



## Automatic test cell for testing engine sensors

### Product description

The system is used for fully automatic end-of-line testing of crankshaft and camshaft sensors on a Hall effect basis. Different specimen types are automatically recognized and tested.

The system is fed via an assembly line, which automatically feeds the specimens to the table on a workpiece carrier including its own data memory.

### Field of application

Quality control and end-of-line test in the production/manufacturing area



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### Technical data

<b>Test bench/device</b>	
<ul style="list-style-type: none"> <li>• Test cell with substructure</li> <li>• Transfer unit with gripper and contact</li> <li>• Adjustable slide with two drive motors</li> <li>• Test device with drive and contacting</li> <li>• Conveyor line with type-specific workpiece carriers</li> <li>• Measuring and testing technology integrated in test cell</li> </ul>	
<b>Software</b>	
<ul style="list-style-type: none"> <li>• TST-WIN under Windows                     <ul style="list-style-type: none"> <li>- Process control</li> <li>- Performance of measurements and tests</li> <li>- Presentation of test results</li> <li>- All settings and sequences menu-driven freely programmable</li> <li>- Automatic type change</li> <li>- Password-protected access levels</li> <li>- Daily/monthly and worker statistics</li> </ul> </li> <li>• Data transfer to line computer for data traceability</li> </ul>	
<b>Scope of testing</b>	
<ul style="list-style-type: none"> <li>• Inspection of crankshaft and camshaft sensors on Hall effect basis using original encoder wheel at defined distance and speed</li> <li>• Rotation angle Resolution 0.015°, recording 1 revolution with 15 bit resolution at <math>n_{max} = 6000</math> 1/min</li> <li>• Camera-based distance adjustment between encoder wheel and sensor</li> <li>• Measurements:                     <ul style="list-style-type: none"> <li>- Signal voltage, resolution 1 mV</li> <li>- Current consumption, resolution 0.01 mA</li> <li>- Phase position, resolution 0.015°</li> <li>- Rise / fall time, resolution 50 ns</li> <li>- Jitter, duty-cycle, edges, min/max signal voltage</li> <li>- True_Power-On Functions</li> </ul> </li> </ul>	
<b>Input-/visualisation units</b>	<b>Dimensions/Transport</b>
<ul style="list-style-type: none"> <li>• Keyboard</li> <li>• Monitor</li> </ul>	<ul style="list-style-type: none"> <li>• 2300x100x1250 mm (WxHxD)</li> </ul>
<b>Test time</b>	<b>Exemplary device type</b>
<ul style="list-style-type: none"> <li>• Individual, depending on test scope</li> </ul>	<ul style="list-style-type: none"> <li>• 114 0009</li> </ul>