

# Resistance Tester

## Precision DC Resistance Meter TR-3542/TR-3545 Series (1/12/24 channels)

### Product description:

TR-3542/TR-3545 Series is precision DC resistance meter, one of the most accurate DC resistance testers in the industry. The TR-3545 series has a 6.5-digit display, a minimum resolution of 0.01 $\mu\Omega$ , and a basic accuracy of 0.01%. It is quite suitable for checking motor windings, inverters, and other areas that require high-resolution resistance measurements. It also has fault detection of test cables. High speed and very short measurement cycles. With a maximum sorting speed of 2.2ms, it ensures high-speed and reliable sorting every time. The TR-3542 series is a compact version of the TR-3545; the TR-3545 has a higher configuration at a higher price.



TR-3545 & TR-3542



TR-3542-12/-24 (12/24 channel front panel)



TR-3542-12/24 (12 channel rear panel)



Scanner box

### Features

- High accuracy of 0.01% with a resolution of 0.01 $\mu\Omega$ , a maximum test current of 1A
- Resistance measurement range of 0.01 $\mu\Omega$  ~ 1200M $\Omega$  and temperature of 0 ~ 99.9°C
- Thermoelectric compensation (OVC) and low-power resistance measurement
- Low power resistance measurement
- Test cable open circuit detection function, suitable for OS inspection of automatic production lines D/A output
- Analog output interface: 0 ~ 15V
- With thermal potential compensation function (OVC)
- Model TR-3542-12/24 (multi-channel resistance measurement model)
- Support multi-channel testing for TR-3545/42 (optional multi-channel scanning card)
- Supports interfaces such as RS-232, External I/O, Ethernet, temperature test, analog input/output, ideal for supporting automatic equipment to perform automatic testing

### Specifications

Model	TR-3545	TR-3542	TR-3542-12	TR-3542-24
Number of Channel	1 channel	1 channel	12 channels	24 channels
Test Parameters	DC resistance, Temperature			
Resolution	0.01 $\mu\Omega$		0.1 $\mu\Omega$	
Test range	[ LP OFF ] Range: 10m $\Omega$ ~1000M $\Omega$ , 12-steps [ LP ON ] Range: 1000m $\Omega$ ~1000 $\Omega$ , 4-steps		20m $\Omega$ ~10M $\Omega$ , 10 levels of switching	
Test current	DC 1A ~ 1 $\mu$ A or less, [LP ON] DC 1 mA ~ 5 $\mu$ A		DC 1A ~ 0.5 $\mu$ A	
Measurement accuracy	0.01%			
Test speed	Fast 2.2 ms, Medium (50Hz: 21ms, 60Hz: 18ms), Slow 1 (102ms), Slow 2 (202ms)			
Measuring Range	10m $\Omega$ /100m $\Omega$ /1000m $\Omega$ /10 $\Omega$ /100 $\Omega$ /1000 $\Omega$ / 10k $\Omega$ / 100k $\Omega$ /1000k $\Omega$ /10M $\Omega$ /100M $\Omega$ /1000M $\Omega$		20m $\Omega$ /200m $\Omega$ /2000m $\Omega$ /20 $\Omega$ /200 $\Omega$ /2000 $\Omega$ /20k $\Omega$ /200k $\Omega$ / 2000K $\Omega$ / 10M $\Omega$	
Signal Source	Constant current DC 100mA ~ 1A			
Temperature Range	-10°C ~200°C, Accuracy: 1°C		-10°C ~ 60°C, Accuracy: 1°C	
Correction	Short circuit reset within full range			
Comparator	10-level sorting; realize HIGH/IN/LOW sorting			
Internal data storage	Use computer software to record test data			
Trigger Mode	Internal trigger (INT), external trigger (EXT)			
Interface	RS232, LAN, I/O, Analog output		RS232, LAN, I/O	
Input Power	Voltage: 100VAC~240VAC; AC frequency: 50Hz ~ 60Hz; Rated power: 40VA			
Dimension (WxHxD)	325mm x 215mm x 96.5mm			
Weight	2 kg			

### Ordering Informations

- TR-3545** : 1 channel, 10m $\Omega$  ~ 1000M $\Omega$  DC Resistance Meter
- TR-3542** : 1 channel, 10m $\Omega$  ~ 10M $\Omega$  DC Resistance Meter
- TR-3542-12** : 12 channels, 10m $\Omega$  ~ 10M $\Omega$  DC Resistance Meter
- TR-3542-24** : 24 channels, 10m $\Omega$  ~ 10M $\Omega$  DC Resistance Meter

### Standard Accessories :

- User Manual
- Test report
- Test Lead
- Power cord
- Temperature probe
- Communication cable

### Optional Accessories :

- Multi-channel scanning card