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STP-541

PROGRAMMABLE CONTROLLER

type "RIGHT-LEFT work"
four-times, cycle



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PURPOSE

Programmable controller is used to process control technology in industrial automation systems, in which is a need for temporary and cyclical, alternating with enclose receivers with reconections break between each.

PROGRAMMING - set connection times of controller joint (t1, t2, t3, and t4).

CYCLE - one sequence of connection of all controller joints in accordance with the programmed times t1, t2, t3, and t4 repeated in accordance with the predefined number of iterations (1 + 999999) or infinitely at work "in the loop" (for a preset number of iterations 000000)

Description of button functions:

PROG:

- pass to **PROGRAMMING** mode (hold >3sec).
- entering of settings SEQUENCE TIME

OK:

- enter settings and pass to the next position of settings
- reading number of cycles to other to end the work

+

- change statue of setting by +1 in chosen of programming option (holding a button cause continuous change by +1 in loop)

-

- change statue of setting by -1 in chosen of programming option (holding a button cause continuous change by -1 in loop)

RESET:

- "resetting" of processor - it is necessary when is stop work of clock. It not delete settings of times: t1, t2, t3, t4.

PROGRAMMING

1. Connect the power supply.

ATTENTION!

Controller start the implementation of the previously entered program.

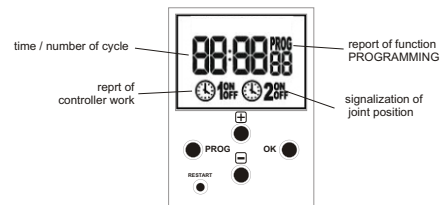
2. Press PROG <3sec.

Controller make test of display(enclose all section)



Controller pass to mode of set sequence time t1.

Description of display and control panel.



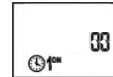
FUNCTIONING

After enclosed the power supply (even after out from the PROGRAMMING fuction) controller will automatically go realization of the program [attached the symbol ⌚ on the display]. Joint will be switched in the position 1-5 [1 ON] at the time t1. After the time t1 joint returns to the position 1-6 [1 OFF] at the time t2. After the time t2 the second joint will be switched in the position. 2-7 [2 ON] at the time t3. After time t3, joint will be switched in position 2-8 [2 OFF] at the time t4. After time t4 the controller will start from the beginning of the cycle (from time t1). The cycle is repeated in accordance with the predefined number of iterations or infinitely at work in the "loop". Failure of supply voltage > 1sek the program will stop the controller. After the re-enclose the power, the controller starts from the beginning to implement a program accordance with the programmed

ATTENTION!

All times and number of repetitions of cycles are deducted from the value of the top. At any time, the display shows the remaining time of the re-connection of joint, and for the number of repetitions of cycles shows the number remaining to be done.

3. Controller show section of seconds.



By buttons +/- set numer of seconds. Enter by OK.

4. Controller show section of minutes.



By buttons +/- set numer of minutes. Enter by OK.

5. Controller show section of hours.



By buttons +/- set numer of hours. Enter by OK.

6. Controller pass to mode of set the next time. See point 3.

7. After set time t4 the controller pass to mode of set cycles number

ATTENTION!

Because of the possibility of a large number of cycles that the number of programs in three two-digit sections.

For infinite work in "loop" set number of cycles "zero" (000000).

8. The controller shows section of the last two digits of the number of cycles (tens -unity).



By buttons +/- set the last digits of cycles. Enter by **OK**.
 9. The controller shows section of two middle digits of the number of cycles (thousands-hundreds).



By buttons +/- set two middle digits of the number of cycles. Enter by **OK**.
 10. The controller will show the section of the first two digits of the number of cycles (hundreds of thousands - tens of thousands).



By buttons +/- set the two first digits of the number of cycles. Enter by **OK**.
 The controller goes back to set the time t1 (you can review the made registry or make a correction - see p3).

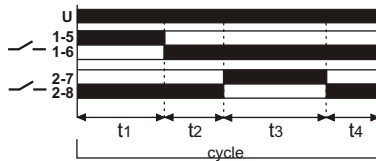
11. By button **PROG** enter make set the times and the number of cycles (out of the **PROGRAMMING** function). The controller will automatically go to implementation of the program.

ATTENTION!

f all times which are set equal to 0 is not possible to out from **PROGRAMMING** function. It necessary to set at least one time different from 0.

JOINT 1:
 joint 1-5 "ENCLOSE" [ON]
 joint 1-6 "EXCLUDE" [OFF]

JOINT 2:
 joint 2-7 "ENCLOSE" [ON]
 joint 2-8 "EXCLUDE" [OFF]



ASSEMBLY

1. Take OFF the power..
2. Put the controller in the switchgearbox.
3. Power cables connect with wiring diagram.
4. Receiver connect with wiring diagram.
5. Setan individual temporary program of enclose of receivers.

TECHNICAL DATA

| | |
|------------------------------|------------------------------------|
| supply | 24÷264V AC/DC |
| current load | 2×(<16A) |
| joint | 2×1P |
| time settings t1, t2, t3, t4 | 1sec+99h59min59sec |
| settings precision | 1sec |
| number of cycle iteration | 1+999999 |
| | or nfinately at work in "loop" |
| power consumption | 1,5W |
| working temperature | -20÷50°C |
| connection | screw terminals 2,5mm ² |
| dimensions | 2 modules (35mm) |
| fixing | on railTH-35 |

WIRING DIAGRAM

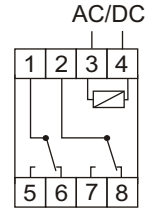
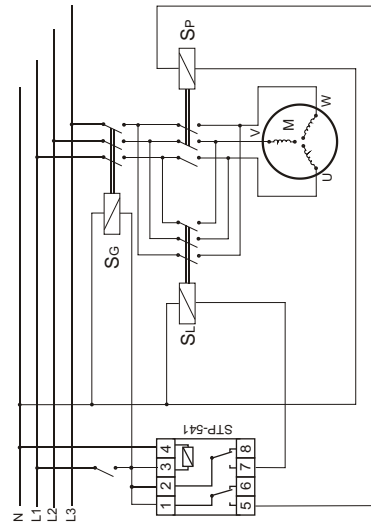


Diagram of contactors re-connect system RIGHT-LEFT



SG - main contactor SP - contactor of system "RIGHT" SL - contactor of system "LEFT"