

## **Testers and instruments for analysis and measurement with high performance and low cost.**

The twenty-five years old experience of THOR in the ATE sector allows us to deal all the specification that the clients need in order to implement the wiring test quality and optimize their productive performance.

Even if the technologies evolve every years in the electronic sector, it is almost impossible to avoid the connections with wiring.

The wiring is the base of every system from a building to a satellite, so it is very important that it has a great quality and reliability in order to avoid malfunctions. When you realize a wire, you can not avoid to ask yourself if it really works. This is a matter of everyone from the producer of prototypes to the B2B industry to telecom. Most of the times you have to check the wire for the final clients. Automatic test systems sometimes are to avoid because are too expensive or complicated to make operatives. The manual test systems on the other hand can't avoid error.

In order to answer those questions THOR Europe developed a family of systems dedicated to the wiring test that, with a very low price, allows you to have a "plug & play" verification station, without asking useless time of programation. Those systems can work automatically or be connected to a PC if you need to increment the features.

### **Wiring Tester**

The family of the wiring tester CT consists of different model and accessory that cover a wide range of application field. Model CT140 and CT143 are the most inexpensive, with 128 and 256 test channels not expandable. Every channel is generic, so it can be an in or out channel. CT343 and CT422 have the same basic features, but the CT422 is made of a strong portable case for uses on the field. Both have a minimum of 128 test channels that goes up to 512 channels and have different interface included. We also offer customize solution to satisfy all the needs of our clients.

Functional and operational features of the wiring tester:

- Portable case for uses on the field.
- Customizable output channel connectors.
- Non volatile test memory.
- Memory Key that allows you to archive test program.
- Automation interface.
- The "Test Probe" function, to locate a specific conductor and allow repair or documentation a job.
- Multilanguage message on the display.
- Software tool for customized test report generation.
- Adapter for automotive, telecom, industrial and appliances connector.
- Wiring tables.

Common features in every models	Special features of the models	
Diagnoses short circuit	Portable case version	CT422
Diagnoses continuity	Interface for PC	CT343 CT422
Diagnoses inverted wire	Error printer interface (serial)	CT343 CT422
Self learn function from reference device	Automation interface	CT343 CT422
Multilanguage message, on-line selectable	Memory key interface	CT343 CT422
Test probe function	Console for test and debug (SW)	CT343 CT422
Non volatile test memory	Customized test report	CT343 CT422
Parallel error printer interface	Standard datalog	CT343 CT422

BOX 1: features of CT systems

### A wide range of applications

Thanks to the confrontation with several satisfied clients THOR has developed multiple interesting application and innovations. Some CT have been used to the CERN and INFN (the Italian National Institute for Nuclear Physics).

### B2B wiring producers

- CT143 with adaptor for standard connectors is a low cost solution to manual testing small and medium quantity. Programmation for a self learn function from reference device in a few seconds so with an immediate start of the test. With the automatic start functions it is possible to save more time in the operation of movement of pieces.
- CT343 is ideal for production of medium and big volumes.

### System Design and Prototype producers

- CT143 with adaptor for standard connectors allows a check go/no go with zero cost of the just assembled wire.
- CT343 it is a custom ideal solution to generate test programs for the production. It is also usefull for the quality control.

### Telecom sector

- CT422 with portable case is ideal for telecom wiring and it is very suitable to test the cabinets in field. The test can be done on more stripes at the same time and can even occupy all the channels of the system. After the test you can ask a report with all the data sorted in specific details.
- CT143 or CT343 if connected to automatic line with personalised adaptor can be the solution for the quality testing of telephone cables for interconnection. After the test you can ask a report with all the data divided in every detail.

### **Automotive sector**

- CT422 portable is an easy solution to test the wiring on the vehicle.
- CT343 or CT143 can be the solution for the mass test of vehicle wiring. After the test you can ask a report with all the data divided in every detail.

### **Testing wiring on the field (automation, air and sea, railway)**

- CT422 portable with personalized adaptor can solve lots of needs of test and repair in field. At the place you just need to turn on the system, insert the memory key and the system charges all the information for the test without push any buttons.
- CT422 in the portable case can solve a lot of test wiring needs. After the test you can ask a report with all the data divided in every detail.

### **Looking at the future**

Nowadays is very important to listen to the needs of the clients and don't be blind to the necessity of the market. In this ways THOR is been able to create a new family of test equipments, not limited to wiring but ideal to check passive components and execute small functional test.

### **The new series of product has some innovate features:**

- Function and software of "guidacablaggio". The software is developed to indicate to the operator where to put the conductor that he holds in that moment, avoiding the reading of the paper documents. It is also possible to have a bright indication where you have to put the pin, the same lighting can also indicate the error points.
- Import data from CAD (OrCad, Protel, AutoCad, etc...).
- New series of scanner schedules. It allows the measurement of low connection resistance.
- Measurement of passive components.
- Back annotation function.
- Touch screen Display.
- Interface USB – TCP/IP: it allows to manage from every PC all the test parameters, the selection of the test program, the visualization and management of all the data that comes from the production line, with the datalog of the kind of error, in order to always have available the data that shows the production trends. This solution allows you to see and manage all the equipment used in production from a unique place in the enterprise.

## WIRING TESTER CT

Features	Models						
	422	422/A	422/T	343	343/A	343/T	143
<b>System</b>							
Case Version	√	√	√				
Desktop Version				√	√	√	√
Test channels	128÷512	128÷512	128÷512	128÷512	128÷512	128÷512	256
Diagnoses short circuit	√	√	√	√	√	√	√
Diagnoses continuity	√	√	√	√	√	√	√
Diagnoses inverted wire	√	√	√	√	√	√	
Attenuation measurement			(opz.)			(opz.)	
Resistances measurement	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	
Capacitors measurement	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	
Junctions measurement	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	
Interface for PC	√	√	√	√	√	√	
Error printer interface (parallel)	√	√	√	√	√	√	√
Error printer interface (serial)	√	√	√	√	√	√	
Automation interface	√	√	√	√	√	√	
Self learn function from reference device	√	√	√	√	√	√	√
Multilanguage message, on-line selectable	√	√	√	√	√	√	√
Test probe function	√	√	√	√	√	√	√
Non volatile test memory	√	√	√	√	√	√	√
Memory key interface	√	√	√	√	√	√	
<b>Computer Software</b>							
Console for test and debug (SW)	√	√	√	√	√	√	
Generation test programm	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	
Generation custom test report	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	
Datalog standard size	√	√	√	√	√	√	
Datalog personalized size	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	(opz.)	
Print error	√	√	√	√	√	√	