


## 9100 series

### Power Relay 1- and 2-pole, 3-12 FLA AC or DC Coil

 File E75492

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

- Single- or double-pole relay used extensively in HVAC applications.
- Multi-positional mounting without affecting operation.
- Convenient 0.250" (6.35 mm) quick connect terminals.

#### Contact Data @ 25°C

**Arrangements:** 1 Form A (SPST-NO), 1 Form B (SPST-NC), 1 Form C (SPDT), 2 Form A (DPST-NO), 2 Form B (DPST-NC), 2 Form C (DPDT) or 1 Form A + 1 Form B (SPST-NO+SPST-NC).

**Materials:** Silver, Fine Silver and Gold Alloy.

#### Maximum Ratings:

##### Silver (Power) Contacts

All Forms: 3/4 HP @ 125/250VAC;  
12 FLA, 60 LRA, 15A resistive @ 125VAC;  
6 FLA, 35 LRA, 15A resistive @ 250/277VAC;  
3 FLA, 18 LRA, 12.5A resistive @ 480VAC;  
3 FLA, 14 LRA @ 600VAC;

Form A only: 25A @ 277VAC, resistive.

##### Fine Silver and Gold Alloy (Pilot) Contacts

All Forms: 1/10 HP @ 125/250VAC;  
3A @ 277VAC;  
125VA @ 125VAC.

**Expected Life:** 1 million ops., mechanical.  
250,000 ops., at rated resistive loads.  
100,000 ops., at rated inductive loads.

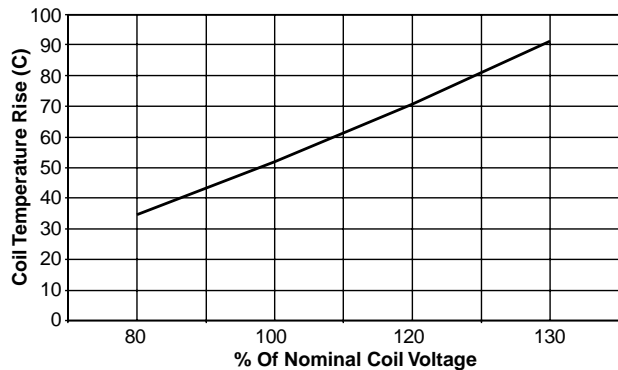
#### Initial Dielectric Strength

**Initial Breakdown Voltage:** 2,200 VAC @ 60 Hz. between live parts and exposed non-current carrying metal parts.

#### Coil Data @ 25°C

**Voltage:** 12 & 24 VDC; 24-277 VAC, 50/60 Hz.  
**Max. Sealed Power:** 9.5 VA (AC coils.); 5.75 W (DC coils).  
**Nominal Inrush Power:** 21.5 VA (AC coils.); 5.75 W (DC coils).  
**Insulation Class:** UL Class B (130°C).  
**Duty Cycle:** Continuous.

#### Coil Temperature Rise Above Ambient



#### Operate Data @ 25°C

**Must Operate Voltage:** Approximately 85% of AC nominal coil voltage.  
Approximately 75% of DC nominal coil voltage.

#### Environmental Data

**Temperature Range:** Storage and Operating: -40°C – +65°C.

#### Mechanical Data

**Termination:** 0.250" (6.35 mm) quick connects. Dual terminals on the coil are standard.

**Weight:** 6.08 oz. (173 g) approximately

**Ordering Information**

<b>Typical Part No. ▶</b>	<b>9100</b>	<b>-2</b>	<b>3</b>	<b>3</b>	<b>Q</b>	<b>999</b>												
<p><b>1. Series:</b> 9100 = 1- or 2-pole, 3-12 FLA relay</p>																		
<p><b>2. Pole Configuration:</b> 2 = Two-pole 3 = Single-pole (1,2,3 omitted) 4 = Single-pole (4,5,6 omitted)</p>																		
<p><b>3. Contact Configuration – Poles 4, 5, 6:</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">1 = 1 Form A (SPST-NO), Silver Contacts.</td> <td style="width: 50%;">7 = 1 Form A (SPST-NO), Gold Alloy Contacts.</td> </tr> <tr> <td>2 = 1 Form B (SPST-NC), Silver Contacts.</td> <td>8 = 1 Form B (SPST-NC), Gold Alloy Contacts.</td> </tr> <tr> <td>3 = 1 Form C (SPDT), Silver Contacts</td> <td>9 = 1 Form C (SPDT), Gold Alloy Contacts</td> </tr> <tr> <td>4 = 1 Form A (SPST-NO), Fine Silver Contacts.</td> <td>0 = 4, 5, 6 Omitted</td> </tr> <tr> <td>5 = 1 Form B (SPST-NC), Fine Silver Contacts.</td> <td></td> </tr> <tr> <td>6 = 1 Form C (SPDT), Fine Silver Contacts</td> <td></td> </tr> </table>							1 = 1 Form A (SPST-NO), Silver Contacts.	7 = 1 Form A (SPST-NO), Gold Alloy Contacts.	2 = 1 Form B (SPST-NC), Silver Contacts.	8 = 1 Form B (SPST-NC), Gold Alloy Contacts.	3 = 1 Form C (SPDT), Silver Contacts	9 = 1 Form C (SPDT), Gold Alloy Contacts	4 = 1 Form A (SPST-NO), Fine Silver Contacts.	0 = 4, 5, 6 Omitted	5 = 1 Form B (SPST-NC), Fine Silver Contacts.		6 = 1 Form C (SPDT), Fine Silver Contacts	
1 = 1 Form A (SPST-NO), Silver Contacts.	7 = 1 Form A (SPST-NO), Gold Alloy Contacts.																	
2 = 1 Form B (SPST-NC), Silver Contacts.	8 = 1 Form B (SPST-NC), Gold Alloy Contacts.																	
3 = 1 Form C (SPDT), Silver Contacts	9 = 1 Form C (SPDT), Gold Alloy Contacts																	
4 = 1 Form A (SPST-NO), Fine Silver Contacts.	0 = 4, 5, 6 Omitted																	
5 = 1 Form B (SPST-NC), Fine Silver Contacts.																		
6 = 1 Form C (SPDT), Fine Silver Contacts																		
<p><b>4. Contact Configuration – Poles 1, 2, 3:</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">1 = 1 Form A (SPST-NO), Silver Contacts.</td> <td style="width: 50%;">7 = 1 Form A (SPST-NO), Gold Alloy Contacts.</td> </tr> <tr> <td>2 = 1 Form B (SPST-NC), Silver Contacts.</td> <td>8 = 1 Form B (SPST-NC), Gold Alloy Contacts.</td> </tr> <tr> <td>3 = 1 Form C (SPDT), Silver Contacts</td> <td>9 = 1 Form C (SPDT), Gold Alloy Contacts</td> </tr> <tr> <td>4 = 1 Form A (SPST-NO), Fine Silver Contacts.</td> <td></td> </tr> <tr> <td>5 = 1 Form B (SPST-NC), Fine Silver Contacts.</td> <td></td> </tr> <tr> <td>6 = 1 Form C (SPDT), Fine Silver Contacts</td> <td></td> </tr> </table>							1 = 1 Form A (SPST-NO), Silver Contacts.	7 = 1 Form A (SPST-NO), Gold Alloy Contacts.	2 = 1 Form B (SPST-NC), Silver Contacts.	8 = 1 Form B (SPST-NC), Gold Alloy Contacts.	3 = 1 Form C (SPDT), Silver Contacts	9 = 1 Form C (SPDT), Gold Alloy Contacts	4 = 1 Form A (SPST-NO), Fine Silver Contacts.		5 = 1 Form B (SPST-NC), Fine Silver Contacts.		6 = 1 Form C (SPDT), Fine Silver Contacts	
1 = 1 Form A (SPST-NO), Silver Contacts.	7 = 1 Form A (SPST-NO), Gold Alloy Contacts.																	
2 = 1 Form B (SPST-NC), Silver Contacts.	8 = 1 Form B (SPST-NC), Gold Alloy Contacts.																	
3 = 1 Form C (SPDT), Silver Contacts	9 = 1 Form C (SPDT), Gold Alloy Contacts																	
4 = 1 Form A (SPST-NO), Fine Silver Contacts.																		
5 = 1 Form B (SPST-NC), Fine Silver Contacts.																		
6 = 1 Form C (SPDT), Fine Silver Contacts																		
<p><b>5. Coil Voltage (50/60 Hz.):</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 16.6%;">B = 12VDC</td> <td style="width: 16.6%;">Q = 24VAC</td> <td style="width: 16.6%;">T = 120VAC</td> <td style="width: 16.6%;">U = 208/240VAC</td> <td style="width: 16.6%;">V = 277VAC</td> </tr> <tr> <td>C = 24VDC</td> <td>P = 100VAC</td> <td>S = 200VAC</td> <td>N = 240VAC</td> <td>QS = 24VAC, low VA</td> </tr> </table>							B = 12VDC	Q = 24VAC	T = 120VAC	U = 208/240VAC	V = 277VAC	C = 24VDC	P = 100VAC	S = 200VAC	N = 240VAC	QS = 24VAC, low VA		
B = 12VDC	Q = 24VAC	T = 120VAC	U = 208/240VAC	V = 277VAC														
C = 24VDC	P = 100VAC	S = 200VAC	N = 240VAC	QS = 24VAC, low VA														
<p><b>6. Customer ID Suffix:</b> 999 = Standard Model      000-998 = Factory assigned customer ID</p>																		

**Standard part numbers listed below are more likely to be available from stock.**

9100-233Q999      9100-233T999      9100-233U999

**Outline Dimensions**

