

RELAY INSTRUCTIONS & DATA GUIDE

DANGER!



Potentially hazardous voltages are present. Electrical shock can cause death or serious injury. Installation should be done by qualified personnel following all National, State & Local Codes.



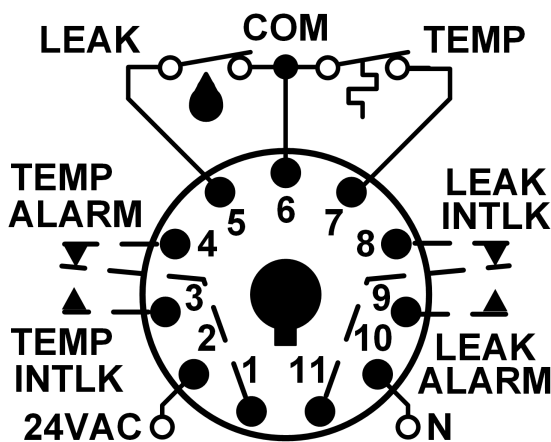
BE SURE TO REMOVE ALL POWER SUPPLYING THIS EQUIPMENT BEFORE CONNECTING OR DISCONNECTING WIRING.

INSTALLATION & SETUP:

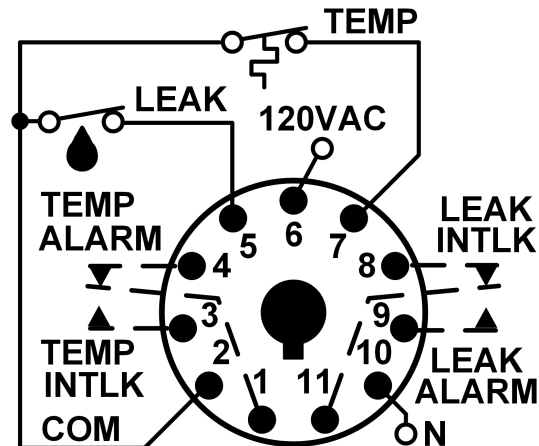
This relay is shipped with plug-in bases for DIN rail mounting or through-the-door mounting. First, select the correct relay base for the installation location from those included.

SELECTING THE APPROPRIATE BASE:

This relay includes mounting sockets for both flange and DIN rail mounting options. If the relay is to be flange mounted, through-the-door dimensional drawings (see reverse page) can be used to drill the four mounting holes in the door. After mounting the relay, use the appropriate 11 pin back-mounted socket (IDEC SR6P-M11G included with relay). If the relay is to be DIN rail mounted, use the appropriate 11 pin socket (70170-D also included with relay).



24VAC Part Number: 99913081



120VAC Part Number: 99913093

Wire the socket per the wiring diagram on the side of the relay or as shown above. Make sure to match the terminal numbers on the socket to the ones shown on the wiring diagram (the wiring diagram on the relay is the view looking towards the bottom of the relay vs. the top of the socket). Use one or two #12-22 solid or stranded copper or copper-clad aluminum conductors with terminals of the above sockets. A terminal tightening torque of 7 in-lbs (SR6P-M11G), or 12 in-lbs (70170-D), should be used. Plug the relay into the socket, making sure the key on the center post is in the proper orientation before insertion. If the relay must be removed from the socket, do NOT rock the relay back & forth excessively—the center post could be damaged.

OPERATION:

Three wires from the relay are connected to the pump: common, normally-closed (NC) seal leakage sensor, and normally-closed (NC) over temperature switch. A low-voltage DC signal is applied to monitor the seal leak and over temperature contacts of the pump in relation to the common. These products have isolated output contact relays, one for over temperature and one for seal leakage.

With input voltage applied, normal temperature condition (thermal switch closed) and no seal leakage (leakage contact closed), the monitor will be in the normal range. The over temperature relay is energized and the seal leak alarm relay is de-energized. Both LEDs are Green, indicating normal conditions are present and input voltage applied.

Motor temperature rises and the N.C. thermal switch opens. The over temperature relay is de-energized, opening a contact that had been closed and turning off the pump contactor. The TEMP LED turns Red. If the over temperature condition is cleared, the unit will reset based on the setting of the AUTO-MANUAL RESET switch. In the AUTO mode, the unit will reset automatically. In the MANUAL mode, the Over Temp Reset button must be pushed to clear the alarm and reset the relay.

In a seal leakage condition, contaminating fluid enters the pump motor cavity. The sensor contact opens and the seal leakage output relay energizes and closes a contact which can be used to give an alarm indication of a leaking seal. The SEAL LED turns Red. Seal leak alarm clears automatically.

If either a TEMP or SEAL leak alarm has been automatically cleared, a cleared fault indication is displayed by flashing the corresponding Red TEMP LED or Red SEAL LED after the alarm state has been cleared. The flashing indication may be reset by pressing the Over Temp Reset button. Note: if either fault still exists when the Over Temp Reset button is depressed, it will not reset.

Thermal sensor monitoring only. For monitoring pumps with a thermal sensor only (no seal leakage sensor), a jumper must be wired in between the common and leakage sensor input.

TROUBLESHOOTING:

If the unit fails to operate properly, check that all connections are correct per the appropriate wiring diagram above. If problems continue, contact your local Grundfos representative for assistance: grundfos.us/info

WARRANTY:

For a period of thirty (30) months from the date of shipment or twenty-four (24) months from start-up, whichever occurs first, Grundfos Water Utility warrants that this relay shall be free of defects in material and workmanship, under normal use and service.

APPLICATION INFORMATION:

VOLTAGE TOLERANCE:

AC Operation: +10/-15% of nominal at 50/60 Hz.

Load (Burden): 3 VA

RESPONSE TIME:

Power-up/Restart Delay: 100ms

Over Temp Fault (Relay De-energize) 3 sec

Over Temp Fault Clears-Auto Reset (Relay Energize) 3 sec

Over Temp Fault Clears-Manual Reset (Relay Energize): Hold reset switch > 500ms

Seal Leakage Fault (Relay Energize) 3 seconds

Seal Leakage Fault Clears (Relay De-energize) 3 seconds

TEMPERATURE:

Operating: -28 to 65°C (-18°F to 149°F)

Storage: -40 to 85°C (-40°F to 185°F)

OUTPUT CONTACTS:

7A @ 240V AC / 5A @ 28V DC, 1/4HP @ 120V AC (N.O.)

CONTACT LIFE:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

LED Indicator(temp): Green ON with input voltage applied, normal temperature condition and relay energized; Red ON when over temperature detected and relay de-energized; Red Flashing when over temperature condition has been cleared in AUTO mode
LED Indicator(seal): Green ON with input voltage applied, no seal leak and relay de-energized; Red ON when seal leak detected and relay energized; Red Flashing when seal leakage condition has been cleared.

Mounting: Sockets (SR6P-M11G & 70170-D, provided with the relay).

Approvals: cURus (File #E109466)

DIMENSIONS:

- Shown in inches (mm)

