

# O/E/N 3572

## AUTOMOTIVE POWER RELAY

### FEATURES

- Direct PCB Mountable
- High Performance
- Suitable for various loads
- Heavy Duty
- Immersion Cleanable Version available

### APPLICATION

- Direction Indicators
- Air-Conditioning Systems
- Body Controllers
- Head Lamp Control
- Ventilation Motors
- Security Systems

### TECHNICAL DATA FOR CONTACT SIDE

AREAS OF APPLICATION	RESISTIVE / INDUCTIVE LOADS	INDICATOR LAMP LOADS**
Contact Configuration	: 1A/1C	1A
Contact Material	: Silver Nickel	Palladium Copper* / Silver Nickel
Contact Rating at 23°C - 12 VDC	: 45 / 30 A	12 A
24 VDC	: 20 / 10 A	
Electrical Life Operations Min.	: $2 \times 10^5$	$5 \times 10^5$
Mechanical Life Operations Min.	: $1 \times 10^7$	$1 \times 10^7$
Contact Voltage Drop at 10 A (Min)	: 30mV	50mV
Maximum Switching Current @ 12.8 VDC For 3 Sec.	: 100A	100A

\*The moving contact (Pdcu) must be connected to positive potential

\*\*Under in troduction

### GENERAL DATA FOR COIL SIDE

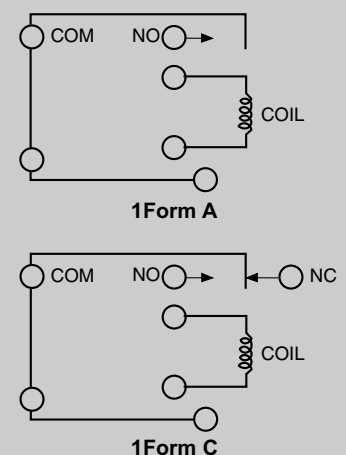
Nominal Coil Power	: 1.6W (Approx)
Operating Power	: 0.9W (Approx)
Operate Time**	: 5 milli Seconds
Release Time**	: 3 milli Seconds

\*\* At nominal voltage without coil suppression (excluding bounce)

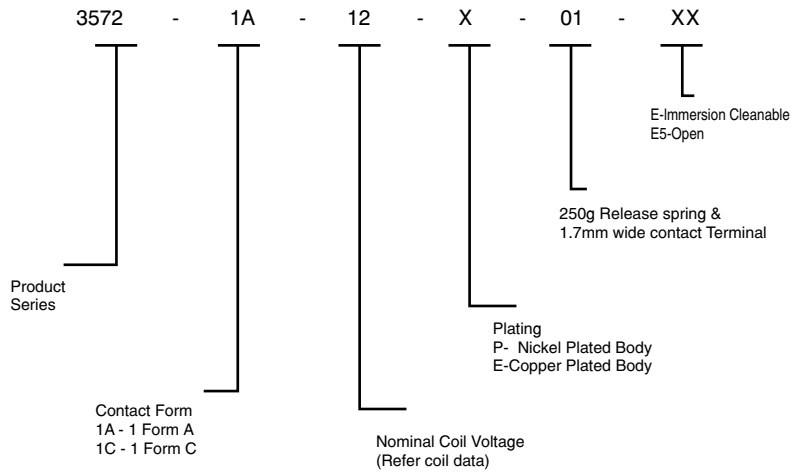
### OPERATING CONDITIONS

Ambient Temperature	: -40°C to +85°C
Maximum Temperature	: 155°C
Dielectric Strength	: 500VRMS
Insulation Resistance	: 100 Ms Min. At 500 VDC, 25°C RH 50
Vibration Resistance without change in the switching state > 10μS	: 10-200Hz, 20-40g
Shock Resistance without change in the switching state > 10μS	: 30g, 11mS

### CIRCUIT DIAGRAM



## HOW TO ORDER

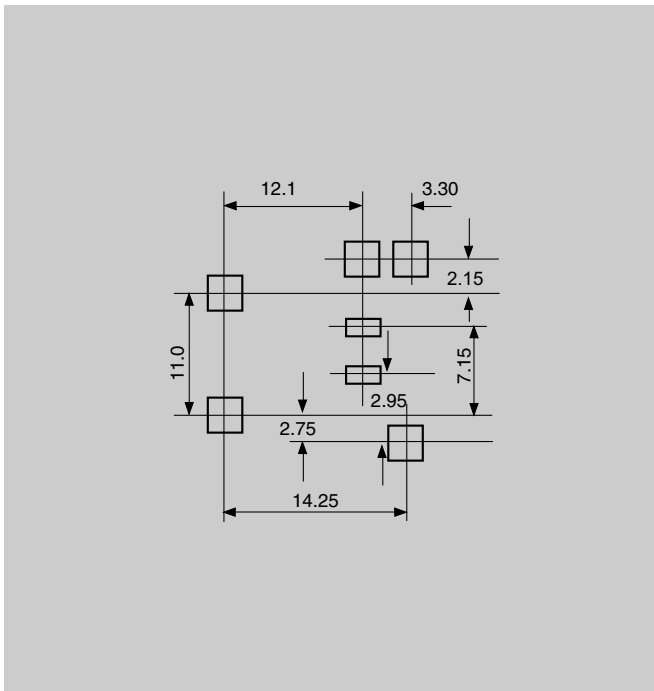


## COIL DATA

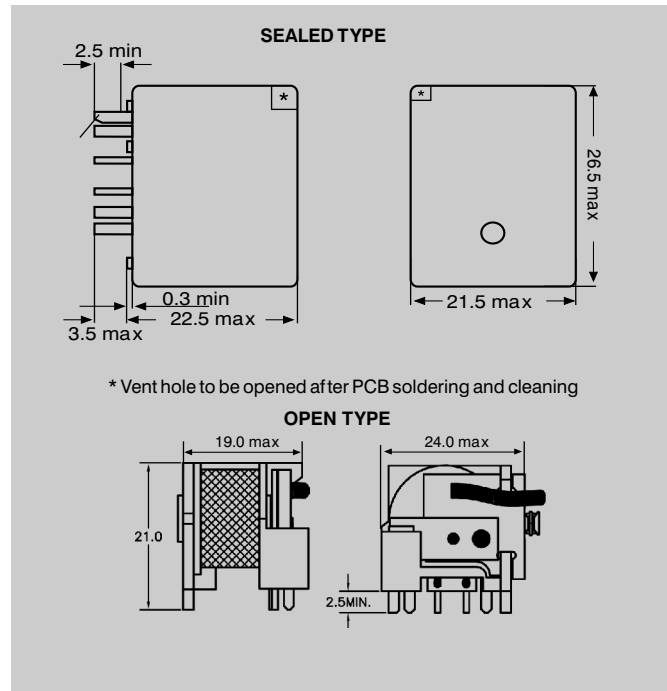
Nominal Voltage VDC	*Pick-up Voltage VDC (Max)	Drop-out Voltage VDC (Min)	Coil Resistance Ohms $\pm$ 10%
06	3.3	0.6	19
12	6.8	1.2	90
24	13.9	2.4	362

\*Lower pick-up voltages available on request

## DRILLING PATTERN



## DIMENSIONS



## AVAILABLE ON REQUEST

- High Temperature winding wire
- Special coil resistance & pick-up
- Resistor / Diode across coil
- For other custom solutions consult factory

## DATA ON VARIOUS TESTS CONDUCTED FOR OPERATING CONDITIONS \*

TEST	TEST CONDITION	RESULT
Continuous Energisation test at Extreme temperature Conditions	Relay kept at 100 <sup>o</sup> C Coil Voltage : 14 VDC Load given : 30 A @ 12 VDC Duration : 5 Sec. On, 5 Sec. OFF No. of operation : 50000 The above test repeated at - 30 <sup>o</sup> C for 50000 operations	Relays successfully completed 100000 operations at given load
Thermal cycling	Relay subjected to :- -30 <sup>o</sup> C to + 100 <sup>o</sup> C in 2 Hrs. with coil ON +100 <sup>o</sup> C for 2 Hrs. with coil ON +100 <sup>o</sup> C to - 30 <sup>o</sup> C in 2 Hrs. with 1 Hrs. Coil ON & 1 Hrs. Coil OFF -30 <sup>o</sup> C for two Hrs. with Coil ON No. of Cycles : 3	All operating parameters within the specifications after test
Shock Voltage	Relay is subjected to :- Max. Voltage : 100VDC Shock Wave : Exponential Damping vibration Time : 500 micro Sec. Period : 30 Sec. Test Time : 10 Hrs.	After the test, all operating parameters of the relay are within specification.
Dropping Impact	Relays dropped from a height of 1 Meter to a concrete floor	No change in operating parameters of the relay.
Jump Start	24 VDC for 1 minute conducting nominal current at 23 <sup>o</sup> C	Withstood successfully
Corrosion Resistance	5% Sodium Chloride solution applied to relay for 48 Hrs.	No damage to relay parts
Water Resistance test	IP 67 (For Sealed Version)	

\*Typical values for relays with 12 VDC coil. For higher severity please consult factory