## **Current Indicators**





The LCS10T12 connected to the LPM12 or LPMG12 indicator is a low cost, easy to use, go/no-go indication system for the remote monitoring of current flow. The LCS10T12 is installed on an adequately insulated wire of the monitored load. Its 12in. (30.4cm) leads are connected to the LPM12 or LPMG12 panel mount indicator directly or via customer supplied wires up to 500 feet (152.4m) long.

For more information see:

Appendix B, pages 166 & 167, Figures 23 & 24 for dimensional drawings.

Appendix C, page 170, Figure 22 for connection diagram.

### **Features:**

- Low cost go/no go indication
- May be connected to wires up to 500 feet (152.4 m) long
- Remote monitoring of currents up to 50A
- Green or red LED indicator available
- Approvals: (E 🔊 🕼

#### **Available Models:**

LCS10T12 LPM12 LPMG12

#### Operation

When the monitored current is 5A turns, the panel mount LPM indicator will glow. The LCS10T12 is designed to maximize the light output of the panel mount indicator. It can be used to monitor current flow of less than 5A by passing the monitored conductor 2 or more times through the sensor.

CAUTION: The LCS10T12 must be connected to the LPM12 or LPMG12 before current flows to prevent damage or a shock hazard. Monitored wires must be properly insulated.

Panel mount indicator designed to match the output of the LCS10T12. The LPM12 and LPMG12 come with 12 in. (30.4 cm) wires and a one piece mounting clip. Both devices install quickly in a 0.25 in. (6.35 mm) hole in panels from 0.031 - 0.062 in. (0.79 - 1.6 mm) thick.

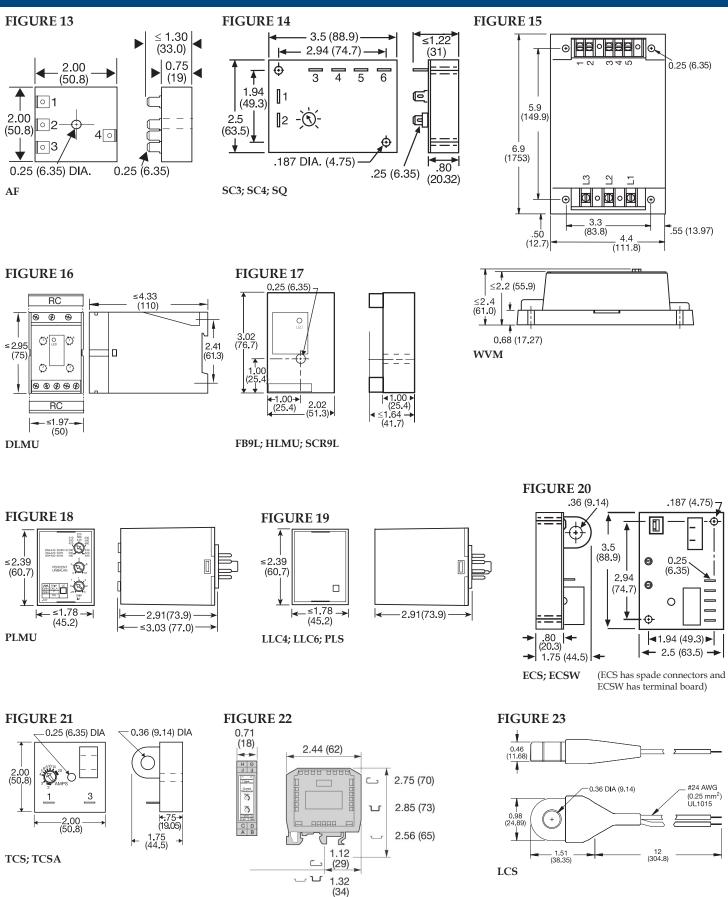
### Order Table:

Description	Part Number
AC Current Sensor	LCS10T12
Red LED Indicator	LPM12
Green LED Indicator	LPMG12

#### Specifications

Monitored Current				
Current Range				
Wire Passes	Min. Current	Max Current	Max. Inrush	Max. Wire Dia.
1	5A	50A	120A	0.355 in. (9.0 mm)
2	2.5A	25A	60A	0.187 in. (4.7 mm)
3	1.7A	16.6A	40A	0.15 in. (3.8 mm)
4	1.3A	12.5A	30A	0.125 in. (3.2 mm)
5	5/X	50/X	120/X	
Maximum Current				
AC Line Frequency 50/60Hz				
DC Resistance of Current Limiter				
Mechanical				
Sensor Hole 0.36 in. (9.14 mm) for up to #4 AWG				
(21.1 mm <sup>2</sup> ) THHN wire				
Termination 12 in. (30.4 cm) wire leads				
Environmental				
Operating / Storage Temperature				
Weight LCS: $\cong 0.8$ oz (23 g)				
		LPM: $\approx 0.2 \text{ o}$	z (6 g)	

# Appendix B - Dimensional Drawings



DCSA

inches (millimeters)

# Appendix B - Dimensional Drawings

#### **FIGURE 24**

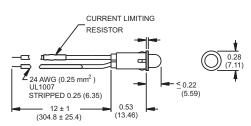
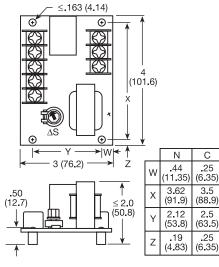


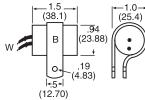


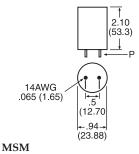
FIGURE 27



LLC2







P 0.063(1.6) to 0.125(3.18)

0.5(12.7)

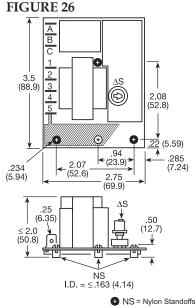
→ ≤ 1.88 (47.8)

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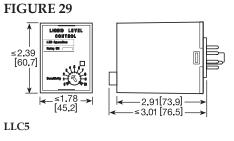
t

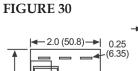
N¢

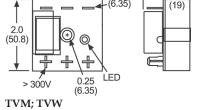
10(25.4)



LLC1



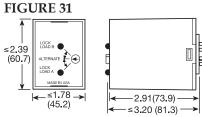




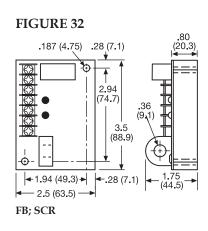
1.25

(31.8)

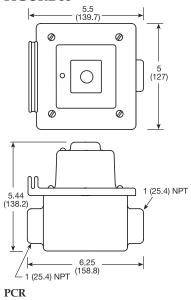
▶ 0.75



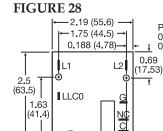
ARP



**FIGURE 33** 



inches (millimeters)

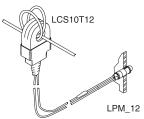


B

LLC8

## Appendix C - Connection Diagrams

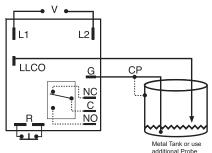
#### **FIGURE 22 - LCS10T12**



Wire Length: 500 ft. (152.4m) max. (Customer Supplied)

CAUTION: The LCS10T12 must be connected to the LPM12 or LPMG12 before current flows to prevent damage or shock hazard. Monitored wires must be properly insulated.

FIGURE 25 - LLC8 Series



V = Voltage

LLCO = Low Level Probe G or CP = Ground or Common (Reference) Probe R = Optional NC Reset Switch (not included)

NO = Normally Open

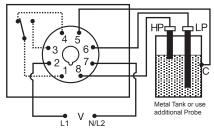
NC = Normally Closed

C = Common or Transfer Contact

Relay contacts are isolated.

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

#### FIGURE 28 - LLC5 Series



HP = High Level Probe

- LP = Low Level Probe C = Probe Common
- V = Voltage

Relay contacts are isolated.

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

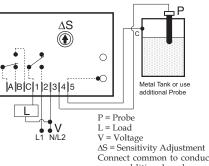


FIGURE 23 - LLC1 Series

#### FIGURE 24 - LLC4 Series

C = Probe Common V = Voltage

L

NC NO

V = Voltage

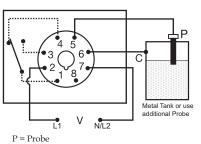
L = Low Probe

H = High Probe

C = Probe Common

NO = Normally Open

Relay contacts are isolated.



Connect common to conductive tank. Additional probe

is necessary for non-conductive or insulated tanks.

FIGURE 27 - LLC2 Series

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 $\Delta S$  = Sensitivity Adjustment NC = Normally Closed

conductive or insulated tanks.

ΔS

L1 N/L2

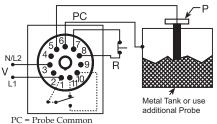
Connect common to conductive tank.

Additional probe is necessary for non-

Metal Tank or use additional Probe

Connect common to conductive tank or an additional probe as required. Contacts A, B & C are isolated.

#### FIGURE 26 - LLC6 Series



P = Probe

**FIGURE 29 - ARP Series** 

V = Voltage

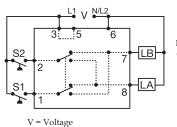
R = Optional NC Reset Switch

Connect common to conductive tank. Additional probe

is necessary for non-conductive or insulated tanks.

L1 V M/L2 S1 ŀ SPDT 8-pin 8 V H L1 S1 DPDT 11-pin  $\mathbf{r}$ 6 4 8 9 10 11 2 3

Relay contacts in above are isolated.



S1 = Primary Control Switch S2 = Lag Load Switch

LA = Load A

LB = Load B

DPDT 8-pin cross wired

> Duplexing (Cross Wired): Duplexing models operate the same as alternating relays and when both the Control (S1) and Lag Load (S2) Switches are closed, Load A and Load B energize simultaneously.

The DPDT 8-pin, cross wired option, allows extra system load capacity through simultaneous operation of both motors when needed. Relay contacts are not isolated.