



O/E/N 74

AUTOMOTIVE MINI POWER RELAY

FEATURES

- High performance
- 6.3mm flat terminals
- Current rating up to 40A
- Suitable couplers available
- Optional sealing

APPLICATION

- Horn control
- Starter motors
- Defogger
- Radiator fan
- A/C Controls
- Security systems

TECHNICAL DATA FOR CONTACT SIDE :

Model	: 74	74-SC
Areas of Application	Resistive / Inductive / Head Lamp / Capacitive Load	
Contact Configuration	: 1 Form A, 1 NO / 1 Form C, 1 CO	1 Form A, 1 NO / 1 Form C, 1 CO
Contact Material	: Silver Nickel	Silver Nickel / Silver Tin Oxide
Contact Rating at 23°C-12VDC (Res.) NO	: 30	40
NC	: 20	30
Electrical Life Operations Min.	: 1×10^5	1×10^5
Mechanical Life Operations Min.	: 1×10^6	1×10^6
Contact Voltage Drop at 20 A (Max.)	: 200mV	200mV
Maximum Switching Current @ 12.8 VDC For 3 Sec.	: 120A	150A

GENERAL DATA FOR COIL SIDE

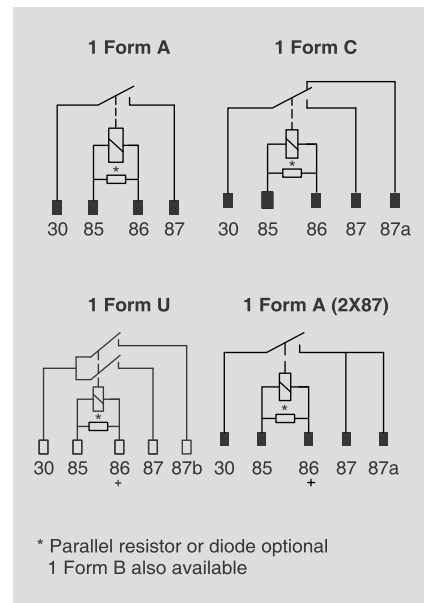
Nominal Coil Power	: 1.6W (Approx)
Operating Power	: 0.75W (Approx)
Operate Time**	: 15 milli Seconds
Release Time**	: 15 milli Seconds

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

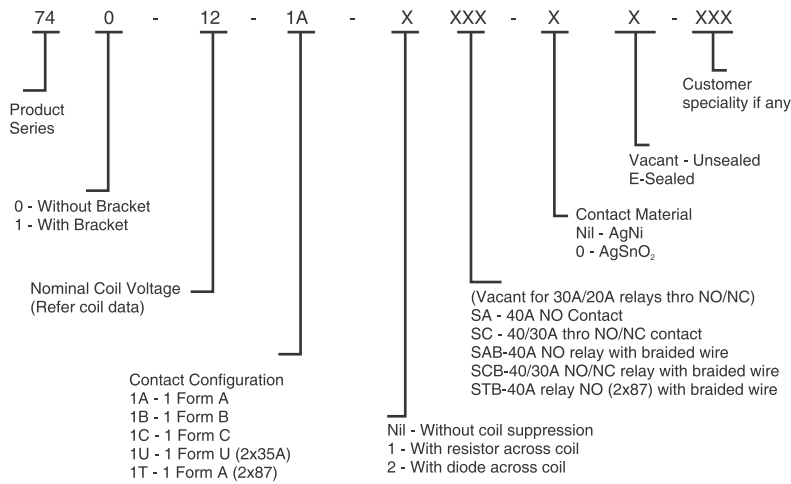
OPERATING CONDITIONS

Ambient Temperature	: -30°C to +85°C
Maximum Temperature	: 155°C
Dielectric Strength	: 500VRMS
Insulation Resistance	: 100 Meg. Ohms Min. At 500 VDC, 25°C RH 50
Vibration Resistance (without change in the switching state > 10μS)	: 10-2000Hz 4.4g
Shock Resistance (without change in the switching state > 10μS)	: 30g, 8mS
Weight	: 45 gms

CIRCUIT DIAGRAM



HOW TO ORDER



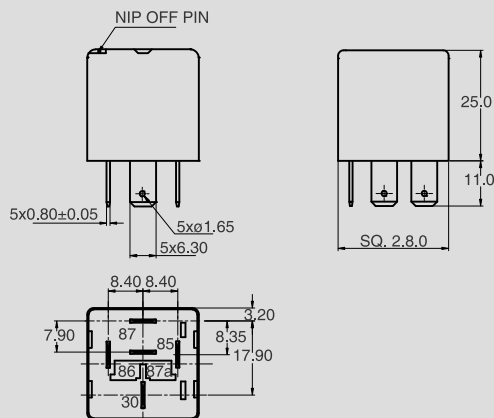
COIL DATA

Nominal Voltage VDC	***Pick-up Voltage VDC (Max)	Drop-out Voltage VDC (Min)	Coil Resistance Ohms (± 10%)
12	8.0	1.2	85
24	17.0	2.4	305
48	32.0	4.8	1200

***Lower pick-up voltages available on request

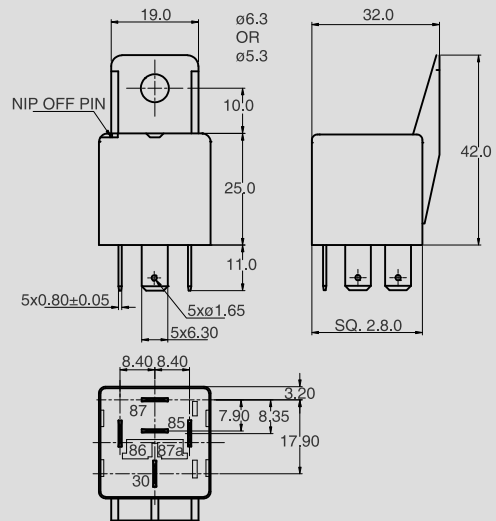
DIMENSIONS

Relay without Bracket



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

Relay with Bracket



MECHANICAL DATA

COVER RETENTION

Pull : 20KgF

Push : 20KgF

TERMINAL STRENGTH

Pull : 10KgF

Push : 10KgF

AVAILABLE ON REQUEST

- Special Contact arrangements
- For other custom solutions consult factory

DATA ON VARIOUS TESTS CONDUCTED FOR OPERATING CONDITIONS

TEST	TEST CONDITION	RESULT
Electrical life	Relay kept at 100°C Coil Voltage : 14 VDC Load given : 25 A @ 12 VDC Duration : 5 Sec. On, 5 Sec. OFF No. of operation : 50000	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	Horizontal Plane:23rev. / Min. Water Pressure:0.03 Mpa Test time:10 Min	No water ingress inside the relay
Continuous test : Eneegisation	A load of 30A (res) @ 13.5 VDC Test time : 10 Min	Relay withstood the test

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