



O/E/N 73

AUTOMOTIVE MICRO POWER RELAY

FEATURES

- High performance
- 4.8 & 6.3 mm Flat terminals
- PC Version available
- Suitable couplers available
- Optional sealing

APPLICATION

- Head lamp control
- Starter motors
- Defogger
- Radiator fan
- A/C Controls

TECHNICAL DATA FOR CONTACT SIDE :

Model	: 1 Form A	1 Form C	High Current
Areas of Application		Resistive / Capacitive / Inductive Load	
Contact Configuration	: NO	NO/NC	NO/NC
Contact Material	: Silver Alloy	Silver Alloy	Silver Alloy
Contact Rating at 23°C - 12 VDC	: 20A	20/10A	35/20A
24 VDC	: 15A	15/10A	20/10A
Electrical Life Operations Min.	: 1×10^5	1×10^5	1×10^5
Mechanical Life Operations Min.	: 1×10^6	1×10^6	1×10^6
Contact Voltage drop at 20 A (Max.)	: 100mV	100mV	100mV
Maximum Switching Current			
@ 12.8 VDC For 3 Sec.	: 100A	100A	100A

GENERAL DATA FOR COIL SIDE

Nominal Coil Power	: 1.3W (Approx.)
Operating Power	: 0.97W (Approx.)
Operate Time*	: 10 milli Seconds (max.)
Release Time*	: 7 milli Seconds (max.)

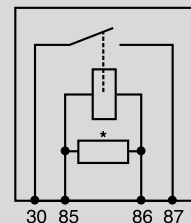
* At nominal voltage without coil suppression (excluding bounce)

OPERATING CONDITIONS

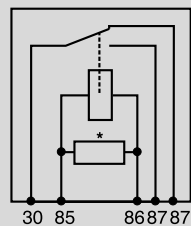
Ambient Temperature	: -30°C to +85°C
Maximum Temperature	: 155°C
Dielectric Strength	: 500VRMS
Insulation Resistance	: 100 Meg. Ohms Min. At 500 VDC, 25°C RH 50
Vibration Resistance (without change in the switching state > 10μS)	: 10-500Hz 5g
Shock Resistance (without change in the switching state > 10μS)	: 20g, 8mS
Weight	: 20 gms

CIRCUIT DIAGRAM

1 Form A

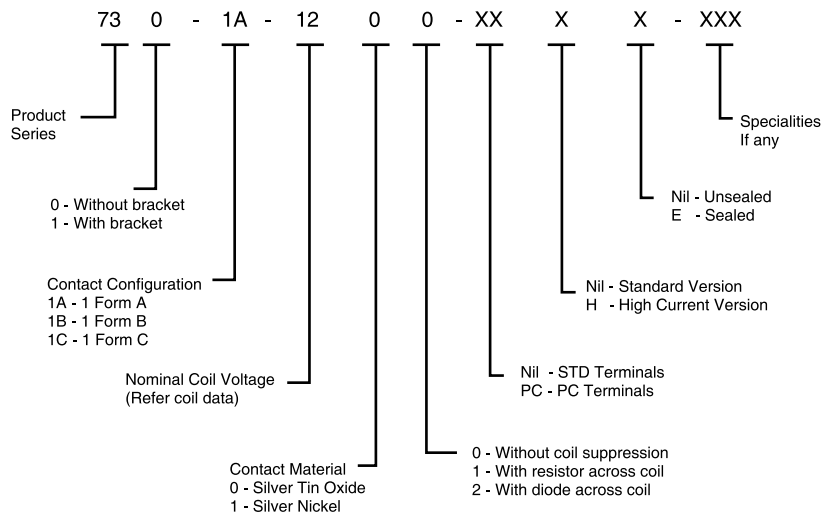


1 Form C



* Parallel resistor or diode optional

HOW TO ORDER



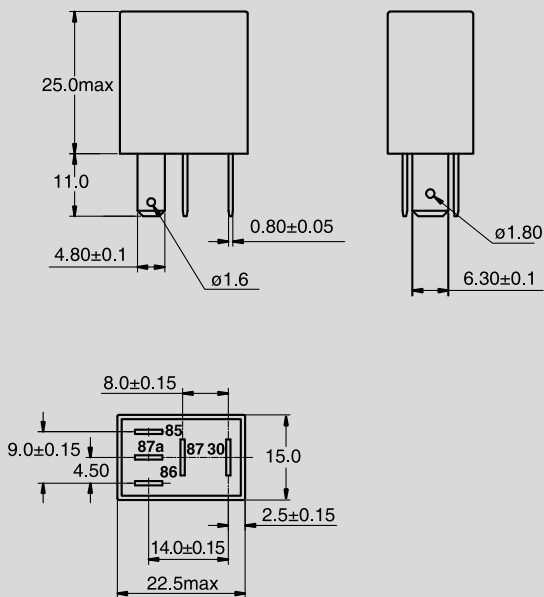
COIL DATA

Nominal Voltage VDC	**Pick-up Voltage VDC (Max)	Drop-out Voltage VDC (Min)	Coil Resistance Ohms $\pm 10\%$
06	4.5	0.6	26
12	8.2	1.2	110
24	16	2.4	430

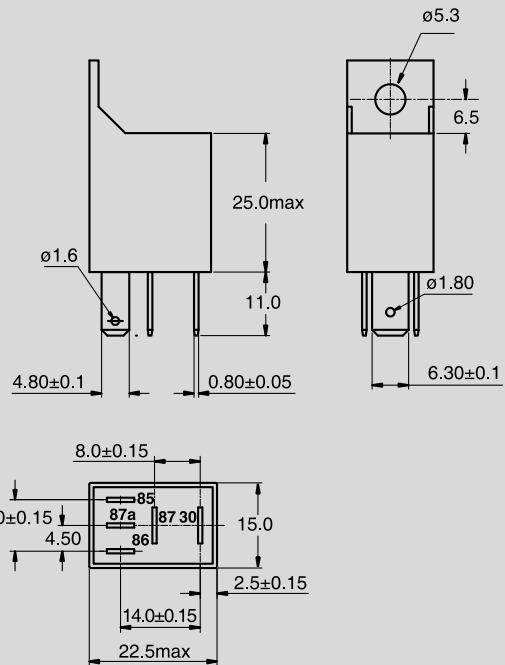
**Lower pick-up voltages available on request

DIMENSIONS

Relay without Bracket



Relay with Bracket



MECHANICAL DATA

COVER RETENTION

Pull	: 20KgF
Push	: 20KgF

TERMINAL STRENGTH

Pull	: 10KgF
Push	: 10KgF

AVAILABLE ON REQUEST

- Cover with notches
- For other custom solutions consult factory

DATA ON VARIOUS TESTS CONDUCTED FOR OPERATING CONDITIONS*

TEST	TEST CONDITION	RESULT
Electrical life	Relay kept at 100 ^o C Coil Voltage : 14 VDC Load given : 20 A @ 12 VDC Duration : 5 Sec. On, 5 Sec. OFF No. of operation : 50000 The above test repeated at - 30 ^o C for 50000 operations	Relays successfully completed 100000 operations at given load
Thermal cycling	Relay subjected to :- -30 ^o C to + 100 ^o C in 2 Hrs. with coil ON +100 ^o C for 2 Hrs. with coil ON +100 ^o C to - 30 ^o C in 2 Hrs. with 1 Hrs. Coil ON & 1 Hrs. Coil OFF -30 ^o 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 normal current at 23 ^o C	Withstood successfully
Corrosion Resistance	5% Sodium Chloride solution applied to relay for 48 Hrs.	No damage to relay parts
Water Resistance test AS per JIS D 0203 R2	Horizontal Plane:23rev. / Min. Water Pressure:0.03 Mpa Test time:10 Min	No water ingress inside the relay

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