

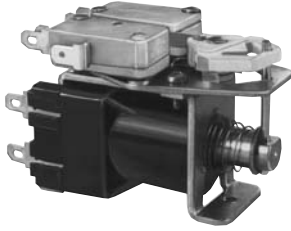
# S89R/S90R series

## Bistable, Impulse Relay 15 and 20 Amp Industrial Rating Continuous Coil Rating

File E22575

File LR15734

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.



**S89R**



**S90R**

### Features

- Low cost, bistable impulse relay.
- Operates on 75ms min. pulse.
- Used in garage door controls, motor reversing and lighting controls.
- S89R available with plastic cover and octal plug-in base.

### Contact Data @ 25°C

**Ratings: S89R:** 15 amps, 1/2 HP, 125/250VAC; 5 amps, 125VAC, tungsten filament lamp load; 1/2 amp, 125VDC; 1/4 amp, 250VDC.

**Expected Life:** 100,000 operations, mechanical; 50,000 operations at rated loads.

### Ratings: S90R:

Load	Minimum Life
20A, 120VAC or 7.5A, 277VAC, Tungsten.	10,000 Cycles
15A, 125VAC or 7A, 277VAC, Fluorescent.	10,000 Cycles
20A, 277VAC, 75-80% PF.	50,000 Cycles
1 HP, 125VAC, 50/60 Hz.	50,000 Cycles
2 HP, 250VAC, 50/60 Hz.	50,000 Cycles
12 FLA, 60 LRA, 120VAC.	50,000 Cycles
8 FLA, 48 LRA, 240VAC.	50,000 Cycles
Pilot Duty, 360VA, 125/250VAC.	50,000 Cycles

### Coil Data @ 25°C

#### Nominal Power:

**DC Coils:** 6.33 Watts @ +25°C.

**AC Coils:** 9VA @ +25°C.

**Insulation:** Class B (130°C).

**Initial Breakdown Voltage:** 1,500V rms, 60 Hz.

#### Must-Operate Voltage:

**DC Coils:** 75% of nominal voltage @ +25°C.

**AC Coils:** 85% of nominal voltage @ +25°C.

### Coil Data

Nominal Voltage	Resistance DC Ohms ±15% @ +25°C	Nominal Current mA
24VAC	8.7	375
120VAC	260	75
240VAC	1084	38
6VDC	5.8	1035
12VDC	22.5	533
24VDC	92	260

### Environmental Data

**Temperature Range:** -10°C to +60°C.

### Mechanical Data

**Weight:** 7.75 oz. (241g) approximately.

### Ordering Information

Typical Part No. ▶	S89R	5	A	B	D	1	-24
<b>1. Basic Series:</b> S89R = 15A S90R = 20A							
<b>2. Contact Arrangement:</b> 5 = SPDT      11 = DPDT							
<b>3. Coil Input:</b> A = AC D = DC							
<b>4. Coil Terminal Style:</b> A = .187" (4.75mm) Quick connect/solder.      P = Dust cover with octal plug-in base. (S89R only.) B = .250" (6.35mm) Quick connect/solder.							
<b>5. Switch Terminal Style:</b> C = .187" (4.75mm) Quick connect.*      P = Dust cover with octal plug-in base.* D = .250" (6.35mm) Quick connect. (S90 only)      * S89R only.							
<b>6. Switch Terminal Configuration:</b> 1 = Style 1 (See outline drawings.)							
<b>7. Coil Voltage:</b> 24, 120, 240VAC 6, 12, 24VDC							

### Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

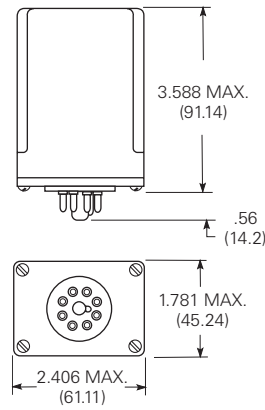
S89R5ABD1-24	S89R11AAC1-24	S89R11ABD1-120	S89R11DAC1-24	S90R5ABD1-120
S89R5ABD1-120	S89R11AAC1-120	S89R11APP1-120	S89R11DBD1-12	S90R11ABD1-24
S89R5DBD1-12	S89R11ABD1-24	S89R11DAC1-12	S89R11DBD1-24	S90R11ABD1-120

**Outline Dimensions**

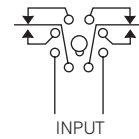
**Open Relays**



**Enclosed Relays  
S89 Series**



**Wiring Diagram**



**Switch Terminal Configuration**

**Style 1**



**Switch Terminal Style**

C = .187" (4.75mm) Quick-connect  
D = .250" (6.35mm) Quick-connect

**.187" (4.75mm) Quick Connect S89R**      **.250" (6.35mm) Quick Connect S90R**

