

# O/E/N 54

## HEAVY DUTY AUTOMOTIVE POWER RELAY

### FEATURES

- Limiting continuous current upto 70A
- Unique twin contact
- Direct PCB mountable

### APPLICATION

- Glow plug timers
- Start stop
- Starter safely
- Engine cooling fan
- Heating elements
- Heavy duty direction indicators

### TECHNICAL DATA FOR CONTACT SIDE :

Areas of Application	Resistive / Inductive/capacitive Load
Contact Configuration	: 1 Form A (1 NO)
Contact Material	: Silver Alloy
Limiting Current - 13.5 VDC	: 70A at 23°C, 50A at 85°C
24 VDC	: 35A at 23°C, 25A at 85°C
Electrical Life in No. of Operations Min.	
Silver Nickel Alloy	: $5 \times 10^4$ cycles at 13.5 VDC/50A (4 glow plugs)
Silver Tin Alloy	: 100 Hrs at 24 VDC/5A (Flasher load at 90cpm)
	1 x $10^5$ cycles at 13.5 VDC/60A (Res. load)
	1 x $10^5$ cycles at 24 VDC/30A (Res. load)
Mechanical Life in No. of Operations Min. :	1 x $10^6$
Contact Voltage drop at 10 A (Max.) :	50mV
Max. Switching Current	
@ 12VDC For 1 Sec.	: Make - 300A, Break - 70A (Make break ratio 1:10)

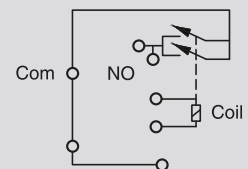
### GENERAL DATA FOR COIL SIDE

Nominal Coil Power	: 2.25W (Approx)
Operate Time	: 10 milli Seconds (Typ)
Release Time	: 5 milli Seconds (Typ)

### OPERATING CONDITIONS

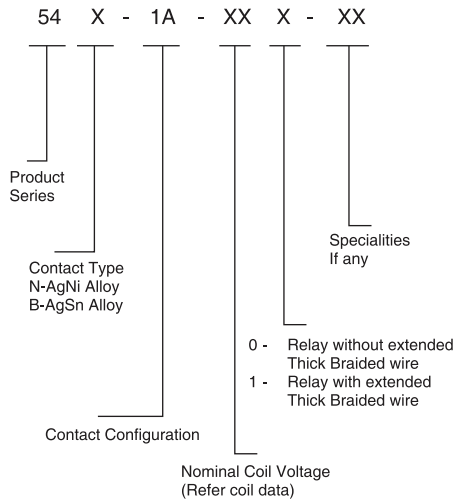
Ambient Temperature	: -40°C to +85°C
Dielectric Strength	
Between open contacts	: 500 VRMS
Insulation Resistance	: 100 MegaOhms Min. at 500 VDC, 25°C RH 50
Vibration Resistance	: 10 - 55Hz, 4.4g
	(Change in switching state not more than 10μS)
Shock Resistance	: 30g, 11mS
	(Change in switching state not more than 10μS)
Weight	: 25 gms Max.

### WIRING DIAGRAM



Relays with Pre-contact

## HOW TO ORDER



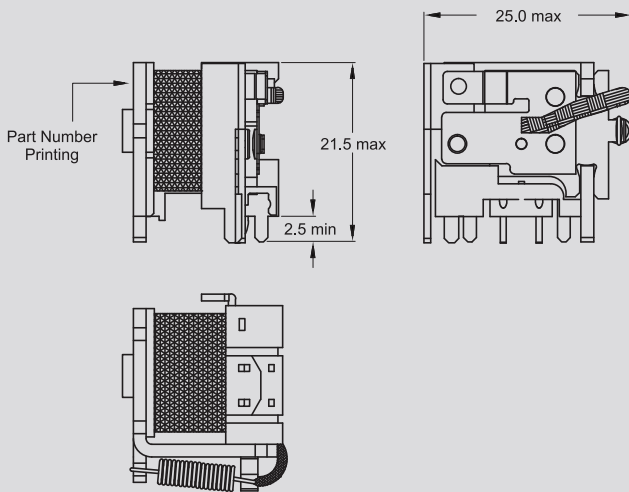
## COIL DATA

Nominal Voltage VDC	*Pick-up Voltage VDC (Max)	Drop - Out Voltage VDC (Min)	Coil Resistance Ohms $\pm 10\%$
12	8.0	1.5	64
24	16.0	2.4	260

\*Lower pick-up voltages available on request

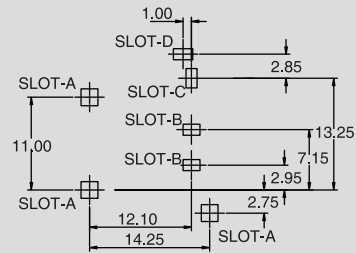
## DIMENSIONS

### WITHOUT EXTENDED BRAIDED WIRE



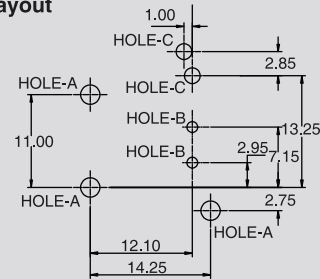
## DRILLING PATTERN

### PC Slot Layout



SLOT - A	SLOT - B	SLOT - C	SLOT - D
SQ 2.0 <sup>+0.1</sup> <sub>-0.0</sub>	SQ 1.3 <sup>+0.1</sup> <sub>-0.0</sub>	1.3 <sup>+0.1</sup> <sub>-0.0</sub> x 2.3 <sup>+0.1</sup> <sub>-0.0</sub>	2.3 <sup>+0.1</sup> <sub>-0.0</sub> x 1.3 <sup>+0.1</sup> <sub>-0.0</sub>

### PC Hole Layout



HOLE - A	HOLE - B	HOLE - C
$\phi 2.30^{+0.1}$ <sub>-0.0</sub>	$\phi 1.3 \pm 0.1$	$\phi 2.1 \pm 0.1$

Note : General Tolerance :  $\pm 0.1$

## AVAILABLE ON REQUEST

- For custom solutions consult factory