LLC6 SERIES

Low Level Cutoff Liquid Level Controls




11-PIN

Description

The LLC6 Series is a plug-in, 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 in input voltages of 24, 120, or 230VAC. LED indicator illuminates whenever the LLC6's 10A, SPDT output relay is energized. Available with automatic/manual reset or a special manual reset with power outage feature, which auto resets the unit when power is restored and the water level is acceptable. 24VAC and 120VAC units are recognized as limit switches under UL353 (230VAC units are UL508) and CSA certified under Standard 14.

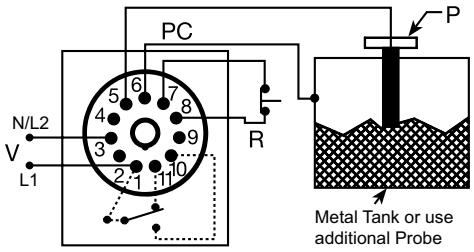
Operation

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

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

Wiring Diagram



PC = Probe Common
P = Probe
V = Voltage
R = Optional NC Reset Switch

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

Features & Benefits

FEATURES	BENEFITS
Isolated 12VAC on probe	Prevents electrolysis
Industry standard 11-pin octal plug connection	Eliminates need for special connectors
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

Ordering Information

MODEL	INPUT VOLTAGE	TIME DELAY (FIXED)	SENSE RESISTANCE	RESET
LLC6210F10M	24VAC	10s	10kΩ	Manual/Automatic
LLC6410F10M	120VAC	10s	10kΩ	Manual/Automatic
LLC643F26M	120VAC	3s	26kΩ	Manual/Automatic
LLC6610F5P	230VAC	10s	5kΩ	Power Outage Manual Reset

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

© 2016 Littelfuse Protection Relays & Controls

LLC6 SERIES

Accessories



BZ1 Front Panel Mount Kit
Provides an easy method of through-the-panel mounting of 8- or 11-pin plug-in timers, flashers, and other controls.



NDS-11 11-pin Socket
11-pin 35mm DIN rail or surface mount. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. Uses PSC11 hold-down clips.



PSC11 Hold-down Clips
Securely mounts plug-in controls in any position. Provides protection against vibration. Use with NDS-11 Socket. Sold in pairs.



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	ON/OFF (single level) resistance sensor with built-in time delay to prevent rapid cycling
Sense Voltage	12VAC nominal at probe terminals
Sense Resistance	Fixed 5K - 250KΩ
Sense Resistance Tolerance	Fixed ±10%

Time Delay

Range	1 - 60s in 1s increments
Tolerance	±20%
Repeat Accuracy	±10%
Time Delay vs Temp. & Voltage	±10%
Power Outage Reset Delay	≤ 1s

Input

Voltage	24, 120, or 230VAC
Tolerance	
24VAC	+20% to -15%
120 or 230VAC	+10% to -20%
AC Line Frequency	50/60 Hz

Output

Type	Electromechanical relay
Form	Non-isolated, SPDT
Rating	10A resistive @ 240VAC; 1/4 hp @ 125VAC; 1/2 hp @ 250VAC

Protection

Surge	IEEE C62.41-1991 Level A
Isolation Voltage	≥ 2500V RMS between input & output terminals

Mechanical

Mounting	Plug-in socket
Termination	11-pin relay type
Dimensions	**H** 73.9 mm (2.91"); **W** 60.7 mm (2.39"); **D** 45.2 mm (1.78")

Environmental

Operating/Storage Temperature	-40° to 60°C / -40° to 80°C
Humidity	95% relative, non-condensing
Weight	≅ 7.3 oz (207 g)

© 2016 Littelfuse Protection Relays & Controls