

## IEC 61850 Certificate Level A1

No. 2017PUCA0005

WIKA INSTRUMENTATION(SUZHOU) CO., LTD. 81, Ta Yuan Road, SND, Suzhou, JiangSu, P.R.China

For the product:

OMS-2001 61850 Protocol Converter (IED) Software Version: V1.0

Issued by: **KE OP**开誓

The server product 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, the UCA International Users Group Server Device Test Procedures version 3.03, the product's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement (PICS) for OMS-2001 61850 Protocol Converter(IED)", "Modeling Implementation Conformance Statement (MICS) for OMS-2001 61850 Protocol Converter (IED)", "IEC 61850 Tissues Conformance Statement (TICS) for OMS-2001 61850 Protocol Converter- (IED)" and the extra information for testing: "Protocol implementation extra information (PIXIT) of the IEC 61850 communication interface in OMS-2001 61850 Protocol Converter(IED) ".

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):

- Basic Exchange (22/24)
- Data Sets (3/6)
- Substitution(4/4)
- Unbuffered Reporting (17/18)

- Buffered Reporting (24/27)
- 13 Time Synchronization (3/5)

This Certificate includes a summary of the test results as carried out at the KETOP Lab's offices in Xuchang, China with UniCAsim 61850 Client Version 4.29.03 with test suite Version 3.31.00 and the UniCA 61850 analyzer Version 5.31.00. This document has been issued for information purposes only, and the original paper copy of the KETOP Lab report: No. JW170369 will prevail.

The test have been carried out on one single specimen of the product as referred above and submitted to KETOP Lab by WIKA INSTRUMENTATION(SUZHOU) CO., LTD. The manufacturer's production process has not been assessed. This certificate does not imply that KETOP Lab has approved any product other than the specimen tested.

Xuchang, Mar 27th, 2017

Director of PRTC Department

刘德森

Liu Desen Test Engineer

<sup>1</sup> Level A - Independent Test lab with ISO 17025 Quality System

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This certificate is issued in accordance with the laboratory accreditation requirements of the UCA International Users Group. This certificate shall only be reproduced in full and with the express permission of KETOP lab.

China KETOP Lab (Xuchang KETOP Testing Technology CO.LTD ) National Center For Quality Supervision & Testing of Relay Protection and Automation Equipment

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Applicable Test Procedures from the UCA International Users Group Server Device Test Procedures version 3.03

Conformance Block	Mandatory	Conditional
1: Basic Exchange	Ass1, Ass2, Ass3, AssN2, AssN4,	AssN3, Srv6, Srv7, Srv8, Srv9,
	AssN5	Srv10, SrvN1e, SrvN1f, SrvN3
	Srv1, Srv2, Srv3, Srv4, Srv5,	
	SrvN1abcd, SrvN4	
2: Data Sets	Dset1, Dset10a, DsetN1ae	
3: Substitution	Sub1,Sub2,Sub3,SubN1	
5: Unbuffered Reporting	Rp1, Rp2, Rp3, Rp4, Rp9,	Rp5, Rp6, Rp7, Rp8, Rp11, Rp12,
	RpN1, RpN2, RpN3, RpN4, RpN8	RpN5
6: Buffered Reporting	Br1, Br2, Br3, Br4, Br9, Br20, Br21,	Br5, Br6, Br7, Br8, Br11, Br12
	Br22, Br25, Br26, Br27, Br28	
	BrN1, BrN2, BrN3, BrN4, BrN5, BrN8	
13: Time Synchronization	Tm1, Tm2	TmN1