

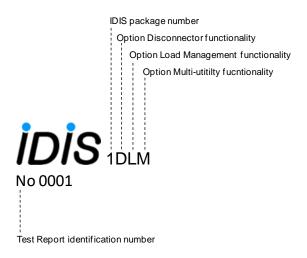
How to get the IDIS Certificate

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1. PURPOSE

IDIS devices are tested for conformity and interoperability according to procedures set by the IDIS Industry Association (hereinafter referred to as "IDIS association"). As a result, every certified IDIS device carries an IDIS Label which identifies:

- The identification of the IDIS specification package.
- The extensions to the minimal IDIS functionality implemented in this device (as described in the IDIS specification documents).
- Identification of the conformance Test Report produced by the type-testing of this device. Test Reports are available through the IDIS association.



The Test Report clearly identifies:

- The type and manufacturer of the device.
- The Extensions supported by the device.
- The additional Options supported by the device.

Examples of test reports can be found at <u>https://www.idis-association.com</u>, section 'Certified Equipment' Only devices for which an IDIS Certificate is issued are allowed to be labelled with the IDIS Label.



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2. PROCEDURE TO GET THE IDIS CERTIFICATE

The procedure to obtain the IDIS Certificate contains the following phases:

- 1. Conformance Test.
- 2. Final Interoperability Test.
- 3. Apply for Certificate.

In each phase, a set of steps need to be completed, see figure below:

Conformance Test	Final Interoperability Test (FIT)	Apply for Certificate
1. Purchase Specification from IDIS assocation	7. Apply for FIT at DNV GL	11. Review FIT Results
2. Develop Meter	8. Review FIT pre-requisites	12. Submit declaration to publish results to DNV GL
3. Recommended:Get G3-PLC Certificate	9. Order FIT @ DNV GL	13. Check payment of invoices and forward declaration to IDIS
4. Order Test at DNV-GL	10. FIT Testing at DNV GL	14. Issueing certificate and publish test reports on website.
5. Provide filled in Test Requirements Form to DNV GL		
6. Conformance Testing at DNV GL		Activity of IDIS association
		Activity of manufacturer of meter
		Activity of DNV GL

The following subsections contain the details.

2.1. Conformance Test procedure

- 1. Purchase the required IDIS specification package from the IDIS association.
- 2. Develop an IDIS meter according to the relevant IDIS specifications package.
- 3. For G3-PLC meters only: in order to start testing at DNV-GL it is recommended to be certified for the CENELEC A or FCC band by the G3-PLC Alliance (<u>http://www.g3-plc.com/content/g3-plc-certified-products</u>). The "device designation" (type and firmware version) shown on the test certificate of the G3-PLC Alliance must correspond to the meter to be IDIS certified.
- 4. Order (an) IDIS Conformance Test(s) at DNV GL (<u>idis-testing@dnvgl.com</u>). For prices, see section 6. Upon receipt of a valid Purchase Order, DNV GL schedules a test date that suits both you and DNV GL.
- 5. Fill in the Test Requirements Form and identify the optional objects/attributes you want to be tested. (Both the Test Requirement form and the excel sheet "IDIS Optional Elements" is available from DNV GL for companies that ordered an IDIS conformance test).

NB: If you do not identify any optional objects/attributes only the mandatory objects/attributes will be tested and will appear on the test report. In this case you do not have to fill in the file "IDIS Optional Elements". The set of mandatory objects/attributes is sufficient to get the IDIS Test Label.



Send the filled-in Test Requirements Form and, if applicable excel sheet with optional objects to DNV GL (contact: <u>idis-testing@dnvgl.com</u>). Make sure that the meter is available at DNV GL on the scheduled test date. An engineer from your company is welcome to attend the test.

6. Perform the Conformance Testing of your device at DNV GL. This testing is done independently from the IDIS Association. You may perform as many test trials as you like until you achieve a "Conformance Test Report" (CTR) with no failed, inconclusive, fatal and disabled test cases. DNV GL will hand over the CTR to you after each Conformance Test.

The next step to get the IDIS Certificate is the Final Interoperability Test (FIT).

2.2. FIT Procedure

The purpose of the FIT is to confirm interoperability between your meter, a set of reference IDIS meters (only in case of Package 1) and/or other system components like MBUS meters. If applicable, the Consumer Information Port is tested. The test will be performed at the premises of DNV-GL in presence of a representative of your company. The FIT can be typically done within one day.

Only meters that have passed conformance testing can apply for the FIT.

Note: The IDIS association may waive the obligation for a CTR if the meter has undergone only minor modifications (e.g. small bug fixing). In this case a detailed description of the modifications shall be sent to the IDIS association for approval.

- 7. Apply for a FIT at DNV GL. The following prerequisites shall be present:
 - a. State File of Conformance Test (CTT configuration file, CTR and loggings) of Conformance Test. DNV GL obtains this State File from the IDIS Test Tool.
 - b. MID Certificate or similar. To be send by manufacturer to DNV GL.

MID certificate (or similar) to be approved by the IDIS association. The "type" (hardware and software version) shown in the MID certificate shall correspond to the "type" listed on the name plate and in the CTR. The MID certificate shall show the firmware version and its identification number (checksum). The same firmware version and checksum must be readable from the meter.

c. G3-PLC certificate (if applicable). To be send by manufacturer to DNV GL

The "device designation" (type and firmware version) shown on the test certificate of the G3-PLC Alliance must correspond to the meter to be IDIS certified.

Upon your request, DNV GL will promptly (except in case of bank holidays) distribute the prerequisites for the FIT to the technical team of the IDIS Association. Requests can only be done if all prerequisites are available for DNV GL.



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- 8. The IDIS Association will review the "State File" and if the CTR fulfils the final verdict (see section 4) and the "State File" is consistent approve the meter for participating for the Final Interoperability Test (FIT). The outcome of the approval step is communicated to you after 12 working days counted from your request to distribute the pre-requisites. If the meter is approved, the IDIS representatives that are involved in the approval process indicate if they want to attend the FIT.
- Order a FIT test with Certification Fee at DNV GL.
 Upon receipt of a valid Purchase Order , DNV GL schedules a test date that suits both you, the IDIS representative (if applicable) and DNV GL. The Certification Fee applies per certification. FIT re-tests can be ordered without certification fee.
- 10. Perform the FIT at DNV GL.

DNV GL only accepts meters that are approved to participate in the FIT. The meter provided for FIT must be identical (same hardware and firmware version) to the one tested at conformance testing. It is mandatory to send a representative of your company to attend the FIT. DNV GL will hand over the FIT report to you after the FIT. If a FIT report has achieved with no failed, inconclusive, fatal and disabled test cases, you can apply for the IDIS Label. The IDIS representative can abstain from participating in retest(s).

The next step to get the IDIS label is to apply for the Label and Certificate.

2.3. Apply for Certificate

11. Upon your request, DNV GL sends the FIT State File to the IDIS association for review.

The IDIS association will review the FIT results and inform DNV GL. DNV GL will communicate the outcome to you within 12 working days after your request to send the state file to IDIS (except in a period of e.g. summer holiday, which will be communicated to you upfront).

- 12. If the FIT State File is approved, you need to submit to DNV GL a written declaration that you agree that the IDIS association publishes the Conformance Test Report and FIT Report on its website. See appendix for the template of the declaration.
- 13. If all invoices are paid, DNV GL will send your declaration to the IDIS association.
- 14. The IDIS association publishes the CTR and FIT results and the IDIS certificate will be issued to you by the IDIS association within another 12 working days.



3. TEST RESULTS

The following table summarises the actions to be taken should the test result be different from "PASSED".

verdict	owner of the DUT	DNV-GL	IDIS
INCONCLUSIVE	INCONCLUSIVE results are produced if a test could not be performed (e.g. due to the non- availability of the necessary data). Configure DUT to meet the pre- conditions for the IDIS testing.	No action.	Typically INCONCLUSIVE results are an indication that the DUT does not fulfill the pre-conditions listed above. In these cases the result is not accepted.
INAPPLICABLE	Check if the INAPPLICABLE tests conform with your test plans. No action is required to get the IDIS Test Label.	No action.	INAPPLICABLE indicates that the test concerns elements which are optional. INAPPLICABLE results are accepted.
FATAL	Depending on the error message, Modify the DUT or provide DNV-GL with modified configuration data for the DUT.	Cooperate with IDIS to resolve FATAL errors in cases where it cannot be assigned to the DUT or the provided configuration for the DUT.	Supports DNV-GL to resolve FATAL errors in cases where it cannot be assigned to the DUT or the provided configuration data for the DUT. FATAL test are not accepted.
FAILED	Modify the DUT or provide DNV-GL with a modified configuration data for the DUT	No action.	No further actions by IDIS. FAILED test are not accepted.
DISABLED	No action.	Enable all necessary tests.	No further actions by IDIS. DISABLED test are not accepted.

4. FINAL VERDICT

The IDIS association only accepts complete test reports (i.e. DISABLED tests are not accepted) according to the following conditions:

FAILED:	0
FATAL:	0
DISABLED:	0
INCONCLUSIVE:	0
INAPPLICABLE:	not considered

5. FOR MODULAR METERS

For meters with exchangeable communication modules the following rule applies:



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The IDIS certification test will always be done with a specific combination of meter and communication module. The corresponding IDIS Test Label must be put on the meter and on the module. In case of a later module exchange the labels should be changed accordingly. If a change of the label on the meter is not possible then the communication module might have a different label from the meter.

6. PRICING SCHEME

All prices in €, excluding VAT.

test		charged by DNV-GL
Pack1 Conformance test based on S-FSK-PLC	per test run	5'000
FIT1 based on S-FSK-PLC	per device	2'500 ¹
Pack2 Conformance test based on GPRS/LTE	per test run	6'000
FIT2 gprs/lte	per device	2'500 ¹
Pack2 Conformance test based on G3-PLC	per test run	6'500
FIT2 G3-PLC	per device	2'500 ¹
Pack3 Conformance test	per test run	To Be Confirmed
FIT3	per device	To Be Confirmed
Certification Fee (to be ordered together with the first FIT for a certification)	Per certification	5'000

This document is for information only; it does not represent any legally binding offer. Processes and prices may change after publication of this document, please ensure that you have the most up to data version/information.

¹ if more than one device (maximum 3) can be tested per working day, then the price for the second and the third device is reduced to 1'500 €.



APPENDIX: AGREEMENT TO PUBLISH THE TEST REPORTS

The applicant herewith agrees that the IDIS industry association publishes the "Conformance Test Report" and the "FIT Test Report(s)" provided for IDIS Test Label registration. The test reports will be made publically available through the IDIS-association web site.

FIT Test Report(s), FIT #: (as appearing in the header of the report)	
Conformance Test Report, date/time: (as appearing in the header of the report)	
Applicant (company name and address):	

.....

Represented by (name, job title and signature):

.....

Place/Date:

mail the filled-in form to:

IDIS Industry Association c/o office team Bahnhofstrasse 28, 6304 Zug