# S89R/S90R series 



S89R


S90R

## Features

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


## Contact Data @ $\mathbf{2 5}^{\circ} \mathrm{C}$

Ratings: S89R: $15 \mathrm{amps}, 1 / 2 \mathrm{HP}, 125 / 250 \mathrm{VAC} ; 5 \mathrm{amps}, 125 \mathrm{VAC}$, tungsten filament lamp load; $1 / 2 \mathrm{amp}, 125 \mathrm{VDC} ; 1 / 4 \mathrm{amp}, 250 \mathrm{VDC}$.
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 @ $\mathbf{2 5}^{\circ} \mathrm{C}$

## Nominal Power:

DC Coils: 6.33 Watts @ $+25^{\circ} \mathrm{C}$.
AC Coils: 9VA @ $+25^{\circ} \mathrm{C}$.

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

兄 File E22575
(18) 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.

Insulation: Class $\mathrm{B}\left(130^{\circ} \mathrm{C}\right)$.
Initial Breakdown Voltage: $1,500 \mathrm{~V}$ rms, 60 Hz .
Must-Operate Voltage:
DC Coils: $75 \%$ of nominal voltage @ $+25^{\circ} \mathrm{C}$.
AC Coils: $85 \%$ of nominal voltage $@+25^{\circ} \mathrm{C}$.

## Coil Data

| Nominal <br> Voltage | Resistance <br> $\mathbf{D C} \mathbf{O h m s}$ <br> $\mathbf{\pm 1 5 \%}$ @ $\mathbf{+ 2 5}^{\mathbf{C}}$ | Nominal <br> Current <br> $\mathbf{m A}$ |
| :---: | :---: | :---: |
| 24VAC | 8.7 | 375 |
| 120VAC | 260 | 75 |
| 240 VAC | 1084 | 38 |
| 6VDC | 5.8 | 1035 |
| 12VDC | 22.5 | 533 |
| 24VDC | 92 | 260 |

## Environmental Data

Temperature Range: $-10^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$.

## Mechanical Data

Weight: 7.75 oz. (241g) approximately.

Ordering Information

|  | Typical Part No. $\downarrow$ S89R | 5 | A | B | D | 1 | -24 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Basic Series: $S 89 R=15 A$ $S 90 R=20 A$ |  |  |  |  |  |  |  |
| 2. Contact Arrangement: $5=\text { SPDT } \quad 11=\text { DPDT }$ |  |  |  |  |  |  |  |
| 3. Coil Input: $\begin{aligned} & A=A C \\ & D=D C \end{aligned}$ |  |  |  |  |  |  |  |
| 4. Coil Terminal Style: $\begin{aligned} & A=.187 "(4.75 \mathrm{~mm}) \text { Quick connect/solder. } \\ & B=.2500^{\prime \prime}(6.35 \mathrm{~mm}) \text { Quick connect/solder. } \end{aligned}$ | $\mathrm{P}=$ Dust cover with octal plug-in base. (S89R only.) |  |  |  |  |  |  |
| 5. Switch Terminal Style: $\begin{aligned} & C=.187^{\prime \prime}(4.75 \mathrm{~mm}) \text { Quick connect.* } \\ & D=.250 "(6.35 \mathrm{~mm}) \text { Quick connect. (S90 only) } \end{aligned}$ | P = Dust cover with octal plug-in base.* <br> * S89R only. |  |  |  |  |  |  |
| 6. Switch Terminal Configuration: 1 = Style 1 (See outline drawings.) |  |  |  |  |  |  |  |
| 7. Coil Voltage: 24, 120, 240VAC $6,12,24 \mathrm{VDC}$ |  |  |  |  |  |  |  |

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 |  |
| Dimensions are shown for reference purposes only. |  | Dimensions are in inches (millimeters) unless other specified. | Specifi subjec | d availability | www.tycoelectronics.com Technical support: Refer to inside back cover. |

## Outline Dimensions

Open Relays


## Enclosed Relays

S89 Series

$\leftarrow 2.406$ MAX $\rightarrow$ (61.11)

## Switch Terminal Style

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

| $.187 "(4.75 \mathrm{~mm})$ | $.250 "(6.35 \mathrm{~mm})$ |
| :--- | :--- |
| Quick Connect | Quick Connect |
| S89R | S90R |



## Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery \& Lifecycle Information:

TE Connectivity:

