ENERPAC. 2 POWERFUL SOLUTIONS. GLOBAL FORCE.

Instruction Sheet

ZLS-U4 Level/Temperature Switch

L2630 Rev. B 03/16

▲ WARNING Before beginning switch installation or replacement procedures, disconnect pump from electrical power source. Be sure that hydraulic pressure is completely relieved (0 psi/bar). Failure to observe these precautions could result in serious personal injury or death.

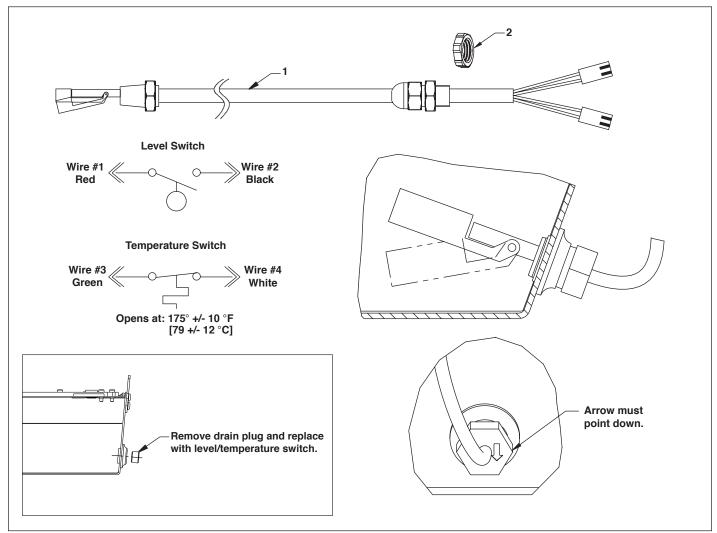


Figure 1, Mounting Details, ZLS-U4 Level/Temperature Switch Assembly

Repair Parts List for Figure 1			
Item	Part Number	Qty.	Description
1	DC9507960	1	Level/Temperature Switch (includes cable)
2	DC9537021	1	Locking Nut, 16 mm

Note: Item 1: If replacement of connector or pins is necessary:

- Use AMP connector #770849-2 (quantity = 2 pieces).
- Use AMP pin #640706 (quantity = 4 pieces).
- For information about AMP connectors go to: www.amp.com.
- Enerpac does not provide the AMP pin connectors as a service part.

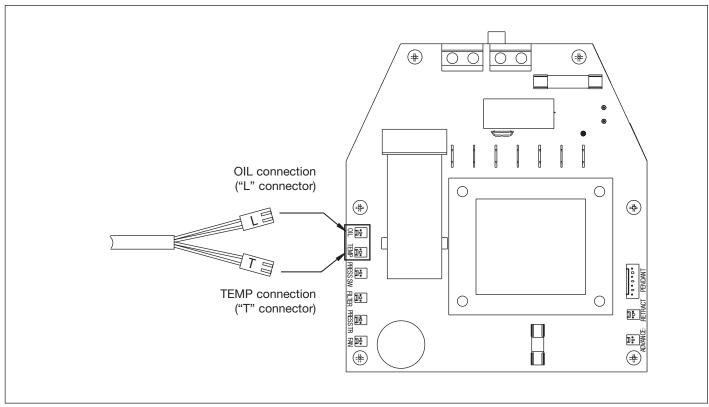


Figure 2, Power Board Connections

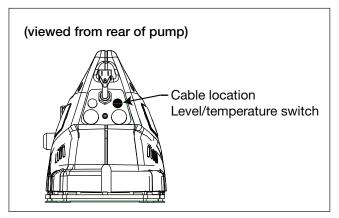


Figure 3, Cable Routing Location, ZU Series Pumps

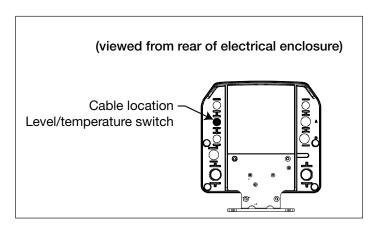


Figure 4, Cable Routing Location, ZE and ZW Series Pumps

INSTALLATION INSTRUCTIONS

A WARNING Before beginning switch installation or replacement procedures, disconnect pump from electrical power source. Be sure that hydraulic pressure is completely relieved (0 psi/bar). Failure to observe these precautions could result in death or serious personal injury.

NOTICE

- The level/temperature switch can be installed only on ZU, ZE and ZW Series pumps equipped with the LCD electric package. The pump must also be equipped with a 10, 20 or 40 liter reservoir.
- Disassembly and reassembly details will vary, depending on pump model. Refer to the pump repair parts sheet for exploded view parts diagrams.

1.0 Level/Temperature Switch Installation (all models)

Refer to Figure 1 during the following steps.

- Disconnect pump from electrical power source. Be sure that hydraulic pressure is completely relieved (0 psi/bar).
- 2 Remove the oil drain plug and drain all oil from the reservoir. Refer to the pump instruction sheet for detailed oil draining instructions.
- 3. Pass the float-end of the level/temperature switch through the reservoir drain hole.
- 4. Tighten the switch housing until no threads remain visible from the outside and the arrow on the switch points downward.
- 5. To complete the installation procedure, refer to additional instructions in section 2.0 or 3.0 of this manual (as applicable for your pump model).

2.0 Cable Installation and Electrical Connections - ZU Series Pumps

Refer to figures as indicated during the following steps.

- Disconnect pump from electrical power source. Be sure that hydraulic pressure is completely relieved (0 psi/bar).
- 2. Using a 5 mm (3/16") Allen wrench, remove the nine capscrews and flat washers fastening the shroud halves to each other and to the pump cover plate. Remove the shroud halves from the pump.
- 3. Remove the small hole plug from the right side of the pump rear bracket. (see Fig. 3).
- Route the level/temperature switch cable through the hole in the rear bracket. Note that the cable bushing comes pre-assembled on the cable.
- Slide the plastic locking nut over the cable and thread it onto the cable bushing (see Fig. 1). Tighten the locking nut only until snug - do not overtighten. The nut may crack if it is overtightened.

6. At the pump power board, remove the insulation tubes from the OIL and TEMP connections (see Fig. 2).

NOTICE The level/temperature switch cable contains two connectors, one labeled "L" and the other labeled "T".

- 7. Gently plug the connector labeled "L" into the OIL connection on the power board (see Fig. 2).
- 8. Gently plug the connector labeled "T" into the TEMP connection on the power board (see Fig. 2).
- 9. Reinstall the shroud halves on the pump. Secure with nine flat washers and capscrews.
- 10. Refill the reservoir with hydraulic oil. Refer to pump instruction sheet for oil fill procedure.
- 11. Test pump for proper operation. Check for oil leaks.

3.0 Cable Installation and Electrical Connections - ZE and ZW Series Pumps

Refer to figures as indicated during the following steps.

- 1. Disconnect pump from electrical power source. Be sure that hydraulic pressure is completely relieved (0 psi/bar).
- 2. Using a 5 mm (3/16") Allen wrench, remove the six capscrews and flat washers securing the cover to the electrical enclosure. Remove the cover from the enclosure.
- 3. At the rear of the electrical enclosure, remove the plug covering the hole for the level/temperature switch cable (see Fig. 4).
- 4. Route the level/temperature switch cable through the hole in the electrical enclosure. Note that the cable bushing comes pre-assembled on the cable.
- Slide the plastic locking nut over the cable and thread it onto the cable bushing (see Fig. 1). Tighten the locking nut only until snug - do not overtighten. The nut may crack if it is overtightened.
- 6. At the pump power board, remove the insulation tubes from the OIL and TEMP connections (see Fig. 2).

NOTICE The level/temperature switch cable contains two connectors, one labeled "L" and the other labeled "T".

- 7. Gently plug the connector labeled "L" into the OIL connection on the power board (see Fig. 2).
- 8. Gently plug the connector labeled "T" into the TEMP connection on the power board (see Fig. 2).
- 9. Reinstall the cover on the electrical enclosure. Secure with six flat washers and capscrews.
- 10. Refill the reservoir with hydraulic oil. Refer to pump instruction sheet for oil fill procedure.
- 11. Test pump for proper operation. Check for oil leaks.

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