

# 30 Amp Micro ISO Automotive Plug In / PCB - Ignition Protected PC782



### FEATURES

- Ignition Protected\* | SAE J1171 | UL 1500 | ISO 8846
- Micro Size Plug-in Design
- 1A (SPST-NO) and 1C (SPDT) Contact Forms Available
- Contact Switching Capacity up to 35 Amps
- -40°C to 125°C Operating Temperature
- PC Board Version Available
- See SC782 for Available Sockets
- Internal Diodes or Resistors Available
- RoHS Compliant
- Fully Automated Assembly

### CONTACT RATINGS 14 VDC at 25°C

Contact Form	1 Form A (SPST-NO)	1 Form C (SPDT)	
	Normally Open	Normally Open	Normally Closed
Max Switching Current	Make 90 A <sup>(1)</sup>	Make 90 A <sup>(1)</sup>	Make 20 A <sup>(1)</sup>
	Break 30 A	Break 30 A	Break 15 A
Max Continuous Current	35 A @ 25°C	30 A @ 25°C	20 A @ 25°C
	25 A @ 85°C	22.5 A @ 85°C	15 A @ 85°C
Max Switching Voltage	75 VDC		
Max. Switching Power	490 W	420 W	
Minimum Load	0.1A @ 12 VDC		

### CHARACTERISTICS

Operate Time	10 msec max.
Release Time	7 msec max
Insulation Resistance	100 MΩ Min at 500VDC
Dielectric Strength	500 V, 50 Hz Between Contacts
	1,000 V, 50 Hz Between Contact and Coils
Shock Resistance	100 m/s <sup>2</sup> 11ms
Vibration Resistance	10 Hz - 40 Hz Double Amplitude 2.7 mm
Terminal Strength	8N (Plug-In type), 4N (PCB type)
Coil Power Consumption	1.2 W (1A SPST-NO), 1.5 W (1C SPDT)

\*Sealed with 6, 12 or 24 VDC, 1.2 or 1.5 Watt Coil Versions

### ORDERING INFORMATION

Example:	PC782	-1C	-P	-12	S	-R	-X
Model:	<b>PC782</b>						
Contact Form:	<b>1A:</b> 1 Form A (SPST-NO) <b>1C:</b> 1 Form C (SPDT)						
Mounting Version:	<b>Nil:</b> Plug-In; <b>P:</b> PCB						
Coil Voltage:	<b>6:</b> 6 VDC; <b>12:</b> 12 VDC; <b>24:</b> 24 VDC; <b>48:</b> 48 VDC						
Enclosure:	<b>C:</b> Dust Cover, <b>S:</b> Sealed Case <b>S1:</b> Flux Tight <sup>(2)</sup>						
Parallel Component:	<b>Nil:</b> None; <b>D:</b> Diode, <b>:R</b> Resistor						
RoHS Compliant:	<b>-X</b>						

<sup>(2)</sup> Flux Tight relays are constructed such that Flux will not enter the relay in an automated process, they are NOT suitable for water wash cleaning

Box Quantity: 1,000; Inner Box: 500

### CONTACT RATINGS 28 VDC at 25°C

Contact Form	1 Form A (SPST-NO)	1 Form C (SPDT)	
	Normally Open	Normally Open	Normally Closed
Max Switching Current	Make 45 A <sup>(1)</sup>	Make 45 A <sup>(1)</sup>	Make 10 A <sup>(1)</sup>
	Break 15 A	Break 15 A	Break 7.5 A
Max Continuous Current	17.5 A @ 25°C	15 A @ 25°C	10 A @ 25°C
	12.5 A @ 85°C	11 A @ 85°C	7.5 A @ 85°C
Max Switching Voltage	75 VDC		
Max. Switching Power	490 W	420 W	
Minimum Load	0.1A @ 24 VDC		

### CONTACT DATA

Material	AgSnO <sub>2</sub>	
Initial Contact Resistance	50 mΩ Max	
Service Life	Electrical	1 x 10 <sup>6</sup> Operations
	Mechanical	1 x 10 <sup>7</sup> Operations

### CHARACTERISTICS Continued

Solderability	260°C for 5 seconds
Operating Temperature Range	- 40 to 125°C
Storage Temperature Range	- 40 to 155°C
Weight	18.5 grams

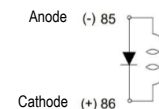
<sup>(1)</sup>With current load applied for a maximum of 3 seconds at a maximum duty cycle of 10%.

See SC782 for Available Sockets

#### Coil Options

Resistor Values (1/4 Watt):  
6V - 180 ohm  
12V - 680 ohm  
24V - 2,700 ohm  
Diode: 1N4005

Orientation of Optional Diode



\*Contact Picker if You Require the Opposite Polarity or a Dual Diode

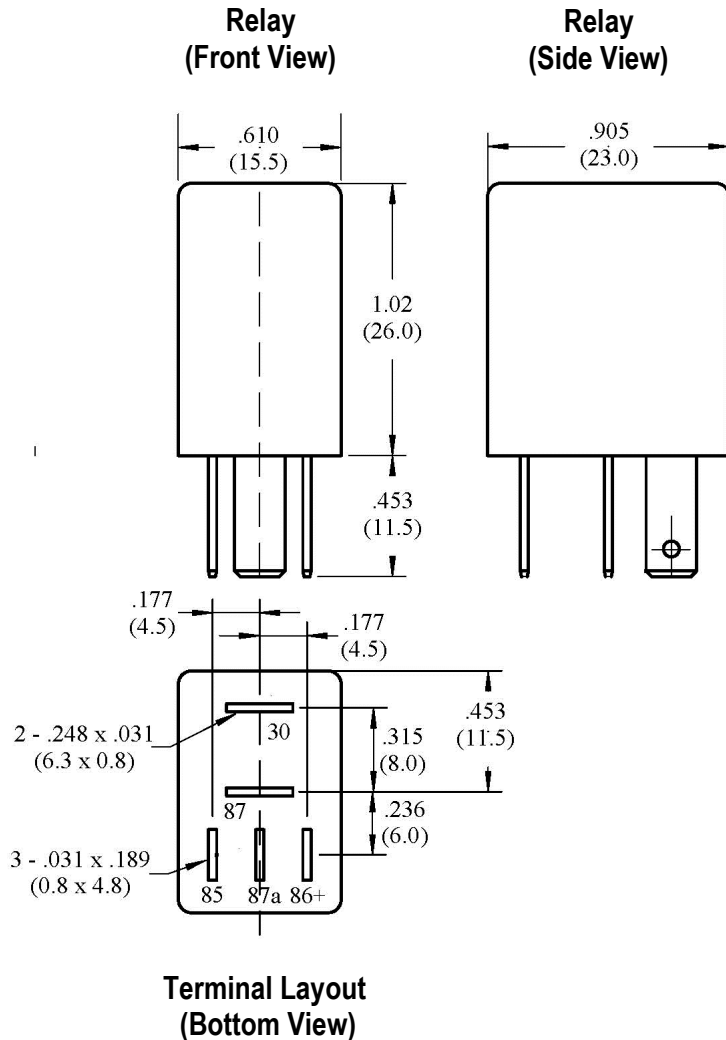
**COIL DATA**

Coil Voltage (VDC)(2)		Coil Resistance (Ohms ± 10%)		Must Operate Voltage Max (VDC)(3)	Must Release Voltage Min. (VDC)(3)
Rated	Max	1.2 W 1A (SPST - NO)	1.5 W 1C (SPDT)		
6	7.8	30	24	4.2	0.6
12	15.6	120	96	8.4	1.2
24	31.2	480	384	16.8	2.4
48	62.4	1,920	1,536	33.6	4.8

**NOTES:**

- (2)The use of any coil voltage less that the rated voltage will compromise the operation of the relays.
- (3)Must Operate Voltage and Must Release Voltages are for test purposes only and are not to be used as design criteria.

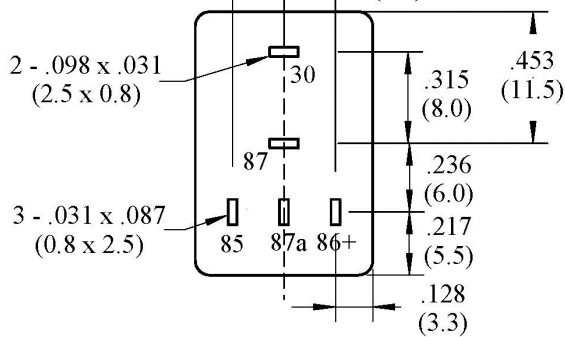
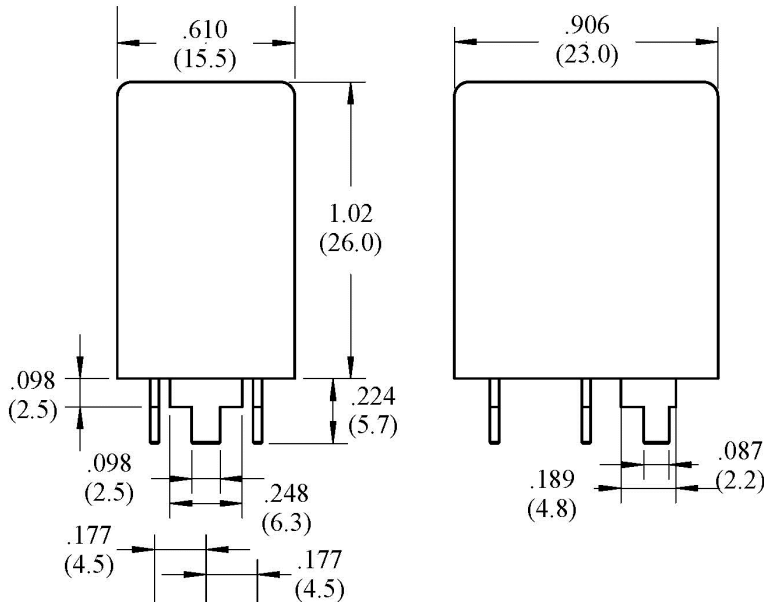
**DIMENSIONS (mm/inches)**



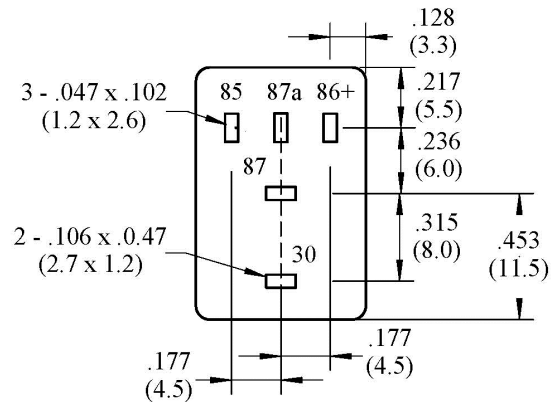
**Wiring Diagrams**

**Relay  
(Front View)**

**Relay  
(Side View)**



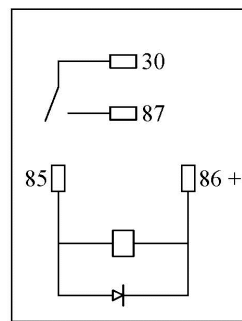
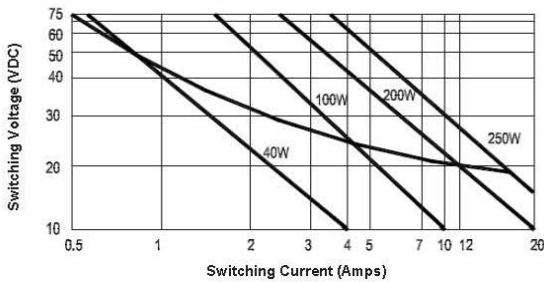
**Terminal Layout  
(Bottom View)**



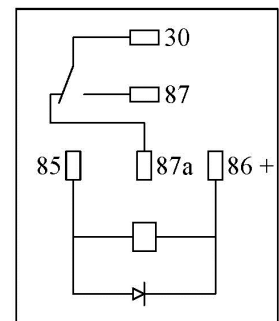
**PC Board Layout  
(Top View)**

**Reference Data**

Contact Switching Capacity



**1A (SPST-NO)**



**1C (SPDT)**

**Wiring Diagrams**

Internal Diode Shown for Example Only