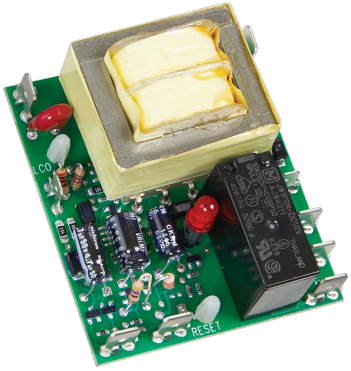
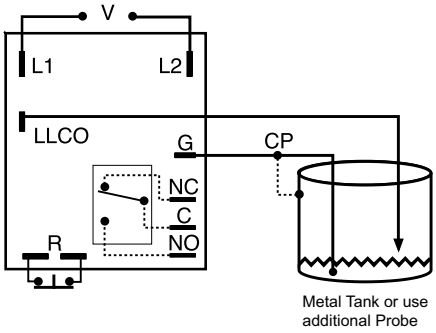
LLC8 SERIES

Low Level Cutoff Liquid Level Controls



Wiring Diagram



V = Voltage
LLCO = Low Level Probe
G, CP = Ground or Common (Reference) Probe
R = Optional NC Reset Switch (not included)
NO = Normally Open
NC = Normally Closed
C = Common or Transfer Contact

Relay contacts are isolated. Connect common to conductive tank. Additional probe is necessary for non-conductive or insulated tanks.

Ordering Information

MODEL	INPUT VOLTAGE	TIME DELAY (FIXED)	SENSE RESISTANCE	RESET
LLC825F5M	24VAC	5s	5kΩ	Manual/automatic
LLC842F103M	120VAC	2s	10kΩ	Manual/automatic
LLC843F10M	120VAC	3s	10kΩ	Manual/automatic
LLC843F10P	120VAC	3s	10kΩ	Power outage manual reset
LLC843F26M	120VAC	3s	26kΩ	Manual/automatic
LLC843F26P	120VAC	3s	26kΩ	Power outage manual reset
LLC845F25P	120VAC	5s	25kΩ	Power outage manual reset
LLC8430F250P	120VAC	30s	250kΩ	Power outage manual reset
LLC8430F26P	120VAC	30s	26kΩ	Power outage manual reset
LLC8610F12M	230VAC	10s	12kΩ	Manual/automatic
LLC863F26P	230VAC	3s	26kΩ	Power outage manual reset

If you don't find the part you need, call us for a custom product 800-843-8848

Description

The LLC8 Series is a low cost, single-probe conductive liquid level control designed for low liquid level cutoff protection. It offers a factory fixed time delay of 1 - 60s and is available for input voltages of 24, 120, or 230VAC. LED indicator illuminates whenever the LLC8's isolated, 10A, SPDT output relay is energized. Sense resistance is fixed from 5K - 250KΩ. Available with manual/automatic reset or a special manual reset with a power outage feature that auto resets the unit when power is restored and the water level is acceptable. 24 and 120VAC units are UL recognized as limit switches under UL353 (230VAC units are UL 508) and CSA certified under Standard 14.

Operation

Automatic Reset (Reset switch not connected): When liquid rises to low level cutoff probe, output relay and LED indicator energize. When liquid falls below the low level cutoff probe, the output relay and LED indicator de-energize after a fixed time delay.

Manual Reset (Reset switch connected): When the liquid level falls below low level probe, the output relay and LED de-energize after a fixed time delay. When the liquid level rises to low level probe, the output relay and LED indicator remain de-energized until the NC manual reset switch is opened; then they energize immediately.

Power Outage Manual Reset (Reset switch connected): A power outage causes the output relay and LED indicator to de-energize. Upon restoration of power, if the liquid is touching the low level probe, the output relay and LED indicator will re-energize. If the liquid level is below the low level probe, the output relay and LED indicator remain de-energized until the NC reset switch is opened.

Features & Benefits

FEATURES	BENEFITS
Isolated 12VAC probes	Prevents scale buildup on probe
Open PCB design	Cost effective design for OEM low liquid level cutoff protection
Conformally coated PCB	Protects against moisture and corrosion
LED indication	Visual indication output relay is energized
Power outage protection (see ordering table for models)	Automatically resets the unit when power is restored and the water level is acceptable
24VAC & 120VAC models meet UL353	Required for use as a low level limit switch

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Accessories

P1015-13 (AWG 10/12), **P1015-64** (AWG 14/16), **P1015-14** (AWG 18/22) **Female Quick Connect**
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.

P1015-18 Quick Connect to Screw Adapter
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

PHST-38QTN Electrode
Designed for a maximum steam pressure of 240 PSI; 400° F. UL353 Recognized.

LLP-24 Threaded Probe (24")
Threaded stainless steel probe measuring 24" (61 cm) long. For use with PHST-38QTN liquid level control electrodes.

Specifications

Control	
Type	Resistance sensing for conductive liquids with time delay
Sense Voltage	12VAC nominal at probe terminals
Sense Resistance	Fixed 5K - 250KΩ
Sense Resistance Tolerance	±10%
Time Delay	
Tolerance	±20%
Repeat Accuracy	±10%
Time Delay vs Temp. & Voltage	±10%
Power Outage Reset Delay	≤1s
Input	
Voltage	24, 120, or 230VAC
Tolerance	
24VAC	-15% - 20%
120 or 230VAC	-20% - 10%
AC Line Frequency	50/60 Hz
Output	
Type	Electromechanical relay
Form	Isolated SPDT
Rating	10A resistive @ 120/240VAC; 1/4 hp @ 125VAC; 1/2 hp @ 250VAC
Protection	
Surge	IEEE C62.41-1991 Level A
Isolation Voltage	≥ 2500V RMS input to output terminals
Mechanical	
Mounting	0.5 in. (12.7 mm) x .187 (4.76 mm) dia. nylon standoffs (3)
Termination	
Dimensions	**H** 63.5 mm (2.5"); **W** 55.6 mm (2.19"); **D** 47.8 mm (1.88")
Electrical	0.25 in. (6.35 mm) male quick connect terminals
Reset Switch & Probe(s)	0.187 x 0.03 in. (4.75 x 0.76 mm) male quick connect terminals
Environmental	
Operating/Storage Temperature	-40° to 60°C / -40° to 80°C
Coating	Printed circuit board is conformal coated to resist moisture & corrosion
Humidity	95% relative, non-condensing
Weight	≅ 5 oz (141.7 g)

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