

# Insulation Resistance Testers

*Delivering test and measurement advantages for HVAC/R professionals worldwide*

## Test the TPI Advantage



### MARKETS

- Electrical Power Generation
- Heavy Industry
- HVACR
- Mining
- Motor Repair Shops
- Natural Gas Transmission\*
- Oil Production
- Oil Pipelines
- Railroads
- Refining
- Steel Manufacturing

\* Gathering facilities, compressor stations and pipelines

### APPLICATIONS

- Cables
- Compressors
- Controls
- Distribution Transformers\*
- Generators
- Instruments
- Motors
- Motor Windings
- Switchgear

\* Medium and high-voltage power transformers would normally not be tested with these instruments

**The  
Value  
Leader™**

Check compressor, transformer, and motor windings for insulation breakdown. TPI Insulation Resistance Testers are ideal for preventative maintenance and performing resistance tests. All TPI Insulation Resistance Testers include A085 UL listed silicone test lead set with screw on alligator clips and A073 test lead set with large alligator clips. All TPI Insulation Resistance Testers are:

- Easy to use
- Push button or locking operation
- Automatic discharge
- Built-in battery test

### ANALOG TESTERS

SAIT 25



**Test Voltages**

250V/500V/1,000V

**Insulation Resistance**

100MΩ/200MΩ/400MΩ

**AC Voltage**

No

**Continuity**

2Ω/20Ω

SAIT 200



**Test Voltages**

250V/500V/1,000V

**Insulation Resistance**

100MΩ/200MΩ/400MΩ

**AC Voltage**

No

**Continuity**

2Ω/20Ω

### DIGITAL TESTERS

SDIT 30



**Test Voltages**

250V/500V/1,000V

**Insulation Resistance**

2,000MΩ/2,000MΩ/2,000MΩ

**AC Voltage**

No

**Continuity**

200Ω

SDIT 300



**Test Voltages**

250V/500V/1,000V

**Insulation Resistance**

20MΩ/200MΩ/2,000MΩ

**AC Voltage**

No

**Continuity**

20Ω/200Ω

### FEATURES

	SAIT 25	SAIT 200	SDIT 30	SDIT 300
Display	Analog scale	Analog scale	Digital	Digital
Backlight	No	Yes	No	No
Battery Check	Battery check mode	Battery check mode	Low battery indication	Low battery indication
Warning Signal	Lamp & beep	Lamp & beep	Lamp & beep	Live display on the LCD & beep
Ohm Zero Adjust	Yes	Yes	Yes	Yes
Power Supply	Battery (1.5V x 6)	Battery (1.5V x 6)	Battery (1.5V x 8)	Battery (1.5V x 8)
Fuse Protected	Yes (continuity range only)	Yes (continuity range only)	No	Yes (continuity range only)
Category	CAT III 600V	CAT III 300V	CAT II 1,000V	CAT III 600V

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## TECHNICAL SPECIFICATIONS AND ACCESSORIES

	SAIT 25	SAIT 200	SDIT 30	SDIT 300
<b>Insulation</b>				
Test Voltage	250V/500V/1,000V	200V/500V/1,000V	250V/500V/1,000V	250V/500V/1,000V
Open Circuit Voltage	250V $\pm$ 10% 500V $\pm$ 10% 1,000V $\pm$ 10%	250V $\pm$ 10% 2 500V $\pm$ 10% 1,000V $\pm$ 10%	50V, 480V, 950V (approximately)	250V $\pm$ 10% 500V $\pm$ 10% 1,000V $\pm$ 10%
Measuring Ranges	100M $\Omega$ /200M $\Omega$ /400M $\Omega$	100M $\Omega$ /200M $\Omega$ /400M $\Omega$	2,000M $\Omega$ /2,000M $\Omega$ /2,000M $\Omega$	20M $\Omega$ /200M $\Omega$ /2,000M $\Omega$
Accuracy	0.05M $\Omega$ ~10M $\Omega$ : $\pm$ 5%  0.1M $\Omega$ ~20M $\Omega$ : $\pm$ 5%  0.2M $\Omega$ ~40M $\Omega$ : $\pm$ 5%  $\pm$ 7% of scale length at ranges other than the above range	0.05M $\Omega$ ~10M $\Omega$ : $\pm$ 5%  0.1M $\Omega$ ~20M $\Omega$ : $\pm$ 5%  0.2M $\Omega$ ~40M $\Omega$ : $\pm$ 5%  $\pm$ 7% of scale length at ranges other than the above	0~100M $\Omega$ (250V): $\pm$ 1.5% of reading $\pm$ 3 digits 100~200M $\Omega$ (250V): $\pm$ 2% of reading $\pm$ 5 digits 200~1,700M $\Omega$ (250V): $\pm$ 3% of reading $\pm$ 7 digits 1,700~2,000M $\Omega$ (250V): $\pm$ 3% range reading $\pm$ 8 digits 0~200M $\Omega$ (500V): $\pm$ 1.5% of reading $\pm$ 2 digits 200~1,700M $\Omega$ (500V): $\pm$ 3% of reading $\pm$ 4 digits 1,700~2,000M $\Omega$ (500V): $\pm$ 4% of reading $\pm$ 6 digits 0~200M $\Omega$ (1,000V): $\pm$ 1.5% of reading $\pm$ 2 digits 200~1,700M $\Omega$ (1,000V): $\pm$ 3% of reading $\pm$ 3 digits 1,700~2,000M $\Omega$ (1,000V): $\pm$ 4% of reading $\pm$ 5 digits	20M $\Omega$ : $\pm$ 3% of reading $\pm$ 5 digits 200M $\Omega$ : $\pm$ 3% of reading reading $\pm$ 10 digits 1,000M $\Omega$ : $\pm$ 3% of reading reading $\pm$ 20 digits of 2,000M $\Omega$ : $\pm$ 5% of reading reading $\pm$ 40 digits
<b>Continuity</b>				
Measuring Ranges	2 $\Omega$ /20 $\Omega$	2 $\Omega$ /20 $\Omega$	200 $\Omega$	20 $\Omega$ /200 $\Omega$
Open Circuit Voltage	DC 4V ~ 9V	DC 4V ~ 9V	DC 170mV (approximately)	DC 4V
Short Circuit Current	200mA min	200mA min	24mA (approximately)	200mA DC min in 20 $\Omega$ Range
Accuracy	$\pm$ 3% of scale length	$\pm$ 3% of scale length	$\pm$ 1.5% of reading $\pm$ 2 digits	$\pm$ 3% of reading: $\pm$ 3 digits $\pm$ 1 $\Omega$
<b>ACV</b>				
Measuring Ranges				200V/600V
Input Frequency				45Hz ~ 450Hz
Accuracy				$\pm$ 3% of reading $\pm$ 5 digits

### STANDARD ACCESSORIES

Part Number	Test Leads	Neck Strap
SAIT 25	A085 & A073	A122
SAIT200	A085 & A073	A122
SDIT30	A085 & A073	A122
SDIT300	A085 & A073	A122

A085 consists of the A080 UL listed silicone test lead set with A150 screw on alligator clips.

A073 consists of a six foot lead set with large alligator clips.

### OPTIONAL ACCESSORIES

Description	Part#
4' red and black leads with large alligator clips	A072

### INSULATION RESISTANCE TESTERS

1. Selecting an insulation tester is like selecting a DMM. You need to know what value (resistance) you are going to measure and the required applied voltage.
2. Selecting an insulation tester is like selecting a DMM. You need to know what value (resistance) you are going to measure and the required applied voltage.