

Certification No. 1907

This is to certify that the metering equipment identified as:

Type: HXE330

Mgmt. Logical Device Name: SAP = 1 is "48584530303330373330303132333435" (HXE0030730012345)

Manufactured by: Hexing Electrical Co.,Ltd.

has successfully passed the DLMS/COSEM Conformance test, under the following conditions:

- CTT version: CTT 3.0 extended edition, 64bits (109)
- Licensed to: 20160314_HEXING_Electrical_Co_Ltd_CHI (2016/3/14)
- COSEM object definitions file version: Object_defs_v3.1_released_170313.dat
- Media identifier(s): Abstract, Electricity

Tests	Comm. profile & opening mode	Application contexts	Security features	Date and time	Test Result hash value
Test 1 GPRS	TCP	LONG_NAMES, LONG_NAMES_WITH _CIPHERING	ACTIVATE_SECURITY_POLICY, GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING, KEY_TRANSFER	05-DEC- 2017 13:33:45	6113967667BF03E202AFF387755 F64D82BF887FEF1B14992051916 71B361FEBA
Test 2 optical	HDLC	LONG_NAMES, LONG_NAMES_WITH _CIPHERING	GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING	05-DEC- 2017 10:32:14	5E63BF70B88D0AE9A0F9BBA90 DC18CFF06A6DBA1AC330AD9F 1CF69A56DFB6609
Test 3 RS485	HDLC	LONG_NAMES, LONG_NAMES_WITH _CIPHERING	GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING	05-DEC- 2017 10:59:48	811FAD0DB963C23F1D3483B868 3E6F458FFA39DC81E29B33636F F59D371059F6

The authenticity of the test report(s) has been verified by the DLMS User Association and the metering equipment identified above is listed on its web site at: www.dlms.com.

With this, the manufacturer is entitled to display the DLMS/COSEM Compliant mark – shown below – on its product duly identified and on its product literature.



The test reports are filed by the DLMS UA. Copies are available from the manufacturer.

This Certificate is only valid for the functions successfully tested; see the Summary. The test has been executed on one specimen of the product, as identified by the Management Logical Device Name reported. Results may not be applicable for other test specimens.

Date: Zug, the 12th December 2017



Gyöző Kmethy
President

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Summary of features tested for Test 1

This section provides an overview of the features tested, aggregated over all logical devices and Application Associations in one test session. Full information is available in the Test Result.

```
*****
* Identification *
*****
```

```
Identification = {
  Manufacturer = "\Hexing Electrical Co.,Ltd."
  FLAGid = "\HXE"
  Type = "\HXE330"
  IUTisModule = FALSE
  SerialNr = "\30012345"
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC
Dedicated Key= TRUE"
  Comment = "\Client:Public,Management for TCP"
}
```

```
*****
* Summary *
*****
```

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All(Communication profile not HDLC)				
APPL	49	0	10	0	39	0
COSEM	1441	0	8	27	1406	0
SYMSEC	74	0	16	0	58	0

```
Communication profile:          TCP

Application context names:      LONG_NAMES, LONG_NAMES_WITH_CIPHERING

Security mechanisms:           NO_SECURITY, HIGH_LEVEL_SECURITY_GMAC

ACSE and xDLMS features:      ACTION, GET, MULTIPLE_REFERENCES, RLRQ_RLRE
                               SELECTIVE_ACCESS
                               SERVICE_SPECIFIC_BLOCK_TRANSFER, SET

Security features:             ACTIVATE_SECURITY_POLICY
                               GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING
                               KEY_TRANSFER

Logical device(s) found:      SAP = 1 is "48584530303330373330303132333435"
(HXE0030730012345)

COSEM classes tested:          1, 3, 4, 5, 6, 7(1), 8, 9, 11, 15(1), 17, 18, 19(1), 20
                               21, 22, 23(1), 27(1), 28(2), 29(2), 40, 41, 42, 43
                               44, 45, 64, 70, 71

COSEM classes found but not tested: (none)
```

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Summary of features tested for Test 2

This section provides an overview of the features tested, aggregated over all logical devices and Application Associations in one test session. Full information is available in the Test Result.

```
*****  
* Identification *  
*****
```

```
Identification = {  
  Manufacturer = "\Hexing Electrical Co.,Ltd."  
  FLAGid = "\HXE"  
  Type = "\HXE330"  
  IUTIsModule = FALSE  
  SerialNr = "\30012345"  
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC  
Dedicated Key= TRUE"  
  Comment = "\Client:Public,Management for Optical"  
}
```

```
*****  
* Summary *  
*****
```

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
HDLC	36	0	1	0	35	0
APPL	49	0	10	0	39	0
COSEM	1426	0	8	32	1386	0
SYMSEC	55	0	22	0	33	0

```
Communication profile: HDLC  
Application context names: LONG_NAMES, LONG_NAMES_WITH_CIPHERING  
Security mechanisms: NO_SECURITY, HIGH_LEVEL_SECURITY_GMAC  
ACSE and xDLMS features: ACTION, GET, MULTIPLE_REFERENCES, RLRQ_RLRE  
SELECTIVE_ACCESS  
SERVICE_SPECIFIC_BLOCK_TRANSFER, SET  
Security features: GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING  
Logical device(s) found: SAP = 1 is "48584530303330373330303132333435"  
(HXE0030730012345)  
COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
21, 22, 23 (1), 27 (1), 28 (2), 29 (2), 40, 41, 42, 43  
44, 45, 64, 70, 71  
COSEM classes found but not tested: (none)
```

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Summary of features tested for Test 3

This section provides an overview of the features tested, aggregated over all logical devices and Application Associations in one test session. Full information is available in the Test Result.

```
*****  
* Identification *  
*****
```

```
Identification = {  
  Manufacturer = "\Hexing Electrical Co.,Ltd."  
  FLAGid = "\HXE"  
  Type = "\HXE330"  
  IUTIsModule = FALSE  
  SerialNr = "\30012345"  
  Comment = "\Application Context: LN_WITH-CIPHERING, Authentication mechanism GMAC  
Dedicated Key= TRUE"  
  Comment = "\Client:Public,Management for RS485"  
}
```

```
*****  
* Summary *  
*****
```

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
HDLC	36	0	1	0	35	0
APPL	49	0	10	0	39	0
COSEM	1429	0	8	31	1390	0
SYMSEC	55	0	22	0	33	0

```
Communication profile: HDLC  
Application context names: LONG_NAMES, LONG_NAMES_WITH_CIPHERING  
Security mechanisms: NO_SECURITY, HIGH_LEVEL_SECURITY_GMAC  
ACSE and xDLMS features: ACTION, GET, MULTIPLE_REFERENCES, RLRQ_RLRE  
SELECTIVE_ACCESS  
SERVICE_SPECIFIC_BLOCK_TRANSFER, SET  
Security features: GENERAL_DED_CIPHERING, GENERAL_GLO_CIPHERING  
Logical device(s) found: SAP = 1 is "48584530303330373330303132333435"  
(HXE0030730012345)  
COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
21, 22, 23 (1), 27 (1), 28 (2), 29 (2), 40, 41, 42, 43  
44, 45, 64, 70, 71  
COSEM classes found but not tested: (none)
```