

## IEC 61850 Certificate Level A<sup>1</sup>

**Issued to:**

Schweitzer Engineering Laboratories, Inc.  
2350 NE Hopkins Court  
Pullman, WA 99163-5603  
USA

**For the server product:**

SEL-3350 Real-Time Automation Controller  
Firmware version: SEL-3350-R150-V8-Z000303-D20240918  
S/N: 1223191845

The server product has not been shown to be non-conforming to:

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

Communication networks and systems for power utility automation

The conformance test has been performed according to IEC 61850-10 Edition 2, the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6 with product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for IEC 61850 for the SEL Real-Time Automation Controllers, R150-V8", "Model Implementation Conformance Statement (MICS) for IEC 61850 for the SEL Real-Time Automation Controller 3350 (RTAC SEL-3350), R150-V8" and "TISSUES Implementation Conformance Statement for the IEC 61850 interface in SEL-RTAC, R150-V8" and the extra information for testing: "Protocol Implementation eXtra Information for Testing (PIXIT) for the IEC 61850 interface in SEL-RTAC, R150-V8".

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 (20/26)	12a Direct Control (4/18)
2 Data Sets (4/7)	12c Enhanced Direct Control (4/20)
5 Unbuffered Reporting (19/23)	12d Enhanced SBO Control (14/28)
6 Buffered Reporting (27/33)	13 Time Synchronization (3/7)
9a GOOSE Publish (9/13)	14 File Transfer (5/8)
9b GOOSE Subscribe (19/21)	

This certificate includes a summary of the test results as carried out at DNV in The Netherlands with UniGrid SA Simulator 2.2.1 with test suite 20231127 and UniCA 61850 Analyzer 6.41.00. This document has been issued for information purposes only, and the archived DNV verification report No. 10445966-DSO 24-4262 rev 2 will prevail.

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

Arnhem, October 2, 2024



**R. Botezatu**  
Test Engineer

Issued by:




**R. Schimmel**  
Verification Manager

<sup>1</sup> Level A - Independent test lab with certified ISO 9001 Quality System  
UCA International Users Group P.O. Box 315, Shell Knob, MO 65747 USA

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Applicable Test Procedures from the UCA International Users Group Edition 2 Server Test Procedures version 2.0.6

Conformance Block	Mandatory	Conditional
1: Basic Exchange	sAss1, sAss2, sAss3, sAss4, sAssN2, sAssN3, sAssN4, sAssN5, sSrv1, sSrv2, sSrv3, sSrv4, sSrv5, sSrv8, sSrvN1abcd, sSrvN4	sAssN6, sSrv9, sSrv10, sSrv12
2: Data Sets	sDs1, sDs10a, sDsN1ae	sDs15
5: Unbuffered Reporting	sRp1, sRp2, sRp3, sRp4, sRp5, sRp9, sRp14, sRp16, sRpN1, sRpN2, sRpN3, sRpN4, sRpN8	sRp8, sRp10, sRp11, sRp12, sRp15, sRpN5
6: Buffered Reporting	sBr1, sBr2, sBr3, sBr4, sBr5, sBr9, sBr14, sBr16, sBr20, sBr21, sBr22, sBr25, sBr26, sBr27, sBr28, sBr29, sBrN1, sBrN2, sBrN3, sBrN4, sBrN5, sBrN8	sBr8, sBr10, sBr11, sBr12, sBr15
9a: GOOSE Publish	sGop2a, sGop3, sGop4, sGop9, sGop10, sGop11, sGop12	sGop1, sGopN2
9b: GOOSE Subscribe	sGos1, sGos2, sGos3, sGos5, sGos6a, sGos7, sGos8, sGos9, sGos10, sGos11, sGos12, sGos23, sGosN1, sGosN2, sGosN3, sGosN4, sGosN5, sGosN6	sGos13
12a: Direct Control	sCtl5, sCtl10, sDOs1, sDOs2	
12c: Enhanced Direct Control	sCtl5, sCtl10, sDOes1, sDOes2	
12d: Enhanced SBO Control	sCtl5, sCtl8, sCtl9, sCtl10, sCtl11, sCtl25, sSBOes1, sSBOes2, sSBOes6, sSBOes8	sCtl4, sCtl6, sCtl15, sCtl16
13: Time Sync	sTm1, sTm2, sTmN1	
14: File Transfer	sFt1, sFt2ab, sFt4, sFt5, sFtN1ab	