

Logic Relay Type S 160

CARLO GAVAZZI



- 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

Housing _____
 Type/function _____
 Output _____
 Power supply _____

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

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

Output Specifications

Output Rated insulation voltage	SPDT relay 250 VAC (rms) (cont./elect.)
Contact ratings (AgCdO) 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
Mechanical life	≥ 30 x 10 ⁶ operations
Electrical life AC 1	≥ 2.5 x 10 ⁵ operations (at max. load)
Operating frequency	≤ 7200 operations/h
Dielectric strength Dielectric voltage Rated impulse withstand volt.	≥ 2 kVAC (rms) (cont./elect.) 4 kV (1.2/50 μs) (cont. elect.) (IEC 60664)



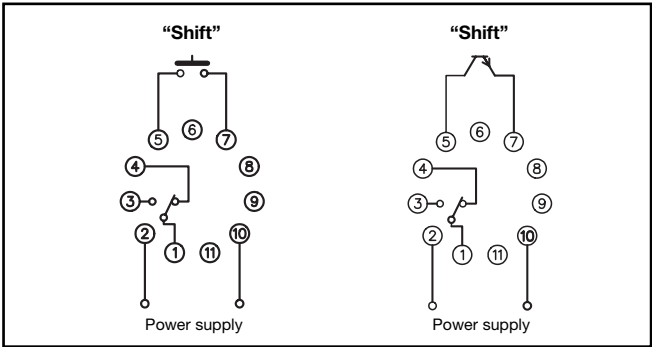
General Specifications

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

Supply Specifications

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

Wiring Diagrams



Mode of Operation

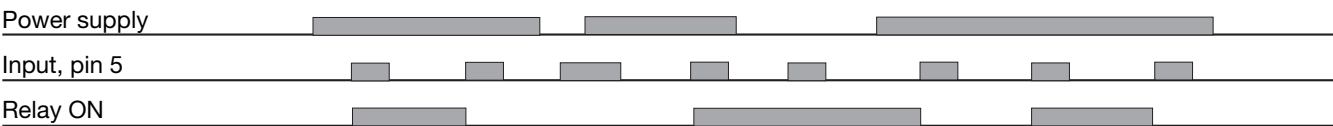
Logic relay “flip-flop” with built-in memory. A short-circuit of the contact function between pins 5 and 7 will change the relay from OFF-position to ON-position or vice versa.

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