

DATA SHEET

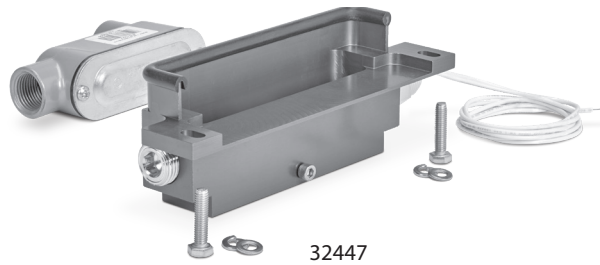
LOW-PRESSURE SEAL MONITORS



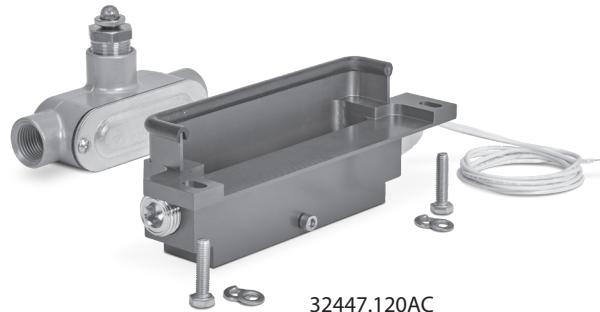
35-38 FRAME

**PLC/PC Interface:
with Indicator Light:**

**32447
32447.120AC**



32447



32447.120AC

SPECIFICATIONS	U.S. Measure	Metric Measure
Maximum Switch Pressure	100 psi	7 bar
Switch Ratings	120V AC = 0.28A	120V AC = 0.28A
	120V DC = 0.07A	120V DC = 0.07A
	12V DC = 0.28A	12V DC = 0.28A
Fitting (Float Switch)	½" NPT(M)	½" NPT(M)
Weight (Model 32447 – Elbow Junction Box)	1.20 lbs	0.54 kg
Weight (Model 32447.120AC – Tee Junction with Indicator Light)	1.34 lbs	0.61 kg

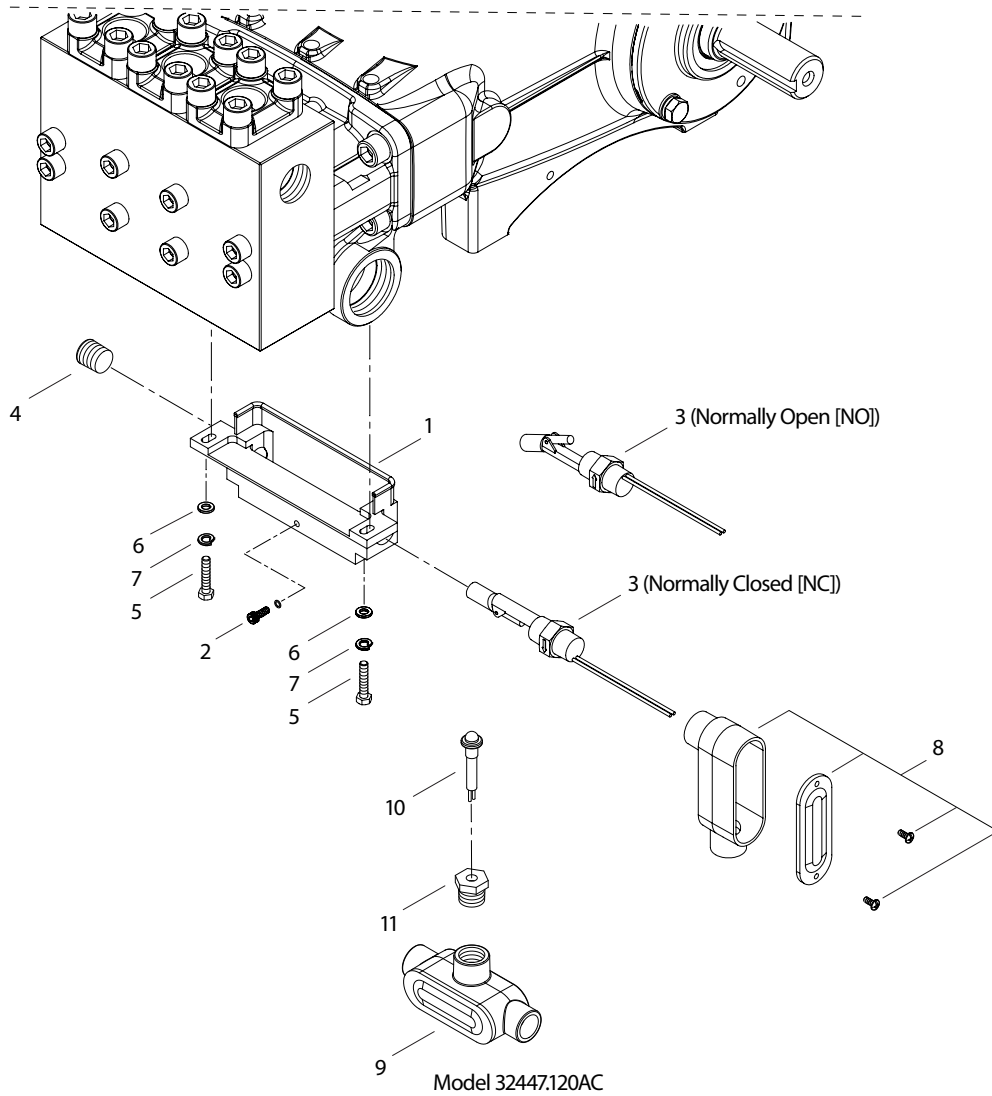
Note: Use Models 32447 or 32447.120AC low-pressure seal monitors on 35 Frame plunger pumps manufactured after January 2025.

For 35 Frame plunger pumps manufactured prior to January 2025, use Models 30290, 30290.120Ac or 30292.

FEATURES

- All low-pressure seal monitor models can easily connect to a PLC/PC interface, providing feedback if a fluid leak is detected.
- Early detection of fluid leaks aids with preventative maintenance, reduces unplanned shutdowns, and enhances profitability.
- The electronic output can be easily configured for normally open (NO) or normally closed (NC) operation.
- Optional indicator light models notify maintenance personnel when pump seal replacement is necessary.

EXPLODED VIEW



PARTS LIST

Model 32447

ITEM	PN	MATERIAL	DESCRIPTION	QTY
1	—	AL	Leak Pan with Edging	1
2	—	S	Drain Plug (#10-32 x 1/2") with Silicone Gasket	1
3	30216	POP	Switch, Float	1
4	34508	S	Plug, Inlet (1/2" NPT[M])	1
5	36179	SS	Screw, Hex Head (M6 x 25)	2
6	36488	SS	Washer, Flat (M6)	2
7	15849	S	Washer, Lock (M6)	2
8	—	AL	Box, Junction Elbow (1/2" NPT[F])	1

Model 32447.120AC

9	—	AL	Box, Junction, Tee (1/2" NPT[F])	1
10	30596	—	Light, Amber, 120V AC	1
11	—	BB	Bushing, (1/2" NPT[M] x 3/8" - 24 UNF)	1

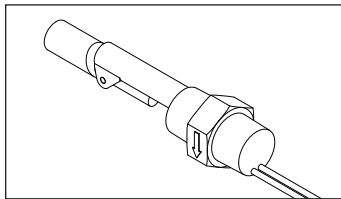
R Components comply with RoHS Directive
 MATERIAL CODES (Not part of part number): AL=Aluminum BB=Brass
 POP=Polypropylene S=304 Stainless Steel
 SS=316 Stainless Steel

INTERFACE SELECTION

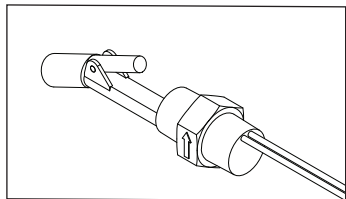
PART NUMBER	FITS THESE PUMP MODELS
32447	3501, 3501C, 3507HS, 3507CHS, 3511HS, 3511CHS,
32447.120AC	3517HS, 3517CHS, 3520, 3520C, 3520HS, 3521HS, 3521CHS, 3527HS, 3531HS, 3531CHS, 3535, 3535C, 3537HS, 3541HS, 3541CHS, 3545, 3550, 3560, 3570, 3801HS, 3801KHS, 3811HS, 3811KHS, 3821KHS, 3831HS, 3831KHS, 3841HS, 3841KHS

OPERATION

This low-pressure seal monitor is designed to collect water in a leak pan after water seeps past the low-pressure seals. Leakage can be monitored either by PLC or PC interface, or by an indicator light. The float switch located in the leak pan can be configured in one of two positions 1) normally closed (NC), with arrow facing down or 2) normally open (NO) position with arrow facing up.



Normally Closed (NC) (Recommended)



Normally Open (NO)

NOTE: A normally closed configuration is recommended when using the indicator light option. The light will remain on. If the light goes out, seals need to be replaced in the pump and/or the light is burned out.

ASSEMBLY OF LOW-PRESSURE SEAL MONITOR

Both versions of the low-pressure seal monitors require assembly before being installed on the pump. Refer to drawing on page 2 for the referenced steps below.

1. Apply thread sealant or PTFE thread tape on threads of inlet plug (Item 4). Thread 1/2" NPT(M) inlet plug into the leak pan port that meets your existing mounting configuration. Ensure black edging is positioned on top surfaces of leak pan.
2. Thread #10-32 drain plug (Item 2) with gasket into small hole on side of leak pan (Item 1).
3. Apply PTFE thread tape on threads of each end of float switch (Item 3). Thread float switch into open end of leak pan (Item 1) and tighten. Position arrow on hex nut body so it either faces up or down. Up indicates the normally open (NO) position and down indicates normal closed (NC) position.
4. On PLC/PC units loosen screws and remove side cover with screws from junction elbow box (Item 8). String loose ends of wires from float switch (Item 3) through junction elbow box (Item 8). Thread junction box onto threads of float switch (Item 3) and tighten. Ensure arrows on hex nut body are in the desired direction. String loose end of wires from PLC/PC through other junction port of box. Cut wires to size and wire nut together. Replace cover and tighten screws.
5. On non-PLC/PC units (with lights) loosen screws and remove side cover with screws from junction tee box (Item 9). String loose ends of wires from float switch (Item 3) through junction tee box (Item 9). Thread junction box onto threads of float switch (Item 3) and tighten with cover facing pump manifold. Ensure arrows on hex nut body are in the desired direction. Thread 1/2" NPT(M) bushing (Item 11) into junction tee box (Item 9). Thread amber or red light if 240V (Item 10) into bushing and hand tighten. Cut wires to size. Wire nut one end of light lead to float switch and the other to the power lead. Replace cover and tighten screws.

INSTALLATION OF ASSEMBLED UNITS

Use for pump models:

3501, 3501C, 3507HS, 3507CHS, 3511HS, 3511CHS, 3517HS, 3517CHS, 3520, 3520C, 3520HS, 3521HS, 3521CHS, 3527HS, 3531HS, 3531CHS, 3535, 3535C, 3537HS, 3541HS, 3541CHS, 3545, 3550, 3560, 3570, 3801HS, 3801KHS, 3811HS, 3811KHS, 3821KHS, 3831HS, 3831KHS, 3841HS, 3841KHS

1. For pump mounted on rails: remove screws and pump oil pan. Position low-pressure seal monitor so leak pan opening is facing up and machined shelf surface is facing towards the manifold. Slide oil pan into machined area of low-pressure seal monitor. Align slotted mounting holes of monitor with mounting holes for oil pan. Add lockwasher (Item 7) and the flat washer (Item 6) to each hex head screw (Item 5). Thread in two screws (Item 5) with lockwasher and washer while pushing monitor towards drive-end so it contacts crankcase, then tighten.
2. For pump mounted on flat base (no rails): remove screws and pump oil pan. Position low-pressure seal monitor so leak pan opening is facing up and machined shelf surface is facing towards the manifold. Slide oil pan into machined area of low-pressure seal monitor. Align slotted mounting holes of monitor with mounting holes for oil pan. Add lockwasher (Item 7) and the flat washer (Item 6) to each hex head screw (Item 5). Thread in two screws (Item 5) with lockwasher and washer while pushing monitor towards drive-end so it contacts crankcase, then tighten.

MAINTENANCE

- Remove water from leak pan by removing drain plug (Item 2).
- Periodically inspect for leaks around plug (Item 4), drain plug (Item 2) and float switch (Item 3).
- Inspect wiring from float switch (Item 3) and junction box (Item 8 or 9).

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Indicator light is off	<ul style="list-style-type: none">• Power is off• Low-pressure seals worn• Light bulb is burned out	<ul style="list-style-type: none">• Turn on power, replace seals or light
Leaking	<ul style="list-style-type: none">• Worn drain plug O-ring• Brass plug is loose• Float switch threaded incorrectly	<ul style="list-style-type: none">• Replace O-ring, tighten plug, or reposition and use thread tape

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty