

# pro<sup>sense</sup> 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.

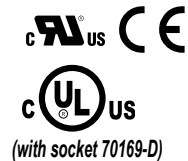
When the resistance drops below the user-adjustable sensitivity setpoint of the relay, the output relay energizes and the LED turns Green. The LED turns Red for alarm state. The relay output can be used to give an alarm indication of a leaking seal. The relay will automatically reset when the fault condition 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="#">PSFR-1C-120A-TL</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.	70169-D or 750-2C-SKT	<a href="#">PDF</a>
<a href="#">PSFR-2C-120A-TL</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="#">PDF</a>
<a href="#">70169-D</a>	\$5.25	Macromatic relay socket, 8-pin, 35mm DIN rail or panel mount. For use with ProSense octal relays.	-----	<a href="#">PDF</a>
<a href="#">750-2C-SKT</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="#">PDF</a>

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

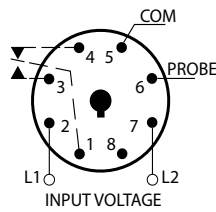
\* To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.



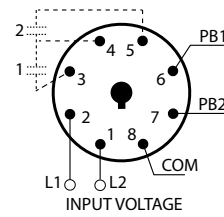
# Pump Seal Failure Relay Wiring Diagrams

## Wiring Diagrams

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

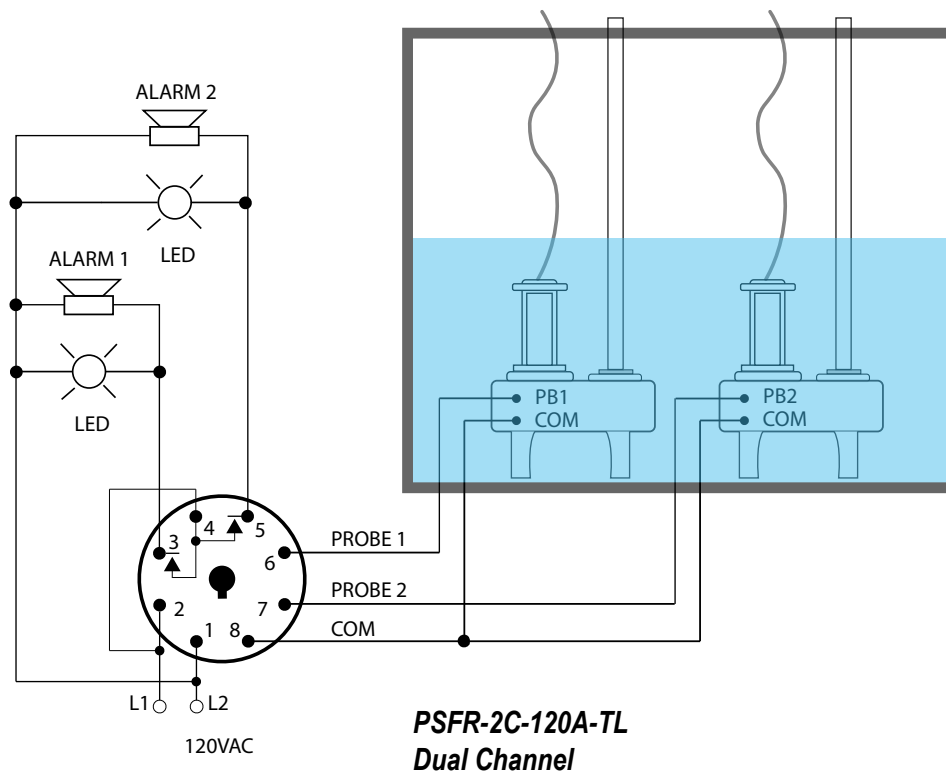
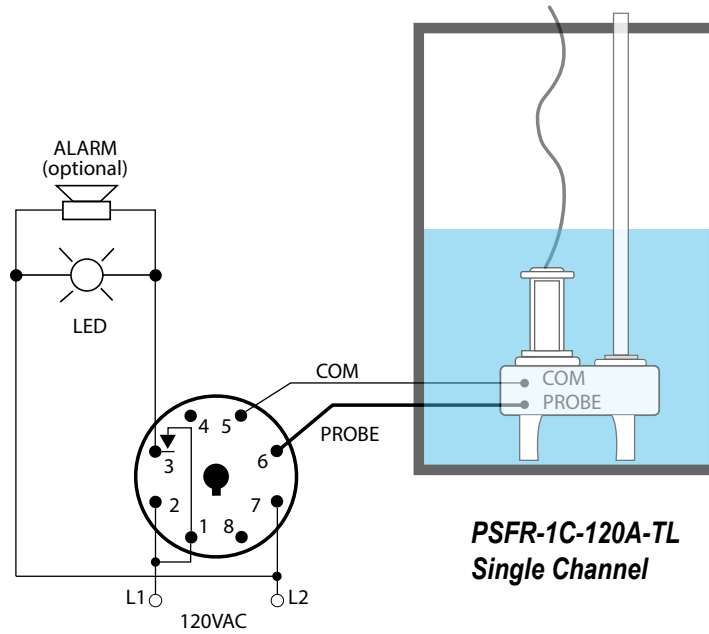


**PSFR-2C-120A-TL**



# pro<sup>ense</sup> Pump Seal Failure Relay

## Typical Installation



# proSense® Octal Sockets

## Features

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



**70169-D**



**70170-D**



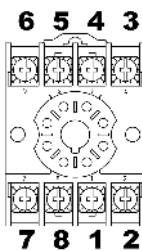
**750-2C-SKT**

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>

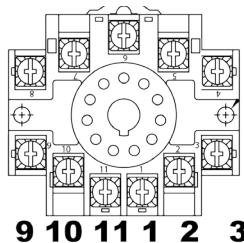
Octal Sockets Specifications								
Part Number	Number of Pins	Voltage	Current	Screw Size	Wire Size (capacity)	Screw Torque	Screw Chassis Mounting Torque	Agency Approval *
<b><u>70169-D</u></b>	8	600V	10A	6-32	1 or 2, 12-20 AWG	12 in-lb	7 in-lb	UL Recognized E169693, CSA, CE
<b><u>70170-D</u></b>	11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

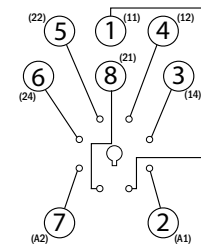
## Socket Pinouts



**70169-D**



**70170-D**



**750-2C-SKT**