

PUMP SEAL FAILURE RELAYS

Plug-in

Single & Dual Channel



- u Monitors Submersible Pump Seals for Leakage
- u Single or Dual Channel for Monitoring 1 or 2 Pumps
- u Three Adjustable Sensitivity Ranges
- u Optional Fixed Sensitivity Setting Available
- u Optional Low-Profile Adjustment Knob
- u 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, lowering 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 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. In addition to the three adjustable sensitivity ranges offered, relays with fixed values are available--contact Macromatic for more information (minimum quantities apply). An optional low-profile adjustment knob to prevent accidental change of setting is also available (see footnote below).

CONFIGURATION	INPUT VOLTAGE	SENSITIVITY RANGE	PRODUCT NUMBER u	WIRING/SOCKET n
SINGLE CHANNEL 8 Pin SPDT	120V AC	10K to 25KΩ 4.7K to 100KΩ 10K to 250KΩ	SFP120A025 SFP120A100 SFP120A250	<p>DIAGRAM 163</p>
	240V AC	10K to 25KΩ 4.7K to 100KΩ 10K to 250KΩ	SFP240A025 SFP240A100 SFP240A250	
SINGLE CHANNEL 11 Pin DPDT	120V AC	10K to 25KΩ 4.7K to 100KΩ 10K to 250KΩ	SFP120B025 SFP120B100 SFP120B250	<p>DIAGRAM 162</p>
	240V AC	10K to 25KΩ 4.7K to 100KΩ 10K to 250KΩ	SFP240B025 SFP240B100 SFP240B250	
DUAL CHANNEL 8 Pin (2) SPNO	120V AC	10K to 25KΩ 4.7K to 100KΩ 10K to 250KΩ	SFP120C025 SFP120C100 SFP120C250	<p>DIAGRAM 164</p>
	240V AC	10K to 25KΩ 4.7K to 100KΩ 10K to 250KΩ	SFP240C025 SFP240C100 SFP240C250	

u To order a product with a low-profile adjustment knob, add the suffix "L" to the Product Number, i.e., SFP120A100L.

n See Pages 81 & 82 for **Sockets & Accessories**.

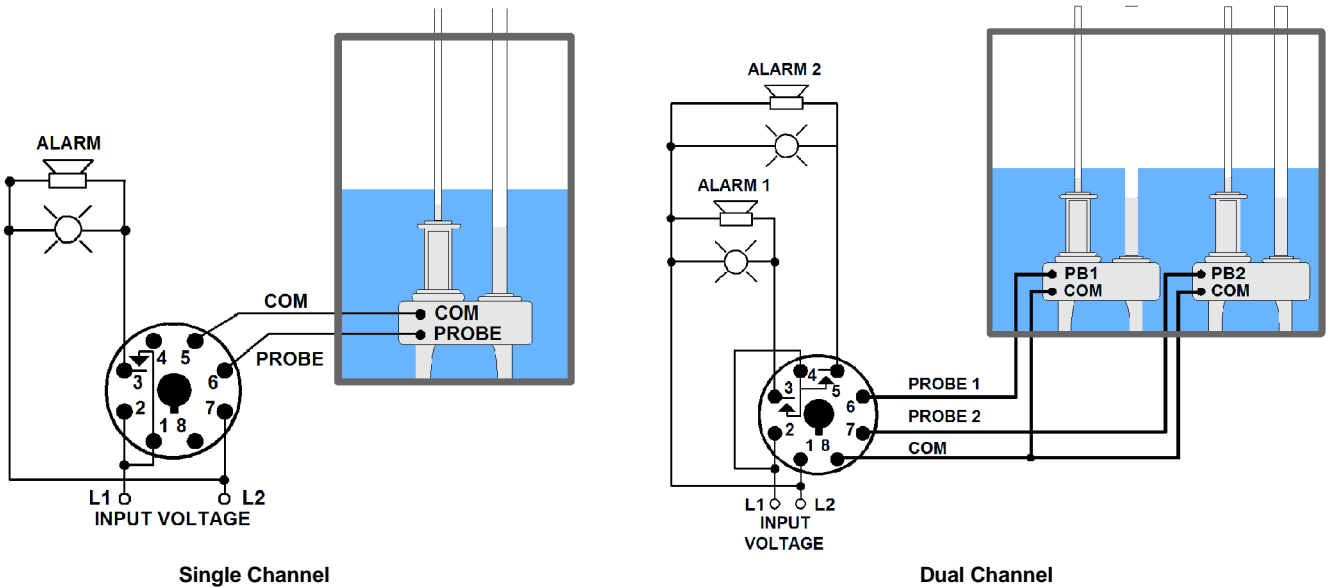


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PI ug-in

Single & Dual Channel
Application Data & Dimensions

Typical Installations



Application Data

Voltage Tolerance:

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

Load (Burden):

2 VA

Probe Voltage:

9V DC

Response Time:

Pick-up: 10ms

Drop-out: 10ms

LED Indicator:

Red ON when seal leak detected & relay energized.

Temperature:

-28° to 65°C (-18° to 150°F)

Output Contacts:

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

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

Life:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

Insulation Voltage:

2,000 volts

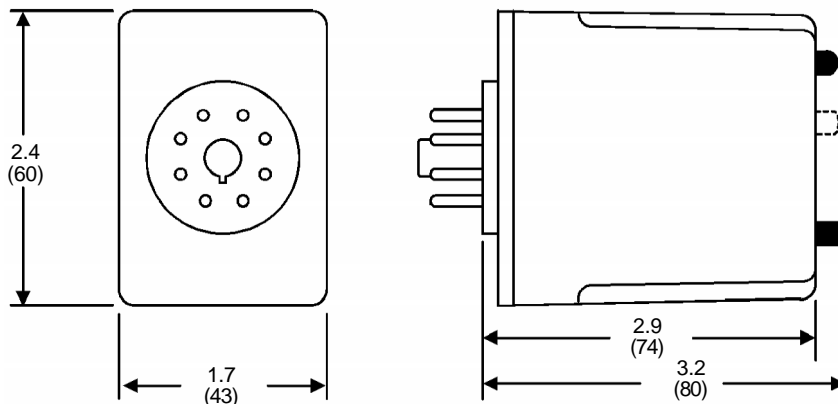
Approvals:



Low Voltage &
EMC Directives
EN60947-1, EN60947-5-1

File #E109466

Dimensions



All Dimensions in
Inches (Millimeters)