



TEST SYSTEM FOR A NEW GENERATION OF SENSORS

Our customer is an international corporation specializing in the development and production of laboratory automation systems. In particular, the customer develops diagnostic devices and sensor technology for point-of-care applications to quickly and reliably deliver laboratory results to physicians and patients, thus improving medical care. The project included developing a semi-automated leak and flow test system for sensors.

Robust test system with customer-specific interface connection

The test system automatically identifies the sensors inserted by the operator using a barcode scanner. After the protective cover is closed, the system automatically connects with the sensors and performs a pneumatic leak and flow test. The measuring instruments are also controlled by the system. The user interface has a recipe and parameter management system that enables exploratory testing and optimization of the measurement parameters for R&D purposes. Depending on the access permissions given by the customer's LDAP directory, the operator can perform measurements in automatic and/or manual mode. The user interface displays the test results for the operator. The customer receives the results via an OPC UA server for data analysis.

Comprehensive service for high customer satisfaction

The customer received a customized test system from konplan with a full set of technical documentation as well as a hypercare agreement covering support for test parameter optimization and system integration with the development line. The system enables the testing of critical sensor characteristics during production ramp-up and for development purposes to ensure process reliability.

Result

- Test system integrated into the development line
- Semi-automated sensor testing via intuitive GUI
- Provision of test data via OPC UA server

Methodology & Technologies

- Flow and Leak Measurement
- CAD Design, SolidWorks
- OPC UA interface and LDAP connection
- NI LabVIEW

Scope of Services

- Mechanical Design
- Measurement Technology and Pneumatics
- Test Automation and Control Software
- Construction, Commissioning & Technical Documentation



6 months



4 employees – konplan



Analysis & idea generation to support & operations

