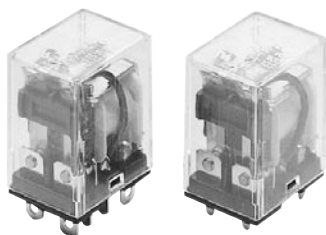


## »» Features



- ☐ 10 general purpose Power Relay.
- ☐ Contact rating up to 12A 250VAC (DPNO).
- ☐ Epoxy sealed type and flux free.
- ☐ Quick connect terminal or PCB terminal available.
- ☐ Special version of larger contact gap 1.9mm.  
(IEC 255/VDE 0436) (DPNO Only)
- ☐ Optional to be equipped with lamp, stud, diode,  
flashed contact, and flanged cover.

## »» Type List

| Terminal style | Contact form | Designation (provided with) | Enclosure style |                 |                |                      |
|----------------|--------------|-----------------------------|-----------------|-----------------|----------------|----------------------|
|                |              |                             | Straight cover  | Flanged cover   | Sealed type    | Sealed type washable |
| Quick terminal | DPDT         | -----                       | SCL-DPDT        | SCL-DPDT-C1     | SCL-DPDT-V     | SCL-DPDT-S           |
|                | DPNO         |                             | SCL-DPNO        | SCL-DPNO-C1     | SCL-DPNO-V     | SCL-DPNO-S           |
|                | DPDT         | Diode                       | SCL-D-DPDT      | SCL-D-DPDT-C1   | SCL-D-DPDT-V   | SCL-D-DPDT-S         |
|                | DPNO         |                             | SCL-D-DPNO      | SCL-D-DPNO-C1   | SCL-D-DPNO-V   | SCL-D-DPNO-S         |
|                | DPDT         | Stud                        | SCL-G-DPDT      | SCL-G-DPDT-C1   | SCL-G-DPDT-V   | SCL-G-DPDT-S         |
|                | DPNO         |                             | SCL-G-DPNO      | SCL-G-DPNO-C1   | SCL-G-DPNO-V   | SCL-G-DPNO-S         |
|                | DPDT         | Lamp                        | SCL-L-DPDT      | SCL-L-DPDT-C1   | SCL-L-DPDT-V   | SCL-L-DPDT-S         |
|                | DPNO         |                             | SCL-L-DPNO      | SCL-L-DPNO-C1   | SCL-L-DPNO-V   | SCL-L-DPNO-S         |
| PCB terminal   | DPDT         | -----                       | SCL-1-DPDT      | SCL-1-DPDT-C1   | SCL-1-DPDT-V   | SCL-1-DPDT-S         |
|                | DPNO         |                             | SCL-1-DPNO      | SCL-1-DPNO-C1   | SCL-1-DPNO-V   | SCL-1-DPNO-S         |
|                | DPDT         | Diode                       | SCL-1-D-DPDT    | SCL-1-D-DPDT-C1 | SCL-1-D-DPDT-V | SCL-1-D-DPDT-S       |
|                | DPNO         |                             | SCL-1-D-DPNO    | SCL-1-D-DPNO-C1 | SCL-1-D-DPNO-V | SCL-1-D-DPNO-S       |
|                | DPDT         | Stud                        | SCL-1-G-DPDT    | SCL-1-G-DPDT-C1 | SCL-1-G-DPDT-V | SCL-1-G-DPDT-S       |
|                | DPNO         |                             | SCL-1-G-DPNO    | SCL-1-G-DPNO-C1 | SCL-1-G-DPNO-V | SCL-1-G-DPNO-S       |
|                | DPDT         | Lamp                        | SCL-1-L-DPDT    | SCL-1-L-DPDT-C1 | SCL-1-L-DPDT-V | SCL-1-L-DPDT-S       |
|                | DPNO         |                             | SCL-1-L-DPNO    | SCL-1-L-DPNO-C1 | SCL-1-L-DPNO-V | SCL-1-L-DPNO-S       |
|                | DPDT         | Manual                      | SCL-1-M-DPDT    | SCL-1-M-DPDT-C1 | -----          | -----                |
|                | DPNO         |                             | SCL-1-M-DPNO    | SCL-1-M-DPNO-C1 | -----          | -----                |

## »» Ordering Information

SCL    -    1    -    L    -    DPDT    -    F    -    C1  
 1            2            3            4            5            6

1. SCL    -- Basic series designation (1.0 mm thick)

2. Blank    -- Quick terminal

1            -- PCB terminal

3. Blank -- Without special features  
 L -- Provided with pilot light  
 D -- Diode across coil  
 G -- Provided with stud secured to base  
 M -- Provided with manual operator  
 H -- 2 mm contact gap (For DPNO and DC coil type only)
4. DPDT -- Double pole double throw  
 DPNO -- Double pole normally open

5. Blank -- Standard type  
 F -- Class F
6. Blank -- Straight cover  
 C1 -- Flanged cover  
 V -- Sealed type  
 S -- Sealed type washable

### »» Contact Rating

|                |                        |
|----------------|------------------------|
| Resistive load | 10A 240VAC , 10A 28VDC |
|----------------|------------------------|

### »» Coil Rating (DC)

#### ◆ Standard Type

| Rated voltage<br>(V) | Rated current<br>±10 % at 23 °C<br>(mA) | Coil resistance<br>±10 % at 23 °C<br>(Ω) | Max. continuous<br>voltage<br>at 70 °C | Pick up<br>voltage(Max)<br>at 23 °C | Drop out<br>voltage(Min)<br>at 23 °C | Power consumption<br>at rated<br>voltage |
|----------------------|-----------------------------------------|------------------------------------------|----------------------------------------|-------------------------------------|--------------------------------------|------------------------------------------|
| 6                    | 150                                     | 40                                       | 110 % of<br>rated<br>voltage           | 75 % of<br>rated<br>voltage         | 10 % of<br>rated<br>voltage          | approx. 0.9W                             |
| 9                    | 100                                     | 90                                       |                                        |                                     |                                      |                                          |
| 12                   | 75                                      | 160                                      |                                        |                                     |                                      |                                          |
| 15                   | 60                                      | 250                                      |                                        |                                     |                                      |                                          |
| 24                   | 37                                      | 650                                      |                                        |                                     |                                      |                                          |
| 48                   | 19                                      | 2600                                     |                                        |                                     |                                      |                                          |
| 60                   | 15                                      | 4000                                     |                                        |                                     |                                      |                                          |
| 110                  | 10                                      | 11000                                    |                                        |                                     |                                      |                                          |
| 120                  | 11                                      | 11000                                    |                                        |                                     |                                      |                                          |

#### ◆ SCL-H Type

| Rated voltage<br>(V) | Rated current<br>±10 % at 23 °C<br>(mA) | Coil resistance<br>±10 % at 23 °C<br>(Ω) | Max. continuous<br>voltage<br>at 70 °C | Pick up<br>voltage(Max)<br>at 23 °C | Drop out<br>voltage(Min)<br>at 23 °C | Power consumption<br>at rated<br>voltage |
|----------------------|-----------------------------------------|------------------------------------------|----------------------------------------|-------------------------------------|--------------------------------------|------------------------------------------|
| 3                    | 400                                     | 7.5                                      | 115 % of<br>rated<br>voltage           | 80 % of<br>rated<br>voltage         | 10 % of<br>rated<br>voltage          | approx. 1.2W                             |
| 6                    | 200                                     | 30                                       |                                        |                                     |                                      |                                          |
| 9                    | 133.3                                   | 67.5                                     |                                        |                                     |                                      |                                          |
| 12                   | 100                                     | 120                                      |                                        |                                     |                                      |                                          |
| 24                   | 50                                      | 480                                      |                                        |                                     |                                      |                                          |
| 48                   | 25                                      | 1920                                     |                                        |                                     |                                      |                                          |
| 60                   | 20                                      | 3000                                     |                                        |                                     |                                      |                                          |
| 100                  | 12                                      | 8330                                     |                                        |                                     |                                      |                                          |
| 110                  | 10.9                                    | 10080                                    |                                        |                                     |                                      |                                          |
| 120                  | 10                                      | 12000                                    |                                        |                                     |                                      |                                          |

## »» Coil Rating (AC)

| Rated voltage<br>(V) | Coil resistance<br>$\pm 10\%$ at 23 °C<br>( $\Omega$ ) | Max. continuous<br>voltage<br>at 70 °C | Pick up<br>voltage(Max)<br>at 23 °C | Drop out<br>voltage(Min)<br>at 23 °C | Power consumption<br>at rated<br>voltage |
|----------------------|--------------------------------------------------------|----------------------------------------|-------------------------------------|--------------------------------------|------------------------------------------|
| 12                   | 40                                                     | 110 % of<br>rated<br>voltage           | 85 % of<br>rated<br>voltage         | 30 % of<br>rated<br>voltage          | approx. 1.2VA                            |
| 24                   | 160                                                    |                                        |                                     |                                      |                                          |
| 100                  | 3400                                                   |                                        |                                     |                                      |                                          |
| 110                  | 3400                                                   |                                        |                                     |                                      |                                          |
| 115                  | 3400                                                   |                                        |                                     |                                      |                                          |
| 120                  | 3400                                                   |                                        |                                     |                                      |                                          |
| 220                  | 13600                                                  |                                        |                                     |                                      |                                          |
| 230                  | 13600                                                  |                                        |                                     |                                      |                                          |
| 240                  | 13600                                                  |                                        |                                     |                                      |                                          |

## »» Specification

|                                      |                               |                                                           |
|--------------------------------------|-------------------------------|-----------------------------------------------------------|
| Contact material                     | AgCdO alloy                   |                                                           |
| Contact resistance <sup>(1)</sup>    | 30 m $\Omega$ Max.            |                                                           |
| Operate time <sup>(1)</sup>          | 25 ms Max.                    |                                                           |
| Release time <sup>(1)</sup>          | 25 ms Max.                    |                                                           |
| Insulation resistance <sup>(1)</sup> | 100 M $\Omega$ Min. (DC 500V) |                                                           |
| Dielectric strength <sup>(1)</sup>   | Between open contact          | : AC 1000V , 50/60Hz 1 min.                               |
|                                      | Between contact and coil      | : AC 1500V , 50/60Hz 1 min.                               |
|                                      | Between contact circuits      | : AC 1500V , 50/60Hz 1 min.                               |
| Vibration resistance                 | Operating extremes            | 10~55Hz , amplitude 1.0 mm                                |
|                                      | Damage limits                 | 10~55Hz , amplitude 1.0 mm                                |
| Shock resistance                     | Operating extremes            | 20G                                                       |
|                                      | Damage limits                 | 100G                                                      |
| Life expectancy                      | Mechanical                    | 10,000,000 operations<br>(frequency 18,000 operations/hr) |
|                                      | Electrical                    | 100,000 operations<br>(frequency 1,800 operations/hr)     |
| Operating ambient temperature        | -25~+70 °C (no freezing)      |                                                           |
| Weight                               | Approx. 35 g                  |                                                           |

Note : (1) initial value

## »» Safety Approval

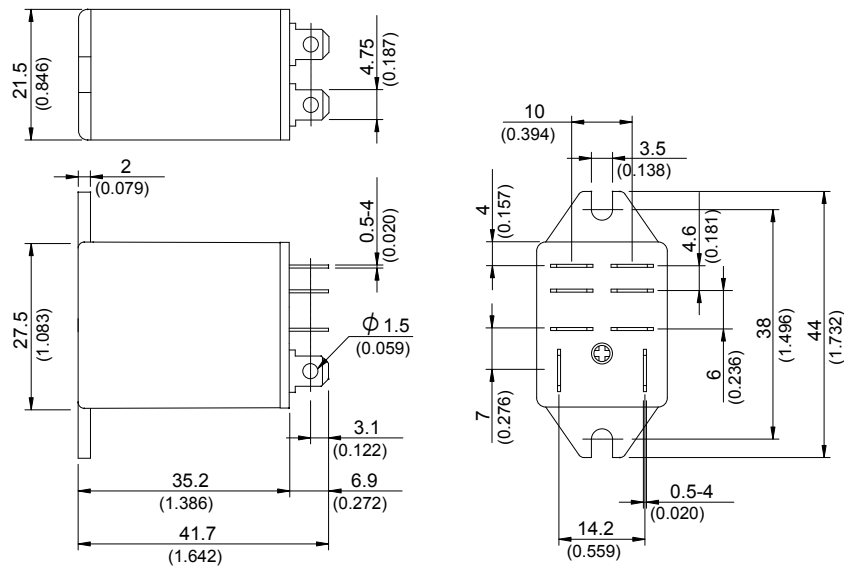
| Certified | UL / CUL | CSA     | TUV         | FIMKO |
|-----------|----------|---------|-------------|-------|
| File No.  | E88991   | LR90143 | R3-09452079 | 12746 |

## >>> Safety Approval Rating

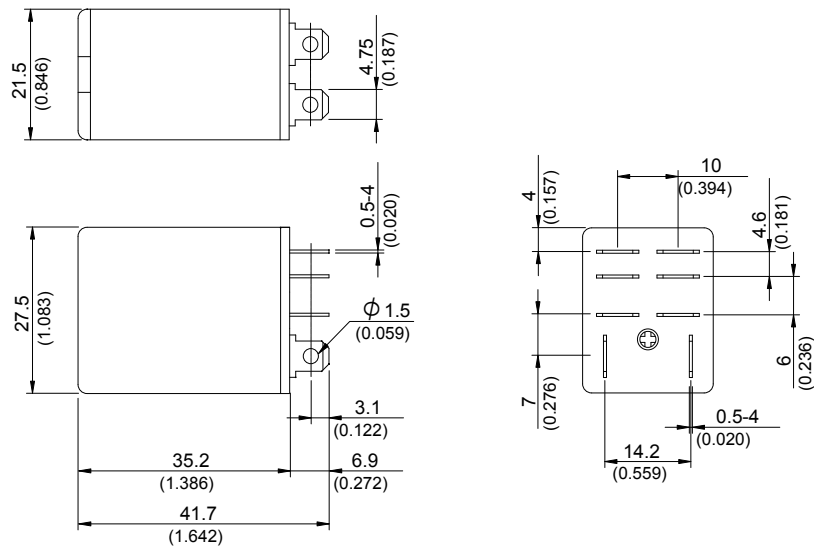
| UL / CUL                                                                                                                             | CSA                                                                                             | TUV                     | FIMKO                                 |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------|
| 10A 277VAC<br>15A 125VAC<br>10A 28VDC<br>1/3HP 7.5FLA 125VAC<br>1/2HP 5.0FLA 250VAC<br>1/3HP 3.0FLA 277VAC<br>15A 240VAC (DPNO ONLY) | 10A 277VAC<br>10A 28VDC<br>1/2HP 7.5FLA 125VAC<br>1/3HP 5.0FLA 240VAC<br>15A 240VAC (DPNO ONLY) | 10A 250VAC<br>10A 30VDC | 10A 250VAC (DPDT)<br>15A 250VAC(DPNO) |

## >>> Outline Dimensions

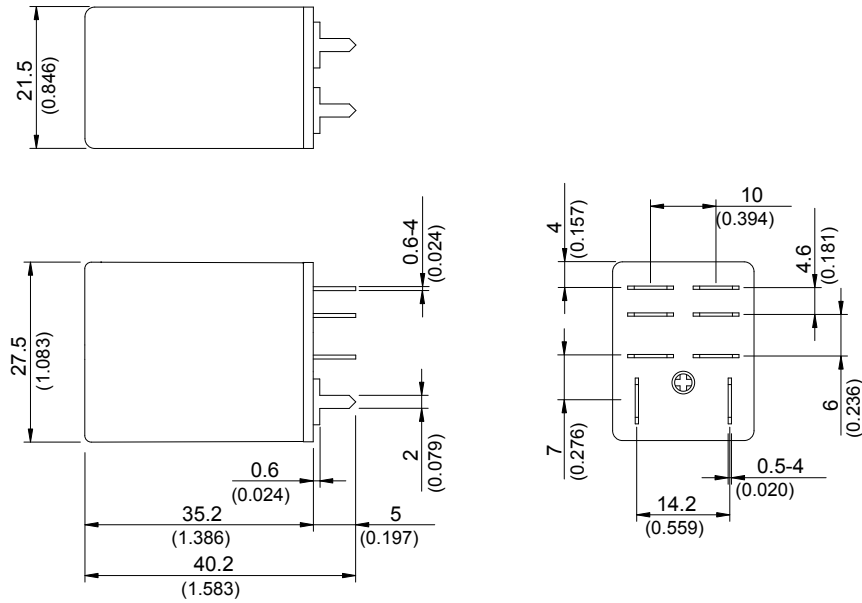
### ◆ SCL (C1)



### ◆ SCL



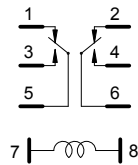
## ◆ SCL-1



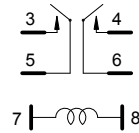
### »» Wiring Diagram

BOTTOM VIEW

DPDT

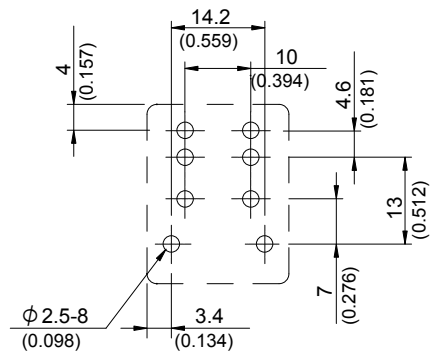


DPNO



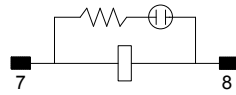
### »» PC Board Layout

BOTTOM VIEW

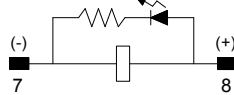


## »» Designation(Provided with) BOTTOM VIEW

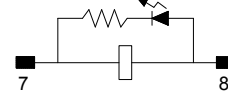
### Lamp



(100~240VAC)

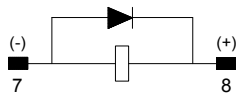


(6~48VDC)



(6~48VAC)

### Diode



## »» Engineering Data

