

No. 74106941-OPE/INC 15-0952_rev1

Issued to:

Invensys Systems, Inc.
38 Neponset Avenue
Foxborough MA 02035
U.S.A.

For the client system:

Foxboro Evo SCD6000
Firmware version: SY-1101207_B
Hardware version: SY-60399002R

The client system has not been shown to be non-conforming to:

IEC 61850 First Edition Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10 and UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL² version 1.2 with client system's protocol, model and technical issue implementation conformance statements: "IEC 61850 Protocol Implementation Conformance Statement (PICS) Foxboro Evo Remote Devices; B0780EA Rev B", "IEC 61850 Model Implementation Conformance Statement (MICS) Foxboro Evo Remote Devices; B0780EC Rev B" and "IEC 61850 TISSUE Implementation Conformance Statement (TICS) Foxboro Evo Remote Devices; B0780EB Rev B" and the extra information for testing: "IEC 61850 Protocol Implementation eXtra Information for Testing (PIXIT) Foxboro Evo Remote Devices; B0780ED Rev B".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

1 Basic Exchange (13/22)	12a Direct Control (6/7)
5 Unbuffered Reporting (14/18)	12b SBO Control (8/9)
6 Buffered Reporting (18/22)	12c Enhanced Direct Control (6/7)
	12d Enhanced SBO Control (8/9)
	13 Time Synchronization (3/4)

This certificate includes a summary of the test results as carried out at Invensys Systems, Inc. in India with UniCA IED Simulator version 3.27.2 and UniCA 61850 Analyzer version 5.29.02 This document has been issued for information purposes only, and the original paper copy of the DNV GL report No. 74106941-OPE/INC 15-0952_rev1 will prevail.

The test has been carried out on one single specimen of the product as referred above and submitted to DNV GL by Invensys Systems, Inc. The manufacturer's production process has not been assessed. This certificate does not imply that DNV GL has approved any product other than the specimen tested.

Arnhem, February 24, 2015



M. Adriaensen
Head of Department
Operational Excellence

Issued by:



DNV KEMA is now DNV GL



R. Schimmel
Certification Manager

¹ Level A - Independent test lab with certified ISO 9001 Quality System

² TPCL - Test procedures change list



Applicable Test Procedures from the UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL version 1.2

Conformance Block	Mandatory	Conditional
1: Basic Exchange	cAss1, cAss2, cAss3, cAss4, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv5, cSrvN3, cSrvN5, cSrvN6
5: Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRpN2, cRpN3, cRpN7, cRpN8	cRp2, cRp6, cRp7, cRpN4
6: Buffered Reporting	cBr3, cBr4, cBr5, cBr8, cBr9, cBr10, cBr11, cBr12, cBrN2, cBrN3, cBrN7, cBrN8, cBrN9	cBr2, cBr6, cBr7, cBr13, cBrN4
12a: Direct Control	cCtl4, cCtlN1 cDOns1, cDOns2	cCtl1, cCtl2
12b: SBO Control	cCtl4, cCtlN1 cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl2, cSBOns4
12c: Enhanced Direct Control	cCtl4, cCtlN1 cDOes1, cDOes2	cCtl1, cCtl2
12d: Enhanced SBO Control	cCtl4, cCtlN1, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl2, cSBOes4
13: Time sync	cTm1	cTm2, cTmN1