

S86R/S87R series



S86R
Mounting
Style 1



S87R
Mounting
Style 2

Low Cost 20 Amp Industrial Relays

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.
- Contact forms to 2 Form C.
- Applications include spa controls, vending machines, HVAC, and machine tool controls.
- Variety of mounting styles.

Contact Data @ 25°C

S86R and S87R: 20 amps @ 277VAC; 60 LRA, 12 FLA, 1 HP @ 125VAC;
48 LRA, 8 FLA @ 240VAC; 2 HP @ 250VAC; Pilot Duty,
360VA @ 125/250VAC.

Materials: Silver and silver-cadmium oxide.

Expected Life: 1 million operations, mechanical; 50,000 operations at rated loads.

Coil Data

| Nominal Coil Voltage | Coil Resistance (Ohms) AC, $\pm 15\%$ DC, $\pm 10\%$ | Nominal Coil Current (mA) @ 25°C* | | |
|----------------------|--|--------------------------------------|--------------------|--------------------|
| S86R & S87R (AC) | All Models | All Models | | |
| 12VAC | 8.0 | 330 | | |
| 24VAC | 32 | 165 | | |
| 120VAC | 800 | 33.0 | | |
| 240VAC | 3,200 | 16.5 | | |
| S87R (DC) | Single Pole Models | Double Pole Models | Single Pole Models | Double Pole Models |
| 6VDC | 12.5 | 8 | 480 | 750 |
| 12VDC | 50 | 32 | 240 | 375 |
| 24VDC | 200 | 128 | 120 | 188 |
| 36VDC | 450 | 288 | 80 | 125 |
| 48VDC | 800 | 512 | 60 | 94 |
| 72VDC | 1,800 | 1,150 | 40 | 63 |
| 125VDC | 5,425 | 3,470 | 23 | 36 |

*Increase AC current values by 25% for mounting style 2 with single switch.

Initial Dielectric Strength

Initial Breakdown Voltage: 1,560V rms, 60 Hz.

Operate Data

Must Operate Voltage:

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

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

Operating Position: Relay is designed for operation with plunger either vertical or horizontal; however, the relay is not designed for operation in an upside-down position.

Coil Data @ 25°C

Nominal Power:

S86R: 4.0VA for AC models.

S87R: 2.9 Watts for single pole DC models.

4.5 Watts for double pole DC models.

4.0VA for AC models.

Insulation: Class B (130°C).

Environmental Data

Temperature Range: -10°C to +65°C.

Ordering Information

Typical Part No. ► **S86R** **5** **A** **1** **B** **1** **D** **1** **-120****1. Basic Series:**S86R = Standard relay with AC coil, 20 Amp contacts.
S87R = Standard relay with AC or DC coil, 20 Amp contacts.**2. Contact Arrangement:**

5 = SPDT 7 = DPST-NO 11 = DPDT

3. Coil Input:A = AC (available on S86R and S87R)
D = DC (available on S87R only)**4. Mounting Style:**S86: S87: (See outline dimensions)
1 = Style 1 2 = Style 2**5. Coil Terminal Style:**

B = .250" (6.35mm) Quick-connect/solder.

6. Coil Terminal Location (S86):

1 = Same side as switch terminals.

Coil Terminal Location (S87):

1 = Located perpendicular to switch terminals.

7. Switch Terminal Style:

D = .250" (6.35mm) Quick-connect/solder.

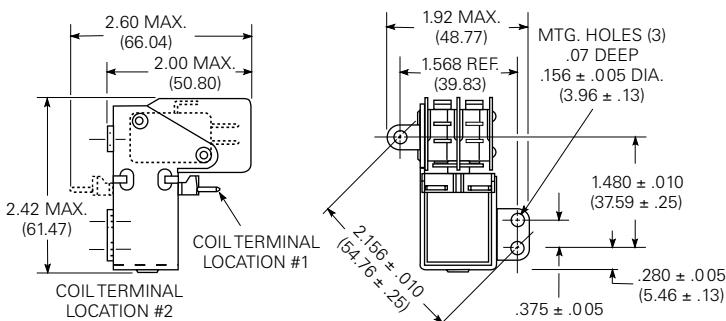
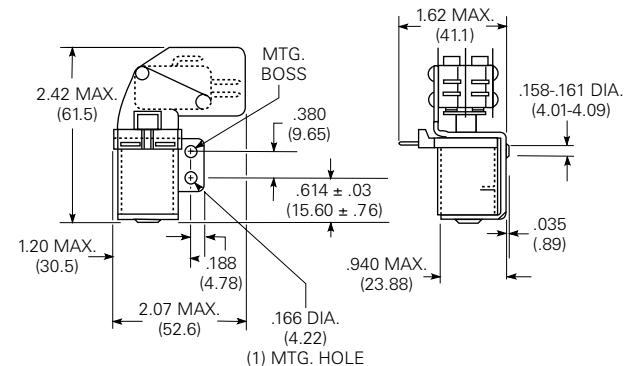
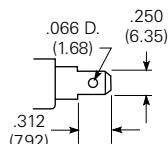
8. Switch Terminal Configuration:

1 = Style 1

9. Coil Voltage:

AC coils to 240VAC, 50/60 Hz.

DC coils to 125VDC.

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.S86R5A1B1D1-120
S86R11A1B1D1120S86R11D1B1D1-12
S87R5A2B1D1-120S87R5A2B1D1-240
S87R5D2B1D1-24S87R11A2B1D1-24
S87R11A2B1D1120S87R11A2B1D1240
S87R11D2B1D1-110**Outline Dimensions****S86R (2 pole shown) Style 1****S87R (2 pole shown) Style 2****Switch Terminal Style****.250" (6.35mm) Quick Connect****Switch Terminal Configuration****Style 1**