MADE IN BRITAIN
DISTRIBUTED WORLDWIDE

medisys integra™ *fully integrated bedhead services trunking systems*

THE QUEEN'S AWARDS
FOR ENTERPRISE:
INNOVATION
2005

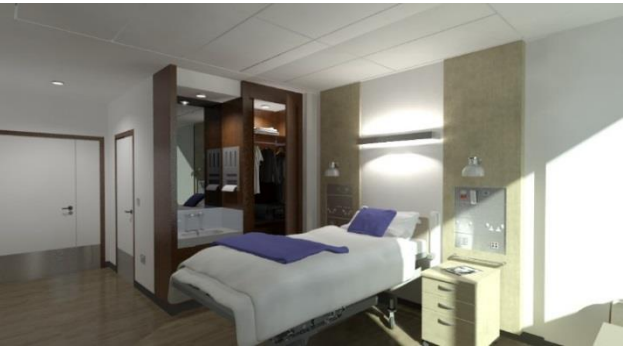
CABLEFLOW™
HEALTHCARE

applications

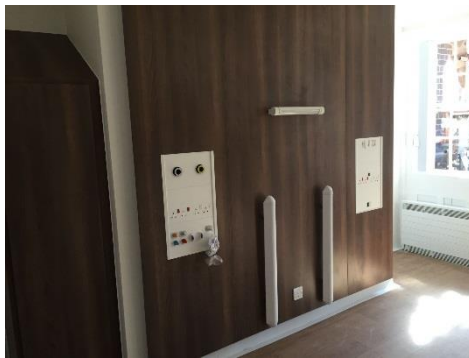












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THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2005

Innovation is at the heart of an evolutionary healthcare infrastructure. Challenging boundaries whilst being respectful of clinical skills are two valued philosophies which ensure knowledge led developments in bedroom architecture.

At CABLEFLOW we recognise the need to be different, to ensure product development offers practical and sustainable progression whilst always ensuring full compliance with Patient Safety Standards and improving the clinical environment.

We are proud of our British healthcare heritage which offers universal application around the world. Having been conferred a prestigious Queens Award for Innovation our client's take confidence in that unique recognition as a market leader.

As Britain's leading medical supply unit manufacturer our range of solutions meet a vast array of design concepts throughout all clinical environments whether primary or tertiary care areas, and every speciality in-between.

In 2005 our **integra** product range became the first and only bedhead trunking system to achieve Royal recognition with the conferment of a **Queens Award for Enterprise: Innovation** from Her Majesty Queen Elizabeth II.

Improving the clinical architecture, the patient experience and ensuring flexibility and adaptation in later use are hallmarks of our innovative integrated lighting solutions. At home in an acute hospital setting or more domestic environments such as Hospice's and the like our systems can be tailored to your requirements.

The flagship product of our Bedhead Services Trunking System range, cost-saving features and outstanding flexibility of the **MEDISYS integra™** system has been broadly recognised as the leading system of its type in the global market.

The conferment of a Queens Award for Innovation for this product is testament to the global recognition now gained by the innovation and its key features.

THE QUEEN'S AWARDS
FOR ENTERPRISE:
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MEDISYS integra™ offers a composite solution to bedhead services provision in the clinical environment, incorporating integral up and down lights. The system ensures that the patient area can be lit in accordance with CIBSE LG2:2008, and specifically when bed space curtains are drawn.

MEDISYS integra™ incorporates a full range of bedhead services and is custom designed and built to an uncompromising standard, catering for the individual needs of each bed in each hospital.

With careful lighting design the system can act as the sole source of room illumination. Using TL5 lamps and control gear the lighting system will provide flicker-free, inaudible operation at all times. A full range of ballasts at 28W, 39W, 54W or 80W, fixed output, dimmable or DALI controlled, is available. An LED reading light option also offers ongoing installation benefits and operational cost advantages.

DESIGN

Standards compliance dictates that all cabled services should be kept separate from medical gases in accordance with the latest UK and global standards. Our range of medical trunking offers the solution in a neat, compact, versatile and cost-effective manner with full product compliance at it's heart.

Designed as interlocked extrusions which can be assembled in a variety of configurations, specifying **MEDISYS integra™** provides you with the ability to resolve any design or site constraint likely to be encountered.

The system can be subdivided into four compartments for varying services such as SELV, ELV, PELV Mains and additional gas services chamber as required by the latest edition of the ISO standard 11197. A variety of system sizes are available to accommodate the varying quantities of pipework and cabling required in both high and low dependency areas.

SYSTEM OVERVIEW

MEDISYS integra™ offers features above and beyond many other premium bedhead services trunking products.

Easy to install, available as factory built modules or as kit form for site assembly, ease of use and maintenance are the hallmarks of this product which is now proven across thousands of installed projects globally.

Available in a variety of colours and configurations with more than 360 shades or hues available to choose from within our standard range, and to compliment any environment.

Flush fitting lids present a clean appearance to the trunking facia, enhanced by a screw free approach to meet HTM 08-03 requirements. Carefully manufactured lid sections butt tightly to each other to negate the need for unsightly joint cover strips.

Offering an IP rating of at least IP2X or IPXXB the system exceeds the protection requirement of the standard.

The uncluttered appearance of the facia ensures that both staff and patients can quickly identify the service they require, resulting in efficient patient care. This approach underpins our belief that trunking should be not only functional but attractive too.

POTENTIAL EQUALISATION

The **CABLEFLOW POAG-PES** potential equalisation socket (equipotential earth bonding) is installed on all bedheads to meet the requirement of BS7671 Section 710 and in an appropriate number.

NURSE CALL SYSTEMS

Each hospital will vary in its individual requirement from the next, none more so than the nurse call system.

MEDISYS integra™ has been designed specifically to accommodate all commercially available nurse call systems from around the globe including the latest wireless products.

As an independent trunking manufacturer with no allegiance to any specific nurse call supplier, we leave the choice of nurse call manufacturer up to you, the user and specifier ,and we simply co-ordinate it for you.

Often when a client states a particular preference for a bedhead services manufacturer, this invariably refers to the nurse call system to ensure compatibility with existing arrangements. Our bedhead containment systems are universally used with all major nurse call systems and do not affect the choice of nurse call equipment which can still remain as the hospital norm.

SERVICES OUTLETS

Accessories are mounted directly onto trunking lids to allow simple maintenance. By utilising standard BS 4662 knockout boxes on all of our horizontal trunking we ensure a degree of flexibility and if necessary, adaptability on site.

Nurse call back box assemblies are similar in construction but allow for the location and mounting of the nurse call system circuit boards and associated components. These have been developed in conjunction with the various nurse call manufacturers to ensure simplicity, uniformity and compatibility.

MAINS POWER

Electrical socket outlets from the UK, continental Europe, the US and other geographical regions can be accommodated, including switched or unswitched versions for standard, non-standard or Medical IT supplied circuits. Where called for these can be colour co-ordinated subject to the respective manufacturer's product range.

Medical IT monitored circuits for IPS or IPS/UPS supplies are supported by isolated earth dual earth sockets labelled 'Medical Equipment Only' as required by BS 7671 and HTM guidance. Colour coding of outlets and switches fed from general, essential or UPS supplies are readily available.

SPECIFYING PEACE OF MIND

Specifying a **CABLEFLOW** medical trunking system throughout your hospital will provide an easy to use and aesthetically pleasing solution while maintaining a uniform look across all departments.

As an Award winning manufacturer, innovation is at the core of our philosophy and product solutions, based upon a proven track record over 25+ years in the UK healthcare industry.

MEDICAL GAS TERMINAL OUTLETS

As with other patient care services provision, **MEDISYS integra™** is able to accommodate any type of medical gas terminal outlets, each hospital or installer having a preference for a particular type. Terminal outlets are located to allow vertical and horizontal adjustment for precise alignment within the system.

Medical gas pipelines are fully segregated from cabled services, accessible by their own lid section meaning terminal outlets can be positioned almost anywhere in the module and the pipeline maintained in total safety.

The number of gas specific outlets which can be fitted varies depending on the exact product configuration selected and we can accommodate any variation of outlets as defined in HTM 02-01. Dual supply gas circuits can easily be accommodated in our larger profiles.

DATA, PATIENT MONITORING & TV SERVICES

TV, data, fibre optic and voice services are easily accommodated within the **MEDISYS integra™** system. Proprietary supplied outlets are surface mounted or flush fitting for a co-ordinated appearance.

CONCEALED LID FIXINGS

In keeping with the screw free fascia, **MEDISYS integra™** uses a bespoke lid retention slug that neatly slides into a channel created by the base-lid assembly preventing it from being opened inadvertently.

A specific lid removal tool accesses the channel and allows the lateral movement of the slug, thus ensuring that no damage is caused to the powder coated finish. The transparent slug has no visual impact on the appearance of the trunking, contributing towards the superb aesthetics of all CABLEFLOW medical trunking systems .

ADJUSTABLE ARM LIGHTING

MEDISYS integra™ has been designed to accommodate examination lighting via one or more 'adjustable arm' type lamps attached to the front of the trunking by a bespoke bed light bracket. We can supply these lamps from a variety of manufacturers or alternatively they can easily be site supplied and fitted by the installing contractor.

All commercially available healthcare luminaires can be attached to the trunking lid facias using bespoke brackets and power supply fuse assemblies.

VERTICAL RISERS

We recognise the need to keep the visual effect of the trunking to a minimum and adopt a slim trunking section to tee into the horizontal bedhead module for the supply of all services.

With an overall size of 180 x 45mm which can be doubled up if a larger volume of services need to be accommodated this riser is a tidy solution for a vertical interface with high level ceiling containment.

All pipeline services are fully segregated from cabled services and thus meets the constructional requirements of ISO 11197 and HTM 02-01.

LEGENDS AND LABELLING

The specific nature of individual accessory lids in hospital applications, requires that legends and usage instructions are clearly evident to the user. We adopt a policy of indelibly marking all text and legends on our systems thus ensuring a greater life expectancy for the component and making it easy for the user to identify the relevant service.

CORNERS AND END CAPS

All of our trunking configurations have purpose made metal end caps, powder coated to complement the system whilst ensuring that the overall aesthetics of the product are maintained.

By incorporating metal end caps, EMC compliance is maintained. which cannot be achieved where plastic or polymer end caps are used.

Should corner sections be required on any specific contract please contact our sales office for further information.

OFF SITE PRE-FABRICATION

MEDISYS integra™ benefits from the efficiencies of factory assembled pre-wired, pre-piped modules, with all outlets pre-configured, aiding the simplicity of the product. Prefabricated modules can be fitted as a second or third fix item and later in the conventional construction programme allowing.

MODULE CONSTRUCTION

MEDISYS integra™ is factory assembled with all services outlets pre-configured. The module can be installed on site as a second or third fix item and, where required we can pre-wire and pre-gas prior to despatch, all with appropriate test certification. The integral lighting systems are always pre-wired.

This method of production reduces costs by benefiting from lower labour rates for off-site assembly and speeds up the general site installation time whilst helping to eliminate the risk of on-site damage to trunking and abuse by other trades during the construction phases.

INSTALLATION

The system does not use proprietary first fix mounting plates and therefore can be installed by any competent tradesman. However, we have recognised the desire of some clients to procure a total supply and installation package from a specialist manufacturer and our experienced Contracts Department specialises in the installation of our trunking systems,.

All Cableflow installation technicians are trained to the highest standards, and equipped with the most up to date machinery to achieve the best possible result when our products and their skills are combined..

Further information about our installation services can be obtained by contacting our Sales Team who will be pleased to provide you with a costing on your specific application.

EMC CERTIFICATION AND COMPLIANCE

Protecting electronic components in the patent environment from Electro-Magnetic Interference (EMI) and Radio Frequency Interference (RFI) is of paramount importance. **MEDISYS integra™** has been designed specifically to ensure that each chamber, and in turn each individual compartment, controls both the emission and reception of any such Interference.

By specifying **MEDISYS integra™** you can be satisfied that the EMC elements of ISO 11197 have been complied with. All of our system solutions have been independently tested by BSI with all of the commercially available nurse call system in operation.

INTEGRATED LIGHTING SYSTEM

MEDISYS integra™ has been designed to provide bedhead reading/observation or inspection lighting via the integrally mounted downlights fitted into the underside of the trunking configuration.

Each luminaire can be controlled via the patient nurse call handset with the addition of the respective relays where necessary, all supplied by the relevant nurse call manufacturer to ensure compatibility with their system although we can integrate them into our factory assembly.

All lighting modules are designed and tested to comply with the performance requirements of CIBSE LG2:2008 "Hospitals and Healthcare Buildings".

The overall performance of the product in application requires due consideration when designing the installation as defined within LG2.

Conscious of the need to ensure that adequate and efficient up/down lighting is available, our **MEDISYS integra™** range offers a solution where no compromises have been made.

A corresponding asymmetric TL5 uplight is also incorporated within the top upper section, which will act as the sole source of room illumination from this system when use din conjunction with a designed interiors scheme to maximise the benefits of this product .

The uplight is designed to be the sole source of general room illumination and thus negates the need for numerous additional supplementary ceiling mounted luminaires.

The same prismatic diffusers are used in both uplight and downlight arrangements, thus ensuring the compatibility of spares held. With a comfortable viewed luminance well below the recommended 700 cd/m^2 this creates a comfortable environment for patients and clinicians alike.

LED TECHNOLOGY

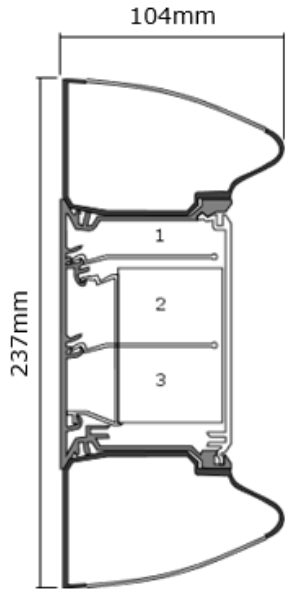
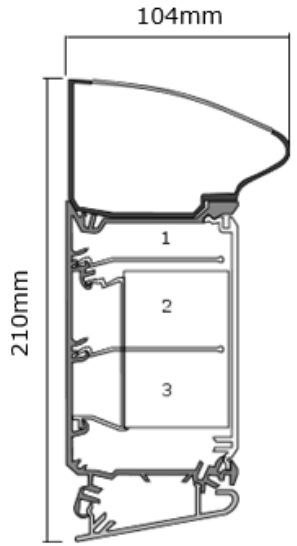
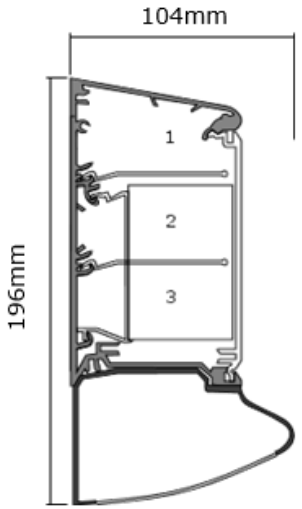
In recognising the need to stay ahead of lighting developments an LED version of the downlight is available.

LED manufacturers are still to break the 200 lumens per circuit watt barrier and until that is consistent in commercially available conversions a well designed TL5 luminaire, such as **MEDISYS integra™** is every bit as effective, efficient and economical as a LED comparable.

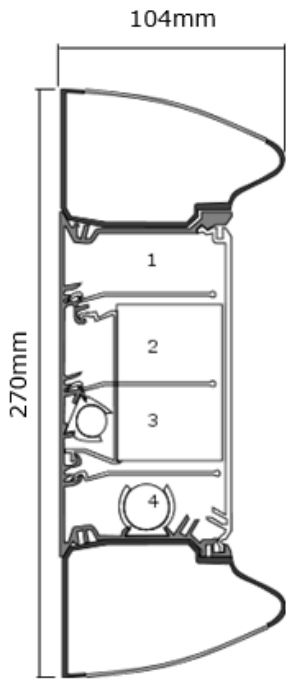
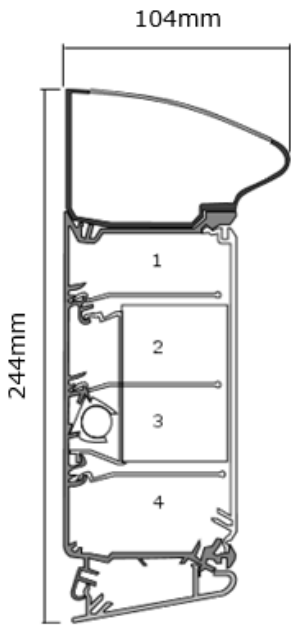
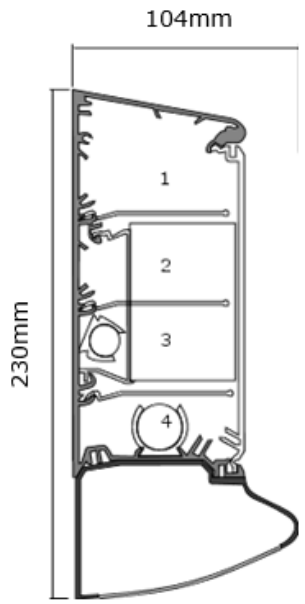
MEDICAL EQUIPMENT RAIL

The inclusion of medical equipment rail onto a linear extruded bedhead trunking should not be encouraged. Loading requirements for rail systems are greater than the trunking systems intended to support them. In addition, trunking systems invariably have to be mounted higher than the maximum safe height for a medical rail (see HTM 08-03)

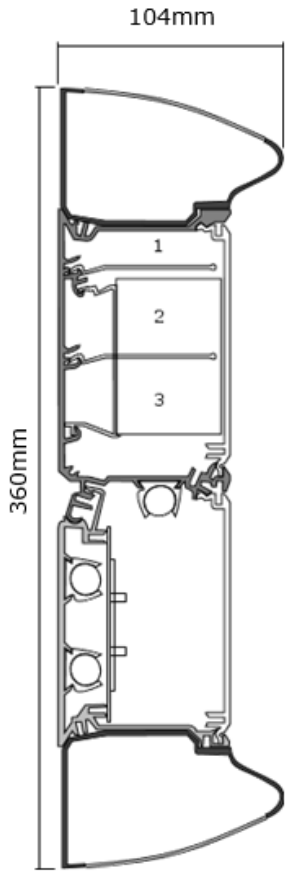
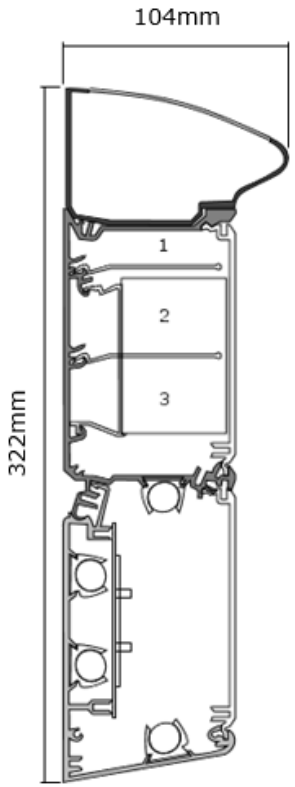
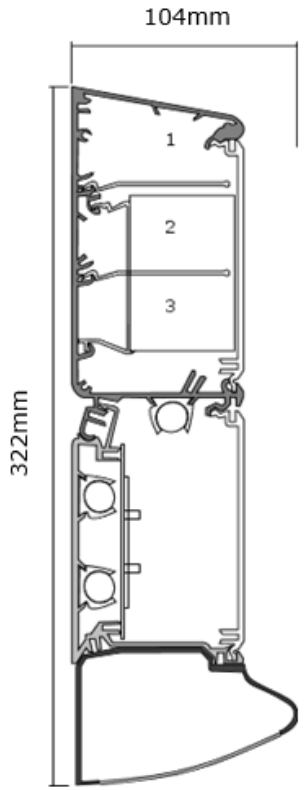
Instead, we manufacture a separate wall mounted Medical Equipment Rail to ISO 19054 (separate datasheet available).

integra M10	integra M10-U	integra M10-D
		

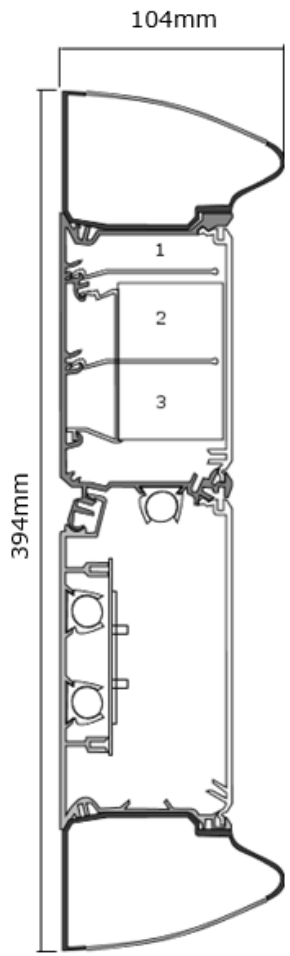
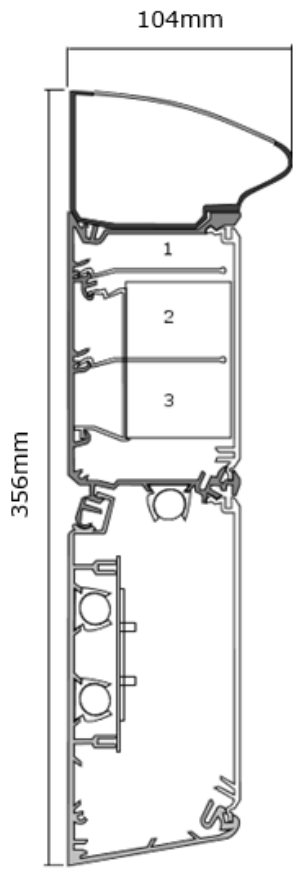
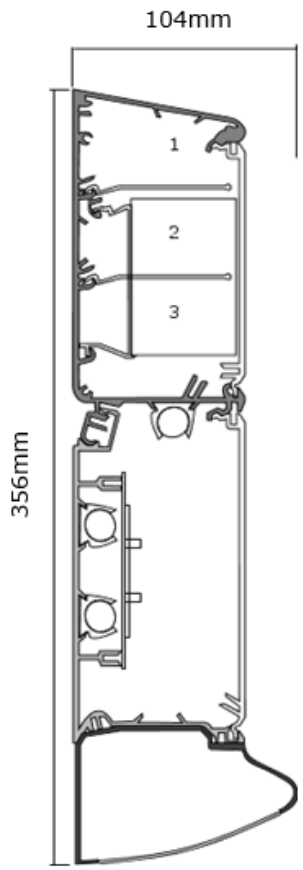
Capacities		
Max. No. of electrical compartments:		3
Max. No. of pipes:		2
Compartment capacity (gross) mm²:	1	1034 (2151 with downlight)
	2	617
	3	1588

integra M20	integra M20-U	integra M20-D
		

Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		4
Compartment capacity (gross) mm²:	1	1675 (3014 with downlight)
	2	617
	3	652
	4	2289

integra M13	integra M13-U	integra M13-D
		

Capacities		
Max. No. of electrical compartments:		3
Max. No. of pipes:		4
Compartment capacity (gross) mm²:	1	1034 (2151 with downlight)
	2	617
	3	1588

integra M14	integra M14-U	integra M14-D
		

Capacities		
Max. No. of electrical compartments:		3
Max. No. of pipes:		5
Compartment capacity (gross) mm²:	1	1034 (2151 with downlight)
	2	617
	3	1588

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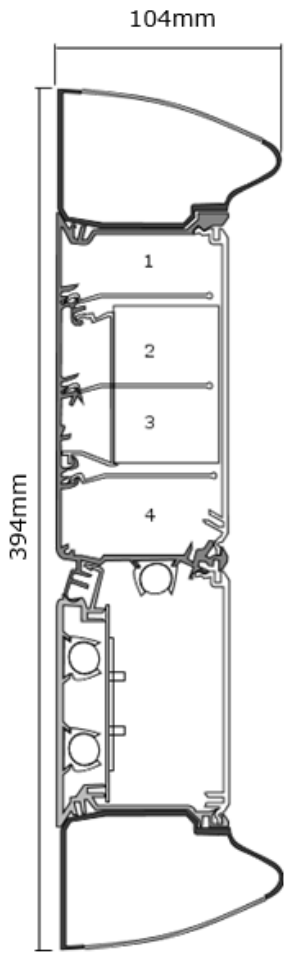
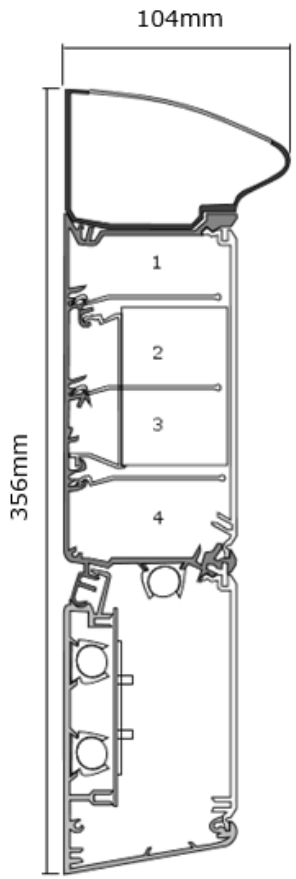
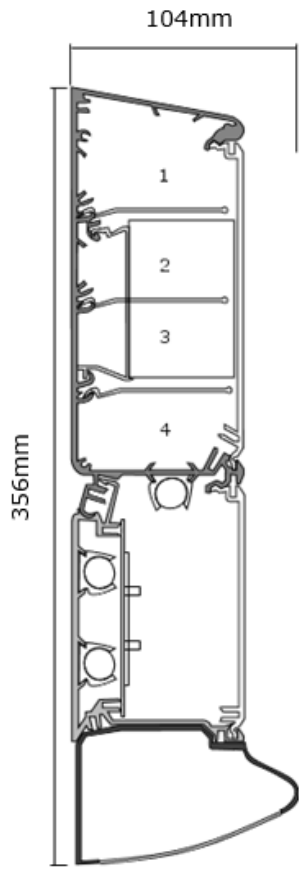
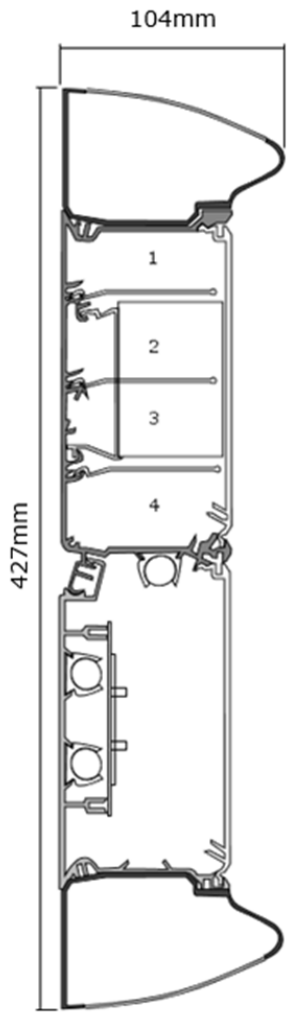
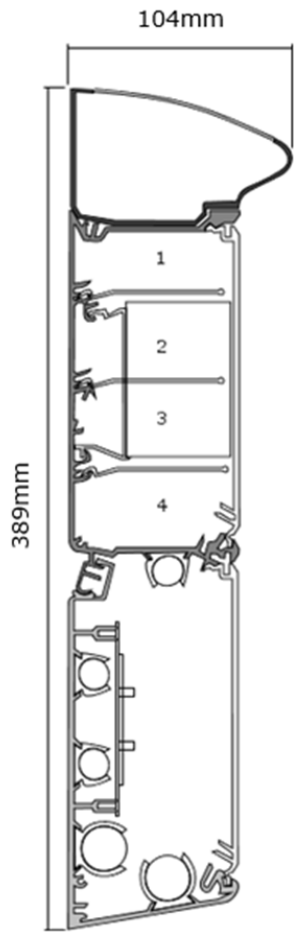
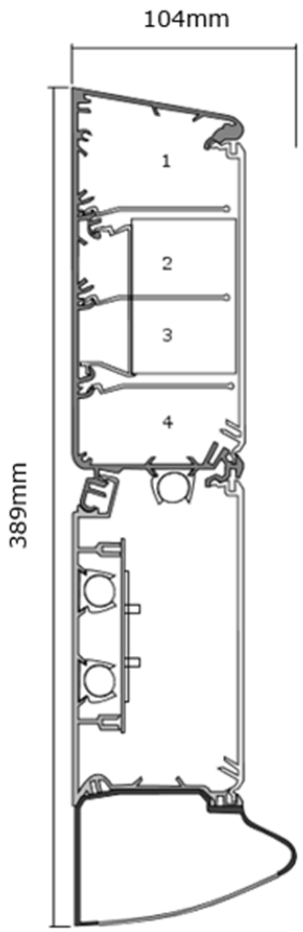
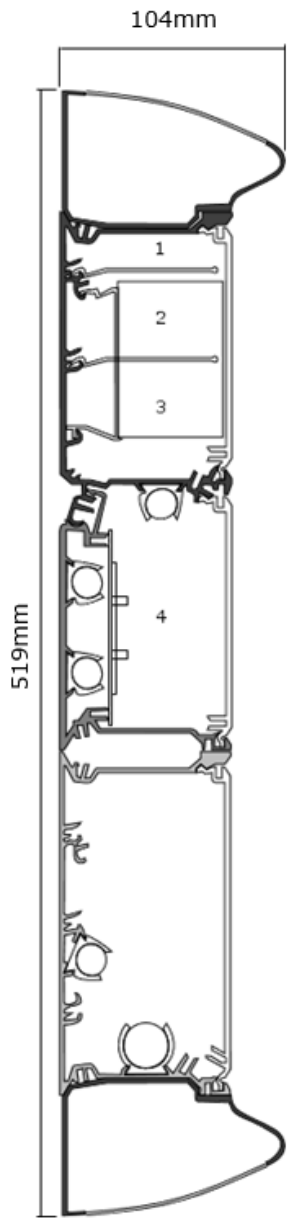
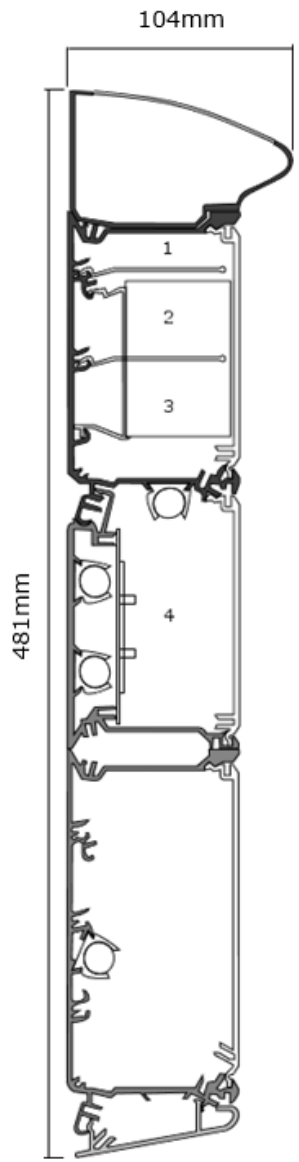
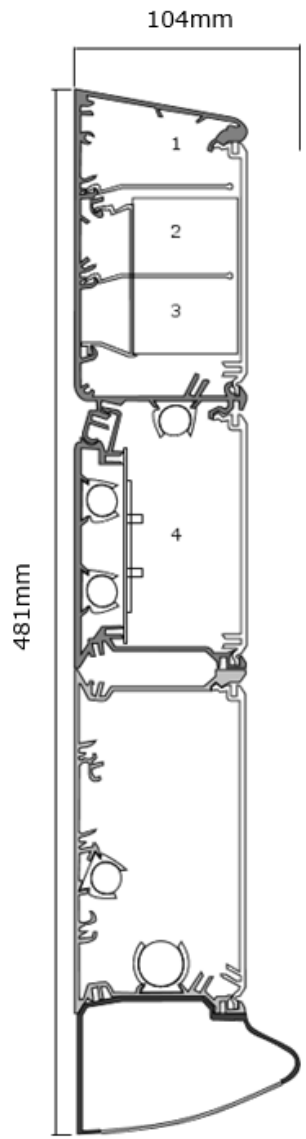
		

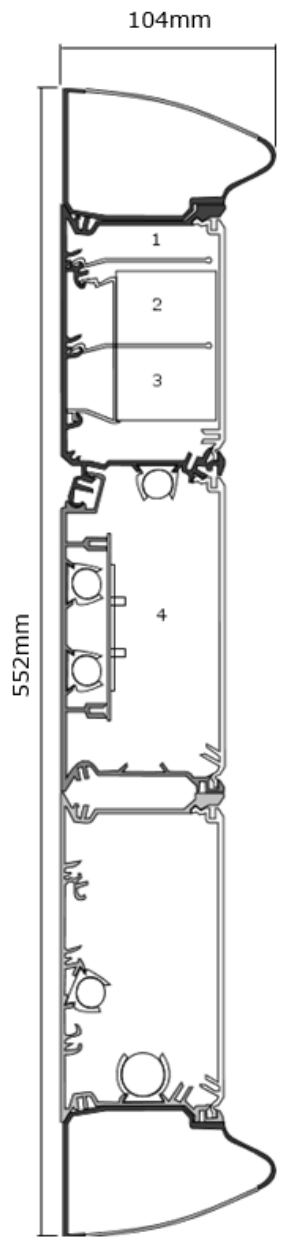
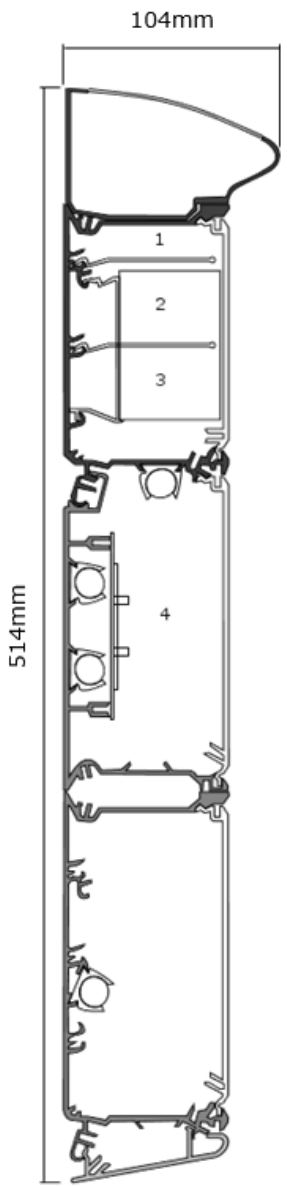
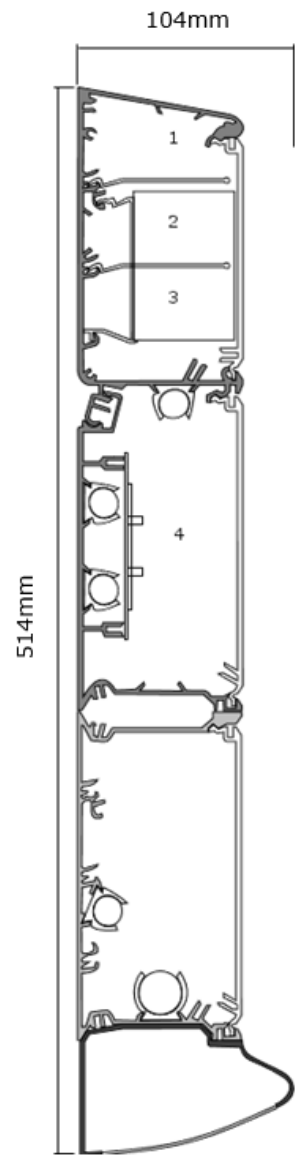
Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		4
Compartment capacity (gross) mm²:	1	1675 (3014 with downlight)
	2	617
	3	652
	4	2289

integra M24	integra M24-U	integra M24-D
		

Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		6
Compartment capacity (gross) mm²:	1	1675 (3014 with downlight)
	2	617
	3	652
	4	2289

integra M132	integra M132-U	integra M132-D
		

Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		5
Compartment capacity (gross) mm²:	1	1034 (2151 with downlight)
	2	617
	3	1588
	4	3985

integra M142	integra M142-U	integra M142-D
		

Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		6
Compartment capacity (gross) mm²:	1	1034 (2151 with downlight)
	2	617
	3	1588
	4	7719

Standards compliance

Document Reference	Document Description
BS 476-10: 2009	Fire tests on building materials and structures. Guide to the principles, selection, role and application of fire testing and their outputs
BS 1363-1: 1995	13 A plugs, socket-outlets, adaptors and connection units. Specification for rewirable and non-rewirable 13 A fused plugs
BS 1363-2: 1995	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A switched and unswitched socket-outlets
BS 1363- 4: 1995	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A fused connection units switched and unswitched
BS EN 60669-1:1999+A2:2008	Switches for household and similar fixed-electrical installations. General requirements
BS EN 60598-1:2015	Luminaires. General requirements and tests
BS 5733:2010+A1:2014	General requirements for electrical accessories. Specification
BS EN 12206-1:2004	Paints and varnishes. Coating of aluminium and aluminium alloys for architectural purposes. Coatings prepared from coating powder
BS 6701: 2010	Telecommunications equipment and telecommunications cabling. Specification for installation, operation and maintenance
BS 7671:2008+A3:2015	Requirements for Electrical Installations. IET Wiring Regulations
BS 8300:2009+A1:2010	Design of buildings and their approaches to meet the needs of disabled people. Code of practice
BS EN ISO 9170-1:2008	Terminal units for medical gas pipeline systems. Terminal units for use with compressed medical gases and vacuum (formally BS EN ISO 9170-1)
BS EN ISO 9170-2:2008	Terminal units for medical gas pipeline systems. Terminal units for anaesthetic gas scavenging systems (formally BS EN 737 -4)
BS EN ISO 7599:2010	Anodizing of aluminium and its alloys. General specifications for anodic oxidation coatings on aluminium (formally BS EN 12373:2001)
BS EN 12464-1: 2002	Light and lighting. Lighting of work places. Indoor work places
BS EN 13032-2: 2004	Light and lighting. Measurement and presentation of photometric data of lamps and luminaires. Presentation of data for indoor and outdoor work places
BS EN 61000-6-3:2007+A1:2011	Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments (formally BS EN 50081-1)
BS EN 61000-6-4:2007 +A1:2011	Electromagnetic compatibility (EMC). Generic standards. Emission standard for industrial environments (formally BS EN 50081-2)
BS EN 61000-6-1:2007	Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light-industrial environments (formally BS EN 50082-1)
BS EN 50083-2:2012	Cable networks for television signals, sound signals and interactive services. Electromagnetic compatibility for equipment
BS EN 50085-1:2005+A1:2013	Cable trunking systems and cable ducting systems for electrical installations. General requirements
BS EN 50085-2: 2006	Cable trunking systems and cable ducting systems for electrical installations. Cable trunking systems and cable ducting systems intended for mounting on walls and ceilings
BS EN 60439-5: 2006	Low-voltage switchgear and controlgear assemblies. Particular requirements for assemblies for power distribution in public networks

Document Reference	Document Description
BS EN 60529:1992+A2:2013	Degrees of protection provided by enclosures (IP code)
BS EN 60598-2-22:1998+A2:2008	Luminaires. Particular requirements. Luminaires for emergency lighting
BS EN 60601-1-6:2010+A1:2015	Medical electrical equipment. General requirements for basic safety and essential performance. Collateral standard. Usability
BS EN 60601-1-2: 2007	Medical electrical equipment. General requirements for basic safety and essential performance. Collateral standard. Electromagnetic compatibility. Requirements and tests
BS EN ISO 11197:2009	Medical supply units
BS EN ISO 7396-1:2007+A3:2013	Medical gas pipeline systems. Pipeline systems for compressed medical gases and vacuum
ISO 19054	Rail Systems for supporting medical equipment
ISO 7396-2: 2007	Medical gas pipeline systems. Anaesthetic gas scavenging disposal systems
HBN 00-03	Designing generic clinical and clinical support spaces
HBN 00-04	Circulation and communication Spaces
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HBN 04-01	Adult in-patient facilities: planning and design
HBN 04-02	Critical care units
HBN 4, Supplement 1	Isolation facilities for infectious patients in acute settings
HBN 6	Facilities for Diagnostic imaging and interventional radiology:
HBN 07–01	Satellite Dialysis Unit
HBN 07-02	Main Renal Unit
HBN 09-02	Maternity Care Facilities
HBN 09-03	Neonatal Units
HBN 57: 2003	Facilities for critical care
HTM 02-01	Medical gas pipeline systems
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HTM 08-03	Management of bedhead services in the health sector
HTM 17	Health Building Engineering Installations
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HTM 2020	Electrical safety code for low voltage systems
CIBSE LG 2: 2008	Lighting guide - Hospitals and health care buildings
CIBSE LG 3: 2001	Lighting guide - The visual environment for Display Screen Use
CIE	European Lighting Guide
IEC 60364-7-710: 2002	Electrical installations of buildings. Requirements for special installations or medical locations (UK BS7671 Section 7-710)
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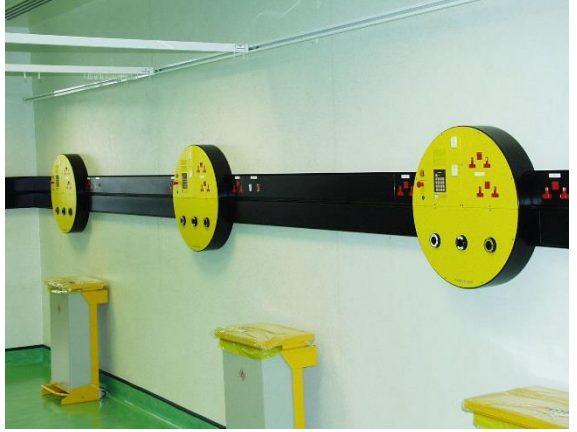








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