



# TR20

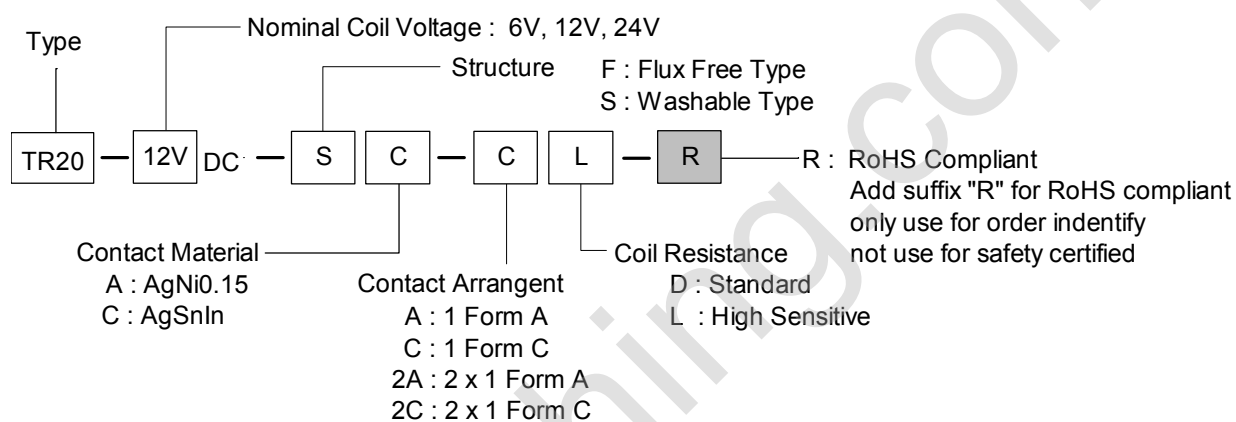
## ➤ MAIN FEATURES

- Ultraminiaturized design, extremely light weight
- 30A maximum continuous current
- Twin relay in one housing available
- Suitable for motor reversing applications

## ➤ APPLICATIONS

- Motor control
- Lamp control
- Interval wiper control
- Rear window and seat heating

## ➤ ORDERING INFORMATION

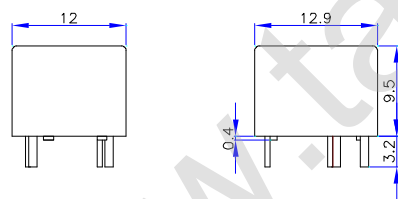


## ■ DIMENSION (unit:mm)

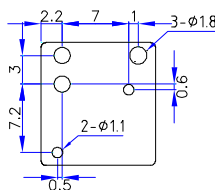
## ■ DRILLING (unit:mm)

## ■ WIRING DIAGRAM

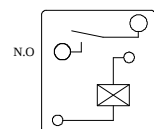
TR20



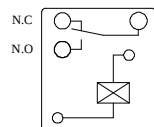
(Bottom views)



(Bottom views)

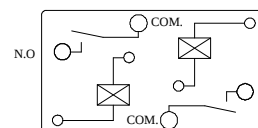
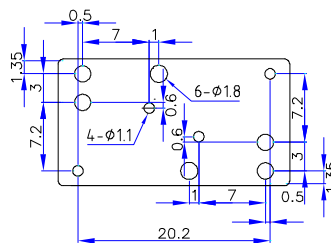
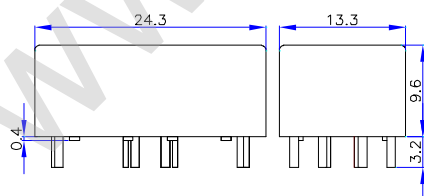


1 Form A (A)

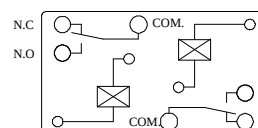


1 Form C (C)

TR20 Twin



2 x 1 Form A (2A)



2 x 1 Form C (2C)

### ➤ COIL DATA CHART(at 20°C)

| Coil Sensitivity | Nominal Coil Voltage (VDC)Rated | Coil Resistance ( $\Omega$ ) $\pm 10\%$ | Power Consumption (W) | Must Operate Voltage Max. (VDC) | Must Release Voltage Min. (VDC) | Allowable Voltage (VDC) |
|------------------|---------------------------------|-----------------------------------------|-----------------------|---------------------------------|---------------------------------|-------------------------|
| Sensitivity      | 6                               | 64                                      | 0.55                  | 3.5                             | 0.75                            | 11                      |
|                  | 12                              | 254                                     |                       | 6.9                             | 1.5                             | 20                      |
|                  | 24                              | 1000                                    |                       | 14                              | 3                               | 54.4                    |
| Standard         | 6                               | 45                                      | 0.8                   | 3.5                             | 0.75                            | 11                      |
|                  | 12                              | 181                                     |                       | 6.9                             | 1.5                             | 20                      |

### ➤ CONTACT RATING

| Item                              | Type | TR20                    |                              |               |                                    |
|-----------------------------------|------|-------------------------|------------------------------|---------------|------------------------------------|
|                                   |      | 1 Form A                | 1Form C                      | 2 x 1 Form A  | 2 x 1 Form C                       |
| Contact Rating                    |      | 30A 16VDC               | NO: 30A16VDC<br>NC: 25A16VDC | 2 x 30A 16VDC | 2 x NO: 30A 16VDC<br>NC: 25A 16VDC |
| Max. Switching Current Make Break |      | 100A<br>30A             |                              |               |                                    |
| Max.Switching Voltage             |      | 16VDC                   |                              |               |                                    |
| Max.Continuous Current            |      | N.O. : 30A / N.C. : 25A |                              |               |                                    |
| Min. Load                         |      | 0.5A 12VDC              |                              |               |                                    |
| Material                          |      | Ag Alloy                |                              |               |                                    |

### ➤ PERFORMANCE (at initial value)

| Item                  | Type | TR20                                 |
|-----------------------|------|--------------------------------------|
| Contact Resistance    |      | 100m $\Omega$ Max.(at 0.1A 6VDC)     |
| Operation Time        |      | 10ms typical.                        |
| Release Time          |      | 5ms typical.                         |
| Dielectric Strength   |      | 500Vrms (1 minute)                   |
| Insulation Resistance |      | 100 M $\Omega$ (at 500VDC, 50%RH ).  |
| Drop Resistance       |      | 1M height drop on concrete           |
| Ambient Temperature   |      |                                      |
| Operating :           |      | -40°C to 105°C.                      |
| Storage :             |      | -40°C to 155°C.                      |
| Operating Humidity    |      | 45 to 80% RH                         |
| Coil Temperature Rise |      | 60 deg. Max. (at rated coil voltage) |
| Vibration Resistance  |      | 6G, 10 - 500Hz                       |
| Shock Resistance      |      | 30G, 6ms.                            |
| Power Consumption     |      |                                      |
| Sensitivity :         |      | 0.55W approx                         |
| Standard:             |      | 0.8W approx                          |
| Life Expectancy       |      |                                      |
| Mechanically          |      | 10 <sup>7</sup> ops.                 |
| Electrically          |      | 10 <sup>5</sup> ops.                 |
| Weight                |      | abt. 4 grs. (Twin Type : 8 grs.)     |

This datasheet for reference and subject to change without notice. Please double check final specification with Tai-Shing.  
(0939AA08VOL01)