

FEATURES

- Miniature type, general purpose applications
- 2 to 4 poles contact form
- DC and AC coil available
- Various mounting options include socket, PCB and flange
- UL, CUR approved

TYPICAL APPLICATIONS

- Machine tools
- Medical equipment
- Industrial control
- Transportation

CONTACT RATING

| Form | 2 Form C (2Z), 3 Form C (3Z) | | 4 Form C (4Z) | |
|------------------------|------------------------------|------------------|------------------|------------------|
| | Standard | Heavy Duty | Standard | Heavy Duty |
| Rated Load | 5A, 220VAC/30VDC | 7A, 220VAC/30VDC | 3A, 220VAC/30VDC | 5A, 220VAC/30VDC |
| Max. Switching Current | 5A | 7A | 3A | 5A |
| Max. Switching Voltage | 250VAC/125VDC | | | |
| Max. Switching Power | 1100VA/150W | 1540VA/210W | 660VA/90W | 1100VA/150W |

UL/CUR RATING

| Form | 2 Form C (2Z) | 3 Form C (3Z) | 4 Form C (4Z) |
|-------------|------------------|------------------|------------------|
| General Use | 3A, 240VAC/30VDC | | |
| Resistive | 7A, 250VAC/30VDC | 5A, 250VAC/30VDC | 5A, 250VAC/30VDC |

CONTACT DATA

| | | |
|----------------------------|-------------------------|--|
| Material | AgCe | |
| Initial Contact Resistance | 50 mΩ max. at 1A, 30VDC | |
| Service Life | Mechanical | 2 x 10 ⁷ ops. |
| | Electrical | 2 x 10 ⁵ ops. for standard version 10 ⁵ ops. for heavy duty version |

COIL DATA

| Type | Coil Voltage Code | Nominal Voltage (VDC/VAC) | Resistance (Ω) ±10% | | Must Operate Voltage max. (VDC/VAC) | Must Release Voltage min. (VDC / VAC) |
|------|-------------------|---------------------------|---------------------|-------|-------------------------------------|---------------------------------------|
| | | | Power Consumption | | | |
| DC | 005 | 5 | 27.5 | 0.9W | 4.0 | 0.5 |
| | 006 | 6 | 40 | | 4.8 | 0.6 |
| | 012 | 12 | 160 | | 9.6 | 1.2 |
| | 024 | 24 | 650 | | 19.2 | 2.4 |
| | 048 | 48 | 2600* | | 38.4 | 4.8 |
| | 110 | 110 | 11000* | | 88.0 | 11.0 |
| AC | 006A | 6 | 11.5 | 1.2VA | 4.8 | 1.8 |
| | 012A | 12 | 46 | | 9.6 | 3.6 |
| | 024A | 24 | 184 | | 19.2 | 7.2 |
| | 048A | 48 | 735 | | 38.4 | 14.4 |
| | 120A | 120 | 4550* | | 96.0 | 36.0 |
| | 220A/240A | 220/240 | 14400* | | 176.0 | 66.0 |

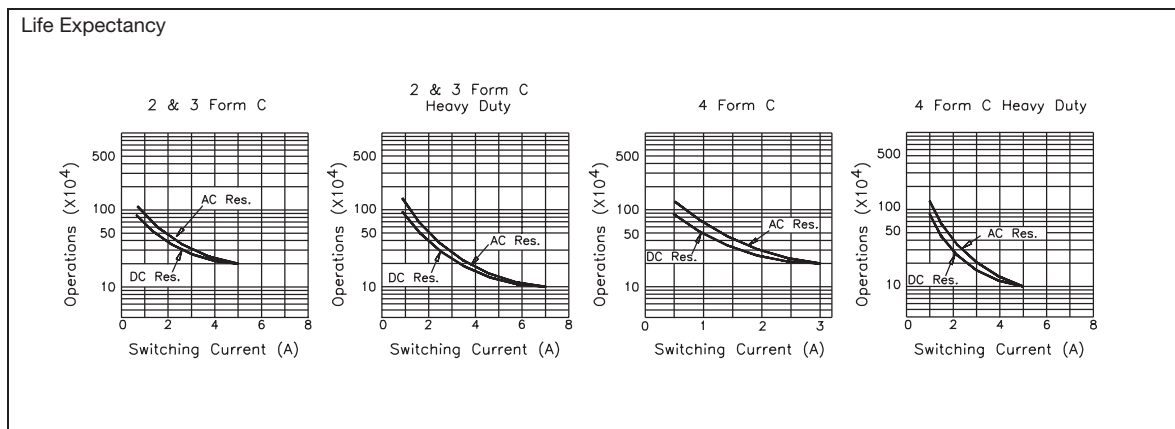
CHARACTERISTICS

| | |
|-----------------------|--|
| Operate Time | 25 ms. |
| Release Time | 25 ms. |
| Insulation Resistance | 1000 MΩ, at 500 VDC, 50%RH |
| Dielectric Strength | 1500 Vrms, 1 min. between coil and contacts 1000 Vrms, 1 min. between open contacts |
| Shock Resistance | 10 g, 11ms. functional; 100 g, destructive |
| Vibration Resistance | DA 1.5 mm, 10 - 55 Hz |
| Ambient Temperature | -55°C to 70°C |
| Weight | 37 g, approx. |

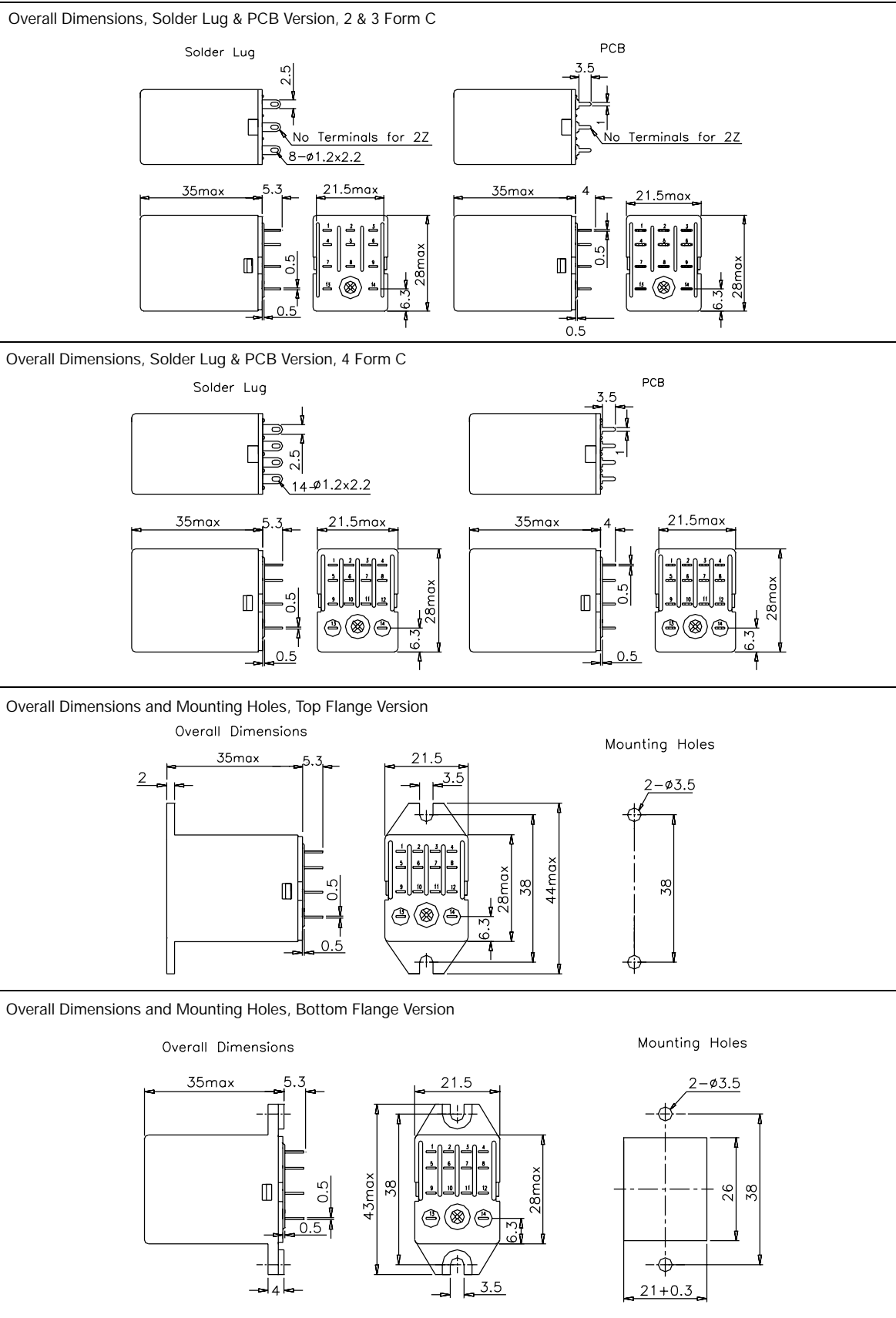
ORDERING DESIGNATION

| | | | | | | | | |
|--|----------|-----|-----|----|---|---|---|---|
| Example: | HG4104 / | 012 | A - | 4Z | 4 | D | C | H |
| Model | | | | | | | | |
| Coil Voltage Code | | | | | | | | |
| DC/AC Nil: DC Coil; A: AC Coil | | | | | | | | |
| Contact Form 2Z: 2 Form C 3Z: 3 Form C 4Z: 4 Form C | | | | | | | | |
| Version Nil: Solder Lug 4: PCB 6: Top Flange 6A: Bottom Flange 6B: Lateral Flange | | | | | | | | |
| Indicator Nil: Without LED; D: With LED | | | | | | | | |
| Contact Material C: AgCe; S: AgSnInO | | | | | | | | |
| Duty Version Nil: Standard; H: Heavy Duty | | | | | | | | |

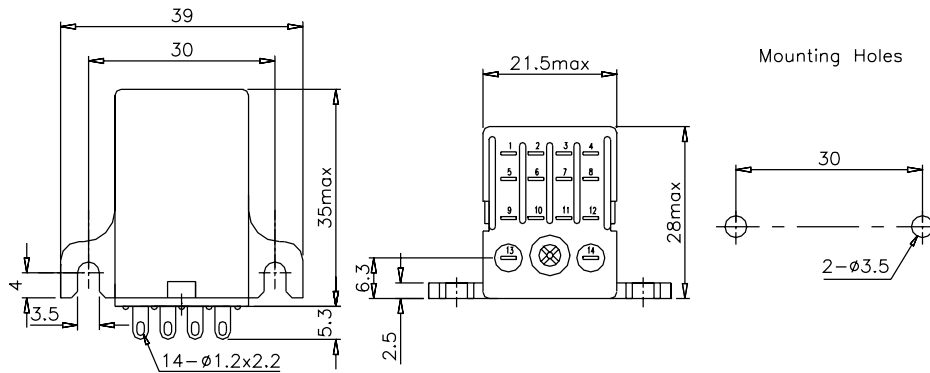
REFERENCE CURVES



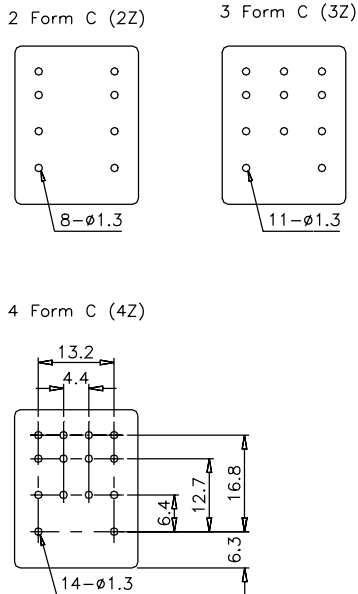
OVERALL DIMENSIONS, MOUNTING HOLES AND WIRING DIAGRAMS (mm)



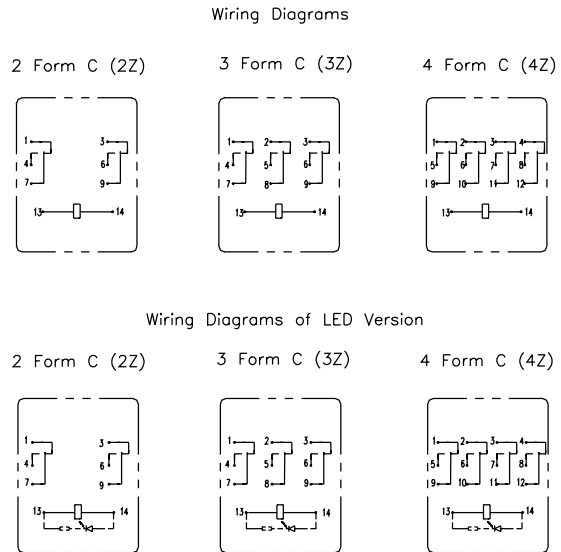
Overall Dimensions and Mounting Holes, Lateral Flange Version



Mounting Holes PCB Version (Bottom View)



Wiring Diagrams (Bottom View)



NOTES

1. All parameters, unless otherwise specified, are measured at ambient temperature 23°C.
2. Coil resistance with * mark is ±15%.
3. Custom-made services available with operational quantity. Please let us know your special requirements.
4. Specifications subject to change without prior notice.