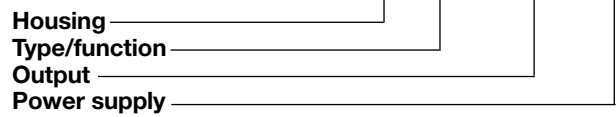# Logic Relay
Type S 160

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 suppy

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	μ (micro gap) 8 A/250 VAC (3000 VA)
DC 1	0.4 A/250 VDC (100 W)
or	4 A/25 VDC (100 W)
Small inductive loads AC 15	2.5 A/250 VAC
DC 13	5 A/24 VDC
Mechanical life	$\geq 30 \times 10^6$ operations
Electrical life AC 1	$\geq 2.5 \times 10^5$ 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)

CARLO GAVAZZI

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)
Rated operational voltage	(IEC 60038)
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)
Rated operational voltage	(IEC 60038)
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
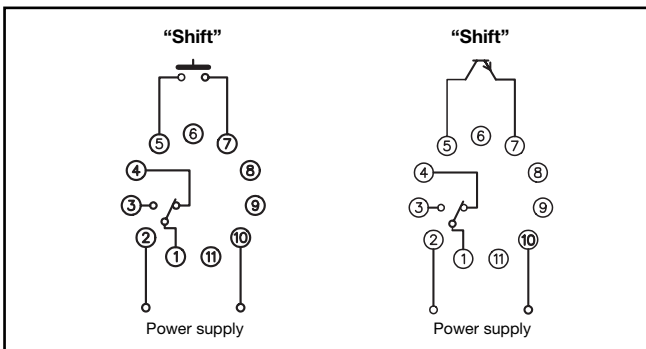
Mode of Operation

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-postion or vice versa.

Due to the built-in memory the relay will maintain its position when the power supply is interrrupted (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
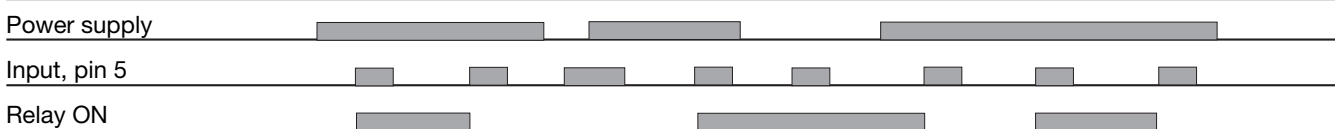
Accessories

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

Specifications are subject to change without notice (04.05.01)