

# prosense® Pump Seal Failure Relays

**PSFR-1C-120A-TL****PSFR-2C-120A-TL**

## Overview

This relay is designed to monitor the shaft seals of submersible pumps. A resistive-measuring probe is installed in the pump seal cavity provided by pump manufacturer. If the seal starts to leak, contaminating fluid enters the seal cavity provided by pump manufacturer, lowering the resistance between the internal probe and the common connection.

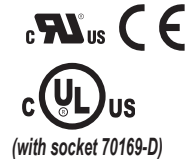
When the resistance drops below the user-adjustable sensitivity setpoint of the relay, the output relay energizes and the LED turns Green. The LED turns Red for alarm state. The relay output can be used to give an alarm indication of a leaking seal. The relay will automatically reset when the fault condition clears.

## Features

- Monitors submersible pump seals for leakage
- 8-pin, SPDT, single channel for monitoring one pump
- Adjustable sensitivity ranges (4.7K  $\Omega$  to 100K  $\Omega$ )
- Uses industry-standard 8-pin octal sockets

### Agency Approvals

- cURus, File number E191059
- UL Listed, File number E191059
- CE



(with socket 70169-D)

Pump Seal Failure Relays				
Part Number	Price	Description	Use With	Drawing Links
<a href="#"><u>PSFR-1C-120A-TL</u></a>	\$57.00	ProSense pump seal failure relay, socket mount, finger-safe, 120 VAC coil voltage, SPDT, (1) N.O., (1) N.C., 10A contact rating, 8-pin, LED indicator(s), single channel for (1) pump monitoring. Relay becomes UL listed when used with 70169-D relay socket.	<a href="#"><u>70169-D</u></a> or <a href="#"><u>750-2C-SKT</u></a>	<a href="#"><u>PDF</u></a>
<a href="#"><u>PSFR-2C-120A-TL</u></a>	\$70.00	ProSense pump seal failure relay, socket mount, finger-safe, 120 VAC coil voltage, SPST, (1) N.O., 5A contact rating, 8-pin, LED indicator(s), dual channel for (2) pump monitoring. Relay becomes UL listed when used with 70169-D relay socket.		<a href="#"><u>PDF</u></a>
<a href="#"><u>70169-D</u></a>	\$5.25	Macromatic relay socket, 8-pin, 35mm DIN rail or panel mount. For use with ProSense octal relays.	-----	<a href="#"><u>PDF</u></a>
<a href="#"><u>750-2C-SKT</u></a>	\$4.75	AutomationDirect relay socket, 8-pin, 35mm DIN rail or panel mount. For use with 750-2C and H750-2C series octal relays.	-----	<a href="#"><u>PDF</u></a>

Specifications		
Part Number	<a href="#"><u>PSFR-1C-120A-TL</u></a>	<a href="#"><u>PSFR-2C-120A-TL</u></a>
Voltage Tolerance	120VAC (+10% / -15%) at 50/60Hz	
Output Contacts	SPDT: 10A @ 240V AC / 7A @ 28V DC, 1/4HP @ 120V AC (N.O.)	SPST: 5A @ 240V AC / 5A @ 28V DC, 1/4HP @ 120V AC (N.O.)
Life (Resistive Load)	Mechanical: 10,000,000 operations; Electrical: 100,000 operations	
Probe Voltage	5VDC Pulsed	
Response Time	Pick-up: 1s; Drop-out: 1s	
Power Consumption	3VA	
Temperature	Operating: -28 to 65°C [-18 to 149°F] Storage: -40 to 85°C [-40 to 185°F]	
Mounting	8-pin octal socket	
Indicator LED	Green ON with input voltage applied; Red ON when seal leak detected and relay energized	
Output Contacts	10A at 240VAC / 7A at 28VDC Max	5A at 240VAC / 5A at 28VDC Max
Weight (lb)	0.4	
Agency Approvals *	cURus, (E191059), CE, (cULus when used with socket 70169-D)	

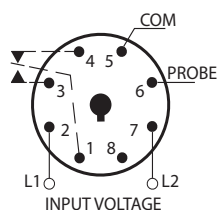
\* To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.



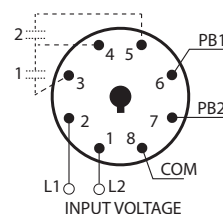
# Pump Seal Failure Relay Wiring Diagrams

## Wiring Diagrams

**PSFR-1C-120A-TL**

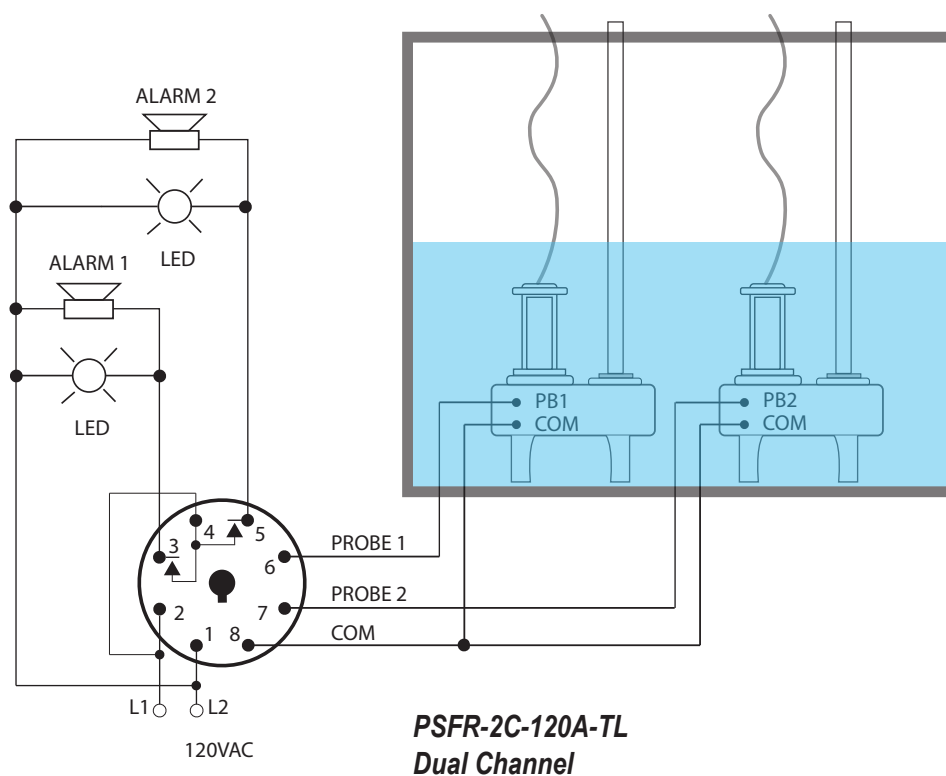
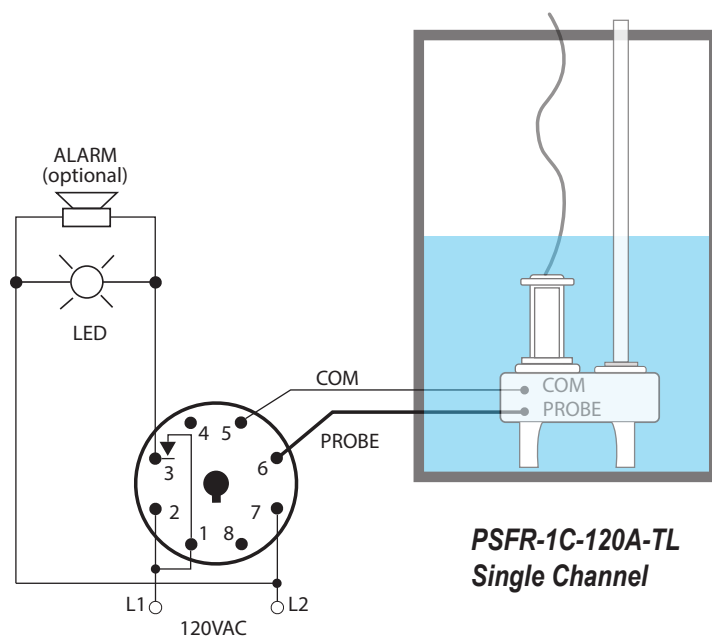


**PSFR-2C-120A-TL**



# prosense® Pump Seal Failure Relay

## Typical Installation



# prosense® Octal Sockets

## Features

- Mounts on 35mm DIN rail
- Screw clamp wire termination



**70169-D**



**70170-D**



**750-2C-SKT**

## Octal Sockets for Relays

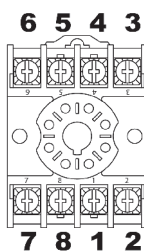
Part Number	Price	Description	Qty	Wt (lb)	Drawing Links
<b><u>70169-D</u></b>	\$5.25	Macromatic relay socket, 8-pin, 35mm DIN rail or panel mount. For use with ProSense octal relays.	1	0.1	<a href="#">PDF</a>
<b><u>70170-D</u></b>	\$6.25	Macromatic relay socket, 11-pin, 35mm DIN rail or panel mount. For use with ProSense octal relays.	1	0.1	<a href="#">PDF</a>
<b><u>750-2C-SKT</u></b>	\$4.75	AutomationDirect relay socket, 8-pin, 35mm DIN rail or panel mount. For use with 750-2C and H750-2C series octal relays.	1	0.1	<a href="#">PDF</a>

## Octal Sockets Specifications

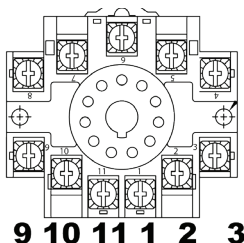
Part Number	Number of Pins	Voltage	Current	Screw Size	Wire Size (capacity)	Screw Torque	Screw Chassis Mounting Torque	Agency Approval *
<b><u>70169-D</u></b>	8	600V	10A	6-32	1 or 2, 12-20 AWG	12 in-lb	7 in-lb	UL Recognized E169693, CSA, CE
<b><u>70170-D</u></b>	11	300V	10A	6-32	1 or 2, 12-20 AWG	12 in-lb	12 in-lb	
<b><u>750-2C-SKT</u></b>	8	600V	5A	M3.5	1-12 AWG / 1-14 AWG	9 in-lb	7 in-lb	UL Recognized E225080, CSA, CE

\* To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

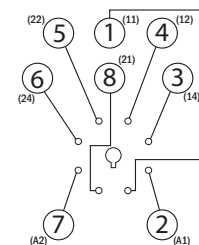
## Socket Pinouts



**70169-D**



**70170-D**



**750-2C-SKT**