C317
QCS Optical Caliper Sensor Maintenance

Learn the theory, application, maintenance and troubleshooting for the Optical Caliper Sensor and to prepare the student for certification for this sensor.

Course type and methods
This is an instructor led workshop with short presentations and demonstrations, extended exercises, and hands-on sessions and discussion.

Student Profile
This course is targeted to Field Services personnel who are responsible for maintenance of a Network Platform QCS system.

Prerequisites
Students should have attended the C235 Network Platform with QCS LAN, or have extensive experience working with the Smart Platform or Network Platform QCS system. ABB Students are encouraged to bring their ABB supplied laptop to class.

Course objectives
Upon completion of this course the participants will be able to:
• Upon completion of this course, the participants will be able to:
• Understand the theory of operation of the Optical Caliper and HPIR-T Sensors
• Setup and Alignment of sensors in Network Platform
• Determine the appropriate applications for the Optical Caliper Sensor.

• Recalibration of the Optical Caliper Sensor
• Troubleshoot typical problems with the Optical Caliper and HPIR-T Sensors
• Tuning of the Optical Caliper Sensor for scanner deviations
• Make proper adjustments to the sensors for specific applications
• Calculate new grade code variables based on correlation results

Main topics
• Sensor Theory
• Sensor Mechanical Operation
• Sensor Electrical Operation
• Alignment and Setup
• Calibration
• Troubleshooting

Duration
The duration is 5 days
Course Outline

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Course Introduction</td>
<td>• Optical Caliper Sensor Theory</td>
<td>• Optical Caliper Sensor Tuning Lab</td>
<td>• HPIR-T Sensor Theory</td>
<td>• HPIR-T Sensor Lab</td>
</tr>
<tr>
<td>• Scanner Alignment</td>
<td>• Optical Caliper Sensor Lab</td>
<td>• Optical Caliper Exam</td>
<td></td>
<td>• HPIR-T Exam</td>
</tr>
<tr>
<td>• Scanner Lab</td>
<td>• Optical Caliper Sensor Tuning Theory</td>
<td></td>
<td></td>
<td>• Course Evaluation</td>
</tr>
<tr>
<td></td>
<td>• Optical Caliper Exam</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

To register, contact the North America Customer Service Center or visit us online ABB Inc.
+1 800 HELP 365 Option 2, Option 4
Fax: +1 919 666 1388
abbuniversity@us.abb.com

abb.us/abbuniversity

---

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.

Copyright © 2017 ABB
All rights reserved.