



IOEC
In&Out Electronic Corp.

AD/ADQ

► FEATURES

- Small size, light weight.
- Low coil power consumption.
- Switching capacity up to 20A.
- PC board mounting.
- Suitable for automobile, automation system, electronic equipment, instrument, meter, telecommunication facilities and remote control facilities.



18.2*17.4*13.8
Q Type:22.8*22.3*20.4

► CONTACT DATA

Contact Arrangement	2A, 2C	
Contact Material	Ag•SnO ₂	
Contact Rating (resistive)	20A/14VDC	
Max. Switching Power	280W	
Max. Switching Voltage	40VDC	Max. Switching Current:20A
Contact Resistance or Voltage drop	≤30mΩ (or 30mV at 10A max make time 15s)	
Operation life	Electrical	2*10 ⁵
	Mechanical	10 ⁷

► COIL PARAMETER

Coil voltage (VDC)		Coil resistance (Ω±10%)	Pickup voltage(max) (VDC) (58% of rated voltage)	release voltage(min) (VDC) (9% of rated voltage)	Coil power consumption (W)	Operate Time (ms)	Release Time (ms)
Rated	Max.						
12	18	180/240/260	6.9	1	0.8/0.6/0.56	≤3	≤1.2

CAUTION: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Sound Pre. Characteristics (Q type):

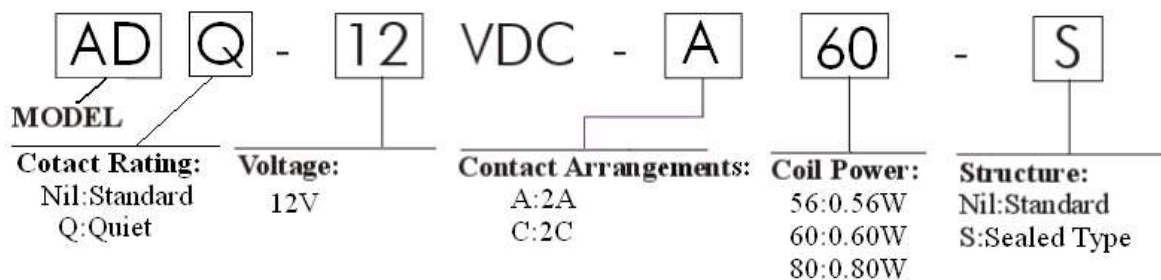
Operation noise: <50db

Coil voltage :12VDC

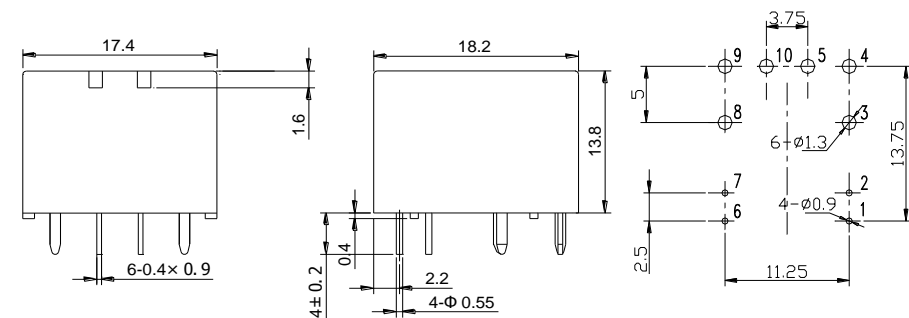
► OPERATION CONDITION

Insulation Resistance	100MΩ min (at 500VDC)
Dielectric Strength	Between contacts
	Between contact and coil
Shock resistance	Functional: 300m/s ² Destruction: 450 m/s ²
Vibration resistance	10~100Hz 100 m/s ² Double amplitude 1.5mm
Terminals strength	5N
Solder ability	250°C±2°C 3±0.5s
Ambient Temperature	-40~85°C
Relative Humidity	85% (at 40°C)
Weight	15g(Q type); 10g

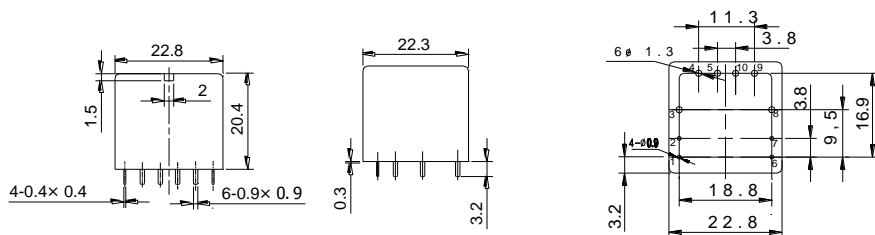
► ORDERING INFORMATION



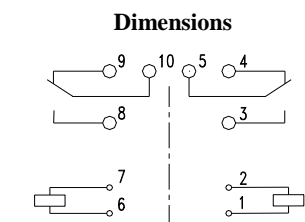
► DIMENSIONS (UNIT: mm)



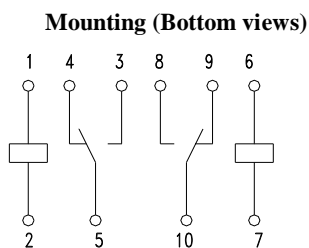
Standard Type



Quiet Type



(Standard Type)



(Quiet Type)

Wiring diagram(Bottom views)

mm	inch
0.3	0.012
0.4	0.016
0.55	0.022
0.9	0.035
1.3	0.051
1.5	0.059
1.6	0.063
2.0	0.079
2.2	0.087
2.5	0.098
3.2	0.126
3.6	0.142
3.75	0.148
3.8	0.150
5.0	0.197
9.5	0.374
11.25	0.443
13.75	0.541
13.8	0.543
17.4	0.685
18.2	0.717
18.8	0.740
20.4	0.803
22.3	0.878
22.8	0.898

- NOTES** 1).Dimensions are in millimeter.
 2).Inch equivalents are given for general information only.