

General:

It is produced in order to prevent the damage of the system by controlling the current drawn by the loads in the system. The device can control the system according to the connection mode or can only warn by watching the current.

Operation:

Make the connections according to the connection diagram and supply power to the device. From the menu, make the necessary changes in the relevant parameters according to your system needs. When the device is energized, there is no load in the system, or if the current is at normal levels, the relay is energised (the contact output is "NO") If the current is not at normal levels, the relay is de-energised (the contact output is "NC") and the error (Err) lights up. When the device enters a high, low or demurrage current failure, the relay is de-energised and the error LED lights up. When the device is reset, the relay is energised and the error LED is lights off. The device displays the parameter code on the 2nd display according to the entered error.

- Example:** If the device is in **Demurrage Current Error**, (P.2) is displayed in 2nd display.
- Example:** If the device is in **High Current Error**, (P.4) is displayed in 2nd display.
- Example:** If the device is in **Low Current Error**, (P.9) is displayed in 2nd display.

The device can automatically or manually reset the system in the event of error. For automatic or manual resetting of the device, the measured current should be 0 ampere and above the Low Current Set Value (P.9) + the Low Current Hysteresis (P.12) and below the High Current Set Value (P.4) - the High Current Hysteresis (P.7).

Note: High or low auto reset time count starts when current is at normal levels.

Hysteresis: Especially when the automatic reset function is activated, it is used for stable operation of the device by preventing the device from going to error / reset state continuously by being influenced by the instantaneous current rise / fall when the device enters the fault due to high&low current.

- High current resetting value : (High current set (P.4) – (High current hysteresis (P.7)
- Low current resetting value : (Low current set (P.9) + (Low current hysteresis (P.12)

Example-1: According to the following settings; When the current drawn from the system is 100 amp the relay is de-energised and energised automatically when it drops to 90 amp. Set the high current set point (P.4) to 100 from the menu. If you want the system to be automatically reset after how many seconds have elapsed since the device entered the high current failure, enter that value in (P.6). Enter the hysteresis value for high current (P.7) 10A (100A - 10A = 90A) then exit the menu.

Example-2: According to the following settings; When the current drawn from the system drops below 10 amps and the relay de-energised and energised automatically when it reaches 15 amps. Set the low current set point (P.9) to 10 from the menu. If you want the system to be automatically reset after how many seconds have elapsed since the device entered the low current failure, enter that value in (P.11). Enter the hysteresis value for low current (P.12) 5A (10A + 5A = 15A) then exit the menu.

Demand: The device records the current drawn from the system every 15 minutes. It always takes the highest period average and keeps it in the record. By pressing the up or down button you can see the demand value of the 2nd display. Press the keys repeatedly until the display shows (dnd). The device will display the recorded demand value after the (dnd) display comes on the display. To delete the previous recording, go to parameter (P.14), change the value (oFF) to (dEL) and press the menu key.

Demurrage: When the load enters the circuit, for a few seconds, the current drawn from the system is several times higher than normally. After a few seconds, the current drawn by the load goes down to normal levels. The demurrage function is designed to allow the demurrage current drawn from the system for a few seconds when the load is switched on. The demurrage multiplier can be set from (P.2), and the inrush times can be set from (P.3). The device allows the demurrage current until the end of the demurrage time. The device begins to control the demurrage when the current drawn from the system is reset when it is below 0,05A. Otherwise only high current set value and high current error delay time are taken into account.

Example: Demurrage Multiplier = 3, Demurrage Time = 5 sec. and High Current Set Value = 4. Accordingly, the **Demurrage Current** = Demurrage Multiplier (P.2) x High Current Set Value (P.4). The **Demurrage Current** = 3 x 4 = 12A.

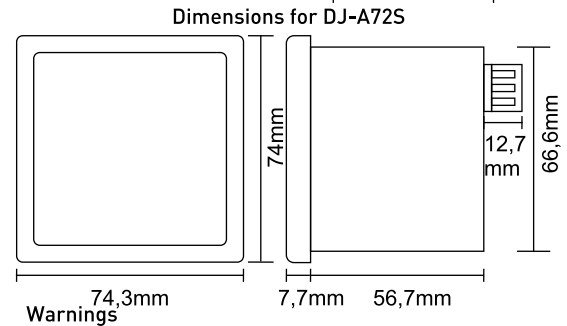
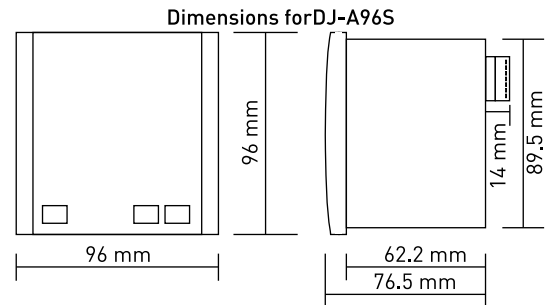
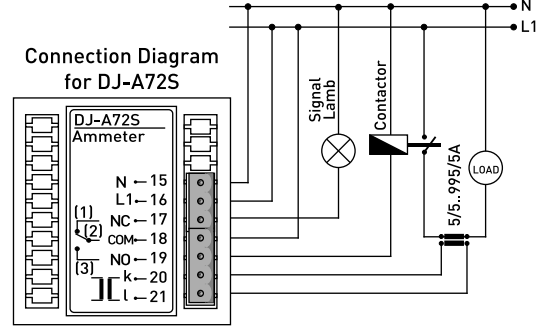
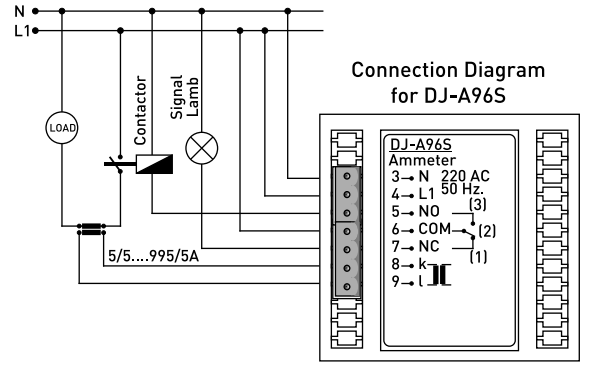
The device will allow a maximum of 12A current drawn from the system for 5 seconds. If it goes above 12A current drawn from the system within 5 seconds, the device will de-energised the relay directly and turn on the error LED.

If the device enters the demurrage error, "P2" displayed on the 2nd display. You will have to manually reset it to restart.

Manual Reset: If the automatic reset function is turned off, the count of automatic resets is completed, or if the demurrage current error is entered, it is necessary to reset manually to restart the device. By holding down the UP and DOWN keys for 1 second, the device is manually reset.

Maintenance

Switch off the device and release from connections. Clean the trunk of device with a swab. Don't use any conductor or chemical might damage the device. Make sure device works after cleaning.



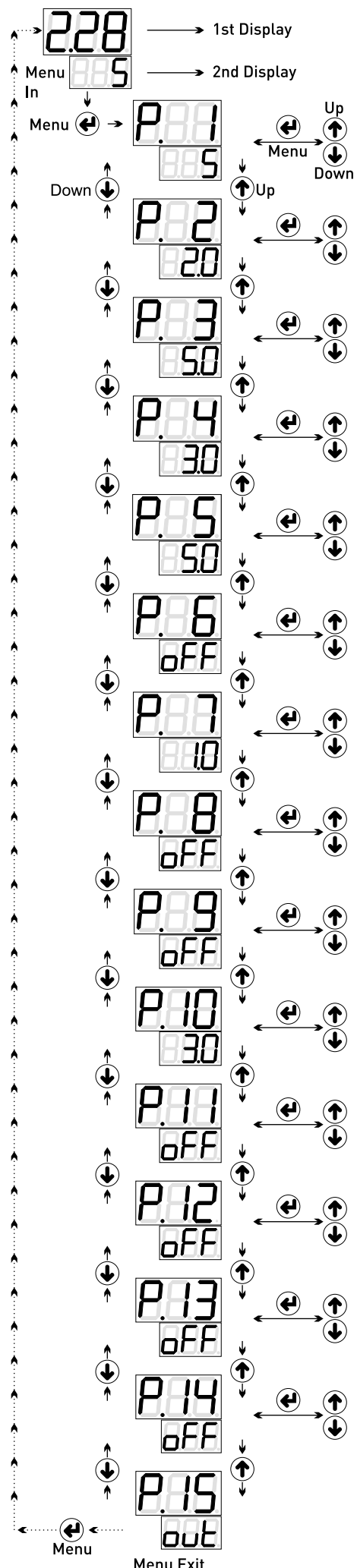
Warnings

- Please use the device according to the manual.
- Don't use the device in wet.
- Include a switch and circuit breaker in the assembly.
- Put the switch and circuit breaker nearby the device, operator can reach easily.
- Mark the switch and circuit breaker as releasing connection for device.

Technical Specifications

Operating Voltage	: 150V - 240V AC
Operating Frequency	: 50/60Hz
Operating Temperature	: -20° C.....55° C
Operating Power	: <6VA
Operating Current Range	: 150mA - 5.5A
Panel Hole Sizes	: 91 x 91mm. (DJ-A96S) 67x67mm. (DJ-A72S)
Weight	: 0.280 Kg. (DJ-A96S) 0.230 Kg. (DJ-A72S)
Connection Type	: Terminal Connection
Output	: 5A, 250V Resistive Load
Display	: 2x LED Display
Cable Diameter	: 1.5 mm ²
Operating Altitude	: <2000m





1st Display : It shows the current drawn by the load.

2nd Display: It shows the high current set value (P.4) value, low current set value (P.9) value and demand (dnd) value by pressing Up or Down keys.

Current Transformer Value : You can set current transformer value by pressing Up or Down buttons. Example: If 100 / 5A is written on the current transformer to be used, set parameter P.1 to 100. Use the Up button to scroll through the menu. **Default:** 5, **Value Range:** 5/5 -.....- 995/5

Demurrage Multiplier: You can enter the value of the demurrage multiplier by pressing the Up or Down buttons. Use the Up button to scroll through the menu. **Default:** 2.0, **Value Range:** 1.0-.....- 5.0

Demurrage Time : You can enter the demurrage time by pressing Up or Down buttons. Use the Up button to scroll through the menu. **Default:** 5, **Value Range:** 0.1-.....-999sec.

High Current Set: You can enter high current set value by pressing Up or Down buttons. Use the Up button to scroll through the menu. **Default:**3.0, **Value Range:** 0.1-.....-999A.

High Current Error Delay: You can enter high current error delay time by pressing Up or Down buttons. Use the Up button to scroll through the menu. **Default:** 3, **Value Range:** 0.1-...-999sec.

High Current Auto Reset Time: You can enter high current auto reset time by pressing Up or Down buttons. If "Off" is entered, the device must be manually reset after the error. When the value is entered, counts up to the value entered and then resets the system automatically. Use the Up button to scroll through the menu. **Default:** Off, **Value Range:** Off - 0.1-.....-999sec.

High Current Hysteresis: You can enter high current hysteresis value by pressing Up or Down buttons. Use the Up button to scroll through the menu. **Default:** 1.0, **Value Range:** 0.1-.....-999 A.

High Current Auto Reset Count : You can enter high current auto reset count by pressing Up or Down buttons. It specifies how many high current errors are to be reset automatically. Manual reset is required at the end of the automatic reset count. If you set this value to (off), it is automatically reset after every high current error. Use the Up button to scroll through the menu. **Default:** Off, **Value Range:** Off-1-.....-30

Low Current Set: You can enter low current set value by pressing Up or Down buttons. Use the Up button to scroll through the menu. **Default:**0.1, **Value Range:** 0.1-.....-999A.

Low Current Error Delay: You can enter low current error delay time by pressing Up or Down buttons. Use the Up button to scroll through the menu. **Default:** 3, **Value Range:** 0.1-...-999sec.

Low Current Auto Reset Time: You can enter low current auto reset time by pressing Up or Down buttons. If "Off" is entered, the device must be manually reset after the error. When the value is entered, counts up to the value entered and then resets the system automatically. Use the Up button to scroll through the menu. **Default:** Off, **Value Range:** Off - 0.1-.....-999sec.

Low Current Hysteresis: You can enter low current hysteresis value by pressing Up or Down buttons. Use the Up button to scroll through the menu. **Default:** 1.0, **Value Range:** 0.1-.....-999 A.

Low Current Auto Reset Count : You can enter high current auto reset count by pressing Up or Down buttons. It specifies how many high current errors are to be reset automatically. Manual reset is required at the end of the automatic reset count. If you set this value to (off), it is automatically reset after every lowcurrent error. Use the Up button to scroll through the menu. **Default:** Off, **Value Range:** Off-1-.....-30

Demand Delete: You can delete the demand by pressing Up or Down buttons. To delete recording, change the value (off) to (dEL) and press the menu key. Use the Up button to scroll through the menu. **Default:** Off, **Value Range:** Off - del

Menu Exit: Press the Set button to exit the menu, or press the Up or Down button to scroll through the menu.