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COUNTING DIGITAL DISCHARGE INSTALLATION AND OPERATING INSTRUCTIONS



Nr: IU10104 ver A

Product Name: **Digital Counter**
Symbol: **LC P033A**
Trade name: **PLW-03a**



GENERAL DESCRIPTION OF PRODUCT

1.1 Fields of application

Lightning counter is used to record atmospheric electrical discharge in the installation of lightning protected facility. Information counter contains date and time of discharge, the estimated value of the amplitude of the lightning. It has teletransmission outputs.

1.2 Specifications

Compliance UTE 17-106

- operating temperature from -40 ° C to +80 ° C
- maximum average voltage 3V - AA batteries
- working time three years in the normal state
- battery test has
- Current consumption:
 - normal state <0,4μA
 - display information <150mA
- Dimensions:
 - counter (width x length x height) 80 x 160 x 80mm
 - relays (width x length x height) 80 x 80 x 25mm
 - total length 270mm
- total weight 495g
- tightness IP 54
- Remembering discharge 99
- Memorization and the date of discharge above amplitude 1kA 30
- Memorization and the date of discharge amplitude of 0.2 kA - 1kA 10

1 OPERATING INSTRUCTIONS



Counter has two magnetic sides which are used to control the counter.



Application of the key from the right side is showing how to perform functions of the counter. Confirm the selected function by applying the key to the left.



2.1 Reading information of the number of discharges:







1. Approach the magnetic key card to the right.
2. Accept function number 1 0 0 0 by closing the magnetic key on the left side.
3. The counter displays information about the number of discharges A L X X
 - a. X X means the amount of discharges from 00 to 99

	<p>The no. 1 function allows display the amount of discharges starting from 1kA. Once accepted by the key on the left side.</p>
	<p>After approval is displayed the number of discharges, for example:</p> <p>AL 0 0 – zero discharges recorded</p> <p>AL 0 1 – recorded one discharge</p>

2.2 Read the information on discharge:





1. Approach the magnetic key card to the right twice to show the function 2 0 0 0 .
 - a. Accept the function number 2 0 0 0 by approaching the magnetic key on the left side. If there was no discharges it will not display any information.
 - b. If the discharge has been registered, the counter will display the number of the last discharge to approval .

	<p>The no. 2 function allows to view information about the discharge from 1kA. Once accepted by the key on the left side.</p>
	<p>Displays the information about the selection of the last discharge. In order to select discharge to display information about, confirm the key to the right. The display will show information:</p> <p>If you want to change the information displayed about the discharge, switch the key on the left side. If you choose not existing discharge or number L n 0 0 the display stops working.</p>

	<p>Number of the selected discharge</p>
	<p>Time of discharge /w minutes 12.03 – 12 hours 03 minutes</p>
	<p>Date of discharge: 2 0 0.5. – day 20 month 05</p>
	<p>Year of discharge: 2 0 1 0 – Year</p>
	<p>The amplitude of the measured discharge: A 0 5 – amplitude from 1kA to 5kA A 0 1 – amplitude from 700A to 1kA A 0 5 – amplitude from 1kA to 5kA A 1 0 – amplitude from 5kA to 10kA A 5 0 – amplitude from 10kA to 50kA A 9 9 – amplitude from 50kA to –</p>
	<p>After displaying the amplitude of discharge, the counter displays the selection of discharge.</p>







2.3 Reading the current time in the counter:

1. Approach magnetic key on the right side three times to show up function 3000.
2. Accept the function number 3 0 0 0 by approaching the magnetic key on the left side.

	<p>Function no. 3 allows you to view information about the current time. Once accepted by the key to the left.</p>
	<p>Time of discharge /w minutes 12.03 – 12 hours 03 minutes</p>
	<p>Date of discharge: 2 0 0.5. – day 20 month 05</p>
	<p>Year of discharge: 2 0 1 0 – Year</p>




2.4 Simulation of discharge:

1. Approach the magnetic key on the right side four times to show up function 4 0 0 0.
2. Accept the function number 4 0 0 0 by approaching the magnetic key on the left side.

	<p>Function no. 4 allows to simulate the discharge. Once accepted by the key to the left.</p>
	<p>Display of simulated discharge: L S 0 1</p>
	<p>Time of discharge /w minutes 12.03 – 12 hours 03 minutes</p>
	<p>Date of discharge: 2 0 0.5. – day 20 month 05</p>
	<p>Year of discharge: 2 0 1 0 – Year</p>
	<p>The amplitude of the simulated landing: A 1 5 – amplitude of the simulated landing</p>





2.5 Battery test:

1. Approach the magnetic key on the right side five times to show up function 5 0 0 0.
2. Accept the function number 5 0 0 0 by approaching the magnetic key on the left side.

	<p>Function no. 5 allows to test battery meter. Once accepted by the key to the left.</p> <p>Once approved, the result appears after a few seconds</p>
	<p>Positive result shows G O O D</p>
	<p>Negative Low Battery displays B A D</p> <p>Batteries must be replaced within 30 days.</p>



2.6 Clear discharge:

1. Approach the magnetic key on the right side six times to show up function 6 0 0 0.
2. Accept the function number 6 0 0 0 by approaching the magnetic key on the left side.

	<p>Function no. 6 allows to erase information recorded after the discharge. After erasing it is not possible to re-display the information.</p>
	<p>Displays a confirmation of resetting the counter for 3 seconds.</p>
	<p>Display shows zeroes for typing the code to delete. Enter code via a magnetic key on the left side. Select the digit 6 and confirm by approaching the magnetic key on the right.</p>
	<p>Confirmation of deleting the counter displays 1 1 1 1 for 3 seconds. If we chose another number instead of 6 the counter exits the reset mode.</p>



2.7 Read information on the number of discharges below 700A:







1. Approach the magnetic key on the right side.
2. Accept the function number 7 0 0 0 by approaching the magnetic key on the left side
3. The counter displays information about the number of discharges A L X X
 - a. X X – means the amount of discharges from 00 to 99

	<p>Function no. 1 allows to view a number of discharges up to 0.7 kA. Once accepted by the key on the left side.</p>
	<p>Once approved, the counter displays information about the number of discharges:</p> <p>AL 0 0 – registered zero discharge</p> <p>AL 0 1 – recorded discharge</p>

2.8 Read information on the discharges of less than 700A:








1. Approach the magnetic key card to the right twice to show up function 8 0 0 0.
2. Accept the function number 8 0 0 0 by approaching the magnetic key on the left side.
 - a. If there were no discharges will not show any information
 - b. If discharge has been registered the counter will display the number of the last discharge to approval.

	<p>Function no. 8 allows to view information about the discharge of up to 0.7 kA. Once accepted by the key on the left side</p>
	<p>The counter displays the information about the selection of the last discharge. In order to select discharge to display information to confirm the key to the right. Displays:</p> <p>If you want to change the information displayed about the discharge switch the key on the left side. If you choose not existing discharge or number L n 0. 0. the display stops working.</p>

	<p>Number of the selected discharge</p>
	<p>Time of discharge /w minutes 12.03 – 12 hours 03 minutes</p>
	<p>Date of discharge: 2 0 0.5. – day 20 month 05</p>
	<p>Year of discharge: 2 0 1 0 – Year</p>
	<p>The amplitude of the measured discharge: A 0 5 – amplitude to 0,5kA A 0 7 – amplitude to 0,7kA A 0 6 – amplitude to 0,6kA A 0 5 – amplitude to 0,5kA A 0 4 – amplitude to 0,4kA A 0 3 – amplitude to 0,3kA A 0 2 – amplitude to 0,2kA</p>
	<p>After displaying the amplitude of discharge, the counter displays the selection of discharge.</p>

2.9 Setting the date and time of the counter:

1. Approach the magnetic key card to the right nine times to show the function 9 0 0 0.
2. Accept the function number 9 0 0 0 by approachint the magnetic key on the left side

	<p>Function no. 9 allows to set the date and hour. Once approved by the key on the left side.</p>
	<p>The counter displays confirmation of entry into the date and time settings for 3 seconds</p>
	<p>First is displays the YEAR. To change the year switch the key on the left side. Accept year setting by the key on the right side.</p>
	<p>Next it displays the MONTH. To change the current month switch the key on the left side. Accept month setting by the key on the right side.</p>
	<p>Next it displays the DAY. To change the current day switch the key on the left side. Accept day setting by a key on the right side.</p>
	<p>Next it displays the HOUR. To change current hour switch the key on the left side. Accept the time setting by the key on the right side.</p>
	<p>Last it displays the MINUTES switch the key on the left side. Accept minute setting by the key on the right. CHANGING THE MINUTES ENDS THE TIME SETTING</p>

3 ASSEMBLY INSTRUCTIONS

3.1 Instalng the counter in the outlet

Counter should be mounted to the wire hoop in the outlet with the connectors and four screws





4 MAINTENANCE

Counter should be periodically reviewed (by specialized service.) The recommended frequency of the review is on a quarterly basis. The control frequency can be changed depending on the location.

If in doubt, notify the distributor or manufacturer.

5 WARRANTY

The manufacturer guarantees the device for a period of one year.

5.1 Warranty

Basic warranty:

Storage

- The counter is stored in dry conditions

Installation

- The meter is installed by trained personnel

Usage

- The system is operated according to the user instruction
- The system is subject to regular periodic maintenance by a person trained and authorized

Warranty details are included in the warranty card.