

# Logic Relay Type S 160



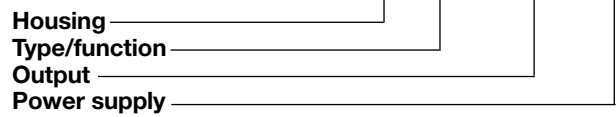
- Bistable relay output
- Built-in memory
- Negative logic
- 1 signal input
- 8 A SPDT output relay
- LED-indication: relay ON
- AC or DC power supply

## Product Description

Bistable logic relay with “flip-flop” function and built-in memory.

## Ordering Key

**S 160 156 024**



## Type Selection

Plug	Output	Supply: 24 VAC	Supply: 115 VAC	Supply: 230 VAC	Supply: 24 VDC
Circular	SPDT	S 160 156 024	S 160 156 115	S 160 156 230	S 160 216 724

## Input Specifications

<b>Input</b> Pins 5 & 7	Mechanical or electronic contact
<b>No load current</b>	Max. 50 mA
<b>Short circuit current</b>	Max. 3.0 mA
<b>Pulse duration</b>	Min. 20 ms
<b>Activation frequency</b>	Max. 10 Hz.

## Output Specifications

<b>Output</b> Rated insulation voltage	SPDT relay 250 VAC (rms) (cont./elect.)
<b>Contact ratings (AgCdO)</b> Resistive loads AC 1 DC 1 or Small inductive loads AC 15 DC 13	μ (micro gap) 8 A/250 VAC (3000 VA) 0.4 A/250 VDC (100 W) 4 A/25 VDC (100 W) 2.5 A/250 VAC 5 A/24 VDC
<b>Mechanical life</b>	≥ 30 x 10 <sup>6</sup> operations
<b>Electrical life</b> AC 1	≥ 2.5 x 10 <sup>5</sup> operations (at max. load)
<b>Operating frequency</b>	≤ 7200 operations/h
<b>Dielectric strength</b> Dielectric voltage Rated impulse withstand volt.	≥ 2 kVAC (rms) (cont./elect.) 4 kV (1.2/50 μs) (cont. elect.) (IEC 60664)

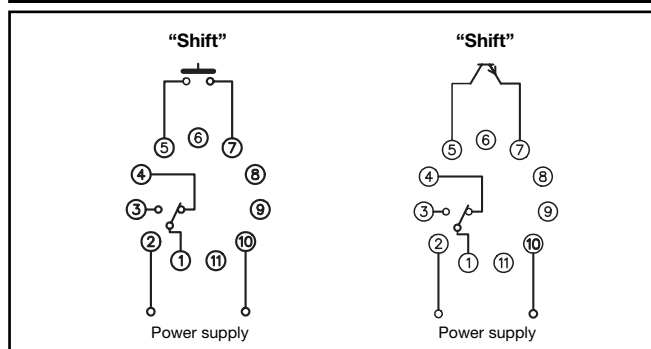
## General Specifications

<b>Indication for</b> Output ON	LED, yellow
<b>Environment</b> Degree of protection Pollution degree Operating temperature Storage temperature	IP 20 B 2 (IEC 60664) -20° to +50°C (-4° to +122°F) -50° to +85°C (-58° to +185°F)
<b>Weight</b> AC supply DC supply	200 g 125 g
<b>Approvals</b>	UL, CSA
<b>CE-marking</b>	Yes

## Supply Specifications

<b>Power supply AC types</b> Rated operational voltage through pins 2 & 10	024 048 115 230	Overvoltage cat. III (IEC 60664) (IEC 60038) 24 VAC ±15%, 45 to 65 Hz 48 VAC ±15%, 45 to 65 Hz 115 VAC ±15%, 45 to 65 Hz 230 VAC ±15%, 45 to 65 Hz
Voltage interruption Dielectric voltage Rated impulse withstand volt.	≤ 40 ms 2 kVAC (rms) (supply/elect.) 4 kV (1.2/50 μs) (line/neutral, line/line), no direct connec- tion to electronics	
<b>Power supply DC types</b> Rated operational voltage through pins 2 & 10	724	Overvoltage cat. III (IEC 60664) (IEC 60038) 24 VDC ± 15%
Dielectric voltage Rated impulse withstand volt.	None (supply/elect.) 800 V (1.2/50 μs)	

## Wiring Diagrams



## Mode of Operation

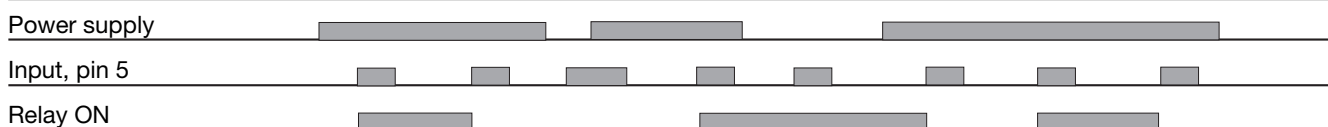
Logic relay “flip-flop” with built-in memory. A short-circuit between pins 5 and 7 will change the relay from OFF-position to ON-position or vice versa.

Due to the built-in memory the relay will maintain its position when the power supply is interrupted (but the LED is shot off).

A short-circuit between pins 5 and 7 while the power supply is interrupted will not be registered by the relay.

Control of the relay either by metallic contact or by NPN-transistor with open collector and the emitter connected to pin 7.

## Mode of Operation



## Accessories

- Bases
- Hold down spring
- Mounting rack
- Base covers
- Front mounting bezel