METROLOGICAL TESTS

Multisensor coordinate measuring machine

ZEISS O-INSPECT

The O-Inspect multisensory measuring machine enables to optimally measure each characteristic, optically or through contact measurement.

The O-Inspect delivers reliable 3D accuracy, compliant with ISO standards at a temperature range of 18-30°C.

ZEISS CALYPSO, the dedicated software, not only delivers results easily, but also makes detecting and identifying defects straightforward.

Specifications

OPTICAL SENSOR

- HD Camera
- 12x Zoom Zeiss Discovery
- Bicolor light (red/blue) for optimal contrast
- White/Black analysis of image
- White light distance sensor

CONTACT SENSOR

- Zeiss VAST XXT
- Point to point measure
- Continuos scan measure

SOFTWARE CALYPSO

- Camera image
- CAD model
- Results view

Electrochemical analyser

Potentiostat/galvanostat PGSTAT 302N

The potentiostat/galvanostat PGSTAT 302N permits the study of the electrochemical properties of metallic materials and coatings: it allows to test the corrosion resistance of the samples in different environmental conditions.

In potentiostatic mode, a potentiostat/galvanostat (PGSTAT) will accurately control the potential of the Counter Electrode (CE) against the Working Electrode (WE, tested material) so that the potential difference between the working electrode and the Reference Electrode is well defined, and corresponds to the value specified by the user.

In galvanostatic mode, the current flow between the WE and the CE is controlled. The potential difference between the RE and WE and the current flowing between the CE and WE are continuously monitored.

The value specified by the user is accurately controlled anytime during the measurement by using a negative feedback mechanism.

Thanks to the additional module (FRA32M), it is furthermore possible to perform electrochemical impedance spectroscopy (EIS).

Specifications

Compliance voltage range in volt 30
Current resolution 0.0003 % (of current range)
Input impedance in Ohm 1 TOhm
Maximum bandwidth in Hz 1 MHz
Maximum current in ampère 2
Maximum number of channels 1
Maximum number of modules 8
Modular instrument Up to 4 connections - EIS Module FRA32M
Number of current ranges 9.0
Number of current ranges remarks 10 nA to 1 A
Potential and current accuracy 0.2 % or 0.2 % of current range
Potential range in volt 10
Potential resolution 0.3 µV (gain 1000)