Thank you for choosing NIVELCO instrument.

NITIME
TIME RELAYS
User's manual

Manufacturer:
NIVELCO Process Control Co.
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1. APPLICATION

NITIME time relays are microprocessor-controlled units suitable for highly diverse timing tasks. The multiple functions, the universal power supply and (1-module width) the rail mountable construction ensure universal usage (automation, lighting, heating, motor and ventilation control).

2. TECHNNICAL DATA

2.1 General data

TYPE		JEL–111	JEL–121
Number of functions		10	2
Time range		0.1 sec…10 days	0.1 sec…100 days
Time setting controls		rotary switch and potentiometer	
Reset time		max. 150 ms	
Time deviation		5% – mechanical setting	
Repeat accuracy		0.2% – set value stability	
Temperature coefficient		0.01% /°C @20 °C	
Power supply		12…240 V AC/DC	
Power consumption		0.7…3 VA AC, 0.5…1.7 W DC	
Output	Relay	1× SPDT	
	Rated current	16 A AC1	
	Inrush current	30 A (<3 sec)	
	Output indication	multifunctional LED	
	Switching voltage	250 V AC1 / 24 V DC	
	Switching power	4000 VA AC1, 384 W DC	
	Min. switching power	500 mW DC	
	Electrical lifespan (AC1)	0.7 × 10^5 switching	
	Mechanical lifespan	3 × 10^7 switching	
Electrical connection		terminal for 2.5 mm^2 (AWG14) wire cross-section	
Electrical protection		Class II. reinforced insulation	
Mechanical connection		DIN EN60715 rail	
Ingress protection		IP20	
Ambient temperature		–20…+55 °C (−4…+131 °F)	
Weight		90 g (0.14 lb)	70 g (0.143 lb)

2.2 Accessories

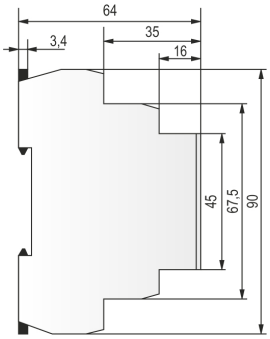
- User's manual
- Warranty Card
- Declaration of Conformity

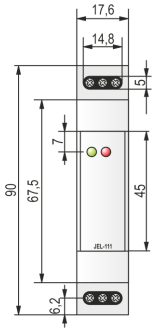
2.3 Order code

NITIME J E L – 1 ☐ 1

Type	Code
Multifunction	1
Pulse cycler	2

2.4 Dimensions

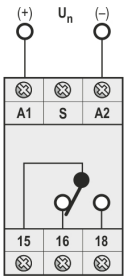


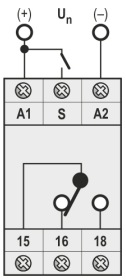


3. INSTALLATION

NITIME time relays can be mounted on DIN EN 60715 rails.
The device should not be installed in highly electromagnetic environment. Operating temperature must not exceed the limit of the specified operation temperature even in conditions such as increased ambient temperature or continuous operation. The device is completely electronic. Consider this during the installation.

4. WIRING

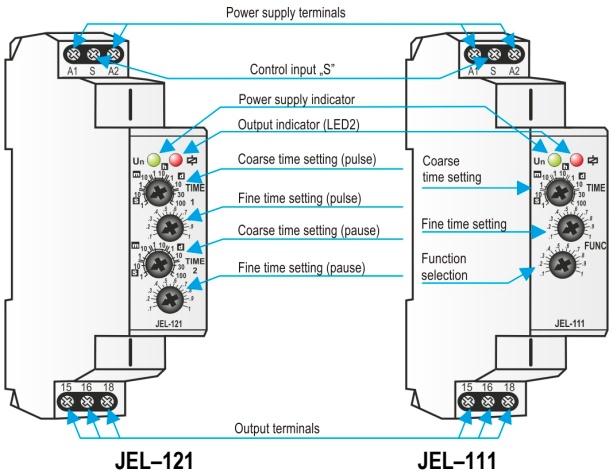




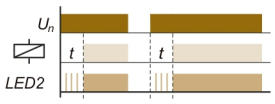
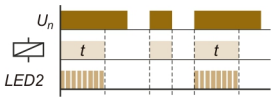
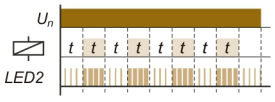
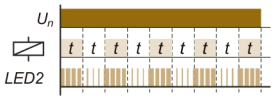
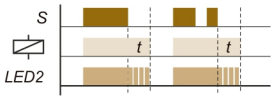
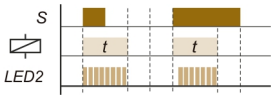
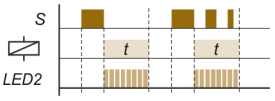
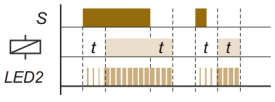
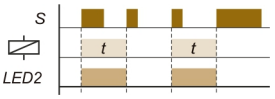
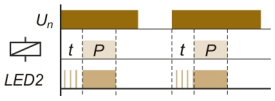
5. COMMISSIONING

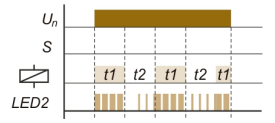
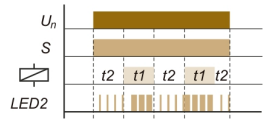
5.1 Adjustment

The green LED (Un) shows when the unit is turned ON, while the status of the output is indicated by the multifunctional red LED. (LED 2). Time and function settings can be set using the potentiometer and the rotary switch on the front panel.



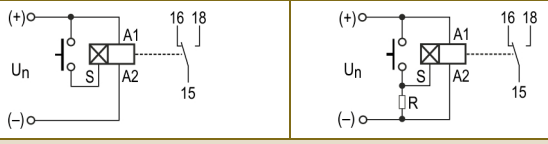
5.2 FUNCTIONS

JEL–111		
	Operating mode	**Time graph**
a	Energization delay	
b	Release delay	
c	Cycler energized with delay	
d	Cycler energized without delay	
e	Power-OFF delay with control contact	
f	Release delay with control contact	
g	Release delay after cessation of control signal	
h	Energization and release delay with control contact	
i	Pulse relay	
j	Pulse generator (P = 0.5 s)	

JEL–121	
Operating mode	**Time graph**
Cycler starts with pulse	
Cycler starts with pause	

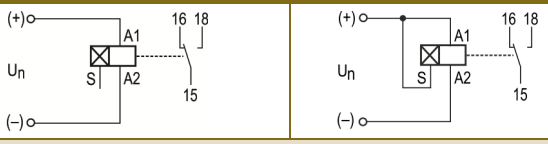
5.3 APPLICATION EXAMPLES

JEL–111



Connecting a resistor between terminals ‘S’ and ‘A2’ ensures the correct operation of the time relay whereby the wire connecting the control contact is long.

JEL–121



Cycler starts with pulse | Cycler starts with pause.

6. MAINTENANCE, REPAIR

The device does not require regular maintenance. The warranty card contains the terms and conditions. Before returning the device for repairs, it must be cleaned thoroughly. The parts in contact with the medium may contain harmful substances; therefore, they must be decontaminated.

Our official form (Returned Equipment Handling Form) must be filled and enclosed in the parcel. Download it from our website www.nivelco.com. The device must be sent back with a declaration of decontamination. A statement must be provided in the declaration that the decontamination process was successfully completed and that the device is clean from any hazardous substances.

7. STORAGE

Storage temperature: –30…+70 °C (–22…+158 °F)

jel111en1803h
January 2018
NIVELCO reserves the right to change anything in this manual without notice!