

# WARRANTY PROGRAM

FibrainDATA® Structured Cabling System





## Warranty Program of FibrainDATA® Structured Cabling System

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#### 1. INTRODUCTION

The Warranty Program of FibrainDATA® Structured Cabling System, further referred to as the Warranty Program, specifies the conditions of obtaining, implementing and losing the Warranty granted for FibrainDATA® Structured Cabling System.

In matters not covered in the Warranty Program individual provisions between the parties of the Program apply and generally applicable provisions of the Civil Code.

Installations performed in the FibrainDATA® Structured Cabling System can be certified, if all terms and conditions of this Warranty Program are successfully met.

FIBRAIN Sp. z o.o., as the manufacturer of FibrainDATA® Structured cabling system reserves the right to change the provisions stated in this document. The updated and present version of the Warranty Program is available on FIBRAIN website.

The terms used in the Warranty Program should be understood as stated below:

Warranty Program – Warranty Program concerning FibrainDATA® Structured Cabling System.

FIBRAIN – FIBRAIN Sp. z o.o. – Manufacturer of products which are parts of FibrainDATA® Structured Cabling System.

**Products** - products which are part of FibrainDATA® Structured cabling System.

User - end-user of the Installation.

**Certified Installer** - the entity being a natural or legal person, showing the ability to assembly, test and maintain structured cabling and having the current status of the Certified Installer of FibrainDATA® Structured cabling System. Current status confirms the ownership of Certificate issued by FIBRAIN.

**Installation** - passive structured cabling system, which is a set of transmission path mutually compatible, installed in the User's premises and is under Warranty Program and designed in accordance with applicable standards as well as installed by the Certified Installer of FibrainDATA® system in accordance with Manufacturer's recommendations and current standards, in particular EN 50174, ISO/IEC 14763, EN 50310, ISO/IEC 60364.

**Certification of Installation**– the issue of System Warranty for the User of the Installation.

Standards- international standards pertaining to design and installation of structured cabling systems, which are:

#### **CENELEC European Standards**

PN-EN 50173-1:2011	Information technology Structured Cabling Systems – Part 1: Generic requirements	
PN-EN 50173-2:2008	Information technology Structured Cabling Systems Part 2: Office premises (Primary standard)	
PN-EN 50173-2:2008/A1:2011	Information technology Structured Cabling Systems Part 2: Office premises (Amendment 1)	
PN-EN 50173-5:2009	Information technology Structured Cabling Systems Part 5: Data centers (Primary standard)	
PN-EN 50173-5:2009/A1:2011	Information technology Structured Cabling Systems Part 5: Data centers (Primary standard) (Amendment 1)	
PN-EN 50173-5:2009/A2:2013-07	Information technology Structured Cabling Systems Part 5: Data centers (Primary standard) (Amendment 2)	
PN-EN 50174-1:2010	Information technology Structured Cabling Systems Part 1: Installation certification and quality assurance (Primary standard)	





PN-EN 50174-1:2010/A1:2011	Information technology Structured Cabling Systems Part 1: Installation certification and quality assurance (Amendment 1)	
PN-EN 50174-1:2010/A2:2015-02	Information technology Structured Cabling Systems Part 1: Installation certification and quality assurance (Amendment 2)	
PN-EN 50174-2:2010	Information technology Structured Cabling Systems Part 2: Planning and installing inside premises (Primary Standard)	
PN-EN 50174-2:2010/A1:2011	Information technology Structured Cabling Systems Part 2: Planning and installing inside premises (Amendment 1)	
PN-EN 50174-2:2010/A2:2015-02	Information technology Structured Cabling Systems Part 2: Planning and installing inside premises (Amendment 2)	
PN-EN 50310:2012	Application Of Equipotential Bonding And Earthing In Buildings With Information Technology Equipment	

#### **ISO/IEC International Standards**

ISO/IEC 11801:2010 (Ed. 2.2)	Information technology — Generic cabling for customer premises	
ISO/IEC 24764:2010	Information technology Generic cabling systems for data centers	
ISO/IEC 14763-2:2012	information technology Implementation and operation of customer	
	premises cabling Part 2: Planning and installation	
ISO/IEC 14763-2:2012/Amd 1:2015	Information technology Implementation and operation of customer	
	premises cabling Part 2: Planning and installation	
ISO/IEC TR 14763-2-1:2011	Information technology Implementation and operation of customer	
	premises cabling Part 2-1: Planning and installation - Identifiers within	
	administration systems	
ISO/IEC 14763-3:2014	Information technology Implementation and operation of customer	
	premises cabling Part 3: Testing of optical fibre cabling	
ISO/IEC 14763-3:2014/Cor 1:2015	Information technology Implementation and operation of customer	
	premises cabling Part 3: Testing of optical fibre cabling	
ISO/IEC TR 24750:2007	Information technology Assessment and mitigation of installed balanced	
	cabling channels in order to support of 10GBASE-T	

#### **ANSI/TIA American Standards**

ANSI/TIA-568-C.0	Generic Telecommunications Cabling for Customer Premises, Ed. C, Amd. 2, 08-2012  Commercial Building Telecommunications Cabling Standard, Ed. C, Amd. 2, 05-2012	
ANSI/TIA-568-C.1		
ANSI/TIA-568-C.2	Balanced Twisted-Pair Telecommunication Cabling and Components Standard, Ed. C, Err. 04-2014	
ANSI/TIA-568-C.3	Optical Fiber Cabling Components Standard, Ed. C, Amd. 1, 10-2011	
ANSI/TIA-942-A	Telecommunications Infrastructure Standard for Data Centers, 2012	
ANSI/TIA-942-A-1	Telecommunications Infrastructure Standard for Data Centers Addendum 1, 04-2013	
ANSI/TIA-606-B	Administration Standard for Telecommunications Infrastructure, 2012	





#### 2. SCOPE OF WARRANTY

FIBRAIN by granting the Warranty distinguishes its following forms:

#### **System Warranty**

FIBRAIN guarantees that as long as the Installation is installed and used properly it meets all necessary Standard requirements and supports all protocols and applications in accordance with the Standards. The System Warranty covers the entire transmission path verified during Certification of Installation and it covers the period of 25 years since the date of issue the Certificate by FIBRAIN.

#### **Product Warranty**

All FibrainDATA® products of which the installation is composed are free from any physical defects resulting from the causes inherent in a product. The warranty period is 2-year since the date of issue. The warranty does not cover:

- a. all parts that are subject to normal wear and use in the operation;
- b. damages resulting after selling and receiving the product, namely transport, storage, winding, installation or improper use not in accordance with the Standards and/or guidelines stated by the Manufacturer in the documentation and instructions which are Installation guidelines of Products, Product Warranty, FibrainDATA® Vademecum;
- c. failures resulting from mechanical damages, the action of high temperature, the action of bacteria, pollution or electromechanic factors;
- d. failures caused by the use of products from other manufacturers, incompatible with the product, which do not meet the technical requirements or standards,
- e. caused by making modifications, alterations or structured modifications of the Products by unauthorized people.

#### 3. WARRANTY TERMS & CONDITIONS

The installation in which products namely all main, passive elements of the transmission path that are copper and fiber optic cables, connection modules, patch panels, connectors further referred to as Products, which have been purchased directly from FIBRAIN or its distribution channel, can be certified.

The use of other components than FIBRAIN brand requires a written approval from FIBRAIN. No approval from FIBRAIN causes that the certification of a whole network will be considered negatively.

The installation in which only new products have been installed and have been placed in the original packaging of the Manufacturer can be certified under the Warranty Program.

To obtain the System Warranty, the Certified Installer shall send in the electronic form the following documents: a properly completed certification application, the model of which is attached as the Annex no. 01.09-CS, the copy of post-completion documentation

the copy of invoices of the applied components

the set of dynamic network measurements,

min. 3 photos taken on the installation site, with particular emphasis on:

- a) Methods of placing cables in cable pathway systems
- b) Methods of installing connection modules on installation cables
- c) Organization of installation cables and patch cords in distribution points
- d) Cable pass through the walls/ceiling
- e) Leading cables to termination outlets.

FIBRAIN grants the System Warranty after verification and then approval of all submitted documents as well as review of installation by a person authorized by FIBRAIN.





FIBRAIN reserves the right to grant the System Warranty after the proper verification of the installed network on the basis of the documents required by FIBRAIN, without the need to verify the Installation on-site.

In the event of incompatibilities in the installation stated by FIBRAIN, the Certified Installer removes them, and notifies FIBRAIN about this the fact that they have been successfully removed. FIBRAIN decides whether the inspection concerning the Installation is necessary or the System Warranty can be issued on the basis of the documents and statements.

After approval the Installation by FIBRAIN, FIBRAIN issues the Certificate of System Warranty. The Warranty Program is the annex to the Certificate.

It is the responsibility of the Certified Installer to deliver the Certificate to the User.

#### 4. LIMITS & WARRANTY DISCLAIMER

The Warranty does not cover active equipment used in the Installation and the products from other manufacturers, network damage resulting from electronic equipment and/or software problems.

Products with operational restrictions in accordance with the Standards, are covered, up to the maximum defined by the Standards, or the expiry of the warranty period, whichever occurs first.

FIBRAIN shall not be liable for consequential or indirect damages arising from the installation and/or products installed in it, including, among others, loss of data or software installed in the system as a result of defects, loss of financial benefits resulting from the project, sale or use, loss of time, inconvenience, loss of use, usefulness for a particular purpose, regardless of prior notice to FIBRAIN about the possibility of such damages.

The User loses rights under the Warranty in the following cases:

- the use of Installation and /or Products in violation with the guidelines of the Manufacturer in this document, Installation Guidelines, FibrainDATA® Vademecum, Product Data Sheet, Warranties of Materials and/or applicable Standards,
- improper handling, storage, installing, or maintaining the Installation and /or Products,
- the implementation of repairs, alterations or design changes in Installation and/or the Product by people who do not possess the status of the Certified Installer,
- changes in products concerning violation of serial numbers, date of production,
- damage to the Installation and/or Products by thermal, chemical, electrical or electrolytic factors.

The Warranty does not cover damages beyond the scope of the FIBRAIN impact such as damage by rodents, fire, flooding, lightning, explosions, war, earthquakes and force majeure. FIBRAIN is not responsible for the acts or omissions of the Certified Installer, including improper installation of the Products. For the performance of the network, the Certified Installer is liable in tort and contractual on general principles or the ones agreed with the user of the network.

Once the complaint is accepted, FIBRAIN covers labor costs for reinstalling components which are free from defects, the amount of which will be accepted by FIBRAIN, before the Certified Installer starts performing the work.

The rights and obligations under the Warranty may be transferred to a third party only on the basis of the written approval by FIBRAIN.

#### 5. TERMS OF WARRANTY EXTENSION – NETWORK DEVELOPMENT

If there is a need to upgrade or expand network covered by the System Warranty, in order to maintain the Warranty it is necessary to apply in a written form to FIBRAIN for an extension of Warranty, the model of which is attached as Annex 01.09-CS.

The right to make any modifications to the certified Installation, shall be granted only for the Certified Installer.





The upgrade or development of the Installation shall be understood as:

- installation new connection modules,
- placement of other distribution points,
- performing LAN backbone,
- other modifications, which are about to change the original Installation.

FIBRAIN reserves the right to refuse the upgrade or expansion of the Installation covered by the System Warranty, after the technical assessment of the upgrade or development, verification concerning design and performance of the Installation.

In case of revealing any modifications and extension of the Installation covered by the System Warranty, with no Warranty extension approved by FIBRAIN, the User of the network loses rights under the Warranty.

#### 6. TERMS OF COMPLAINT

In the event of a defect within the Warranty period, the User of the network reports it to the Certified Installer. Each complaint must be notified to the Certified Installer no later than 7 days since the date it was detected, or can have been detected. The User is obliged to provide the Certified Installer access to the Installation in which there is a problem.

The Certified Installer shall immediately perform a preliminary diagnosis of the problem. If the problem points to the flaw inherent in the Products being the part of the installation, the Certified Installer fills the Warranty Complaint Form (Annex 05.09-CS) and forwards it to FIBRAIN in an electronic form. After careful verification of the problem by FIBRAIN, and then finding that the complaint and receiving the acceptance FIBRAIN how to remove the defect the Certified Installer repairs or replaces those parts of the system for which will be necessary.

In the event of complaint, the Certified Installer shall send electronically to FIBRAIN the following documents:

- Warranty Complaint Form (Annex 05.09-CS) with detailed description of the problem and a proposal concerning removal of a defect,
- Post-completion documentation,
- A copy of the delivery note and copies of invoices relating to the purchase of Products which are related to the complaint,
- A copy of dynamic networks measurements which are crucial for the network certification.

FIBRAIN at any time of handling the complaint is entitled to carry out tests and examine the structured cabling system on-site of the installation.

After the acceptance of the complaint, FIBRAIN shall cover the cost of components /products included in the complaint register whose repair or replacement is needed. Removed and faulty products shall be transferred to FIBRAIN free of charge. The complaint will not be deemed reasonable in case of circumstances the result of which is the limitation, loss or exclusion of the System Warranty.

If the Certified Installer fails to take necessary diagnosis of the problem or repair the failure of the Installation in time, FIBRAIN is entitled to invalidate the Installer Certificate, which has been granted to him.

If the complaint proves to be unjustified, the User is obliged to pay all the costs that FIBRAIN incurred in order to verify network failure.

Replacing the faulty component of the Installation for the one free from defects, it is not a significant repair of the Installation.





#### 7. MEASUREMENT & CERTIFICATION OF NETWORK

#### 7.1 Copper network measurements

In order to obtain the System Warranty for the installation, the Certified Installer is required to perform measurements of the copper network as recommended by IEC 61935-1 and only with the use of testing equipment listed below:

Producer	Model	Certification limit
Fluke Networks	DSX-5000	Cat5/ClassD ÷ Cat.6A/ClassEA
Fluke Networks	DTX-1800	Cat5/ClassD ÷ Cat.6A/ClassEA
Fluke Networks	DTX-1500	Cat5/ClassD ÷ Cat.6A/ClassEA
IDEAL Industries	lanTEK II	Cat5/ClassD ÷ Cat.6A/ClassEA*
Psiber Data	WireExpert 4500	Cat5/ClassD ÷ Cat.6A/ClassEA
JDSU	NGC-4500 Certifier40G	Cat5/ClassD ÷ Cat.6A/ClassEA
IDEAL Industries	lanTEK 6/6A/7/7G	Cat5/ClassD ÷ Cat.6/ClassE
Agilent	WireScope 350	Cat5/ClassD ÷ Cat.6/ClassE
IDEAL Industries	Wavetek LT 8600	Cat5/ClassD ÷ Cat.6/ClassE

<sup>\*</sup> Only adapter 6014 or high version; firmware "P" or higher

The Certified Installer is required to use the optical power meter with a valid calibration, follow the manufacturer's instruction of measuring equipment and FibrainDATA® Vademecum.

The Certified Installer is required to configure the instrument appropriately to the parameters of certified network with particular attention to:

- Test Limit
- Topology
- The correctness of markings in measured links

It is permitted to perform the measurements of copper lines in the area of the channel (Channel) and/or broadband connection (Permanent Link). In the case of the measurement channel it is absolutely necessary to fill all the links subjected to certification patch cords produced by FIBRAIN.

### 7.1. Fiber optic links measurements

Measuring devices which enable implementation of measurement procedures in accordance with IEC 14763-3 can be used to certify fiber optic network. The Certified Installer shall use the device with valid calibration, follow the manufacturer's measuring equipment and FibrainDATA® Vademecum.

For certification measurements it is required to use only the test reference cables in accordance with IEC 14763-3. Therefore, it is required to perform a visual inspection of connectors on both the test jumpers and measured link. In case of contamination in the connector, it is necessary to clean it by means of materials and tools required for these actions (dust-free wipes, isopropyl alcohol, cleaning tools).

The Certified Installer is obliged to set a reference level of an optical power meter as recommended by the manufacturer's procedures and IEC14763-3. The only acceptable method of setting the reference level is "1 jumper method" and "Enhanced 3 jumper method" in accordance with IEC 14763-3.





The Certified Installer shall configure the instrument appropriately to the parameters of certified network with particular attention

- Test limit
- Topology
- The correctness of markings in measured links

Fiber optic measurements need to be performed for the two wavelengths 850 µm/1300 µm for MM and 1310 µm/1550 µm 850 microns/1.300 microns for MM and 1310 microns / 1.550 microns for SM, in both directions. For the measurement certification, allowed to use power meter (LSPM) and/or a reflectometer (OTDR). In the case of using optical power meter OTDR to perform measurements, both launch and tail cords must be applied. Both types of cables need to be terminated with connectors.

#### 8. CERTIFICATION PROCEDURE

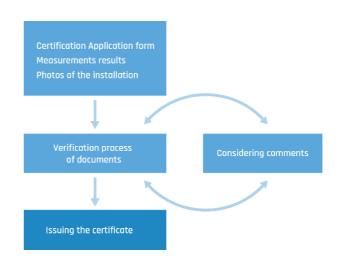
After finishing the installation, the Certified Installer is obliged to prepare and provide the required documents to FIBRAIN.

In the event of incompatibilities in the documents or installation, the Certified Installer is obliged to remove them and complete documents for the purpose of continuation of the certification procedure.

**FIBRAIN** verifies the Installation.

After successful completion of the certification procedure **FIBRAIN** issues a Certificate of System Warranty.

The Certified Installer shall deliver the Certificate of Warranty System to the User.



#### Annexes are integral part of this Warranty Program.

#### Annexes:

01.09-CS Certification application 02.09-CS Post-completion documentation 03.09-CS A model of Warranty Certificate 04.09-CS A model of FibrainDATA® Installer certificate 05.09-CS Complaint form



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