

Main Feature



1. Designed for 30A switching load to comply with automotive system use.
2. Compatible plug-in terminal available.
3. Standard type contact form SPDT and SPST are available for customers' selection.
4. Operating ambient temperature range from -40°C to +125°C.
5. Comply with RoHS, REACH and ELV regulations

Contact Rating

Load Type	ZEM (DM/LM)	ZEM (D/L)
Rated Load (Resistive)	30A 12VDC	NO: 30A 12VDC
	15A 24VDC	15A 24VDC
	-	NC: 20A 12VDC
	-	10A 24VDC
Rated Carrying Current	30A	30A
Max. Allowable Voltage	DC 30V	DC 30V
Max. Allowable Current	30A	30A
Max. Allowable Power Force	360W	360W
Contact Material	Ag Alloy	Ag Alloy
Contact Form	SPST	SPDT

Application

Wiper Control, Fuel Pump Control, Horn Control, Lighting Control, Electronic Sunroof Control

Performance (at Initial Value)

- Contact Resistance 100 mΩ Max. @1A,6VDC
- Operate Time 10mSec. Max.
- Release Time 10mSec. Max.
- Dielectric Strength:
 - Between Coil & Contact..... 500VAC at 50/60 Hz for one minute
 - Between Contacts 500VAC at 50/60 Hz for one minute
- Insulation Resistance 100MΩ Min. at 500VDC
- Max. On/Off Switching:
 - Electrical 6 Cycles per Minute
 - Mechanical..... 300 Cycles per Minute
- Temperature Range -40~+125 °C
- Humidity Range 45~80% RH.
- Coil Temperature Rise 60 °C Max.

- Vibration:
 - Endurance 10 to 55 Hz dual amplitude width 1.5 mm
 - Error Operation 10 to 55 Hz dual amplitude width 1.5mm
- Shock:
 - Endurance 1,000 m/S²
 - Error Operation 100 m/S²
- Life Expectancy:
 - Electrical..... 10⁵ Operations at Rated Resistive Load
 - Mechanical 10⁷ Operations at No load condition
- Weight.....About 20g

Safety Standard & File Number

- NIL

Coil Specification (at 20°C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ($\Omega \pm 10\%$)	Power Consumption ($W \pm 10\%$)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
ZEM-D	12	133	90	Abt. 1.6	8	1.2	130%
	24	67	360		16	2.4	
ZEM-L	12	100	120	Abt. 1.2	8	1.2	
	24	50	480		16	2.4	

Ordering Information

ZEM - S - 1 12 D M R

Options:

Nil: Standard

R: Coil Parallel With 1/2W Resistor
680 Ω for Coil Voltage 12VDC
2700 Ω for Coil Voltage 24VDC

D1: Coil Parallel with Diode & the Positive Pole
"⊕" on #85 Terminal

D2: Coil Parallel with Diode & the Negative Pole
"⊖" on #85 Terminal

Contact Form:

Nil: One Form C

M: One Form A

Coil Sensitivity:

D: Standard DC

L: High DC

Coil Voltage:

12: 12V, 24: 24V

Number of Pole:

1: One Pole

Type of Sealing:

S: RT I Dust Protected

Type:

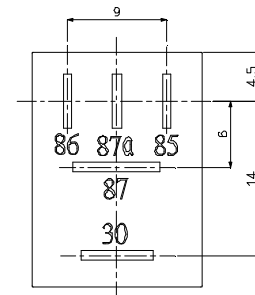
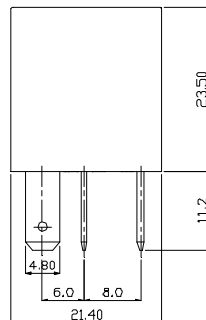
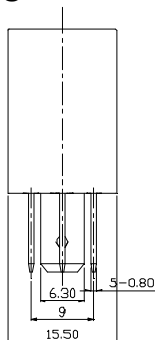
ZEM

Classification

Model	ZEM			
Coil Sensitivity	Standard DC		High DC	
Contact Form	1C	1A	1C	1A
No Bracket Standard	ZEM-S-1□□D	ZEM-S-1□□DM	ZEM-S-1□□L	ZEM-S-1□□LM
Coil Additional Parts	Please add your choice Coil Parallel "R · D1 or D2" at the back of all above-mentioned part number			

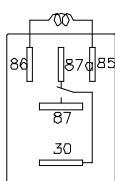
Dimension ($\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.1\text{mm}$)

ZEM-S

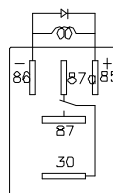


BOTTOM VIEW

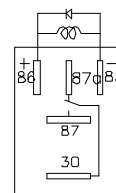
Electric diagrams



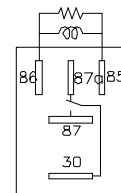
1C



"D1" Type (1C)



"D2" Type (1C)



"R" Type (1C)

V.01DS

