



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 x 10 ⁵	5 x 10 ⁵
Mechanical Life Operations Min.	1 x 10 ⁷	1 x 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

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GENERAL DATA FOR COIL SIDE

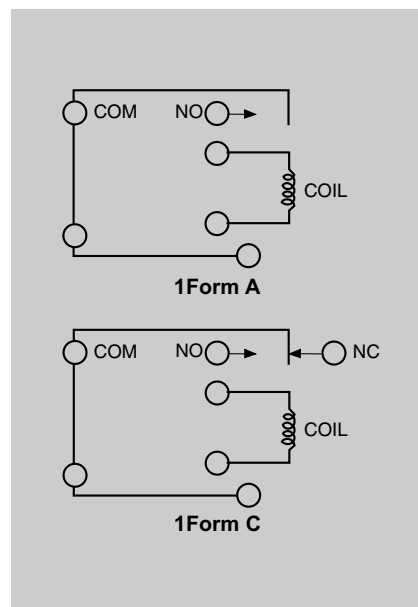
Nominal Coil Power	1.6W (Approx)
Operating Power	0.9W (Approx)
Operate Time**	5 milli Seconds
Release Time**	3 milli Seconds

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

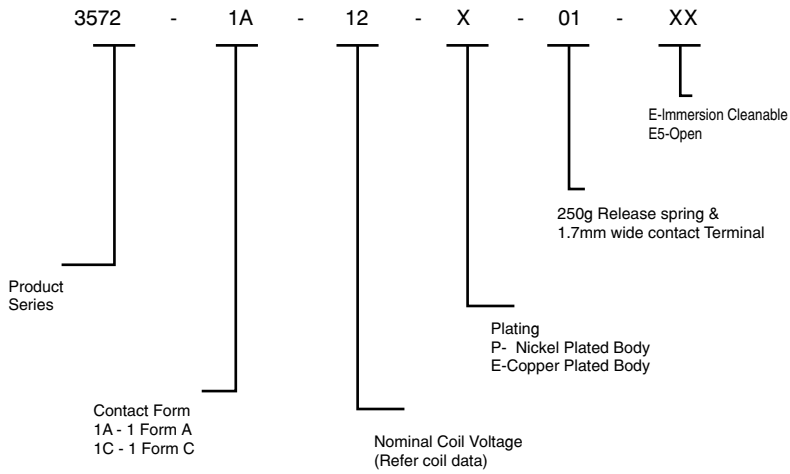
OPERATING CONDITIONS

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

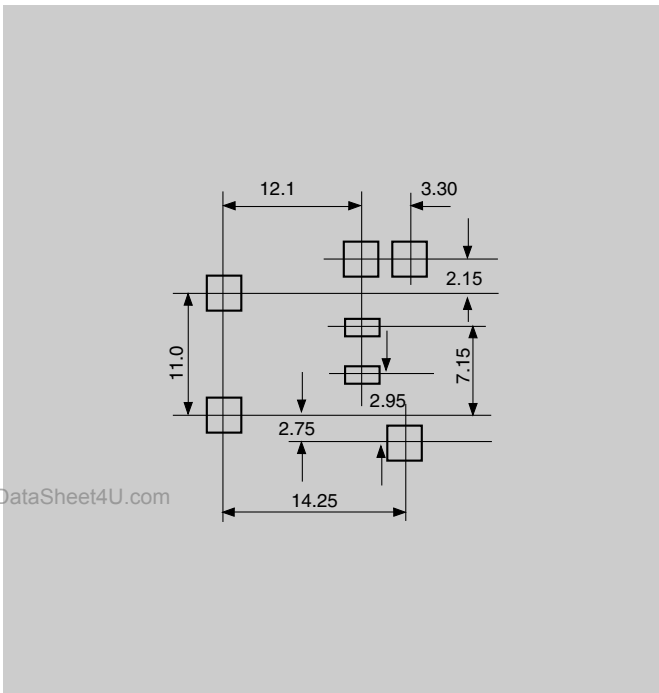


COIL DATA

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

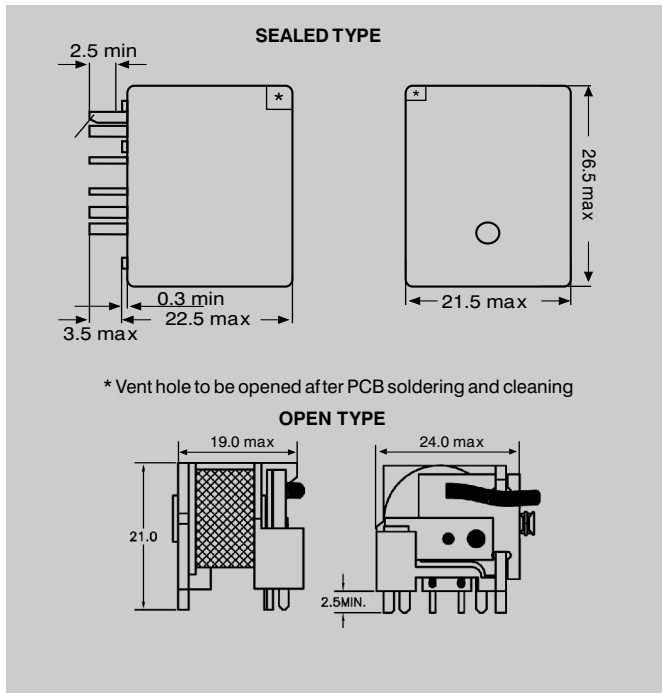
*Lower pick-up voltages available on request

DRILLING PATTERN



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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°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°C for 50000 operations	Relays successfully completed 100000 operations at given load
Thermal cycling	Relay subjected to :- -30°C to + 100°C in 2 Hrs. with coil ON +100°C for 2 Hrs. with coil ON +100°C to - 30°C in 2 Hrs. with 1 Hrs. Coil ON & 1 Hrs. Coil OFF -30°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°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