



O/E/N 53 PT

HEAVY DUTY RELAY

FEATURES

- High performance
- Limiting continuous current upto 100A
- 9.5mm Flat contact terminals
- PCB version available
- Dual contacts

APPLICATION

- A/C Blower
- A/C Compressor
- Engine cooling fan
- Radiator fan
- Starter motors
- Rear window defogger
- Battery disconnection

TECHNICAL DATA FOR CONTACT SIDE :

Model	: 53S-PT	53T-PT
Areas of Application	Resistive / Inductive / Capacitive Load	
Contact Configuration	: 1 Form A (1 NO)	1 Form A (1 NO)
Contact Material	: Silver Nickel	Silver Nickel / Tungsten*
Contact Rating at 23°C - 12 VDC (Res.)	: 70A	100A
24 VDC	: 35A	50A
Electrical Life in No. of Operations Min.	: 1×10^5	1×10^5
Mechanical Life in No. of Operations Min.	: 1×10^6	1×10^6
Contact Voltage drop (Max.)	: 50mV @ 10A	200mV @ 20A
Maximum Switching Current @ 12.8 VDC For 3 Sec.	: 150A	350A

*Dual contact with Tungsten pre-contact and Silver Nickel Main Contact

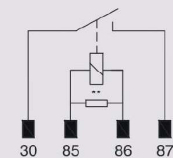
GENERAL DATA FOR COIL SIDE

Nominal Coil Power	: 1.92W (Approx)
Operate Time	: 15 milli Seconds (Typ)
Release Time	: 15 milli Seconds (Typ)

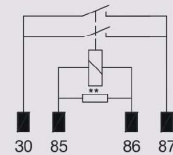
OPERATING CONDITIONS

Ambient Temperature	: -30°C to +85°C
Maximum Temperature	: 155°C
Dielectric Strength	
Between open contacts	: 500 VRMS
Insulation Resistance	: 100 MegaOhms Min. at 500 VDC, 25°C RH 50
Vibration Resistance	: 10-50Hz, 4.4g (Change in switching state not more than 10μS)
Shock Resistance	: 30g, 8mS (Change in switching state not more than 10μS)
Weight	: 45 gms Max.

WIRING DIAGRAM



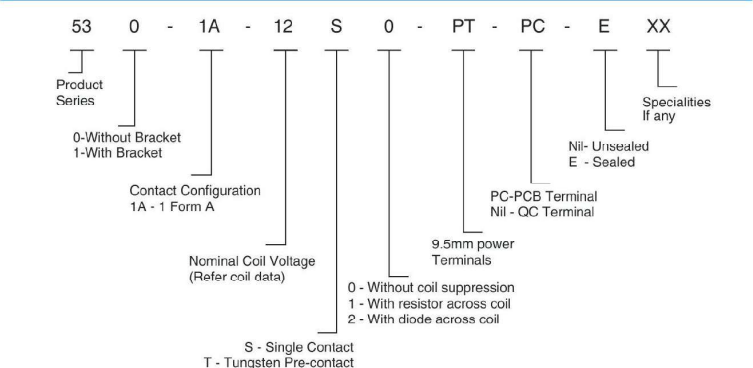
Single Contact



Dual Contact

** Parallel resistor or Diode Optional

HOW TO ORDER



COIL DATA

Nominal Voltage VDC	***Pick-up Voltage VDC (Max) Version S	Pick-up Voltage VDC (Max) Version T	Coil Resistance without parallel resistor in Ohms $\pm 10\%$
12	7.2	9.6	75
24	14.4	19.2	250
48	38.4	36.0	1100
110	88.0	82.5	5500

***Lower pick-up voltages available on request

DIMENSIONS

RELAY WITH QUICK CONNECT TERMINALS

Technical drawing showing three views of a relay with quick connect terminals and its dimensions:

- Front View (Top Left):** Shows a top terminal with a diameter of $\phi 5.20$ and a width of 19.0 . A "NIP OFF PIN" is indicated on the right side. The distance from the top terminal to the bottom terminals is 8.0 . The bottom terminals have a width of 11.0 . The overall width of the bottom terminal block is 2×0.80 and 2×9.50 .
- Side View (Top Right):** Shows the profile of the relay. The total width is 32.0 . The total height is 45.0 . The height of the main body is 25.00 , and the height of the bottom terminal block is 15.00 . The bottom terminals have a width of 2×1.20 and 2×6.30 . The overall width of the bottom terminal block is $SQ. 28.0$.
- Top View (Bottom):** Shows the layout of the terminals. The overall width is 17.00 and the overall height is 17.90 . The distance between the terminals is 8.40 and 3.2 .

Note : Nip - off pin may be removed after soldering and cleaning for ventilation.

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RELAY WITH PCB TERMINAL

2.10
6.30

2.50
3.80
1.90 TYP.
1.90 TYP.
9.50

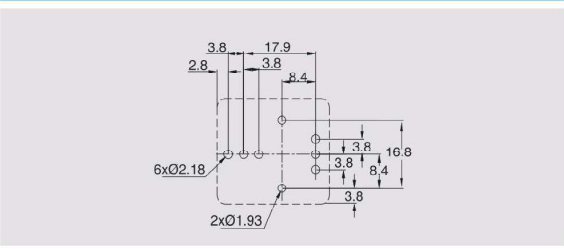
SQ 28.0 max.

3.80 TYP.
3.80 TYP.

MECHANICAL DATA

COVER RETENTION		TERMINAL STRENGTH	
Pull	: 20KgF	Pull	: 10KgF
Push	: 20KgF	Push	: 10KgF

DRILLING PATTERN



AVAILABLE ON REQUEST

- For custom solutions consult factory