

# 130 Amp Screw Clamp Automotive Relay

**PC776**



## FEATURES

- 130 Amp at 14 VDC Continuous Carry Current at 85°C
- Max Switching Current of 300 Amps
- Form 1X Bifurcated Contacts
- 12 and 24 VDC Versions
- -40°C to 125°C Operating Temperature
- Class F Insulation System (180°C)
- RoHS Compliant

## CONTACT RATINGS 14 VDC at 25°C

Contact Form	1 Form X SPST/NO Crossbar
	Normally Open
Max Switching Current	Make 300 A <sup>(1)</sup>
	Break 130 A
Max Continuous Current	180 A @ 25°C
	130 A @ 85°C
	70 A @ 105°C
Max Switching Voltage	40 VDC
Max. Switching Power	4,050 W

## CROSS REFERENCES

**TE: V23132**

Example: V23132-B2002-B200 crosses to PC776-1X-24S-X

## CONTACT RATINGS 28 VDC at 25°C

Contact Form	1 Form X SPST/NO Crossbar
	Normally Open
Max Switching Current	Make 150 A <sup>(1)</sup>
	Break 65 A
Max Continuous Current	60 A @ 25°C
	65 A @ 85°C
	35 A @ 105°C
Max Switching Voltage	40 VDC
Max. Switching Power	4,050 W

## CHARACTERISTICS

Operate Time	10 msec Typical
Release Time	10 msec Typical
Insulation Resistance	100 MΩ Min @ 500VDC
Dielectric Strength	50 Hz 1000 VAC, 1 Min Between Contact and Coil
	50 Hz 500 V, 1 Min Between Contacts
Shock Resistance	6 m/s <sup>2</sup> 20 msec
Vibration Resistance	10-200 Hz Double Amplitude 1.5mm
Terminal Strength	8 N
Power Consumption	12V: 3.9 W, 24V: 4.1 W
Operating Temperature	-40°C to 125°C
Storage Temperature	-40°C to 155°C
Weight	220 grams

## CONTACT DATA

Material	AgSnO <sub>2</sub>	
Initial Contact Resistance	30 mΩ Max @ 0.1 A, 6 VDC	
Service Life	Electrical	5 x 10 <sup>4</sup> Operations
	Mechanical	1 x 10 <sup>7</sup> Operations

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

## ORDERING INFORMATION

Model:	<b>PC776</b>	PC776	-1X	-24	C	-R	-X
Contact Form:	<b>1X:</b> 1X SPST Crossbar						
Coil:	<b>12:</b> 12 VDC, <b>24:</b> 24 VDC						
Enclosure:	<b>C:</b> Dust Cover IP54 Rated , <b>S:</b> Sealed						
Snubber Components:	<b>Nil:</b> None, <b>R:</b> Resistor, <b>D:</b> Diode						
RoHS Compliant:	<b>X:</b> RoHS Compliant						

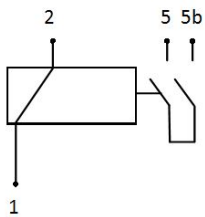
**Coil Options**  
Resistor Values:  
TBD

Coil Voltage (VDC)		Resistance (Ohms $\pm$ 10%)	Must Operate Voltage Max (VDC)	Must Release Voltage Min. (VDC)	Coil Power (W)
Rated	Max				
12	15.6	37	7.2	1.2	3.9
24	31.2	141	14.4	2.4	4.1

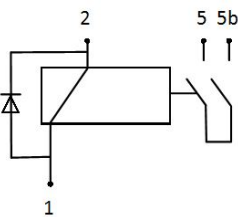
**NOTES:**

The use of any coil voltage less than the rated voltage will compromise the operation of the relays. Must Operate Voltage is listed for test purposes only and is not to be used as design criteria. Pickup and release voltages are for test purposes only and are not to be used as design criteria. Dimensions are in mm, Inches are listed for reference only.

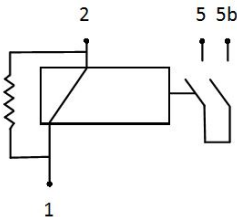
**WIRING DIAGRAMS**



Form 1X



Form 1X



Form 1X

Note: 1 Form X contact, two sets of contacts in series in what is commonly called a Crossbar configuration. With the contacts in series they each conduct approximately half the voltage drop and half the power of the load on the relay. Thus they run cooler and the reliability of the relay is increased.

**DIMENSIONS (mm)**

