S89R/S90R series

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

S89R

S90R

🇺🇱 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.
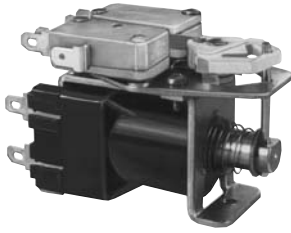
Features

• 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

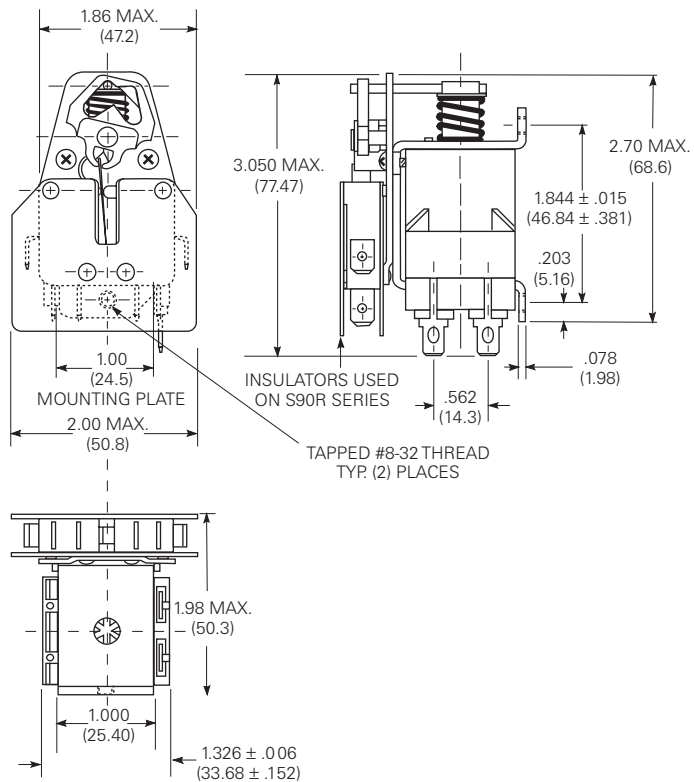**Weight:** 7.75 oz. (241g) approximately.

Ordering Information

Typical Part No. ▶ **S89R** **5** **A** **B** **D** **1** **-24**

1. Basic Series:
  S89R = 15A
  S90R = 20A

2. Contact Arrangement:
  5 = SPDT   11 = DPDT

3. Coil Input:
  A = AC
  D = DC

4. Coil Terminal Style:
  A = .187" (4.75mm) Quick connect/solder.   P = Dust cover with octal plug-in base. (S89R only.)
  B = .250" (6.35mm) Quick connect/solder.

5. Switch Terminal Style:
  C = .187" (4.75mm) Quick connect.*   P = Dust cover with octal plug-in base.*
  D = .250" (6.35mm) Quick connect. (S90 only)   * S89R only.

6. Switch Terminal Configuration:
  1 = Style 1 (See outline drawings.)

7. Coil Voltage:
  24, 120, 240VAC
  6, 12, 24VDC

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.
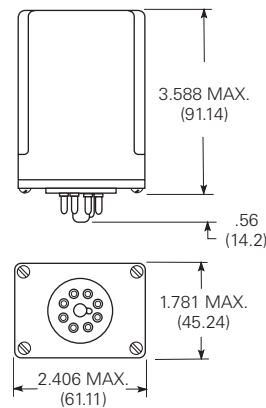
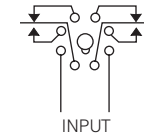|				
S89R5ABD1-24	S89R11AAC1-24	S89R11ABD1-120	S89R11DAC1-24	S90R5ABD1-120
S89R5ABD1-120	S89R11AAC1-120	S89R11APP1-120	S89R11DBD1-12	S90R11ABD1-24
S89R5DBD1-12	S89R11ABD1-24	S89R11DAC1-12	S89R11DBD1-24	S90R11ABD1-120

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.

www.tycoelectronics.com
Technical support:
Refer to inside back cover.

Outline Dimensions

Open Relays

1.86 MAX.
(47.2)

3.050 MAX.
(77.47)

2.70 MAX.
(68.6)

1.844 ± .015
(46.84 ± .381)

.203
(5.16)

1.00
(24.5)
MOUNTING PLATE

INSULATORS USED
ON S90R SERIES

.078
(1.98)

.562
(14.3)

2.00 MAX.
(50.8)

TAPPED #8-32 THREAD
TYP. (2) PLACES

1.98 MAX.
(50.3)

1.000
(25.40)

1.326 ± .006
(33.68 ± .152)

Enclosed Relays
S89 Series

3.588 MAX.
(91.14)

.56
(14.2)

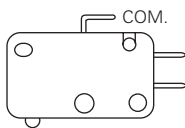1.781 MAX.
(45.24)

2.406 MAX.
(61.11)

Wiring Diagram

INPUT

Switch Terminal Configuration
Style 1

COM.

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

C D

.055 D.
(1.40)

.188
(4.78)

.066 D.
(1.68)

.250
(6.35)

.250
(6.35)

.312
(7.92)

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