



Connectix
Cabling Systems™

Connectix Cabling Systems™

Residential Solutions

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Connectix Residential Solutions

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Connectix Residential Solutions

An Introduction to: Residents of Fttx

The use of IT within the home has grown exponentially in the last five years as users embrace the Internet of Things (IoT) and its benefit within our everyday living spaces. Barclays Digital Homes report¹ prepared in conjunction with YouGov outlines the financial values of a 'fully connected' IT home compared to those without. The conclusion is clear that almost all of us consider internet connectivity throughout our homes as a must have feature.

Connectix Cabling Systems™ is at the forefront of solutions for residential builds, from major projects of area redevelopment for multiple dwellings and tower builds through to home automation for the tech savvy home user.

For cabling designers, the challenge is to design an end-to-end system in very refined, space-conscious areas to facilitate the distribution of satellites, TV, AV, broadband and structured cabling services. Often the packages are broken down into specialist areas with a mix 'n' match approach to product specification.

Connectix provides solution platforms to integrate these services into one, with easy to understand application guides [table 1] which each product data sheet includes.

Connectix projects completed date back to London 2012 Olympics, providing solutions for the Olympics Athletes Village.

Since then various Connectix systems have been designed and installed in Greenwich Peninsula, One The Elephant, Battersea and Westminster including developers such as Lendlease, Berkeley Homes, Mount Anvil and Ardmore Construction.

Connectix offers technical guidance and specification support for cabling designers in addition to custom design drawings and prototype models, unrivalled in the market place and placing client and technical approval as a primary requirement pre-tender release.

| Product Category | OSP | Equipment Room | Riser/Head End | Apartment |
|---------------------------------|----------|----------------|----------------|-----------|
| FfTx Solutions | X | X | X | X |
| Satellite & Fibre IRS Solutions | X | X | X | X |
| AV & Comms | | X | | X |
| Security & BMS | | X | X | X |
| Home Automation | | | | X |
| Structured Cabling | X | X | X | X |

Table 1 - areas of network architecture Vs product category and application

¹ <http://www.barclays.co.uk/digital-homes>

Connectix Residential Solutions

Multi-dwelling Apartment

Connectix Residential Solutions™ provide an end-to-end premium infrastructure solution for the secure network integration of structured cabling, AV, Satellite TV, Fibre IRS and broadband ISP connectivity. Connectix Residential Solutions™ include innovative multi-system and entry level Home Network Distribution Enclosures (HNDE) designed to meet the requirements of each specific building development, scaling multifunctional, mixed-use, iconic showcase developments, through to affordable housing apartment schemes.

Every property development is different and this makes it difficult for IT designers to specify an 'off the shelf' product that can accommodate data, telephony, TV, AV, IRS, security and network systems. Contractors negotiate their respective space requirements within apartments, risers and entrance facilities resulting in building design professionals facing enhanced IT system design challenges.

Connectix Residential Solutions™ offers FTTH optical cables, surface mount boxes, faceplates and modules, coaxial cables and connectivity and up to 10-Gigabit Ethernet twisted-pair copper cable bandwidth channel for 4K distributed television systems within the apartments.



Bespoke example: Connectix HNDE Berkeley Homes Specification

Connectix Residential Solutions Multi-dwelling Apartment

Connectix Residential Solutions™ HNDE is empowered by its versatility, flexibility and ability to integrate cross-platform IT communications within a single enclosure. Connectix Residential Solutions™ HNDE units are available in compact designs to fit shallow apartment cupboard depths.

They are also available in full-tech penthouse designs, combining advanced switching rack features for integrating with concierge and landlord network topologies. Connectix Residential Solutions™ HNDE Systems can utilise spacing and connection for all leading broadband providers, including BT, Virgin Media and Hyperoptic.



Bespoke example: Connectix HNDE Chelsea Waterside Specification



Bespoke example: Connectix HNDE Elephant & Castle Specification

Connectix Residential Solutions™ HNDE Systems are designed in the UK by the Connectix Product Design team. The team attend pre-design meetings before producing cabinet technical drawings for contractor and IT provider approval, prototype manufacturing and testing. The products are then manufactured in the UK to project specification.

Connectix Residential Solutions™ HNDE Product Design teams support developers, consulting engineers, IT building designers; bringing expertise and knowledge of communications cabling design, HNDE layouts and compliance with home automation system connectivity.

Connectix provide British quality design and development, working quickly to provide technical drawings for inclusion with RIBA stage designs within a week from project concept.

This turnaround allows quick evaluation of product solutions for consultants, property developers and contractors/clients, a true demonstration of quality British made products and service.

| Specifications | |
|------------------------|--|
| Chelsea Waterside HNDE | |
| Height | 542 mm |
| Width | 536 mm |
| Depth | 232 mm |
| Material | Mild steel, gloss white painted |
| Contents | BT, Hyperoptic, LAN Cat6 RJ45, Coax, AU Speakers |
| Elephant & Castle HNDE | |
| Height | 320 mm |
| Width | 625 mm |
| Depth | 160 mm |
| Material | Mild steel, gloss white painted |
| Contents | GI Quatro, Triax Multiswitch, LAN Cat6 RJ45, Core Phone Host |

Connectix Residential Solutions Multi-dwelling Riser

Connectix Residential Solutions™ Riser Distribution Enclosures are designed for installations within risers for the delivery of satellite and Ethernet hardware connectivity. The enclosures facilitate specific application distribution with options for optical fibre, FIRS system and Ethernet switch solutions.

Residential Solutions™ FIRS Riser Distribution Enclosure

Connectix Residential Solutions™ Lockable FIRS Splitter Enclosures provide a secure and effective solution for optical splitters. The enclosures are available in two installer preference options including direct connection or pigtail termination.

Each unit is provided with suitable cable management for optical fibres with options for splice management trays and cassettes, factory loaded with Connectix pigtails to assist with ease of installation. Additional features include a compact shallow depth for ease of installation, customised brush/cable gland entry points and IP rated options.

Residential Solutions™ CSW Riser Rack

Risers house the backbone of telecommunication cables and equipment alongside a mixture of water and gas pipes, data and electrical cables, cable trays and pathway runways and conduits. IT designers are often faced with providing cross-connects in the risers without any consideration previously applied to cabinet location and installation.

The Connectix Residential Solutions™ CSW Riser racks support 19" copper, optical fibre data networking and switch distribution from risers to apartment location. They are symmetrically designed as a bolt-together design, allowing quick and easy installation of cabling and switches. Units can be mounted on the left or right hand side of the riser, without consuming back-wall space where other utility services may already be placed.

Mounting profiles are inverted 90 degrees, compared to traditional front-to-back mounting and they feature lockable solid side and front mesh doors. Connectix Residential Solutions™ racks are backless to allow cabling from the rear of the riser, with additional lockable gland plates located front and back for peripheral cabling routes.



Connectix Lockable Enclosure Optical Fibre Splitter



Connectix CSW Riser Enclosure

Connectix Residential Solutions Multi-dwelling Riser/Entrance Room

Residential Solutions™ ZRH Enclosure

Connectix designed the Residential Solutions™ ZRH Enclosure with leading building consultants, concerned with market options that consumed net lettable space within residential IT designs. The ZRH Enclosure provides a converged network solution within high risers with its sleek, compact design and easy-patch options.

The ZRH provides standard and advanced options, including IP rated versions, PoE switching with thermal monitoring and management options, and internal fan units for airflow. Available from 3U – 6U with pivoting profiles for the equipment panel termination and multiple cable gland plates. The Connectix ZRH Enclosure meets the requirements of the most prestigious residential developments.



ZRH Enclosure - example image

Residential Solutions™ FibreBox

The Connectix Residential Solutions™ FibreBox is a product range of termination boxes for optical fibre cabling distribution in the access network.

Specifically designed for optical fibre splicing within residential and outside plant (OSP) environments, the units allow externally fed optical cables (standard of blown fibre) to be spliced to pigtails of network connectivity. Multiple gland sizes are available for small to high fibre count in/out options. Including easily manageable splice management trays.

Connectix MER and SER Cabinets

(Entrance Room)

Connectix manufacture high quality, multi-featured, efficient communication cabinets for main equipment rooms (MER), secondary equipment rooms (SER), and entrance and network storage areas. Connectix Rax™ provide server, mains comms rooms, open rack and frame options for structured cabling management.

Connectix Rax™ are suitable for heavy weight loads, available in IP rated versions and can be supplied assembled or flat pack to site to assist on-site logistical challenges.

Connectix Residential Solutions Multi-dwelling Riser/Entrance Room

ACU Box Cabinet

Connectix Residential Solutions™ ACUBox Cabinet is designed for the installation of access control and FIRS connectivity by professional security and satellite installers. Including a galvanised steel back mounting plate for DIN profile mounting, door access control and security control systems.

IP rated options and cable gland plates are customised and units can be supplied with thermal monitoring and management options.

Specifications

ZRH Enclosure (typically 3U)

| | |
|----------|------------|
| Height | 900 mm |
| Width | 620 mm |
| Depth | 210 mm |
| Material | Mild steel |

ACU Box Cabinet

| | |
|----------|------------|
| Height | 600 mm |
| Width | 380 mm |
| Depth | 210 mm |
| Material | Mild steel |



ACU Box Cabinet - example image



ACU Box Cabinet - example image

Connectix Residential Solutions Multi-dwelling Head-End

Connectix Residential Solutions™ provides a series of products for installation throughout apartment block risers, connecting throughout the heart of a building by linking the head end, core and entrance rooms.

Hotels and high-end residential developments typically require multiple satellite channels such as Sky Q, Sky HD, Freesat, Hotbird and Astra, distributed across Fibre Integrated Reception Systems (FIRS).

Most commonly installed for private land lords, property estate builders and local authorities, a FibreIRS distributes satellite signals across many apartments enabling tenants to access the latest digital services without the need for individual satellites and aerials.



FIRS signals are collected at the head end from an antenna array and distributed throughout the risers across Connectix Residential Solutions™ optical fibre cable.

Located at the head end is the satellite dish, connecting to a wholeband LNB within a Connectix Residential Solutions™ IP66 Enclosure, this has capacity for FibreIRS Optical Splitters and Gateway Termination Units (GTU), and fibre-RF convertors if conventional coax to apartments is being deployed.

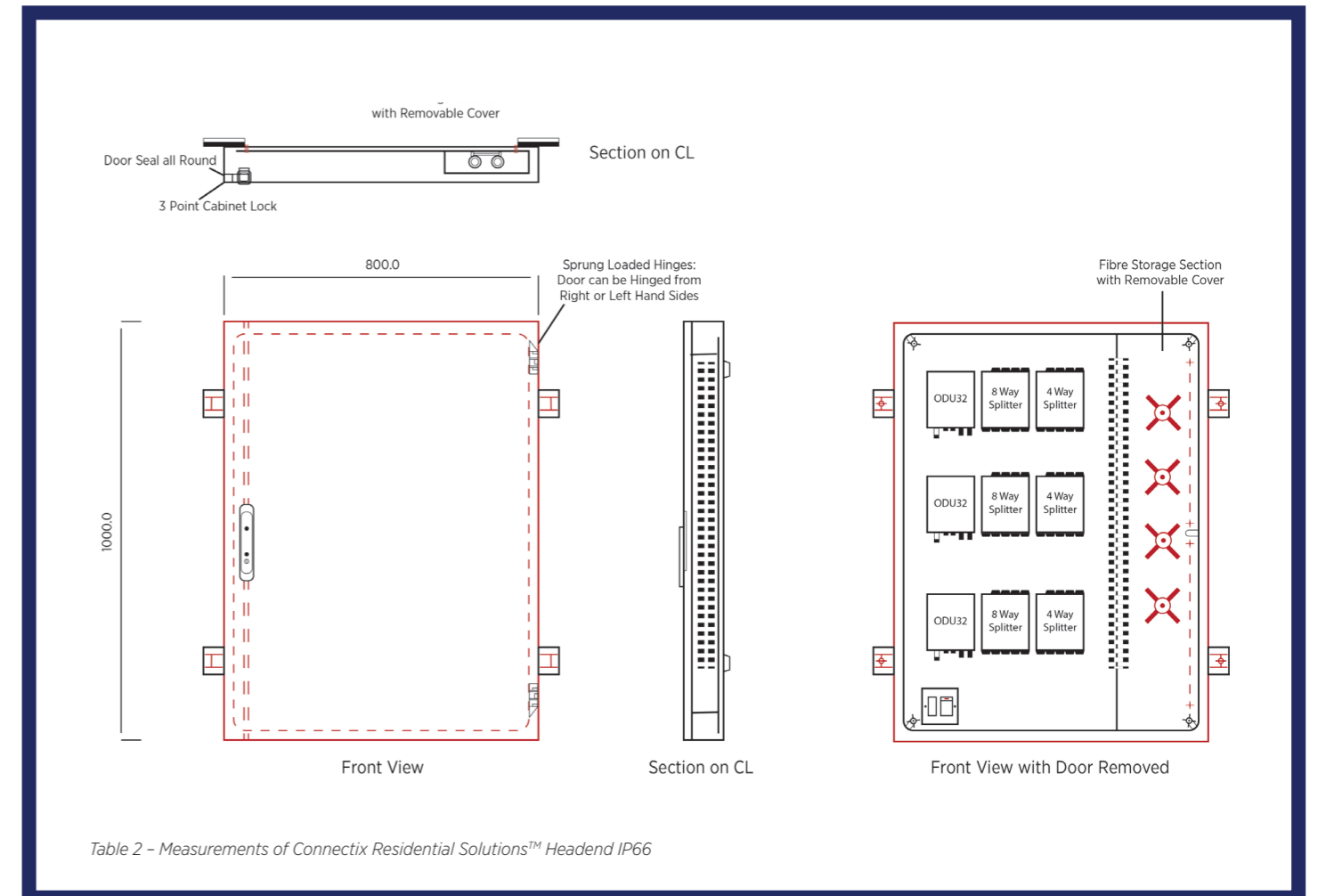
Residential Solutions™ Head end IP66 Enclosure

Designed and manufactured to British quality standards by Connectix Cabling Systems, the Connectix Residential Solutions™ Head end Enclosures are designed for harsh environment locations for Passive Optical Network (PON) and satellite/TV signal distribution.

The enclosures include internal optical fibre and coaxial cable management, and secure mounting products for equipment placement with IP rated in-out gland sets. All manufactured in British stainless steel.

Internal connectivity is completed using ruggedised Connectix Residential Solutions™ Single-mode FC/PC or SC/PC high performance optical fibre patch leads.

Connectix Residential Solutions Multi-dwelling Head-End





Ardmore Construction is one of the largest UK construction groups involved in hundreds of major projects across London. Having worked with Connectix on multiple projects including Chelsea Waterfront and Canaletto Tower we know we have the best cabling manufacturer partnered with us.

Connectix ability to design and develop individual project specific cabinets and cabling solutions gives them a massive competitive edge, coupled with professional and efficient delivery gives us confidence on every project.

- Martin Smith, Ardmore Construction



Connectix Residential Solutions Structured Cabling Systems

When designing and installing a network architecture, careful selection of a true end-to-end residential structured cabling solutions are essential; especially as the environment serves multiple technologies that are vital to the consumers inhabitation.

Multi-dwelling apartments are not only confined to residential developments; some of the world's most prestigious high-rise hotels also base their network architecture using Connectix Residential Solutions™.

With this said, smart home technology is not just limited to technology-rich automation networks, additionally business enterprise workspaces require 4K/UHD display screens within meeting/conference rooms and public display areas.

The Connectix Residential Solutions™ structured cabling system comprises copper twisted-pair, optical fibre/coaxial cables, patch panels, outlets, patch leads and media plates.



- Ethernet Networks – AV/Home Cinema, Multi-room TV, music, gaming, WIFI broadband
- HVAC Management
- Safety & Security – CCTV, locks, video intercoms
- Lighting Management – brightness, dimming, mood lighting, alarm integration
- Appliance Management – blinds, oven/cooker, washing machine, dishwasher
- Sensors – CO2, smoke, room temperatures
- Unified Control Systems for integration of all these sub-systems
- BMS, Satellite & TV, Broadband and OSP backbone cabling

Horizontal Copper Twisted-Pair Cables

Transmission of 4K signals over twisted-pair copper cables requires Connectix Cat 6A or Connectix Cat 6 cables using 23/24AWG copper conductors compliant with ISO, EN and TIA/EIA component classifications.

Home automation pioneers such as Creston DigitalMedia specify proprietary guidelines for their own systems (e.g. 4K max length 50m over Cat 5e UTP), with this, cable designers should check with the solution provider, HDBaseT Alliance or consult the Connectix design team.

Coaxial Cables

Connectix Residential Solutions™ coaxial cables distribute applications at high-frequencies, connecting transmitters, receivers and home automation lounge plate connectivity.

The cables support Sky and other satellite digital and/or analogue providers applications including, video and broadband signals and low power video.



Connectix Residential Solutions Structured Cabling Systems

Residential Solutions™ Cabling Media Patch Panels

Residential utility spaces host a range of multimedia IT hardware, integrating cross-connects between internal and external communication services. Generally, these utility spaces are small, confined and designed without the thought of accommodating IT equipment and hardware. The Connectix Residential Solutions™ range of enclosure mounting panels provide a secure way of hosting multimedia cables for deployment of LAN, AV and satellite services.

Available in 10" or 19" rack mountable formats, Connectix Residential Solutions™ Mounting Panels offer a flexible, installer-friendly solution for multimedia cabling distribution. The range includes units for data/voice communications, back box housing, video/audio distribution storage, satellite multi-switch, fibre IRS units and fibre ONT/CSP boxes.

Residential Solutions™ Media Wall Plates

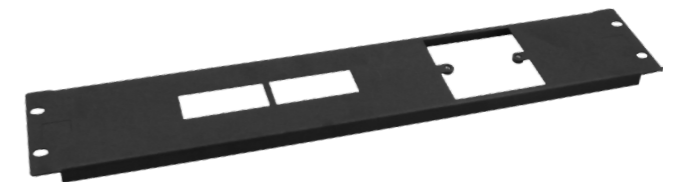
Modern day home automation and entertainment systems are now all-encompassing set-ups that bring all elements of communication devices through a distributed IT infrastructure. Residents now have a need for integrated home communication systems that include lighting control, door entry systems, fitted alarm systems, CCTV, multi-room audio and video, data and telephone systems.

Connectix Residential Solutions™ standard and bespoke multi-media plates are suitable for today's major residential projects or for state-of-the art technology within home developments. Working with architects, property developers, consulting engineers and IT data/voice and AV installers, the Connectix design team capture the client's specifications and manufacture premium quality multimedia plates alongside tailored communication requirements subject to the services required.

Connectix Residential Solutions™ home automation media wall plates comprise satellite and HDMI TV distribution hardware, including Single TV, Duplex TV & FM/DAB, Triplex (TV, FM/DAB, Satellite) and HDMI faceplates. Structured cabling copper UTP/FTP outlets for Cat 6A, Cat 6, Cat 5e, telephone NTE/LJUs and voice converters are also available.



Connectix Unloaded 19" 3x4 Euro Module Panel



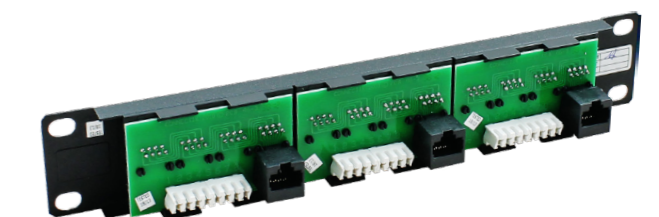
Connectix Unloaded 10" 8 Way Data/NTE Voice Panel



Connectix Unloaded 10" 12 Way Keystone Panel



12 Port Cat6 10" UTP Patch Panel



Connectix 10" 12 Way Phone Host Patch Panel

Connectix Residential Solutions

Structured Cabling Systems

Fibre-To-The-Apartment Optical Fibre Cables

Connectix MTP™ Systems optical fibre cables support connectivity to meet the requirements of residential developments and home automation networks.

Connectix MTP™ Systems OSP and backbone optical fibre cables are suitable for Gigabit-PON (GPON), PON and ISP upstream/downstream connections and are fully compliant with ITU application groups. Connectix MTP™ Systems OSP cables can be utilised in duct-systems (sub and micro-ducting), fibre metropolitan area networking and backbone building structures (varying from 4, 8, 12, 16, 24, 48, 96, 192, 216, 432 and 864 fibre constructions).

Connectix MTP™ Systems optical fibre cables comply with the international standards ISO/IEC 11801, EN50173-1 and ANSI/TIA/EIA-568C and are available in multimode, singlemode and hybrid constructions.

Fibre Connectorisation

Within residential development communication structures each area of architecture deploys differing optical fibre connectivity. GPON and PON connectivity typically transmit light signals at 8 degrees and require APC polished terminations. Satellite and video fibre connections utilise UPC terminations.

Connectix is one of the UK's largest manufacturers of optical fibre assemblies with production in Essex, UK, providing assemblies suitable for data, telecom and satellite application transmission.

Ultra-low loss connectors and high performing quality cables are prepared, polished, terminated, inspected and tested and can be customised to length and configuration.



Hyperoptic Cable



Connectix FTTx Termination Box



Connectix Armoured Fibre Cable

Connectix Residential Solutions

Connectivity and Distribution Network Enclosures

Satellite Broadcast Solutions

Multiple dwelling units (MDU) rely on communications and connectivity as a commodity, within private rental schemes, student accommodations, affordable housing, luxury developments, hotels and hospitality and communal living.

Connectix provides a complete end to end infrastructure service including satellite broadcast solutions, in partnership with the world's leading manufacturer of satellite and TV peripheral equipment – Global Invacom.

Connectix is a master distributor for Global Invacom, enabling property developers, M&E consulting engineers, system integrator designers, main/mechanical and electrical contractors, complete confidence in working together on the design for satellite and fibre integrated reception systems (FIRS).

A Fibre Integrated Reception system brings together available satellites, digital terrestrial, digital audio and FM radio altogether, whilst removing the constraints of traditional power-hungry amplified switches with a future proof distribution infrastructure. Distributed across Passive Optical Networks, FIRS enable thousands of connected homes to receive signal strength as if they were connected to their own individual dish and terrestrial aerial.

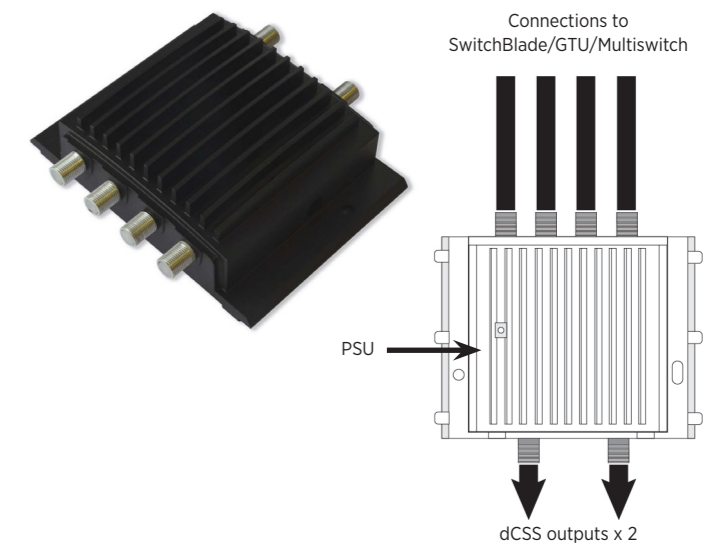
Traditional coaxial based systems do not offer the future proof technology available with fibre and can no longer keep pace with the range of broader channels and services that satellite technology is evolving.

Connectix can provide full fibre solutions into apartments, Sky Q ready for tenants or occupiers to utilise from day 1. Together in partnership, Connectix and Global Invacom provide full system design support, project recommendation and analysis, cost plans, building schematics and continuous education programs to facilitate learning and installer accreditation.

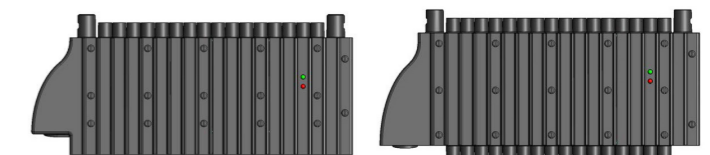
By selecting Connectix as your residential cabling solutions provider, you will have a unique project-designed solution that accommodates;

- Satellite and FIRS
- Broadband ISPs – main telco's and challenger/AltNet providers
- Structured cabling, AV, access control, security, WiFi Distributed on a complete Connectix infrastructure;
- Head End – satellite, FIRS and external communication devices
- Riser distribution connectivity – building management services, SER, splitter and splice distribution
- In-apartment communications – satellite, data/voice, home automation (AV, IP)
- MER basement comms rooms for demarcation points, outside plant/harsh environment

dCSS adapter

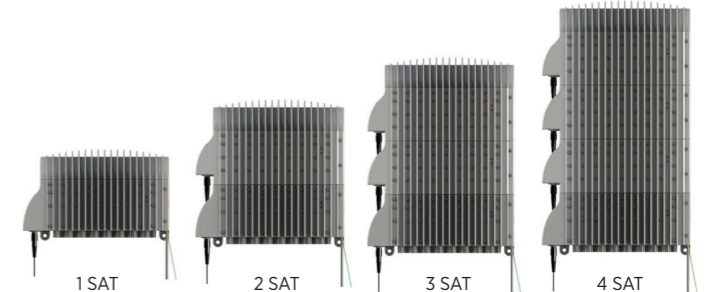


Switch Blade



SatPlus unit

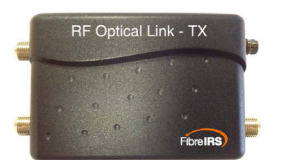
Base unit



Optical Box Splitter



FR Optical Link



Connectix Residential Solutions

What we offer in our Partnerships

Connectix Cabling Systems™ is committed to providing proven expertise and multi-skill set resources to any project. Providing compliance to global uniform cabling and application standards, our team will engage across multiple RIBA work stages to bring together an architect's design, a consultant's specification, a builder's program, an electrical engineering technical submittal, installer physical infrastructure solution and most importantly; the client's expectation and beyond.

Connectix is committed to investing in training courses and educational workshops as part of our continuous professional development programs. We recognise the importance of design and specification knowledge, high quality workmanship and service competence when delivering IT building projects across varying environments. The Connectix Continuous Education Program (CEP) gives Building Design Professionals and Connectix Certified Installers the opportunity to learn more on the impact of change in technologies and the surrounding industry.



Connectix Residential Systems

Incorporating Structured Cabling in Modern Building Design CPD

An introduction to IT within residential technologies including cabling, cabinets and racks, fibre integrated reception systems, satellite systems and connectivity, CCTV, security and access, IP based solutions and design, deployment and installation of residential and hospitality projects.

We include a hands-on element within this seminar, inviting delegates to observe and evaluate previously deployed project solutions encompassing FTTx and Home Automation residential infrastructure. Delegates also receive a certificate of attendance for each CPD attended. The only residential technology seminar that includes workshop session modules delivered by affiliates with a proven track record in MDU and Home Automation including; Hyperoptic, Global Invacom and Connectix Certified Professional Installers.



The Connectix Harsh Environment Optical Fibre Systems

(OSP & Fibre MAN)

The Connectix Fibre-Xconnect™ System provides optical fibre cables and connectivity to meet the transmission speeds needed between the Internet Service Providers (ISP) and the tenants incoming lines. Solutions include harsh environment optical fibre cables, factory pre-terminated in heavy deployments integrating into indoor/outdoor IP-rated distribution frames and enclosures. Connectix uses singlemode and multimode fibres from the world's largest manufacturing plants and solutions fully meet the performance specifications of ITU-T, ISO, EIA/TIA and Cenelec for OSP and FTTx premises applications.

- Microduct Optical Fibre Cables
- Microduct Tubing
- IP-Series External Enclosures
- Termination Boxes
- Pre-Terminated Fibre Optic Cables
- Harsh Environment Cables & Connectors
- Wall/Pole Mounting Enclosures
- IP-Rated Break Out Boxes & Cabinets



Connectix 25 Year Warranty

Developers, investment groups, landlords and tenants all share the same attitude towards home technology; "IT is a utility alongside electricity, gas, water and heating". What's apparent is that IT is proven to be the key to sustainable, energy efficient new builds and trends show that residents will expect IT connectivity as a utility in every dwelling. Personal devices put demand on IT within the home – tablets, mobile, PC, laptop, smart devices – all require network services with integrated IT platforms that appeal to landlords/residents.

The Connectix 25 Year System Warranty ensures that every stakeholder has peace of mind that an end-to-end Connectix ResiPro™ solution will provide the platform for all applications for at least 25 years. From 4K TV to home office emails, or Fibre IRS and broadband ONT connections, from 100Mbps to 10Gbps transmission – you're in safe hands.

Connectix works closely with our Connectix Certified Installers to ensure an efficient client handover. We provide support and guidance on O&M Manual completion and a client warranty certificate once a project has been commissioned and documented.



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