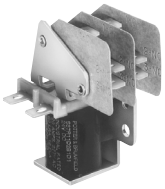
S86R/S87R series

Low Cost 20 Amp Industrial Relays



S86R Mounting Style 1



S87R Mounting Style 2

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.

Coil Data

Nominal Coil Voltage	Coil Resistance (Ohms) AC, ± 15% DC, ± 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.

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.

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: 1 = Style 1
S87: 2 = Style 2
(See outline dimensions)

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

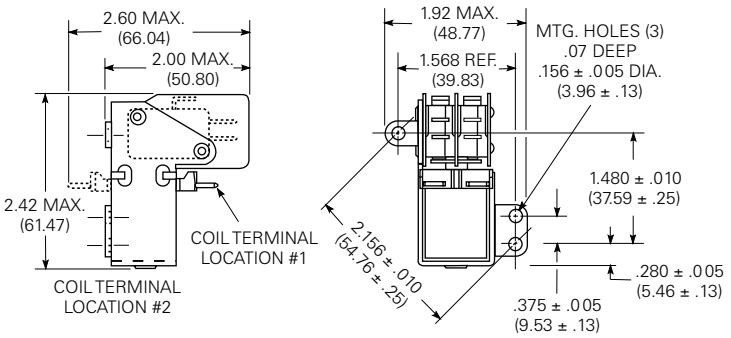
9. Coil Voltage:
AC coils to 240VAC, 50/60 Hz.
DC coils to 125VDC.

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

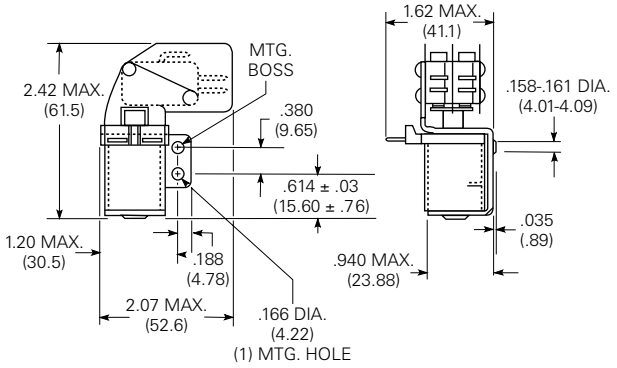
S86R5A1B1D1-120	S86R11D1B1D1-12	S87R5A2B1D1-240	S87R11A2B1D1-24	S87R11A2B1D1240
S86R11A1B1D1120	S87R5A2B1D1-120	S87R5D2B1D1-24	S87R11A2B1D1120	S87R11D2B1D1-110

Outline Dimensions

S86R (2 pole shown) Style 1

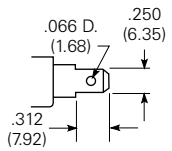


S87R (2 pole shown) Style 2



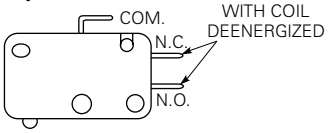
Switch Terminal Style

.250" (6.35mm) Quick Connect



Switch Terminal Configuration

Style 1



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.