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 Load**
Contact Configuration		:	1 Form A, 1 NO / 1 Form C, 1 CO
Contact Material		:	Silver Nickel
Contact Rating at 23°C -	12 VDC	:	45 / 30 A
	24 VDC	:	20 / 10 A
Electrical Life Operations Min.		:	2×10^5
Mechanical Life Operations Min.		:	1×10^7
Contact Voltage Drop at 10 A (Max.)		:	50mV
Maximum Switching Current @ 12.8 VDC For 3 Sec.		:	100A

GENERAL DATA FOR COIL SIDE

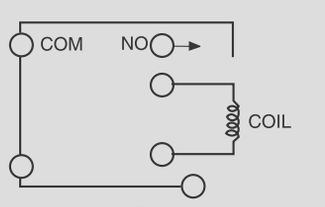
Nominal Coil Power	:	1.6W (Approx.)
Operating Power	:	0.9W (Approx.)
Operate Time**	:	10 milli Seconds (Approx.)
Release Time**	:	10 milli Seconds (Approx.)

** At nominal voltage (excluding bounce)

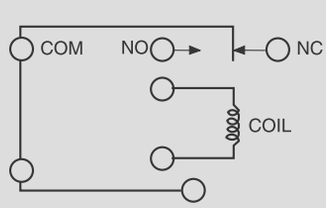
OPERATING CONDITIONS

Ambient Temperature	:	-40°C to +85°C
Maximum Temperature	:	155°C
Dielectric Strength	:	500VRMS
Insulation Resistance	:	100MΩ 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
Weight	:	25gms Max.

CIRCUIT DIAGRAM

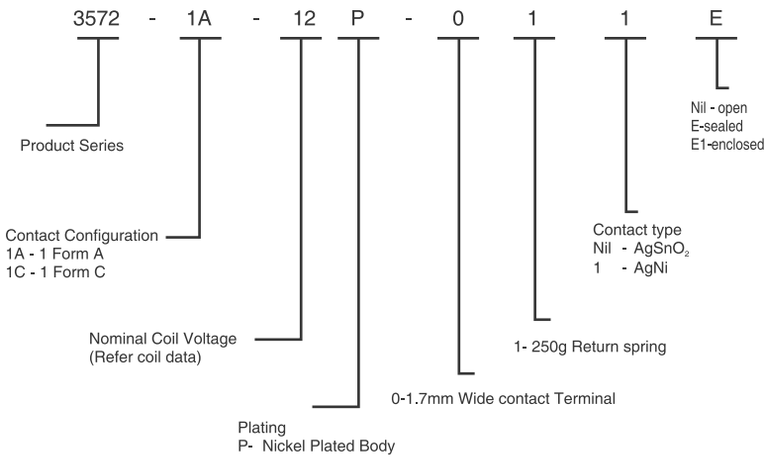


1Form A



1Form C

HOW TO ORDER



COIL DATA

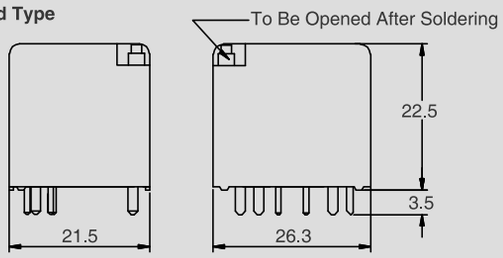
Nominal Voltage VDC	*Pick-up Voltage VDC (Max)	Drop-out Voltage VDC (Min)	Coil Resistance Ohms ± 10%
06	3.3	0.6	19
12	8.0	1.2	90
24	16.0	2.4	360
48	32.0	4.8	1440

*Lower pick-up voltages available on request

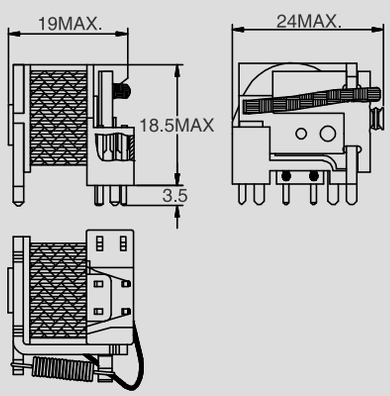
DIMENSIONS

1 FORM C

Sealed Type

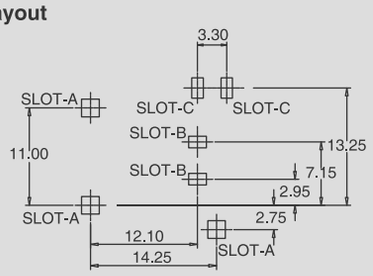


Open Type



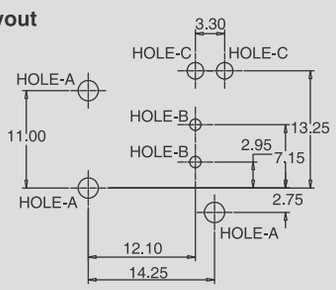
DRILLING PATTERN

PC Slot Layout



SLOT - A	SLOT - B	SLOT - C
SQ $2.0^{+0.1}_{-0.0}$	SQ $1.3^{+0.1}_{-0.0}$	$1.3^{+0.1}_{-0.0}$ x $2.3^{+0.1}_{-0.0}$

PC Hole Layout



HOLE - A	HOLE - B	HOLE - C
ø$2.30^{+0.1}_{-0.0}$	ø1.3±0.1	ø1.9±0.1

Note : General Tolerance : ±0.1

AVAILABLE ON REQUEST

- **For other custom solutions consult factory**

DATA ON VARIOUS TESTS CONDUCTED FOR OPERATING CONDITIONS*

TEST	TEST CONDITION	RESULT
Electrical life	Relay kept at 100^{0}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^{0}C for 50000 operations	Relays successfully completed 100000 operations at given load
Thermal cycling	Relay subjected to :- -30^{0}C to + 100^{0}C in 2 Hrs. with coil ON, +100^{0}C for 2 Hrs. with coil ON, +100^{0}C to - 30^{0}C in 2 Hrs. with 1 Hr. Coil ON & 1 Hr. Coil OFF -30^{0}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^{0}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