

## Certification No. 2286

This is to certify that the metering equipment identified as:

**Type: E3005-SA Active firmware(s): Id=000.9 2019-12-17**  
**Mgmt. SAP = 1 is "445A4732303230383036303330323034" (DZG2020806030204)**  
**Manufactured by: DZG Metering GmbH**

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

- CTT version: CTT 3.1 standard edition, 64bits, release 107
- Licensed to: 20161130\_Zhejiang\_Reallin\_Electron\_Co\_Ltd (2016/11/30)
- COSEM object definitions file version: Object\_defs\_v3.6\_Released\_2\_20200102.dat
- Media identifier(s): Abstract, Electricity

Tests	Comm. profile & opening mode	Application contexts	Security features	Date and time	Test Result hash value
Test 1 Dedicated key	HDLC_DIRECT HDLC	LONG_NAMES, LONG_NAMES _WITH_ CIPHERING	SERVICE_SPECIFIC_ DED_CIPHERING_ SERVICE_SPECIFIC_ GLO_CIPHERING, SUITE_0  KEY_TRANSFER	18-JAN-2020 10:41:06	AB70E944213C96E975D4B33208CDB2071 DFABBBBCB8826CF5E914CF2EEEBBC7446
Test 2 Dedicated key	HDLC, MODE_E			17-JAN-2020 08:33:53	CDD557CDB173AA58206BAB4C659BD889 181F0602E9CFB074DE041DCE1EBC20C4
Test 3 Dedicated key	TCP			22-JAN-2020 20:31:02	EC6A6CCC0B90A082FE1C0A79D54031ED FAD827422434C84AE41F3AAFD15441DA
Test 4 HLS	HDLC_DIRECT HDLC		SERVICE_SPECIFIC_ GLO_CIPHERING, SUITE_0  KEY_TRANSFER	14-JAN-2020 18:08:05	0FC95287E25AAA46799C4A19C14FC859B B510DB327F8CE48053FDF8542A2D99C
Test 5 HLS	HDLC, MODE_E			15-JAN-2020 08:18:37	357A017C634496460FB538CA930335BCB4 DBD446669530FC819BF5BEAE8C5648
Test 6 HLS	TCP			20-JAN-2020 13:15:05	5D76D6D8F7425D6D859E53B689E19EDE7 0E755D99C00B7468A0D413FDC7106FD
Test 7 LLS	HDLC, DIRECT HDLC	LONG_NAMES	(not collected)	14-JAN-2020 08:57:37	75217B5B09B9FC5ED888E7543C967910E8 7E904C761C01AB22B9986038F1849D
Test 8 LLS	HDLC, MODE_E			16-JAN-2020 14:00:57	D6636132F924713127EE661A0BFD0138949 3D635416916751B2CC75D0199D525
Test 9 LLS	TCP			17-JAN-2020 11:59:00	C01F42E7AB5F94690202D7413F234CAF9E 592E91F5015567FE85002CD0593B36

This E3005-SA meter device type has already been certified as Certification No. 1733 tested with CTT.2.5 at 26<sup>th</sup> November 2016.

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](http://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 17<sup>th</sup> February 2020

A stylized, handwritten signature in black ink, surrounded by a decorative border of small "dlms" logos.

*Sergio Lazzarotto*  
*Executive Director and President*

A stylized, handwritten signature in black ink, surrounded by a decorative border of small "dlms" logos.

*Győző Kmethy*  
*President Emeritus*

A stylized, handwritten signature in black ink, surrounded by a decorative border of small "dlms" logos.

*Viktória Varjú*  
*Certification Engineer*

# Certification No. 2286

## 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 = "\DZG Metering GmbH"  
  FLAGid = "\DZG"  
  Type = "\E3005-SA"  
  ConfigurationId = "\ConfigurationId"  
  SerialNr = "06030204"  
  Comment = "\comment 1"  
  Comment = "\comment N"  
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC	36	0	2	0	34	0
APPL	103	0	20	0	83	0
COSEM	102927	0	35	363	102529	0
SYMSEC	90	0	22	0	68	0
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: HDLC

Application context names: LONG\_NAMES, LONG\_NAMES\_WITH\_CIPHERING

Authentication mechanisms: NO\_SECURITY, HIGH\_LEVEL\_SECURITY\_GMAC

ACSE and xDLMS features: ACTION, GET, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: SERVICE\_SPECIFIC\_DED\_CIPHERING  
SERVICE\_SPECIFIC\_GLO\_CIPHERING, SUITE\_0  
KEY\_TRANSFER

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
22, 23 (1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

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 = "\DZG Metering GmbH"  
  FLAGid = "\DZG"  
  Type = "\E3005-SA"  
  ConfigurationId = "\ConfigurationId"  
  SerialNr = "06030204"  
  Comment = "\comment 1"  
  Comment = "\comment N"  
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (MODE_E)				
APPL	103	0	20	0	83	0
COSEM	102927	0	35	363	102529	0
SYMSEC	90	0	22	0	68	0
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: HDLC

Application context names: LONG\_NAMES, LONG\_NAMES\_WITH\_CIPHERING

Authentication mechanisms: NO\_SECURITY, HIGH\_LEVEL\_SECURITY\_GMAC

ACSE and xDLMS features: ACTION, GET, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: SERVICE\_SPECIFIC\_DED\_CIPHERING  
SERVICE\_SPECIFIC\_GLO\_CIPHERING, SUITE\_0  
KEY\_TRANSFER

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
22, 23 (1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)

# Certification No. 2286

## 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 = "\DZG Metering GmbH"  
  FLAGid = "\DZG"  
  Type = "\E3005-SA"  
  ConfigurationId = "\ConfigurationId"  
  SerialNr = "06030204"  
  Comment = "\comment 1"  
  Comment = "\comment N"  
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (Communication profile not HDLC)				
APPL	103	0	19	0	84	0
COSEM	102927	0	35	363	102529	0
SYMSEC	105	0	21	0	84	0
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: TCP

Application context names: LONG\_NAMES, LONG\_NAMES\_WITH\_CIPHERING

Authentication mechanisms: NO\_SECURITY, HIGH\_LEVEL\_SECURITY\_GMAC

ACSE and xDLMS features: ACTION, GET, RLRQ\_RLRE, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: SERVICE\_SPECIFIC\_DED\_CIPHERING  
SERVICE\_SPECIFIC\_GLO\_CIPHERING, SUITE\_0  
KEY\_TRANSFER

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
22, 23 (1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)

# Certification No. 2286

## Summary of features tested for Test 4

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 = "\DZG Metering GmbH"  
  FLAGid = "\DZG"  
  Type = "\E3005-SA"  
  ConfigurationId = "\ConfigurationId"  
  SerialNr = "06030204"  
  Comment = "\comment 1"  
  Comment = "\comment N"  
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC	36	0	2	0	34	0
APPL	103	0	20	0	83	0
COSEM	102927	0	35	363	102529	0
SYMSEC	114	0	18	0	96	0
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: HDLC

Application context names: LONG\_NAMES, LONG\_NAMES\_WITH\_CIPHERING

Authentication mechanisms: NO\_SECURITY, HIGH\_LEVEL\_SECURITY\_GMAC

ACSE and xDLMS features: ACTION, GET, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: SERVICE\_SPECIFIC\_GLO\_CIPHERING, SUITE\_0  
KEY\_TRANSFER

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
22, 23 (1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)

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## Summary of features tested for Test 5

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 = "\DZG Metering GmbH"  
  FLAGid = "\DZG"  
  Type = "\E3005-SA"  
  ConfigurationId = "\ConfigurationId"  
  SerialNr = "06030204"  
  Comment = "\comment 1"  
  Comment = "\comment N"  
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (MODE_E)				
APPL	103	0	20	0	83	0
COSEM	102927	0	35	363	102529	0
SYMSEC	114	0	18	0	96	0
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: HDLC

Application context names: LONG\_NAMES, LONG\_NAMES\_WITH\_CIPHERING

Authentication mechanisms: NO\_SECURITY, HIGH\_LEVEL\_SECURITY\_GMAC

ACSE and xDLMS features: ACTION, GET, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: SERVICE\_SPECIFIC\_GLO\_CIPHERING, SUITE\_0  
KEY\_TRANSFER

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
22, 23 (1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)

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## Summary of features tested for Test 6

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 = "\DZG Metering GmbH"
  FLAGid = "\DZG"
  Type = "\E3005-SA"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "06030204"
  Comment = "\comment 1"
  Comment = "\comment N"
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (Communication profile not HDLC)				
APPL	103	0	19	0	84	0
COSEM	102927	0	35	363	102529	0
SYMSEC	129	0	21	0	108	0
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: TCP

Application context names: LONG\_NAMES, LONG\_NAMES\_WITH\_CIPHERING

Authentication mechanisms: NO\_SECURITY, HIGH\_LEVEL\_SECURITY\_GMAC

ACSE and xDLMS features: ACTION, GET, RLRQ\_RLRE, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: SERVICE\_SPECIFIC\_GLO\_CIPHERING, SUITE\_0  
KEY\_TRANSFER

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7 (1), 8, 9, 11, 15 (1), 17, 18, 19 (1), 20  
22, 23 (1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)



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## Summary of features tested for Test 7

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 = "\DZG Metering GmbH"  
  FLAGid = "\DZG"  
  Type = "\E3005-SA"  
  ConfigurationId = "\ConfigurationId"  
  SerialNr = "06030204"  
  Comment = "\comment 1"  
  Comment = "\comment N"  
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC	36	0	2	0	34	0
APPL	99	0	28	0	71	0
COSEM	102927	0	35	363	102529	0
SYMSEC		All (No ciphered association with the required properties)				
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: HDLC

Application context names: LONG\_NAMES

Authentication mechanisms: NO\_SECURITY, LOW\_LEVEL\_SECURITY

ACSE and xDLMS features: GET, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: (not collected)

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7(1), 8, 9, 11, 15(1), 17, 18, 19(1), 20  
22, 23(1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)

# Certification No. 2286

## Summary of features tested for Test 8

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 = "\DZG Metering GmbH"
  FLAGid = "\DZG"
  Type = "\E3005-SA"
  ConfigurationId = "\ConfigurationId"
  SerialNr = "06030204"
  Comment = "\comment 1"
  Comment = "\comment N"
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (MODE_E)				
APPL	99	0	28	0	71	0
COSEM	102927	0	35	363	102529	0
SYMSEC		All (No ciphered association with the required properties)				
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: HDLC

Application context names: LONG\_NAMES

Authentication mechanisms: NO\_SECURITY, LOW\_LEVEL\_SECURITY

ACSE and xDLMS features: GET, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: (not collected)

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7(1), 8, 9, 11, 15(1), 17, 18, 19(1), 20  
22, 23(1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)

# Certification No. 2286

## Summary of features tested for Test 9

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 = "\DZG Metering GmbH"  
  FLAGid = "\DZG"  
  Type = "\E3005-SA"  
  ConfigurationId = "\ConfigurationId"  
  SerialNr = "06030204"  
  Comment = "\comment 1"  
  Comment = "\comment N"  
}
```

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

TYPE	TOTAL	SKIPPED	INAPPLICABLE	INCONCLUSIVE	PASSED	FAILED
----	-----	-----	-----	-----	-----	-----
HDLC		All (Communication profile not HDLC)				
APPL	99	0	27	0	72	0
COSEM	102927	0	35	363	102529	0
SYMSEC		All (No ciphered association with the required properties)				
PUBSEC		All (No ciphered association with the required properties)				
DP	0	0	0	0	0	0
GBT		All (No association with the required properties)				

Communication profile: TCP

Application context names: LONG\_NAMES

Authentication mechanisms: NO\_SECURITY, LOW\_LEVEL\_SECURITY

ACSE and xDLMS features: GET, RLRQ\_RLRE, SELECTIVE\_ACCESS  
SERVICE\_SPECIFIC\_BLOCK\_TRANSFER, SET

Security features: (not collected)

Data protection features: (not collected)

Logical device(s) found: SAP = 1 is "445A4732303230383036303330323034"  
(DZG2020806030204)

Active firmware(s): Id=000.9 2019-12-17

COSEM classes tested: 1, 3, 4, 5, 6, 7(1), 8, 9, 11, 15(1), 17, 18, 19(1), 20  
22, 23(1), 30, 40, 43, 64, 70, 80, 81, 82, 83, 84, 85  
86

COSEM classes found but not tested: (none)