

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



800-238-7474

www.macromatic.com
sales@macromatic.com

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 potential electroplating issues.

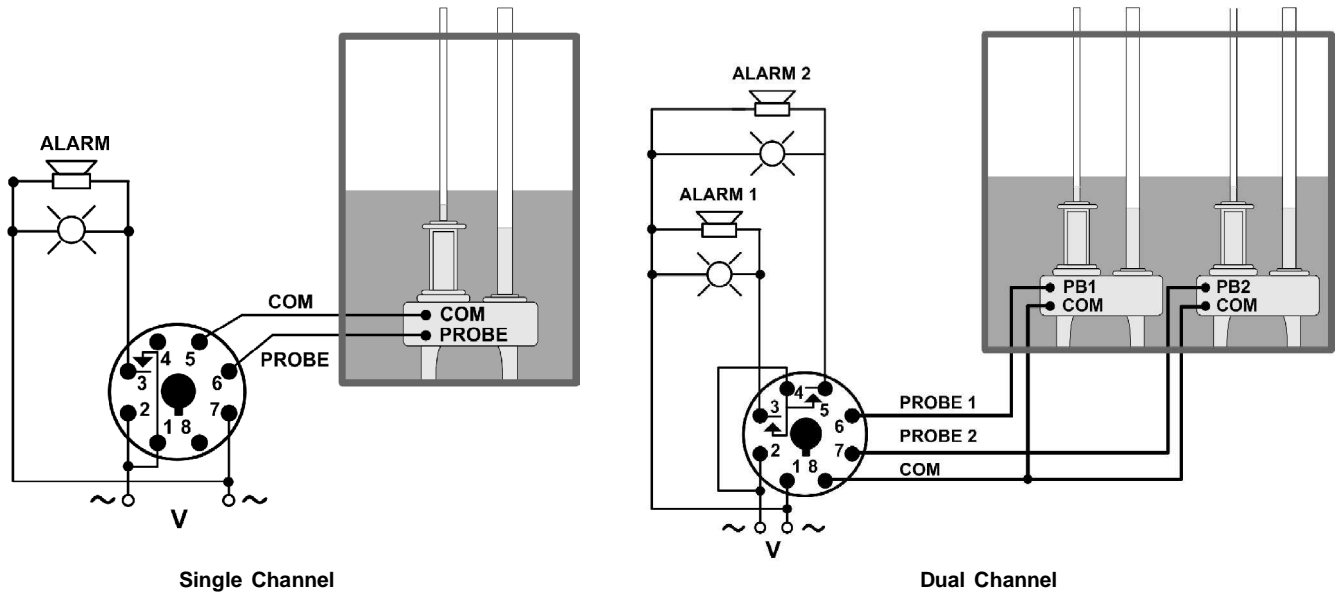
CONFIGURATION	INPUT VOLTAGE	SENSITIVITY RANGE	PRODUCT NUMBER	WIRING/SOCKET ■
SINGLE CHANNEL 8 Pin SPDT	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120A100 SFP120A250	8 Pin Octal 70169-D DIAGRAM 163
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240A100 SFP240A250	
SINGLE CHANNEL 11 Pin DPDT	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120B100 SFP120B250	11 Pin Octal 70170-D DIAGRAM 162
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240B100 SFP240B250	
DUAL CHANNEL 8 Pin (2) SPNO	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120C100 SFP120C250	8 Pin Octal 70169-D DIAGRAM 164
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240C100 SFP240C250	

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

PUMP SEAL FAILURE RELAYS

SINGLE & DUAL CHANNEL SFP SERIES PLUG-IN APPLICATION DATA & DIMENSIONS

TYPICAL INSTALLATIONS



APPLICATION DATA

Voltage Tolerance:

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

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: 10A @ 240V AC / 7A @ 30V DC,
1/4HP @ 120V AC

Dual Channel Relays: (2) 5A @ 240V AC / 5A @ 30V DC,
1/4HP @ 120V AC

Life:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

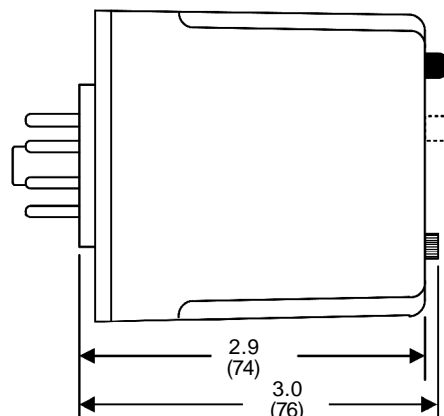
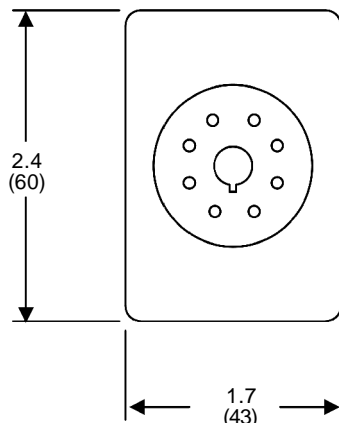
Mounting

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

Approvals:



DIMENSIONS



All Dimensions in Inches (Millimeters)