TCCT

Test device for control and validation of contact-less throttle position sensors

TCCT is a tester designed for the product validation and the production end of line test of actuator's covers equipped with contactless sensors.

TCCT is both a compact solution, that allows an easy integration into automatic production lines, and a turn key solution for R&D laboratories

MAIN FEATURES:

◉ Built-in programmer, to communicate with position sensors for reading and writing the calibration parameters

◉ Multiple outputs, to connect up to 8 models of throttle bodies with different pinout.

◉ Fast ad accurate contact test, with capacitance measurements on sensor pins

◉ Throttle motor control by H-Bridge driver and encoder feedback for accurate angle measurement

◉ Ethernet link for the communication with the assembly line (PLC) for fast and complete production traceability

TECHNICAL SPECIFICATIONS

Specification		
Test Time	Static test, without handling	4.5 sec
Measure Accuracy	Sensor Output Capacitance	0.2% 2%
Sensors* *(with specific programmer)	Hella Melexis NXP	CIPOS, miniCIPOS, CIPW MLX-90316 KMA2xx – KMA3xx
PLC connection	Siemens STEP 7 Omron	Ethernet TCP/IP Available on request
Peripherals	Monitor Keyboard	LCD 17" 16:9 102 keys, US Layout with touchpad/trackball
Power	Voltage :220V AC	50W max
Dimensions	WxHxD : 525 x 218 x 614 mm	Weight <10 Kg

TCCT

SOFTWARE FEATURES

◉ Editable test sequences

◉ Step by step with pause function for debugging

◉ Multilanguage operator messages configurable by text files for easy distribution on world wide plants

◉ Easy to configure with editable parameter files

◉ Report generation. The report file can be written in any location, including remote computers, supervisor units and servers.

◉ Custom HMI and functionalities on request
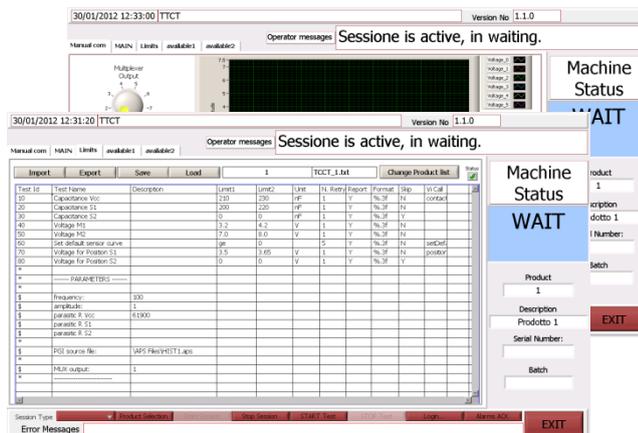
FUNCTIONAL FEATURES

◉ Capacitance measurement system (typical values 10 nF, 1uF)

◉ Reading system of the position get from sensors compared with the encoder feedback

◉ Sensor programming unit to configure and dump the memory of the position sensor

◉ Communication module with PLC to achieve a fast synchronization with the automation handlers and a full data collection for a complete and accurate traceability. The data and measurements taken during a test are automatically written inside the PLC memory or RFId

◉ Remote console – monitor and keyboard – for an ergonomic setup of the human machine interface. The HMI allows diagnostic intervention and maintenance providing a continuous visual indication of the system status and of the parts being tested

CONFIGURATION AND OPTIONS

Product code	Capacitance Test	Continuity Test	Sensor Test	Validation Test	Description
TCCT.Pas	X	X			This version is designed for the passive test of the PCB mounting the Sensor
TCCT.Eol	X	X	X		This version is designed for the test of the passive components and the functional test of the ASIC sensor
TCCT.Lab	X	X	X	X	This version is designed for the product validation in the R&D laboratory