# **PUMP SEAL FAILURE RELAYS**

# SINGLE & DUAL CHANNEL SFP SERIES PLUG-IN





Single Channel

**Dual Channel** 

- Monitors Submersible Pump Seals for Leakage
- Single or Dual Channel for Monitoring 1 or 2 Pumps
- Two Adjustable Sensitivity Ranges
- Probe is Pulsed with a DC Voltage to Prevent Electroplating
- ◆ Low-Profile Adjustment Knob
- Uses industry-standard 8 & 11 pin octal sockets





with appropriate socket

SFP Series Pump Seal Failure Relays are designed to monitor the shaft seals of submersible pumps. A resistive-measuring probe is installed in the pump seal cavity. If the seal starts to leak, contaminating fluid enters the seal cavity. This lowers the resistance between the internal probe & the common connection. When the resistance drops below the user-adjustable sensitivity set-point of the relay, the output relay energizes & the LED turns Red ON. The relay output can be used to give an alarm indication of a leaking seal. These products will automatically reset when the fault condition clears.

Three output configurations are offered: an 8 pin SPDT single channel relay & an 11 pin DPDT single channel relay to monitor a single pump, and an 8 pin dual channel relay (with 2 SPNO contacts) to monitor two pumps. Probes are pulsed with a DC voltage to prevent electroplating issues.

CONFIGURATION	INPUT VOLTAGE	SENSITIVITY RANGE	PRODUCT NUMBER	WIRING/ SOCKET ■
SINGLE CHANNEL	24V AC	4.7K to 100KΩ 1K to 250KΩ	SFP024A100 SFP024A250	8 Pin Octal <b>70169-D</b>
8 Pin SPDT	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120A100 SFP120A250	COM PROBE
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240A100 SFP240A250	~ 0 V
				DIAGRAM 163
SINGLE CHANNEL	24V AC	4.7K to 100KΩ 1K to 250KΩ	SFP024B100 SFP024B250	11 Pin Octal <b>70170-D</b>
11 Pin DPDT	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120B100 SFP120B250	PROBE COM
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240B100 SFP240B250	3/ 1/10 A
				DIAGRAM 162
DUAL CHANNEL	24V AC	4.7K to 100KΩ 1K to 250KΩ	SFP024C100 SFP024C250	8 Pin Octal <b>70169-D</b>
8 Pin (2) SPNO CHANNEL	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120C100 SFP120C250	2 PB 1
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240C100 SFP240C250	~ V COM
				DIAGRAM 164

Application Data & Dimensions-Page 39 Sockets & Accessories-Pages 80 & 81



800-238-7474

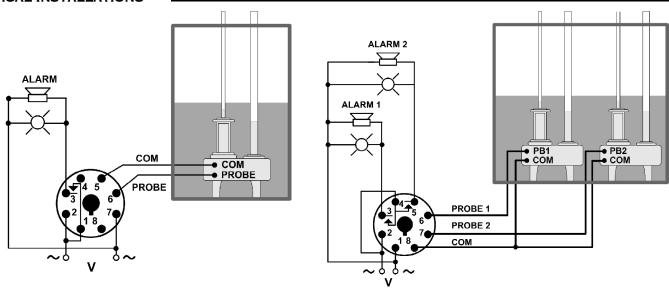
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38

## PUMP SEAL FAILURE RELAYS

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SFP SERIES PLUG-IN
APPLICATION DATA & DIMENSIONS

#### TYPICAL INSTALLATIONS



### **APPLICATION DATA**

#### **Voltage Tolerance:**

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

Single Channel (8 Pin SPDT Shown)

#### Load (Burden):

3 VA

## Probe Voltage:

5V DC Pulsed

## Response Time:

Pick-up: 1 Second Drop-out: 1 Second

#### **LED Indicator:**

Green ON with input voltage applied; Red ON when seal leak detected and relay energized

#### Temperature:

-28° to 65°C (-18° to 149°F)

#### **Output Contacts:**

Single Channel Relays:

8 Pin SPDT: 10A @ 240V AC / 7A @ 28V DC, 1/4HP @ 120V AC (N.O.) 11 Pin DPDT: 7A @ 240V AC / 7A @ 28V DC, 1/4HP @ 120V AC (N.O.) Dual Channel Relays:

**Dual Channel** 

(2) 5A @ 240V AC / 5A @ 28V DC, 1/4HP @ 120V AC (N.O.)

#### Life

Mechanical: 10,000,000 operations Full Load: 100,000 operations

#### Mounting

Requires Industry-Standard 8 Pin Octal Socket (Macromatic 70169-D or equivalent) or 11 Pin Octal Socket (Macromatic 70170-D or equivalent)

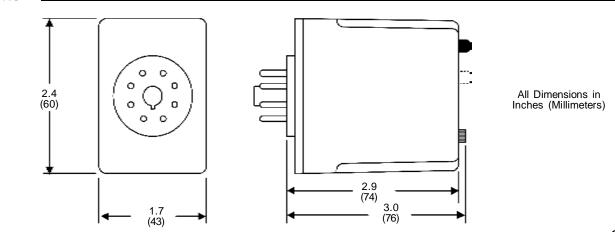
#### Approvals:





File #E109466

#### **DIMENSIONS**



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