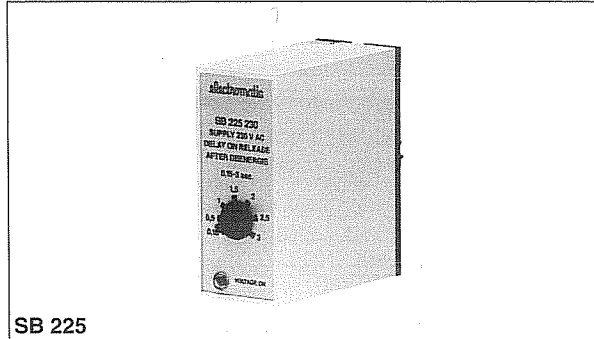
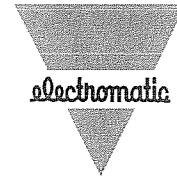


# Delay on Release Timer Types SB 125, SB 225



SB 225

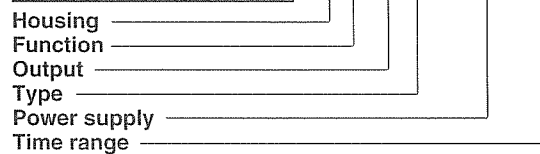
Time ranges: 0.15 s to 600 s  
 Automatic start after drop-out of power supply  
 Knob-adjustable time within range  
 Repeatability deviation:  $\leq 1\%$   
 Outputs: 10 A SPDT or 8 A DPDT relay  
 Plug-in type module  
 S-housing  
 LED-indication for power supply on  
 AC or DC power supply

## Product Description

Mono-function, plug-in delay on release time relays up to 600 s ( 10 min) covering 5 individual time ranges. Often used in applications where a second motor has to remain turned on for a certain period of time after the first motor has been turned off.

## Ordering Key

**SB 125 024 3S**

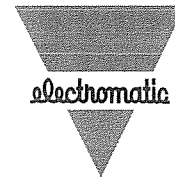


## Type Selection

| Plug          | Output | Time ranges | Supply: 24 VAC  | Supply: 115 VAC | Supply: 230 VAC | Supply: 12/24 VDC |
|---------------|--------|-------------|-----------------|-----------------|-----------------|-------------------|
| Circular<br>○ | SPDT   | 0.15 - 3 s  | SB 125 024 3S   | SB 125 115 3S   | SB 125 230 3S   | SB 125 724 3S     |
|               |        | 0.8 - 18 s  | SB 125 024 18S  | SB 125 115 18S  | SB 125 230 18S  | SB 125 724 18S    |
|               |        | 3 - 60 s    | SB 125 024 60S  | SB 125 115 60S  | SB 125 230 60S  | SB 125 724 60S    |
|               |        | 8 - 180 s   | SB 125 024 180S | SB 125 115 180S | SB 125 230 180S | SB 125 724 180S   |
|               |        | 30 - 600 s  | SB 125 024 600S | SB 125 115 600S | SB 125 230 600S | SB 125 724 600S   |
| Circular<br>○ | DPDT   | 0.15 - 3 s  | SB 225 024 3S   | SB 225 115 3S   | SB 225 230 3S   | SB 225 724 3S     |
|               |        | 0.8 - 18 s  | SB 225 024 18S  | SB 225 115 18S  | SB 225 230 18S  | SB 225 724 18S    |
|               |        | 3 - 60 s    | SB 225 024 60S  | SB 225 115 60S  | SB 225 230 60S  | SB 225 724 60S    |
|               |        | 8 - 180 s   | SB 225 024 180S | SB 225 115 180S | SB 225 230 180S | SB 225 724 180S   |
|               |        | 30 - 600 s  | SB 225 024 600S | SB 225 115 600S | SB 225 230 600S | SB 225 724 600S   |

## Time Specifications

|                     |   |                         |  |
|---------------------|---|-------------------------|--|
| Time ranges         | 0.15 - 3 s<br>0.8 - 18 s<br>3 - 60 s<br>8 - 180 s<br>30 - 600 s | Repeatability deviation | $\leq 1\%$   |
| Time range accuracy | 0 to +20% on max.<br>min. actual time $\leq$ min. set time      | Time variation          | Within rated power supply and ambient temperature<br>$\leq 0.05\%/V$<br>$\leq 0.2\%/^{\circ}C$ |
|                     |   | Reset Time              | power supply on min.<br>500 ms   |



## Output Specifications

|                                  | SB 125  | SB 225   |
|----------------------------------|---|--|
| <b>Output</b>                    | SPDT relay  | DPDT relay   |
| Basic electrical insulation      | 250 VAC (RMS) (contact/electronics)   | 250 VAC (RMS) (contacts/elec., contact/contact)                      |
| <b>Contact ratings (Ag-CdO)</b>  | $\mu$ (micro gap)   | $\mu$ (micro gap)  |
| Resistive loads                  | AC 1 10 A/250 VAC (2500 VA)<br>DC 1 1 A/250 VDC (250 W)<br>or 10 A/25 VDC (250 W) | 8 A/250 VAC (2000 VA)<br>0.4 A/250 VDC (100 W)<br>4 A/25 VDC (100 W) |
| Small inductive loads            | AC 11 2.5 A/230 VAC<br>DC 11 5 A/24 VDC   | 2.5 A/230 VAC<br>5 A/24 VDC  |
| <b>Mechanical life</b>           | $\geq 30 \times 10^6$ operations  | $\geq 30 \times 10^6$ operations                                     |
| <b>Electrical life</b>           | AC 1 $\geq 2.5 \times 10^5$ operations (at max. load)                             | $\geq 2.5 \times 10^5$ operations (at max. load)                     |
| <b>Operating frequency</b>       | $\leq 7200$ operations/h  | $\leq 7200$ operations/h   |
| <b>Insulation voltages</b>       |   |  |
| Rated insulation voltage         | $\geq 2.0$ kVAC (RMS) (contact/electronics)                                       | $\geq 2.0$ kVAC (RMS) (contact/electronics)                          |
| Rated transient protection volt. | 4 kV (1.2/50 $\mu$ s) (contact/electronics) (IEC 664)                             | 4 kV (1.2/50 $\mu$ s) (contact/electronics) (IEC 664)                |

## Supply Specifications

|   |   |
|---|---|
| <b>Power supply AC types</b>                  | installation cat. III (IEC 664)   |
| Rated operational voltage through pins 2 & 10 | 230 230 VAC $\pm 15\%$ , 45 to 65 Hz<br>115 115 VAC $\pm 15\%$ , 45 to 65 Hz<br>024 24 VAC $\pm 15\%$ , 45 to 65 Hz |
| Dropout tolerance                             | $\geq 40$ ms  |
| Rated insulation voltage                      | $\geq 2.0$ kVAC (RMS) (supply/elec.)  |
| Rated transient protection volt.              | 4 kV (1.2/50 $\mu$ s) (line/neutral)  |
| <b>Power supply DC type</b>                   | installation cat. III (IEC 664)   |
| Rated operational voltage                     | 724 10 to 28 VDC (pin 2 pos.)   |
| Rated insulation voltage                      | $\geq 2.0$ kVAC (RMS)   |
| Rated transient protection volt.              | 800 V (1.2/50 $\mu$ s) + / -  |
| <b>Consumption</b>                            | AC supply 2.5 VA<br>DC supply 1.5 W   |

## Mode of Operation

When power supply is applied the relay operates.

the time is reset and the relay remains on.

When power supply is interrupted, the time period starts and at the end of the set time period, the relay releases.

**Please note**  
The SB 125/SB 225 should not be operated by pulses shorter than 500 ms.

If power supply is reapplied before the relay releases,

For this purpose the relays S 112/S 212, operated by means of an external contact function, should be used.

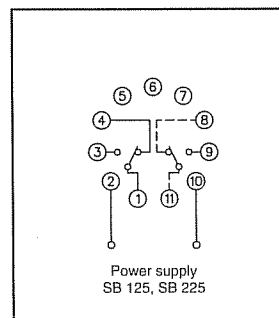
## Operation Diagram



## General Specifications

|                                       |                              |
|---------------------------------------|------------------------------|
| <b>Power-on time</b>                  | min. 500 ms                  |
| <b>Indication for Power supply ON</b> | LED, red                     |
| <b>Environment</b>                    | IP 20 B<br>2 (IEC 664)       |
| Pollution degree                      | -20 to +50°C (-4 to +122°F)  |
| Operating temperature                 | -50 to +85°C (-58 to +185°F) |
| Storage temperature                   |                              |
| <b>Weight</b>                         | AC/DC types 200 g/125 g      |
| <b>Approvals</b>                      | UL, CSA, SEV                 |

## Wiring Diagram



## Time Setting

Knob-adjustable on scale in seconds.

## Accessories

|   |       |
|---|-------|
| Socket  | S 411 |
| Hold down spring                                | HF    |
| Mounting rack                                   | SM 13 |
| Socket cover                                    | BB 4  |
| Front mounting bezel                            | FRS 2 |
| Potentiometer lock                              | PL 1  |
| For further information refer to "Accessories". |       |