● Features

- ■ 20A Switching capability
- ■ 1 Form A contact arrangement
- ■ 2.8mm QC terminals available
- ■ Ambient temperature range: -40℃ to 125℃
- ■ Environmental friendly product (RoHS compliant)
- ■ Dimension: 16.0 x 15.0 x 23.7 mm

● Application

- ■ Central Door Lock System / Headlight Control / Fuel Pump Control / Horn Control / A/C Compressor Clutch / Car Alarm System / Wiper Control / Speed-limit Indicator Control, etc.

● Contact Data

Contact Arrangement	1A
Contact Material	Ag Alloy
Contact Rating	20A 14VDC, 10A 28VDC
Max. Switching Power	280W
Max. Switching Voltage	30VDC
Max. Switching Current	20A
Contact Resistance	≦100mΩ
Electrical Endurance	1×10^5
Mechanical Endurance	1×10^7

● Coil Parameter

Coil Voltage (VDC)		Coil Resistance (Ω±10%) at 23℃		Pickup Voltage (max) (VDC)	Release Voltage (min) (VDC)	Coil Power Consumption (W)	
Rated	Max.	without resistor	with R1 resistor			without resistor	with R1 resistor
12	18	150	122.9	8.4	1.2	approx. 0.96	approx. 1.1
24	36	600	522.6	16.8	2.4		

● Operation Condition

Insulation Resistance		100MΩ min (at 500VDC)
Dielectric Strength	Between Contacts	500VAC, 50Hz/60Hz 1 min.
	Between Contact and Coil	500VAC, 50Hz/60Hz 1 min.
Shock Resistance	Operating Extremes	10G Min.
	Damage Limits	100G Min.
Vibration Resistance		10~55Hz double amplitude 1.5mm
Ambient Temperature		-40~125℃ (no freezing)
Operate Time		≦10ms
Release Time		≦5ms
Weight		Approx. 13g

● Ordering Information

		AF	-12D	R	-S	(XXX)
Model						
Coil Voltage	**12**: 12VDC **24**: 24VDC					
Paralleled Component	**Nil**: Standard					
	R: with resistor(680Ω 12V) (2700Ω 24V)					
	D1: with diode(the diode anode on #85 terminal)					
	D2: with diode(the diode anode on #86 terminal)					
Construction	**Nil**: Flux tight **S**: Sealed					
Special Code	**Nil**: Standard **XXX**: Customer special requirement					

● Dimensions (UNIT: mm)

Outline Dimensions
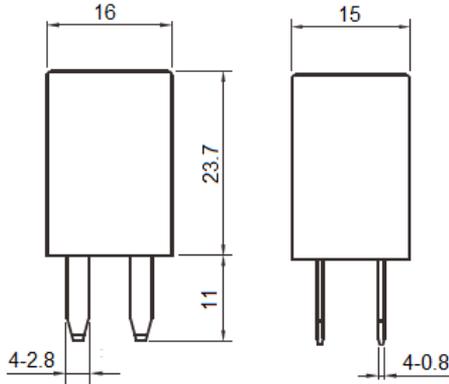
Mounting (Bottom views)
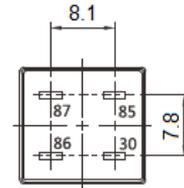
Wiring Diagram (Bottom views)

	R	D1	D2

● Engineering Data

Max. DC Load Disconnect Capacity

Coil Working Range
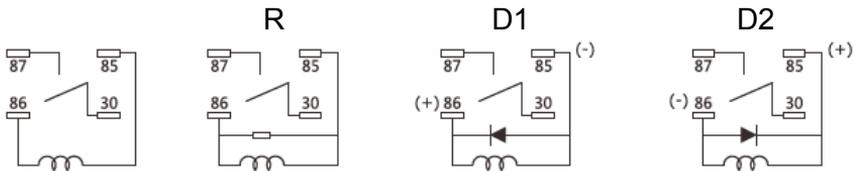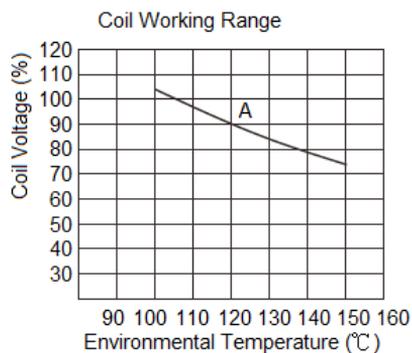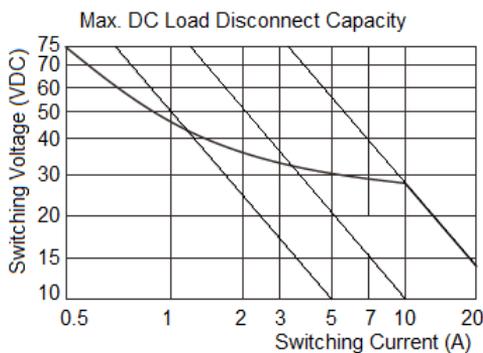
Disclaimer

The specification is for reference only. See to"Terminology and Guidelines" for more information. Specifications subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact IOEC for the technical service. However, it is the user's responsibility to determine which product should be used only.