



# Seal & Temp-Stat Relay

# STR

## Specifications

### Electrical

#### Supply Voltage:

12VDC & 24VDC  
24VAC, 120VAC & 240VAC

Frequency: 50/60Hz

Power Consumption: 2VA

Inputs: 5VDC @ 2mA

#### 2-Input:

Seal: Adjustable 5KΩ to 200KΩ,  
+5KΩ Hysteresis

Temp-Stat: 1NC Contact, Good condition

#### 1-Input:

Resistance trip points fixed at 330Ω & 1,500Ω

Seal Fault: <330Ω

Temp-Stat Fault: >1,500Ω

#### Contact Ratings:

(2) SPDT @ 25°C

5A @ 120VAC

6A @ 277VAC

1/8HP @ 120/277VAC

5A @ 30VDC

**Adjustments:** (4) Membrane Buttons

**Display:** 16 Character, 2-line display,  
with back light

### Physical

**Mounting:** Surface Mounting:  
(2) Mounting Holes

#### Termination:

Push-On Tabs: ¼" Tabs, 3 Sense, 8  
Control

Terminals: Pluggable Terminal Blocks

**Packaging:** Surface Mount, Epoxy Fill

**Weight:** 1 Pound

### Ambient Temperatures

#### Operating:

Tabs: -40°C to 65°C

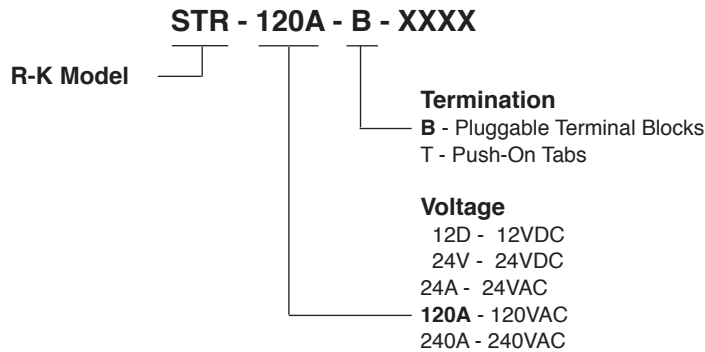
Terminal Blocks: -40°C to 60°C

(Display and membrane buttons may  
not function below -20°C.)

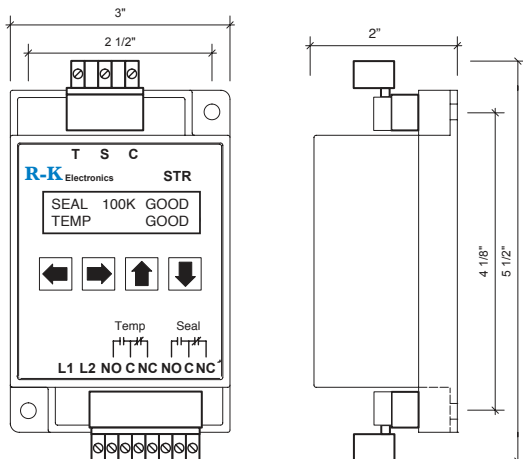
**Storage:** -40°C to 85°C



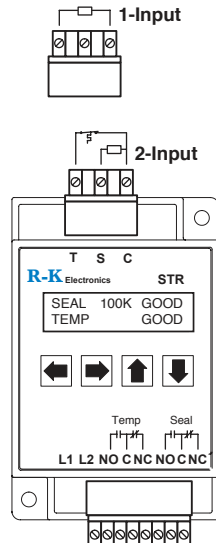
## Ordering Information



## Dimensions



## Connections



## Operation

The STR monitors the seal and embedded temperature sensor on submersible pump motors. If the resistance in the seal area goes lower than the set point or the temp-stat opens, individual relay outputs will be energized, one for a seal failure and one for a temp-stat failure.

### 2-Input Operation

To monitor the seal for a leakage, low voltage is applied to the seal sensor. If the resistance sensed falls below the adjustable trip point, the seal fault output relay will be energized. High resistance is considered "good".

To monitor the temp-stat, low voltage is applied to the normally closed contact. If the contact opens, the temperature fault output relay will be energized. A normally closed input is considered "good."

### 1-Input Operation

An alternate input option is also built into the STR. With the 1-input option selected, if the resistance is between 330Ω and 1,500Ω, both the seal and temp-stat are considered "good". If the input resistance falls below 330Ω, a seal fault is indicated and the seal fault output relay will be energized. If the input resistance goes above 1,500Ω, a high temperature fault is indicated and the temperature fault output relay will be energized.

Adjustments are available to:

- Select 1-Input or 2-Input operation
- Select the resistance on the 2-input operation from 5KΩ to 200KΩ
- Select a Manual or Automatic reset after a fault has been corrected.