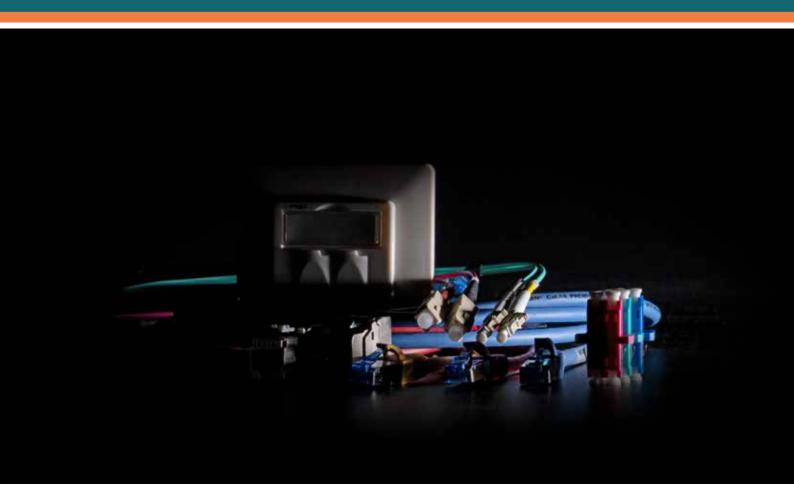
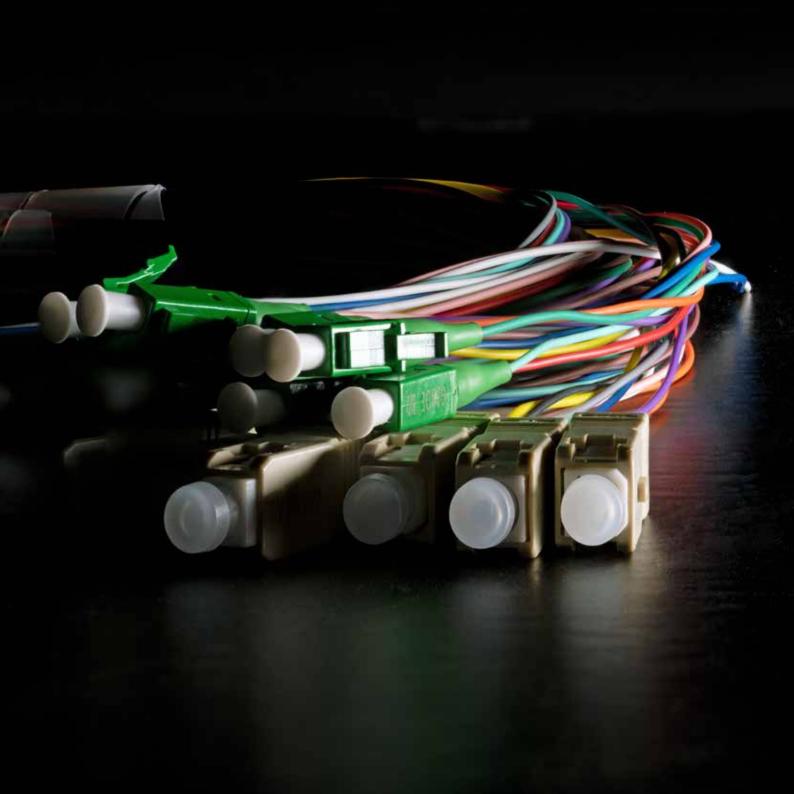


system solutions with added value





What is INFRALAN®

INFRALAN® stands for high-performance system solutions for structured building cabling. The brand combines the highest quality standards, reliability, and outstanding market knowledge in one location and features a product portfolio of selected high-performance components for structured fiber optic and copper cabling as well as cabinet systems.

INFRALAN® system solutions with added value

High-quality components are the result of years of experience in the market. This makes it possible to precisely tailor system solutions to the needs of business users - whether it be for office buildings, data centres, production halls, machinery/systems, campuses or even hospitals and shipbuilding. The individual products are optimally matched to one another, creating high-performance perfection. The consistent INFRALAN® program is completed by a network of highly competent specialists.



The System

Highest quality standards with 25-year system warranty

Focus on practice-oriented system solutions

- ☐ Highest investment security through certification: Regularly confirmed by independent testing institutes: Certification of
 - Permanent links for fiber optic systems as well as
 - component certification and PVP component certification for copper cabling systems.
- ☐ Highest quality standards: In-house quality assurance ensures comprehensive testing, control, and constant monitoring of the components.
- □ Optimally matched components: High-performance and reliable future-proof products from various product lines are used.
- □ 25-year system warranty: With each infrastructure a strategic and longterm investment, INFRALAN® provides a 25-year system warranty on all passive, permanently installed fiber optic and copper cabling components



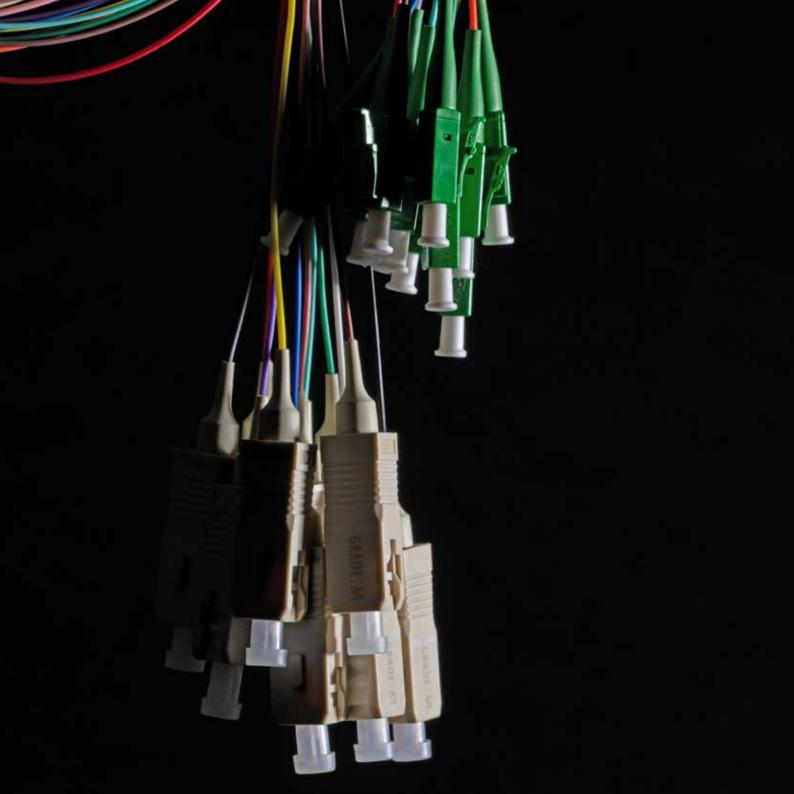
INFRALAN® system partners

Security through a strong network of certified installers

Why becoming an INFRALAN®-Partner?

The INFRALAN® brand gives you the certainty of maintaining a high-performance system now and in the future. That is why the installers are carefully selected since they not only install the INFRALAN® system, but also provide a 25-year system warranty. The warranty not only provides reliability and stability, but secures the investment long term.

Anyone handling the INFRALAN® communication networks must be well trained on them to ensure optimal functioning. Certification is a prerequisite for installing companies to be included in the INFRALAN® system partner program. The installer receives such certification after successful completion of a training programme conducted by experts (www.infralan. de/en/systempartners) where they learn and get familiarised with the correct handling of the products and interaction of the components (theory, practice, final exam).



Benefits

The INFRALAN® brand gives you the certainty of maintaining a high-performance system now and in the future. That is why the installers are carefully selected since they not only install the INFRALAN® system, but also provide a 25-year system warranty. The warranty not only provides reliability and stability, but secures the investment long term.

Become an INFRALAN® system partner

- ☐ Special support for partners: Support and consulting in the planning and execution phase
- ☐ Personal contact
- ☐ On-site consultation
- ☐ Security for investments, reliability and stability for the client with 25-year system warranty
- ☐ Network of planners and certified installers
- $\hfill\Box$ High-quality training and practical workshops



Connectivity

Perfect interaction of INFRALAN® components:

- □ fiber
- □ copper
- □ system racks

The INFRALAN® system: shielded and structured

Excellent IT cabling is of central importance in today's work environment so that communication processes function optimally. The technical requirements for the building infrastructure are growing at a rapid pace. 10G ethernet, power over ethernet, VOIP telephony, video surveillance, and video conferencing are posing new challenges for local area networks. Certified IT cabling systems such as INFRALAN® ensure reliable communication at all levels.

The INFRALAN® brand provides planners and system administrators with powerful system solutions for structured building cabling. The sophisticated system includes high quality copper/fiber cabling components, as well as network and system racks to ensure component distribution.



Fiber optic system

High-quality products which allow for advanced optical fiber installations in times of increasing data volumes.

INFRALAN® fiber optic cabling system

- ☐ Structured system consisting of splice boxes, installation cables, and corresponding connection materials
- ☐ Certifications of Permanent Links by GHMT, VDE, etc.
- ☐ Compliance with current transmission properties according to IEC 14763-3. Furthermore, all installation cables are certified according to the Construction Products Regulation



Copper system

Easy to install copper cables, which meet the growing requirements made on IT building infrastructures at the highest level of quality.

INFRALAN® copper cabling system

- ☐ Shielded, structured system consisting of connection modules and receptacles for module technology, installation cables, and patch cables.
- ☐ Certifications from independent testing laboratories such as GHMT, DELTA, ETL, etc.
- □ Compliance with the current transmission properties according to ISO/ IEC 1801 CAT.6a and EN 50173 with high system reserves. Furthermore, all installation cables are certified according to the Construction Products Regulation.

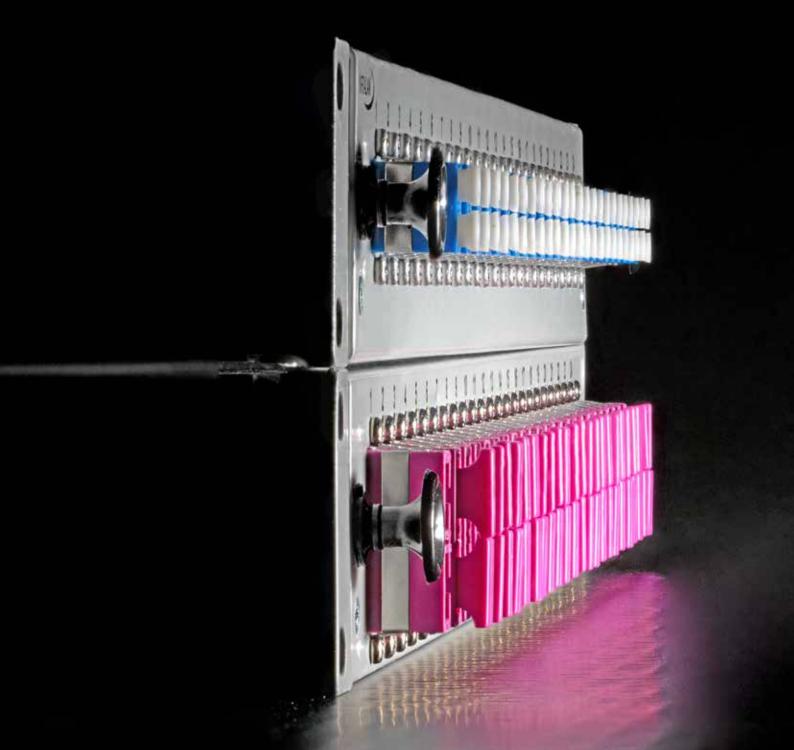


System rack

The INFRALAN® System Rack is a 19" cabinet system with removable modules for flexible use as a classic floor-mounted distribution board or in a data centre

The product highlights at a glance

- ☐ Depth adjustment requiring no tools: Optionally, the 19" profile rails depth can be adjusted without tools
- ☐ Universal mounting options:Thanks to the circumferential grid perforations of the profile frame, profile support rails can be offset both symmetrically and asymmetrically
- ☐ Dividable variant:You can receive a dividable frame on request which will ensure easy transport of the cabinet system



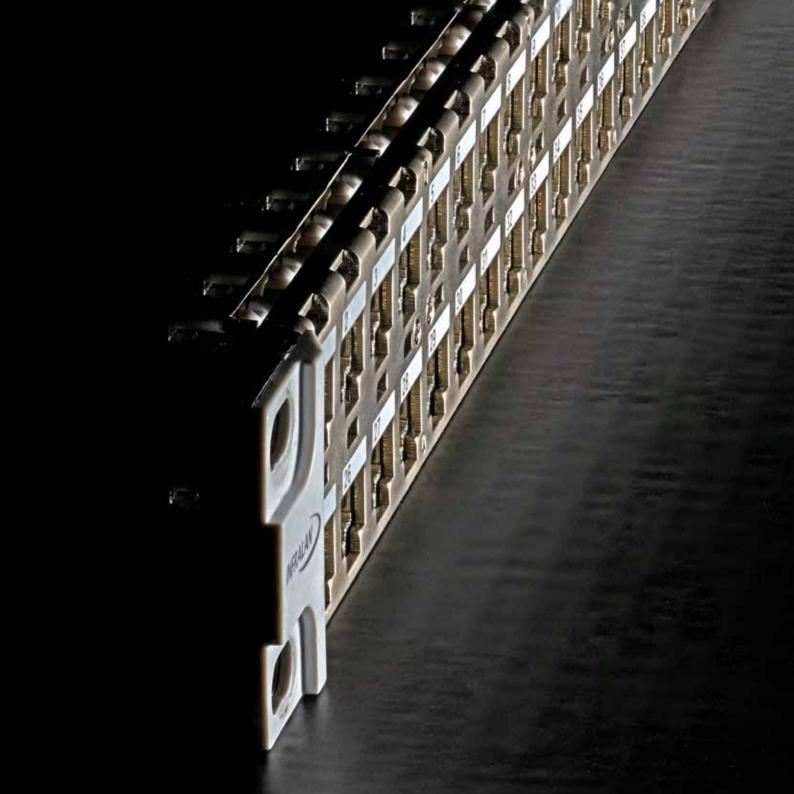
25 years system warranty

Each cabling infrastructure is a strategic and long-term investment that is expected to deliver the highest level of reliability and stability.

Extent of warranty for copper and optical fiber cabling systems

- 25-year system warranty for compliance with the proper installation of the INFRALAN® fiber optic cabling system and the prescribed limit values
- ☐ In the case of a warranty claim (proof by measurement reports and further information), the components complained of will be checked and the defects rectified subsequently
- □ INFRALAN® will carry the cost if the defect is due to the product. If the defect was caused by improper handling of the product, INFRALAN® will not carry the costs. The assumption of downtime or consequential costs by INFRALAN® is excluded.





25 year system warranty

This ensures compliance with the transmission properties of structured copper and fiber cabling according to norms and standards valid at the time of installation. This is demonstrated by the certified installer during installation by means of required test reports and further information. In case of warranty, INFRALAN® covers the costs for the replacement of defective components if INFRALAN® was at fault.

Requirements and prerequisites:

THE FOLLOWING APPLIES TO THE INFRALAN® SYSTEM (COPPER/OPTICAL CABLE):

- $\hfill \Box$ Use of INFRALAN® installation material (for all relevant components).
- ☐ Installation of the cabling system by a certified INFRALAN® installer who has successfully passed the appropriate training (theory, practice, exam).
- $\hfill \square$ Signing of the contract for the object to be installed.
- $\hfill\Box$ Compliance with the measurement limits required by the respective classification (permanent link).
- ☐ After installation, all measurement reports of the cabling route will be provided (permanent link).
- ☐ Clear assignment of the cabling distances to the respective labelling (measurement report).
- □ Certification only for cabling routes specified in the measurement report.

IN ADDITION, THE FOLLOWING APPLIES TO THE INFRALAN® OPTICAL CABLE SYSTEM:

- □ Proof of a corresponding INFRALAN® fiber partnership and fulfilment of the performance requirements of the INFRALAN® fiber optic system.
- ☐ Submission of documentation for the installed routes including image documentation as well as the bi-directional measurement reports (OTDR) with launch and receive fibers.
- □ Attenuation per transmission line must at least comply with the applicable measured values of the standard regulations during acceptance testing.

CERTIFICATION PERIOD OF THE INFRALAN® PARTNER:

- ☐ Three years
- ☐ The certification of executed projects will be extended



2 Connector System

- 2 Connector TA (Type Approval System)
- 2 Connector PVS (Premium Verificated System)

2 variants - many solutions

The 2 Connector System TA (Type Approval) and the 2 Connector System PVP (Premium Verification Program) of the INFRALAN® brand each offer 2 variants to cover different requirements. The two versions of the systems differ in each case in the use of the module carrier: While version 1 has a standard module carrier compatible with the common switch programs, version 2 has a customisable UAF module carrier

Optionally, the systems can be complemented with the corresponding INFRALAN® brand certified patch cords.

The Connector System PVP special feature: The installation cable and the Keystone components used are automatically recertified by the GHMT at regular intervals

AREAS OF APPLICATION

- ☐ Horizontal building cabling of all kinds
- ☐ Backbone cabling of server rooms
- ☐ Point-to-point cabling, for example, in floor distribution
- ☐ End-to-end cabling

EHIM Zertifikat Kate

Nr. z4876a-17-D

CONTRA OR SERVER BRIDERY

THE THE STREET, SHIPPING the montester, Doutschland

INTERNALANCE CAL. 7 1000 AWGZ3 SIFTP AP CPR ECA Grange

Devertungsstandard(s):

ner froning hält bei den im prüfbericht genannten Prüfparametern die Grenzwerte der besogten Vorgabedokumente ein. der besigten Vorgabedokumente ein.

Datenkabel, Kupfer, Kategorie 7

auf GHMT Type Approval Zukunftige Sich technische Änderungen der geprüften Produkte unterliegen dem Verantwortungsbe-reich der Hersteller beziehen prüfbericht guillig.

Nr. P4876a-17-D und ist nur in Verbindung Dieses Zertifikat ist nach Ausstelldatum 24 Monate gültig.

Bexbach, 17. November 2017

Dipl.-Ing. Dirk Wilhelm (Vorstandsvorsitzender)



DUTTE DIE DAKKS HIECH DIN EN ISOMET 17025 OKKREDITIEREN PROFIDENTIALIE DUTTE die DAKKS nach DIN EN ISOMET 1707S okkreditiertes Propagationen.

Die Akkreditierung gar für die in der Urkunde (D-PL-17889-01-00) aufgeführten Profverfahren.

2 Connector System

2 Connector TA / PVS

Discover the optimal component selection for the TA and PVS 2 connector system. While the first and second version of the TA and PVS differ in the use of the module carrier, there is also the additional option for TA to equip the system with an alternative installation cable in both versions.

- 2 Connector TA (Type Approval System)
- 2 Connector PVS (Premium Verificated System)

	TA 1	TA 2	TA 3	TA 4	PVS 1	PVS 2
Keystone	IKS-6A-KOP-12	IKS-6A-KOP-12	IKS-6A-KOP-12	IKS-6A-KOP-12	IKS-6A-PVP-12	IKS-6A-PVP-12
Installation cable	99980.x-CPR	99980.x-CPR	99985.x-CPR	99985.x-CPR	99981.x-CPR	99981.x-CPR
Keystone frame	IMT-02-RS-WS-KP	IMT-02-RS-WS-DF	IMT-02-RS-WS-KP	IMT-02-RS-WS-DF	IMT-02-RS-WS-KP	IMT-02-RS-WS-DF
19" distribution panel	IVF-24-SW	IVF-24-SW	IVF-24-SW	IVF-24-SW	IVF-24-SW	IVF-24-SW
Certification	GHMT-TA	GHMT-TA	GHMT-TA / DELTA-TA	GHMT-TA / DELTA-TA	GHMT-PVP	GHMT-PVP
Optional: patch cable	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx-xxxx	IPK-6A-U-TPE-xx-xxxx	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx- xxxx



4 Connector System

- 4 Connector TA (Type Approval System)
- 4 Connector PVS (Premium Verificated System)

2 variants - many solutions

To cover different requirements, the 4 Connector System TA (Type Approval) and the 4 Connector System PVS (Premium Verificated System) of the INFRALAN® brand offer 2 versions. These versions differ in the use of the module carrier: Version 1 has a standard module carrier compatible with the common switch programs, version 2 a customizable UAE module carrier

The required CP (Consolidation Point) cable consists of the high-quality components already used in the system, supplemented by an field-configurable RJ 45 connector. Optionally, the 4 Connector TA system can be complemented with the corresponding INFRALAN® brand certified patching patch cords.

The special feature of the GHMT PVS program is that the installation cables and the keystone component are automatically recertified by the GHMT at regular intervals.

AREAS OF APPLICATION

- ☐ Horizontal building cabling of all kinds
- ☐ Backbone cabling of server rooms
- ☐ Point-to-point cabling, for example, in floor distribution
- ☐ End-to-end cabling



PREMIUM Zertifikat

Nr. z5104b-18-D

Auftraggebers 1911, STREETS OF COME CLEVESINE - Congressible bills

1 - A le a charfrecterit, theorischiana INFRALANS Cat. 7 Verlegekabel S/FTP 1000MHz (AWG23), CPR CCaCPR CCA

Bewertungsstandard(s): 150/HEC 11801-1 Ed.1.0 (2017-11)

Der Prüffing halt bei den im Prüfbericht genannten Prüfparametern die Grenzwerte der besagten Bewinei den im Prüfbericht genannten Prüfparametern die Grenzwerte der besagten Bewertungsstandards ein-

GHMT PREMIUM Verification Program, GHM

Die fortlaufende Einhaltung der Spezifikationen wird im Rahmen einer regelmäßigen vom Auftraggeber nicht zu beginflussenden Stichprobenentnahme überprüft. vortlaufende Einhaltung der Spezifikationen wird im Rahmen einer regelmatigen vom Auftraggeber nicht zu beeinflussenden – Stichprobenentnahme überprüft. Omit ein hoher Apstruck zu des Egyfürstenliche Fertigungsqualität gestellt wird. vom Auftraggeber nicht zu beeinflussenden – stichprobenentnahme und von nicht ein licher Anspruch an die kontinulerliche Fertigungsqualität gestellt wird.

lineses Zerbitikat verweist auf den ausführlichen Früfbericht Nr. P5104b-18-D und ist titi in Verbindung mit diesem guttig.

Beabach, 17. Dezember 2018

trust. Ing Dirk witneten (Vinitandsvarsitzender)

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GHM

4 Connector System

4 Connector TA / PVS

Discover the optimal component selection for the TA and PVS 4 connector system. While the first and second version of the TA and PVS differ in the use of the module carrier, there is also the additional option for TA to equip the system with an alternative installation cable in both versions.

- 4 Connector TA (Type Approval System)
- 4 Connector PVS (Premium Verificated System)

	TA 1	TA 2	TA 3	TA 4	PVS 1	PVS 2
Keystone	IKS-6A-KOP-12	IKS-6A-KOP-12	IKS-6A-KOP-12	IKS-6A-KOP-12	IKS-6A-PVP-12	IKS-6A-PVP-12
Installation cable	99980.x-CPR	99980.x-CPR	99985.x-CPR	99985.x-CPR	99981.x-CPR	99981.x-CPR
Keystone frame	IMT-02-RS-WS-KP	IMT-02-RS-WS-DF	IMT-02-RS-WS-KP	IMT-02-RS-WS-DF	IMT-02-RS-WS-KP	IMT-02-RS-WS-DF
Certification	GHMT-TA	GHMT-TA	GHMT-TA / DELTA-TA	GHMT-TA / DELTA-TA	GHMT-PVP	GHMT-PVP
Consolidation Point Cable	ICP-6A-KOP-x	ICP-6A-KOP-x	ICP-6A-KOP-x	ICP-6A-KOP-x	ICP-6A-PVS-x	ICP-6A-PVS-x
19" distribution panel	IVF-24-SW	IVF-24-SW	IVF-24-SW	IVF-24-SW	IVF-24-SW	IVF-24-SW
Optional: patch cable	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx- xxxx	IPK-6A-U-TPE-xx- xxxx



INFRALAN® fiber optic systems

OM3, OM4, OM5 and OS2

2 variants - many solutions

The OM3, OM4, OM5 and OS2 fiberglass systems of the INFRALAN® brand are manufactured in the SC and LC versions. In both variants, the splice boxes are already fully populated: The pigtails are distributed, inserted into the splice tray and the couplings are mounted and connected.

The offered permanent link system excels with its fiber optic TA (Glaser Fiber Type Approval), which is unparalleled on the market. In order to offer our customers traceability, all components used have the INFRALAN® logo.

EHMT GHMT. rtifikat Z48240-37-D SHALL THE PARTY. personts county , or Strate, Designationer, Art - Hr .: 5445 2 3

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ACCOUNTAGE TO SELECT A SECURITY AND A SECURITY ASSESSMENT ASSESSME

Serpigian E2000=/APCB", 057, Grade CIL;

Supplied to Splice Pigtailset LC 057; Supplied to Suplex 5M Kunstst.

Spleithex 1250-Simplex-Front

times to testime two permanent time (2017-06) Bewertungsstandard(s):

ther bending him hel den im Printhericht genannten prüfparametern die Grenzweite Mosnittat: Not becagten Vorgabedokumente ein-

2-Connector Permanent Link , LWL, SM, 1994m

GHMT Type Approval 1110 beziehen sich **VAKDULLIBE** vorgelegten pruning. Ergebnisse

bechnische Änderungen der geprüften Produkte unterliegen dem Verantwortungsbeprothericht hoselmoberen tenth der Hersteller. nur in Verbindung verweist District

EUILIE-Dieses Zertifikat ist nach Ausstelldatum 24 Monate guitig.

Art. - Hr.: 00769.2;63532.3

Art. - Hr.; 5360175.9

ACL - Nr.: 004835ET (53350.31

Boxbach, 28. September 2017

Dill Ing. Dirk Wilhelm (Vorstandsvorsitzender)

Durch die DAKES nach DIN EN ISOMEC 17025 OKKREDITIERES Profibboratorium THE PARTY OF THE P

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INFRALAN® fiber optic systems

Fiber optic Permanent Links

Get more detailed information on our different optical fiber systems. This facilitates optimal interaction.

	ОМЗ	OM4	OM5	OS2
Splice Box LC	ISB-LCDU-xx-3-GR-ABA	ISB-LCDU-xx-4-GR-ABA	ISB-LCDU-xx-5-GR-ABA	ISB-LCDU-xx-2-GR-ABA
Splice Box SC	ISB-SCDU-xx-3-GR-ABA	ISB-SCDU-xx-4-GR-ABA	ISB-SCDU-xx-5-GR-ABA	ISB-SCDU-xx-2-GR-ABA
Installation cable	545xx.1L-CPR	545xx.2L-CPR	54512.1OM5-CPR	544xx.1L-CPR
Option 1 patch cable	IPL-DR-LCULCU-3-xxxx (Patch cable OM3, LC-Du- plex, Twin Zip Cable)	IPL-DR-LCULCU-4-xxxx (Patch cable OM4, LC-Du- plex, Twin Zip Cable)	IPL-DR-LCULCU-5-xxxx (Patch cable OM4, LC-Du- plex, Twin Zip Cable)	IPL-DR-LCULCU-2-xxxx (Patch cable OS2, LC-Du- plex, Twin Zip Cable)
Option 2 patch cable	IPL-DR-SCUSCU-3-xxxx (Patch cable OM3, SC-Du- plex, Twin Zip Cable)	IPL-DR-SCUSCU-4-xxxx (Patch cable OM4, SC-Du- plex, Twin Zip Cable)	IPL-DR-LCUSCU-5-xxxx (Patch cable OM4, LC-Du- plex/ SC-Duplex, Twin Zip Cable)	IPL-DR-SCUSCU-2-xxxx (Patch cable OS2, SC-Du- plex, Twin Zip Cable)
Option 3 patch cable	IPL-DF-LCULCU-3-xxxx (Patch cable OM3, LC-Du- plex, flat cable with additio- nal cable jacket)	IPL-DF-LCULCU-4-xxxx (Patch cable OM4, LC-Du- plex, flat cable with additio- nal cable jacket)		IPL-DF-LCULCU-2-xxxx (Patch cable OS2, LC-Du- plex, flat cable with additio- nal cable jacket)
Option 4 patch cable	IPL-DF-SCUSCU-3-xxxx (Patch cable OM3, SC-Du- plex, flat cable with additio- nal cable jacket)	IPL-DF-SCUSCU-4-xxxx (Patch cable OM4, SC-Du- plex, flat cable with additio- nal cable jacket)		IPL-DF-SCUSCU-2-xxxx (Patch cable OS2, SC-Du- plex, flat cable with additio- nal cable jacket)
PL Certificate	X	x		X

MERALAN

INFRALAN"

ZERTIFIKAT

hat entotaretch an einer INFRALANS Zerbinzierung tellgenommen Frank Menzel

Folgende Themen wurden vermittelt:

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> Thefol -

- Aktueller Stand der Normierung
 Kupferenschlussischnik in der Gebäudeverkabelung
 Installetionsischnik nech der EN 50174
 Feldmessischnik in lokalen Netzwerken
 Grundlagen der ENV in der Gebäudetechnik
 25-jährige Systemigarentie Kernpunkte
 Handhabung der HFRALAN-Systemkomponenten

Mil dam erfolgreichen Ablegen einer schriftlichen Abschlussprüfung Nermit den Titel INFRALAN® certified inst

Shimbortonick, sheets XX CXX 2435-3

Become a certified INFRALAN® system partner

The corresponding training is a basic requirement to receive the INFRALAN® installer certificate. This workshop, consisting of theory and practice and focusing on copper and fiber optic, teaches the right way to handle the products and the corresponding standards. Learn to know and use the performance and interaction of all the components included in the INFRALAN® system. The experienced lecturers focus on everyday practical knowledge.

The training for installers is carried out by certified distributors. Discover the right partner and ask for your desired date.

As a certified INFRALAN® installer, you can issue a 25-year limited warranty on installed systems. This provides you and your customers security for future-proof, reliable projects.

Copper:

- ☐ Current state of standardisation
- Copper connection technology in building cabling
- Installation technology according to EN 50174
- Field measurement technology in local networks
- EMV basics in buildings
- 25-year system warranty key points
- Handling of the INFRALAN® system components

Fiber optic:

- Current state of standardisation
- Fiber optic connection technology in building cabling
- Installation technology according to EN 50174
- Field measurement technology in local networks
- 25-year system warranty key points
- Handling of the INFRALAN® system components

