

SINGLE & DUAL CHANNEL

SFP SERIES



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
- ◆ Pilot Duty Rating



with appropriate socket



Better. By Design.

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 and the common connection. When the resistance drops below the user-adjustable sensitivity set-point of the relay, the output relay energizes and 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 and 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.

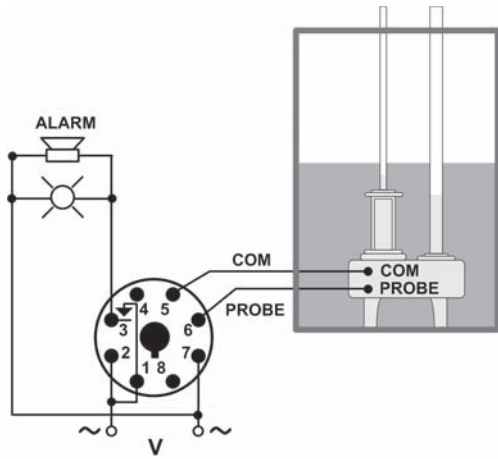
CONFIGURATION	INPUT VOLTAGE	SENSITIVITY RANGE	PRODUCT NUMBER	WIRING/SOCKET ■
SINGLE CHANNEL 8 Pin SPDT	24V AC	4.7K to 100KΩ 1K to 250KΩ	SFP024A100 SFP024A250	<p>DIAGRAM 163</p>
	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120A100 SFP120A250	
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240A100 SFP240A250	
SINGLE CHANNEL 11 Pin DPDT	24V AC	4.7K to 100KΩ 1K to 250KΩ	SFP024B100 SFP024B250	<p>DIAGRAM 162</p>
	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120B100 SFP120B250	
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240B100 SFP240B250	
DUAL CHANNEL 8 Pin (2) SPNO	24V AC	4.7K to 100KΩ 1K to 250KΩ	SFP024C100 SFP024C250	<p>DIAGRAM 164</p>
	120V AC	4.7K to 100KΩ 1K to 250KΩ	SFP120C100 SFP120C250	
	240V AC	4.7K to 100KΩ 1K to 250KΩ	SFP240C100 SFP240C250	

Sockets & Accessories available

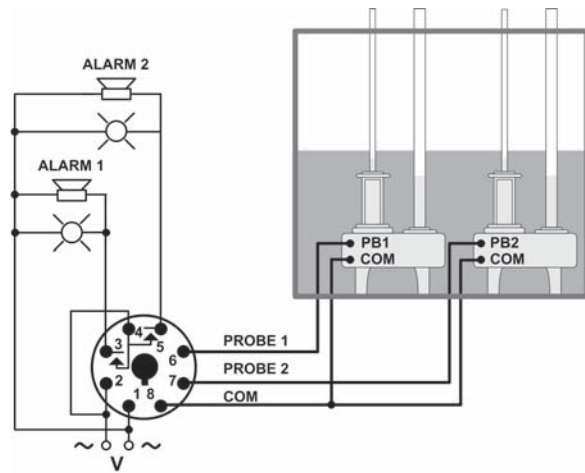
SINGLE & DUAL CHANNEL

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APPLICATION DATA



Single Channel (8 Pin SPDT Shown)



Dual Channel

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: Operating: -28° to 65°C (-18° to 149°F)
Storage: -40° to 85°C (-40° to 185°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:

(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:

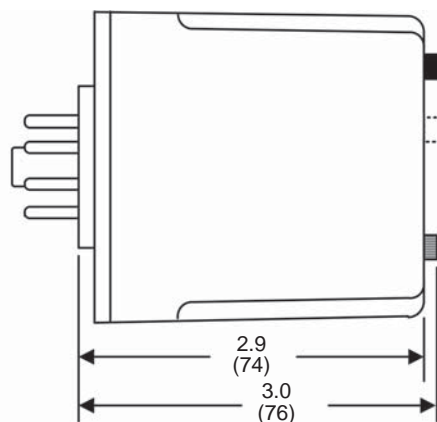
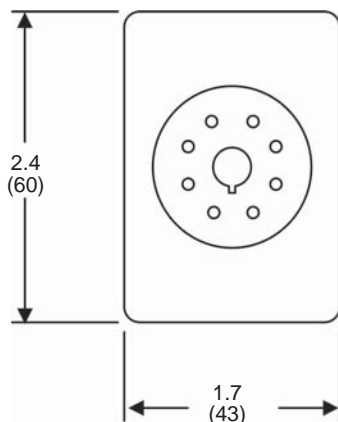
Requires Industry-Standard 8 Pin Octal Socket (Macromatic 70169-D or equivalent) or 11 Pin Octal Socket (Macromatic 70170-D or equivalent)

Approvals:



with appropriate socket
File #E109466

DIMENSIONS



All Dimensions in Inches (Millimeters)