

70 Amp Automotive Plug-In / PCB Maxi ISO Relay

PC793



FEATURES

- Popular Automotive Relay
- 1A Contact Form
- Contact Switching Capacity up to 210 Amps
- 70 Amps @ 14VDC Continuous Carrying Current
- Plain Case, Bracket or PCB Options
- Compatible with Socket SC795
- Lead Free and RoHS Compliant

CONTACT RATINGS 14 VDC at 25°C

Contact Form	1 Form A
	Normally Open
Max Switching Current	Make 210 A
	Break 70 A
Max Continuous Current	70 A @ 25°C
	50 A @ 85°C
Max Switching Power	980 W
Max Switching Voltage	120 VDC
Minimum Load	0.5A @ 12VDC

CONTACT RATINGS 28 VDC at 25°C

Contact Form	1 Form A
	Normally Open
Max Switching Current	Make 90 A
	Break 30 A
Max Continuous Current	30 A @ 25°C
	20 A @ 85°C
Max Switching Power	840 W
Max Switching Voltage	120 VDC
Minimum Load	0.5A @ 12VDC

CHARACTERISTICS

Operate Time	10 msec Typical
Release Time	10 msec Typical
Insulation Resistance	100 MΩ min @ 500VDC
Dielectric Strength	50 Hz 500V _{RMS} 1 min. Between Contact and Coil
	50 Hz 500V _{RMS} 1 min. Between Contacts
Shock Resistance	294 m/s ²
Vibration Resistance	10 - 22.3 Hz Double Amplitude, 10mm 22.3 - 500 Hz 98m/s ²
Terminal Strength	10 N, 100 N (Push and Pull)
Solderability	260°C for 5 seconds
Power Consumption	1.8 W, 1.9 W
Relative Humidity	85% at 40°C

CROSS REFERENCES

TE: F7 & F7A
Example: V23136-J004-X103 crosses to PC793-1A-12C-R-X
Example: V23136-J0053-D642 crosses to PC793-1A-24C-X
Song Chuan: 897
Example: 897-1AH-S-12VDC crosses to PC793-1A-12S-X
Example: 897-1AH-S-R1-001-24VDC crosses to PC793-1A-24S-DR-X
Example: 897P-1AH-C-R1-12VDC crosses to PC793-1A-24S1-R-X

CHARACTERISTICS CONTINUED

Operating Temperature	-40°C to +125°C
Storage Temperature	-40°C to +155°C
Weight	38 grams

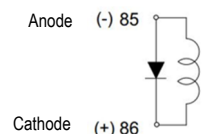
ORDERING INFORMATION

Example:	PC793	-1C	-C	-12	S	-D	-X	See SC795 for available sockets
Model:	PC793							
Contact Form:	1A							
Case Style:	C: Plug-In; C1: Plastic Bracket; C2: Metal Bracket; C3: Weatherproof Shrouded Cover w/ Metal Bracket; P: PCB							
Coil Voltage:	6, 12, 24							
Enclosure:	C: Dust Cover, S: Sealed, S1: Flux Tight⁽²⁾							
Coil Power:	Nil: 1.9W, 1.8: 1.8W							
Parallel Component:	Nil: None; D: Diode; R: Resistor; 2D: Two Diodes; DR: Diode and Resistor							
Terminal Plating	N: Nickel Plated Terminals Standard on all Plug in Models; Nil: PC Pin Version							
RoHS Compliant:	-X							

Coil Options

Resistor Values:
12V - 680 ohm
24V - 2,700 ohm
Diode: 1N4005

Orientation of Optional Diode



(2) Flux Tight relays are constructed such that Flux will not enter the relay in an automated soldering process, they are NOT Suitable for water wash

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

Box Quantity: 400; Inner Box: 100

COIL DATA

Coil Voltage (VDC)		Must Operate Voltage Max (VDC)	Must Release Voltage Min (VDC)	Resistor Values (Ohms ± 10%)	Coil Resistance Without Resistor (Ohms ± 10%)		Coil Resistance With Resistor (Ohms ± 10%)		Rated Current Without Resistor (mA)		Rated Current With Resistor (mA)	
Rated	Max				1.8W	1.9W	1.8W	1.9W	1.8W	1.9W	1.8W	1.9W
12	15.6	7.8	1.2	680	90	75.8	80	67.3	133	158	150	178
24	31.2	15.6	2.4	2700	360	303.2	320	272.6	67	79	75	88

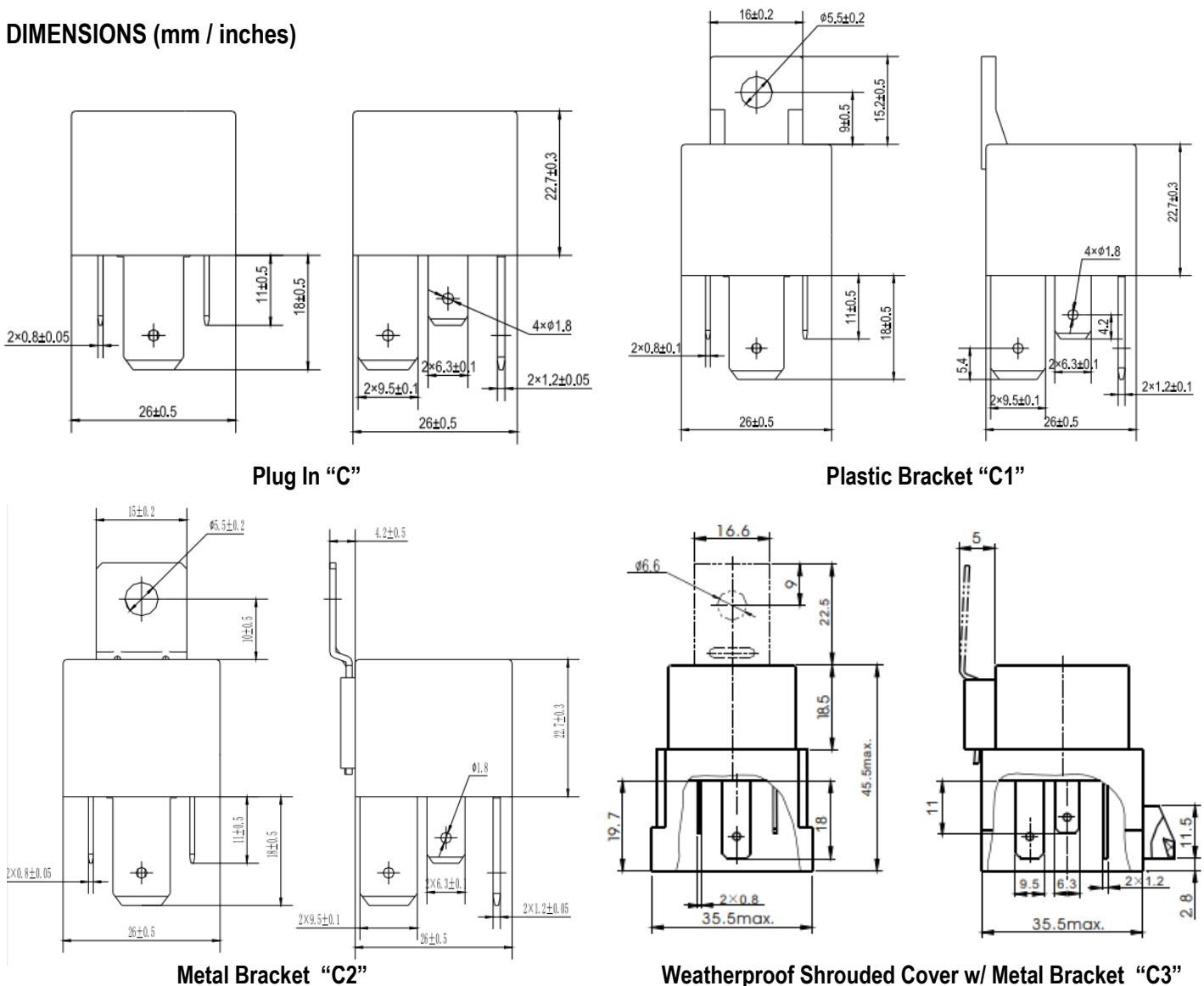
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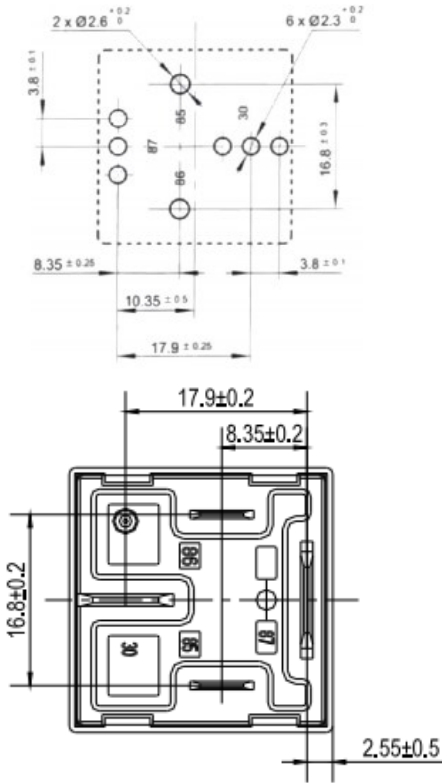
- The use of any coil voltage less than the rated voltage will compromise the operation of the relays.
- Must Operate Voltage and Release Voltages are for test purposes only and are not to be used as design criteria.

CONTACT DATA

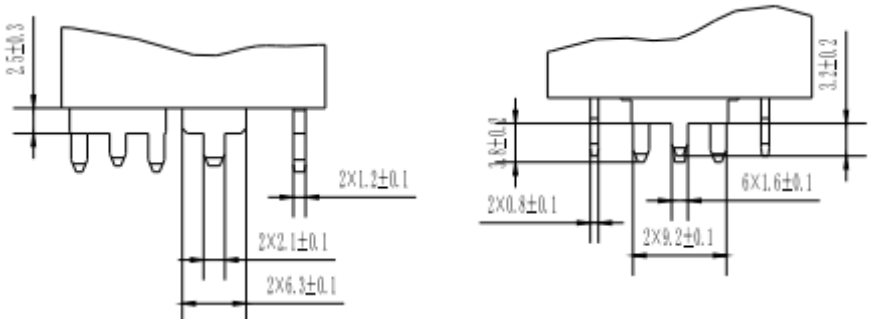
Material	AgSnO2, Ni	
Initial Contact Resistance	≤ 30mΩ initial	
Max Contact Voltage Drop	≤ 50 mV at 10A	
Service Life	Electrical	1 x 10 ⁶ Operations
	Mechanical	1 x 10 ⁷ Operations

DIMENSIONS (mm / inches)



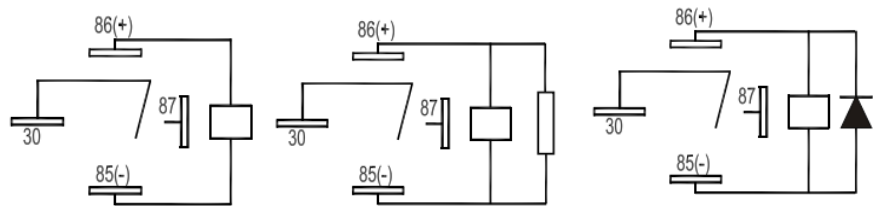


Bottom View



PC Pins "P"

Wiring Diagrams

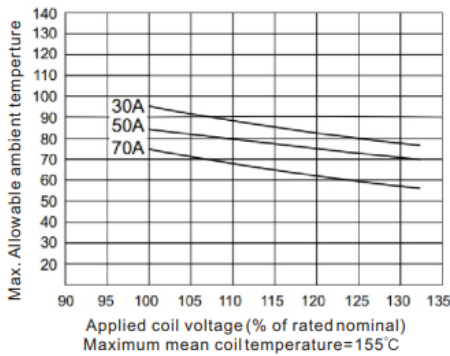


Without Resistor

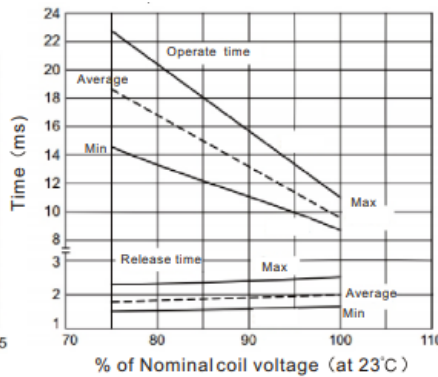
With Resistor

With Diode

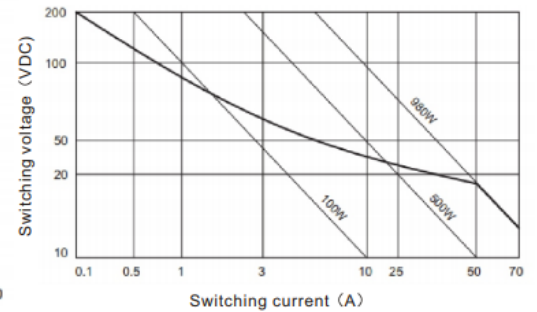
Coil Temperature Rise



Operate/Release Time



Max Value for Switching Capacity



Life Expectancy

