

# EBD

## Технические характеристики

### По вопросам продаж и поддержки обращайтесь:

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Тверь (4822)63-31-35  
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# Timers Interval Type EBD

CARLO GAVAZZI



- One shot at supply on and/or supply off
- Knob selection of function
- Knob-adjustable time pulse duration: 0.15-3 s
- Automatic start
- Oscillator-controlled time circuit
- Repeatability deviation:  $\leq 0.2\%$
- Output: 5 A SPDT
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 22.5 mm Euronorm housing
- LED-indication for relay and power supply ON
- Combined AC and DC power supply

## Product Description

Mono-function one shot interval timer featuring 3 modes of operation. Knob adjustable pulse time duration. Often

used in motor applications where a contactor has to be started or switched off.

## Ordering Key

**EBD C D23**

Housing \_\_\_\_\_  
 Function \_\_\_\_\_  
 Type \_\_\_\_\_  
 Output \_\_\_\_\_  
 Power supply \_\_\_\_\_

## Type Selection

Mounting	Output	Supply: 24 VAC/DC & 115 VAC	Supply: 24 VAC/DC & 230 VAC
For DIN-rail	SPDT	EBD C D11	EBD C D23

## Time Specifications

<b>Time range</b>	0.15 - 3 s
<b>Function</b> Selectable by rotary switch	F1: Pulse at supply ON F2: Pulse at supply OFF F3: Pulse at supply ON and OFF
<b>Time range accuracy</b>	$\pm 20\%$ on max. min. setting: actual time $\leq$ min. set time
<b>Repeatability deviation</b>	$\leq 0.2\%$
<b>Time variation</b> Within rated power supply and ambient temperature	$\leq 0.2\%/V$ $\leq 0.2\%/^{\circ}C$
<b>Reset</b> Time and relay	Power supply interruption $\geq 200$ ms

## Output Specifications

<b>Output</b>	SPDT relay
<b>Rated insulation voltage</b>	250 VAC (contact/elect.)
<b>Contact ratings (AgCdO)</b>	$\mu$ (micro gap)
Resistive loads	AC 1 DC 1 5 A, 250 VAC 5 A, 24 VDC
Small inductive loads	AC 15 DC 13 2 A, 250 VAC 3 A, 24 VDC
<b>Mechanical life</b>	$\geq 40 \times 10^6$ operations
<b>Electrical life</b>	$\geq 10^5$ operations (at max. load)
<b>Operating frequency</b>	$\leq 7200$ operations/h
<b>Dielectric strength</b>	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand volt.	4 kV (1.2/50 $\mu$ s)

## Supply Specifications

<b>Power supply</b>	Overvoltage cat. III (IEC 664) (IEC 38)
Rated operational voltage through term. A1 & A2 D11	115 VAC, -10/+15%
D23	230 VAC, -10/+15%
frequency through term. A2 & A3 D11	50/60 Hz, -5/+5 Hz
D23	24 VAC/DC, -10/+15%
frequency	24 VAC/DC, -10/+15%
Voltage interruption	50/60 Hz, -5/+5 Hz
Dielectric voltage	≤ 40 ms
Rated impulse withstand voltage	2 kVAC (rms)
	4 kV (1.2/50 μs)
<b>Rated operational current</b>	
AC	1.5 VA @ 230 VAC
	1.5 VA @ 115 VAC
	80 mA @ 24 VAC
DC	60 mA @ 24 VDC

## General Specifications

<b>EMC</b>	Electromagnetic Compatibility
Immunity	Acc. to IEC 801-4 Acc. to IEC 801-5
<b>Power ON time</b>	≥ 6 s (before obtaining F2 or F3)
<b>Power ON delay</b>	≤ 100 ms
<b>Power OFF delay</b>	≥ 200 ms
<b>Indication for</b>	
Power supply ON	LED, green
Relay ON	LED, yellow
<b>Environment</b>	
Degree of protection	IP 20
Pollution degree	3
Operating temperature	-20° to +50°C (-4° to +122°F)
Storage temperature	-50° to +85°C (-58° to +185°F)
<b>Weight</b>	170 g
<b>Screw terminals</b>	
Tightening torque	Max. 0.5 Nm acc. to IEC 947

## Mode of Operation

**Shot only at supply ON (F1)**  
When power supply is applied, the relay operates and will be kept energized for the set time period (0.15-3 s). When power supply is interrupted, the relay will not operate.

If power supply is applied, interrupted and reapplied during

the pulse period, the pulse duration can be extended.

**Shot only at supply OFF (F2)**  
When power supply is applied, the relay will not operate. When power supply is interrupted, the relay operates and will be kept energized for the set time period (0.15-3 s).

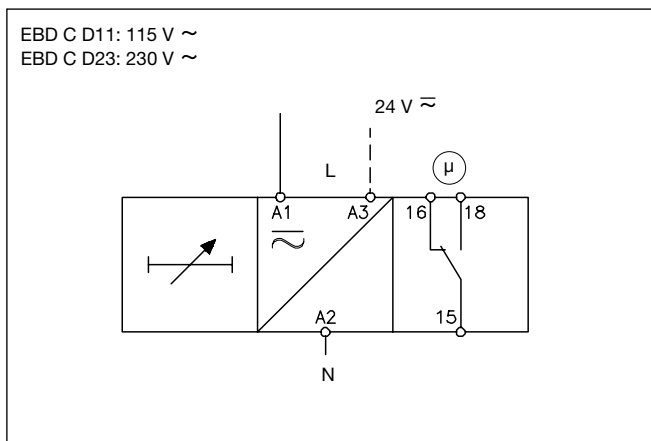
If power supply is interrupted, reapplied and again interrupted during the pulse period, the pulse duration can be extended.

**Shot at supply ON & OFF (F3)**  
When power supply is applied, the relay operates and will be kept energized for the set time

period (0.15-3 s). When power supply is interrupted, the relay operates again and will be kept energized for the same set time period.

If power supply is applied or interrupted for a time period shorter than the pulse duration, the ON- and OFF-pulses can be extended.

## Wiring Diagram



## Time and Function Setting

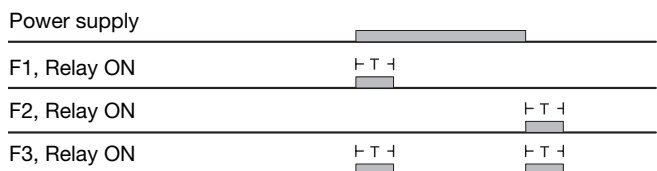
### Function setting

Upper knob:  
Selection of F1-F2-F3 on rotary switch.

### Time setting

Lower knob:  
Knob-adjustable on relative scale.

## Operation Diagram



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