

Timers Interval Type EBD

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- 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

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

Output Specifications

Output	SPDT relay
Rated insulation voltage	250 VAC (contact/elect.)
Contact ratings (AgCdO)	μ (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
Mechanical life	$\geq 40 \times 10^6$ operations
Electrical life	$\geq 10^5$ operations (at max. load)
Operating frequency	≤ 7200 operations/h
Dielectric strength	
Dielectric voltage	2 kVAC (rms)
Rated impulse withstand volt.	4 kV (1.2/50 μ s)



Supply Specifications

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

General Specifications

EMC	Electromagnetic Compatibility Acc. to IEC 801-4 Acc. to IEC 801-5
Immunity	
Power ON time	≥ 6 s (before obtaining F2 or F3)
Power ON delay	≤ 100 ms
Power OFF delay	≥ 200 ms
Indication for	
Power supply ON	LED, green
Relay ON	LED, yellow
Environment	
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)
Weight	170 g
Screw terminals	
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.

ing 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 applied, interrupted and reapplied during

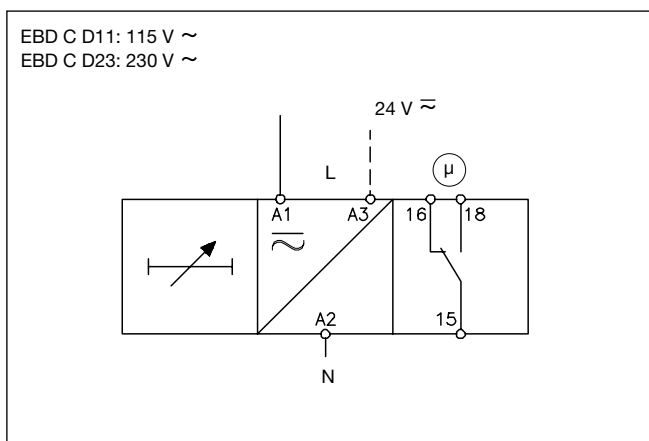
the pulse period, the pulse duration can be extended.

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

