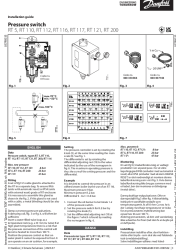
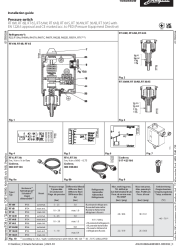
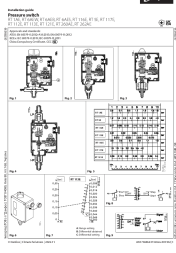
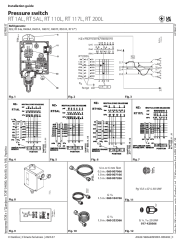

## 8. WARRANTY AND SUPPORT

For warranty information and technical support, please contact Danfoss customer service or visit the official Danfoss website. Keep your purchase receipt for warranty claims.

Protection plans may be available for extended coverage. Refer to your purchase details for more information on available protection plans.

For further assistance, you may visit the [Danfoss Store on Amazon](#).

Related Documents - RT-112

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|---|--|
|    | <p><a href="#">Danfoss RT Pressure Switch Installation Guide</a></p> <p>Installation guide for Danfoss RT series pressure switches, including models RT 5, RT 110, RT 112, RT 116, RT 117, RT 121, and RT 200. Covers data, maximum test pressure, fitting instructions, and setting procedures with examples.</p>   |
|    | <p><a href="#">Danfoss Pressure Switch RT Series Installation Guide</a></p> <p>Installation guide for Danfoss pressure switches RT 5, RT 110, RT 112, RT 116, RT 117, RT 121, and RT 200, covering technical data, fitting instructions, setting procedures, and examples.</p>   |
|   | <p><a href="#">Danfoss RT Series Pressure Switch Installation Guide</a></p> <p>This guide provides installation instructions for Danfoss RT series pressure switches, including models RT 6W, RT 6B, RT 6S, RT 6AW, RT 6AB, RT 6AS, RT 30AW, RT 30AB, and RT 30AS. It covers product features, technical specifications, fitting procedures, electrical connections, and setting adjustments, with approvals from EN 12263 and CE marking.</p> |
|  | <p><a href="#">Danfoss Pressure Switch RT Series Installation Guide</a></p> <p>Installation guide for Danfoss RT series pressure switches, covering models RT 1AE, RT 6AEW, RT 6AEB, RT 6AES, RT 116E, RT 5E, RT 117E, RT 112E, RT 113E, RT 121E, RT 260AE, RT 262AE. Includes technical data, installation instructions, and safety requirements.</p>   |
|  | <p><a href="#">Danfoss RT Series Pressure Switch Installation Guide</a></p> <p>Installation guide for Danfoss RT pressure switches (RT 1AL, RT 5AL, RT 110L, RT 117L, RT 200L). Covers technical data, installation, setting, and electrical connections.</p>  |
|  | <p><a href="#">Danfoss Thermostat Type RT: Technical Data Sheet and Product Overview</a></p> <p>Comprehensive data sheet for Danfoss Thermostat Type RT, detailing features, technical specifications, types, applications, functions, and ordering information for industrial and marine use. Includes diagrams and selection guides.</p>   |

