



LM MEDICAL
DIVISION



Normal
care



Intensive
care



Bed head units

oki
plus



LM MEDICAL
DIVISION

Highly
adaptable
with a
sleek design

Why choose PLUS?



Easy to install, easier to maintain

We create our equipment based on two principles simple key: ease of installation and long-lasting top quality components ensuring minimum maintenance and maximum reliability. Plus is delivered fully assembled to reduce costs of installation.

Green lighting

Decrease your electricity consumption thanks to our innovative LED lighting strips which are available for all direct, indirect and even night lighting. Lower maintenance, greater performance! Up to 40% energy saving; 50.000 hours average lifetime.

Powder coating, powered hygiene

Epoxy powder coating guarantees a clean smooth hygienic surface for all our units. Our dedicated antibacterial paint can be added to the powder coating as an option to ensure 100% shield against bacteria.

Not just numbers

We want to make sure to offer a tangible added value in addition to the solid design. All Plus profiles are extruded from strong performing 6063 aluminium alloy to guarantee the highest standards in mechanical resistance.

Modular versatility

Plus is arranged to suit perfectly any medical requirement. The modularity of the unit allows any specification to be met with one single product which can be adapted to any level of care needed in the hospital.

Plus ES

This is the starting version of the Plus range. Ideal for all standard wards, it offers a simple design featuring a single profile to house both electrical and gas components whilst maintaining segregation between the two. The Plus range can be offered with or without integral lighting and with additional DIN rail for mounting accessories as an option.



Plus MD

Suitable for both standard and critical care this version features two separate profiles housing all services. Electrical and medical gas components run in completely separate compartments and are independently fed to ensure segregation is maintained. Similar to the ES model, it can be fitted with both lighting modules and additional DIN rails.



Plus LG

This is the highest configuration available. Ideal for all critical areas this configuration includes three profiles to guarantee that even with a large number of services segregation can always be maintained. Although generally supplied without lights both direct and indirect lighting can be included as an option together with the DIN rails if needed.



Plus Recessed

Plus Recessed is a solution that allows a device to be recessed into the wall. All Plus ES, Plus MD, Plus LG and Plus HTM models can be supplied with the recessed configuration. In the built-in configuration, all functions offered by the Plus models are available.



Plus HTM

Plus HTM is the model that, in addition to the features provided in the other models, also meets the HTM01 and HTM02 standards. The Plus HTM model also offers the functions of lighting, power distribution, data connection, medical gas distribution, nurse call, and can be equipped with an instrument bar for supporting other devices.





Introduction

Plus ES is designed and recommended to offer an easy and price worthy solution for standard inpatient care. The bed head unit could be supplied with various lighting configurations:
a) either indirect or direct (Plus ES L),
b) both (Plus ES LL).

It can house all medical gas outlets adequately segregated from the electrical components. The highly adaptable profile can be configured for all special hospital wards. Upon request an integrated aluminium DIN rail is also available.

Optional features

 GAS outlets	 Night lighting	 Antibacterial paint treatment
 Data communication	 Direct lighting	 Single/double din rail
 Available OKI accessories	 Indirect lighting	 Special images and patterns available

Details

LIGHT DIFFUSION
A - Indirect light
E - Direct light

COMPONENTS
B - Gas piping
C - Gas compartment
D - Electrical compartment



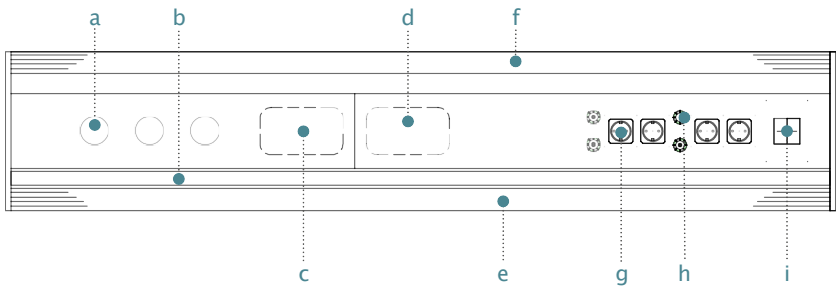
Profile and sections configurations

This diagram explains you better the various configurations available for each Plus wall-mounted model.

All Plus profiles are modular and allow a wide choice of configurations:
- with none, one or both lighting profiles;
- with none, one or both DIN rail profiles.
Lighting and rail profiles can be combined at the same time. Please do not hesitate to contact our distributor or sales office for further clarifications.



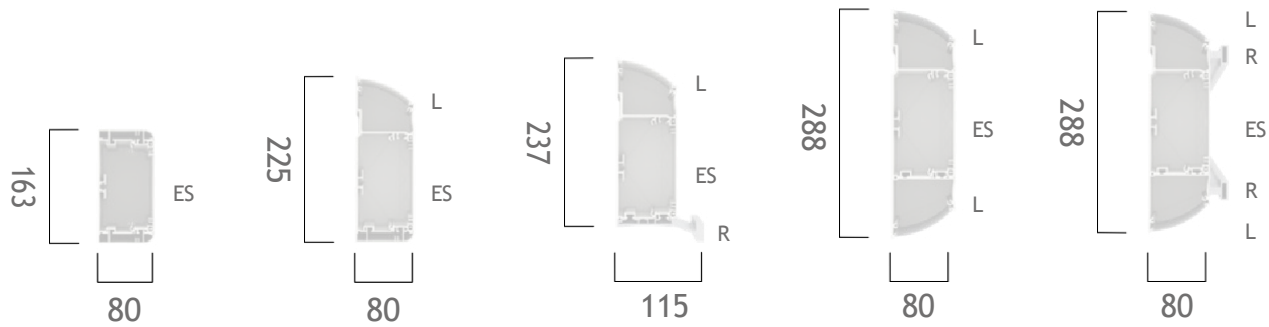
Profile overview



- KEY**
a - Gas outlet
b - Din rail
c - Compartment for gas components
d - Compartment for electrical components
e - Direct light
f - Indirect light
g - Electrical socket
h - Equipotential socket
i - Switches



Model dimensions











Plus MD

Introduction

Plus MD models are particularly designed for all critical areas in a hospital.
Gas and electrical components are kept segregated by two or even three different profiles.

These models give the opportunity to equip the bed head unit with a large number of services, according to the most detailed specification. Like Plus ES also the MD and LG models can be equipped with either direct or indirect lighting (Plus MD/LG L), or both (Plus MD/LG LL). Similarly an integrated single or double aluminium DIN rail can be supplied upon request.

Optional features

 GAS	 Night lighting	 Antibacterial paint treatment
 Data communication	 Direct lighting	 Single/double din rail
 Available OKI accessories	 Indirect lighting	

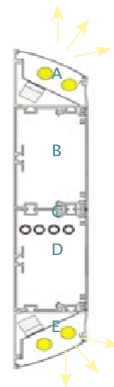
Details

LIGHT DIFFUSION

A - Indirect light
E - Direct light

COMPONENTS

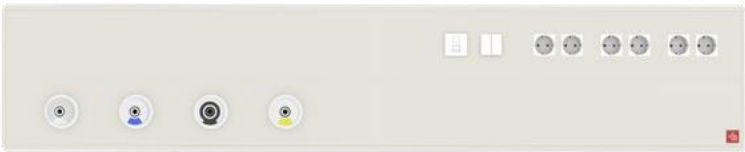
B - Electrical compartment
C - Gas piping
D - Gas compartment



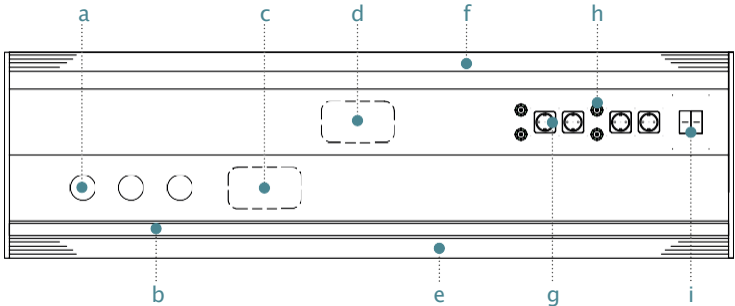
Profile and sections configurations

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- with none, one or both DIN rail profiles.
Lighting and rail profiles can be combined at the same time. Please do not hesitate to contact our distributor or sales office for further clarifications.



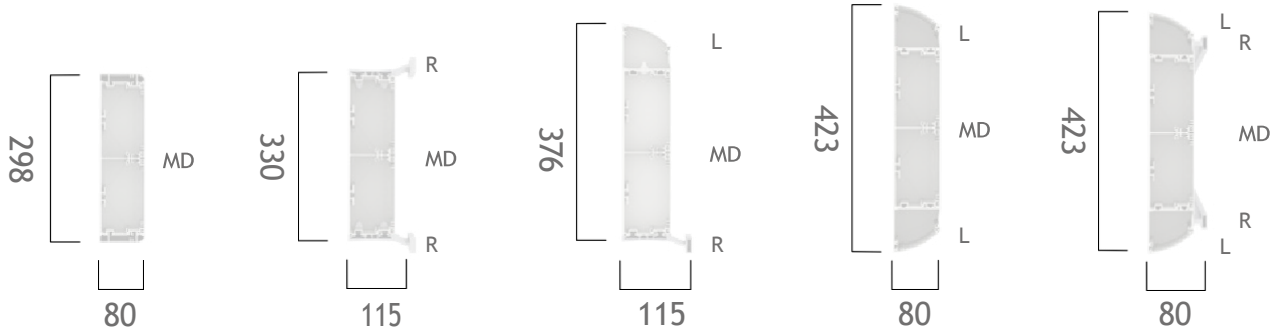
Profile overview



KEY

- a - Gas outlet
- b - Din rail
- c - Compartment for gas components
- d - Compartment for electrical components
- e - Direct light
- f - Indirect light
- g - Electrical socket
- h - Equipotential ground socket
- i - Switches

Model dimensions




Plus LG


Introduction


Plus LG models are particularly designed for all critical areas in a hospital.
Gas and electrical components are kept segregated by two or even three different profiles.


These models give the opportunity to equip the bed head unit with a large number of services, according to the most detailed specification. Like Plus ES also the MD and LG models can be equipped with either direct or indirect lighting (Plus MD/LG L), or both (Plus MD/LG LL). Similarly an integrated single or double aluminium DIN rail can be supplied upon request.


Optional features



GAS outlets



Night lighting



Antibacterial paint treatment


Data communication


Direct lighting


Single/double din rail


Available OKI accessories


Indirect lighting

Details

COMPONENTS
A - Electrical compartment
B - Gas piping
C - Gas compartment



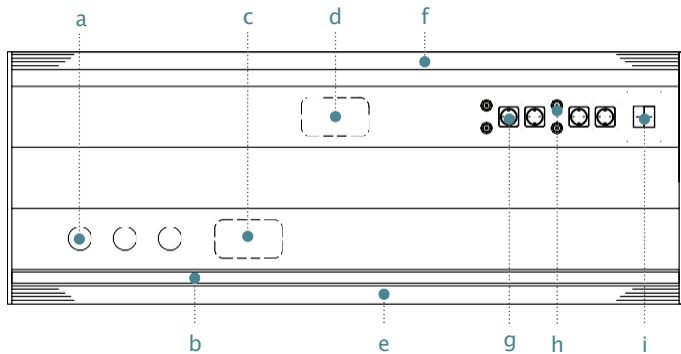
Profile and sections configurations

This diagram explains you better the various configurations available for each Plus wall-mounted model.

All Plus profiles are modular and allow a wide choice of configurations:
- with none, one or both lighting profiles;
- with none, one or both DIN rail profiles.
Lighting and rail profiles can be combined at the same time. Please do not hesitate to contact our distributor or sales office for further clarifications.



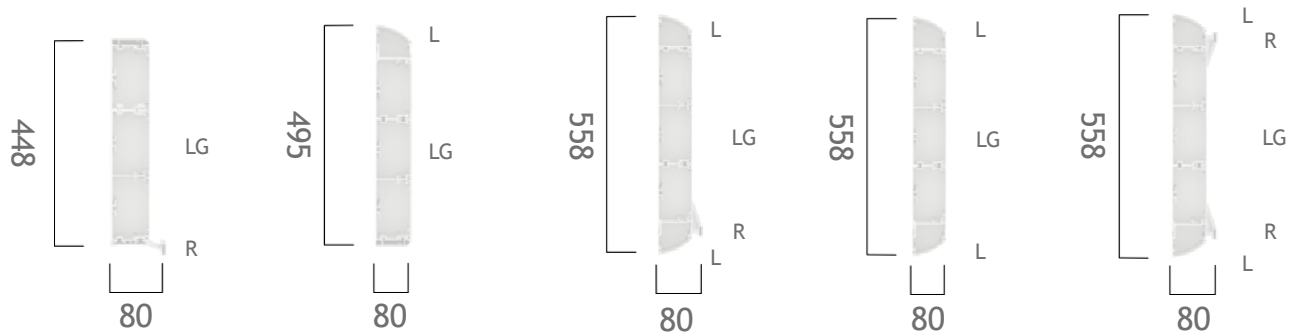
Profile overview



KEY
a - Gas outlet
b - Din rail
c - Compartment for gas components
d - Compartment for electrical components
e - Direct light
f - Indirect light
g - Electrical socket
h - Equipotential ground socket
i - Switches



Model dimensions



Plus Recessed

Introduction

Plus Recessed is the wall-recessed -mounted configuration of the Plus ES, Plus MD, Plus LG and Plus HTM models.

Designed to offer the smallest possible footprint and a clean, linear aesthetic impact. Plus Recessed offers all the functions of Plus ES, Plus MD, Plus LG and Plus HTM models. It is possible to insert the LED light externally, above the Plus Recessed profile, depending on the customer's needs. It is intended for standard inpatient care.

Optional features



GAS outlets



Data communication



Night lighting



Single/double din rail



Antibacterial paint treatment



Available OKI accessories

Details

COMPONENTS
A - Electrical compartment
B - Gas piping
C - Gas compartment



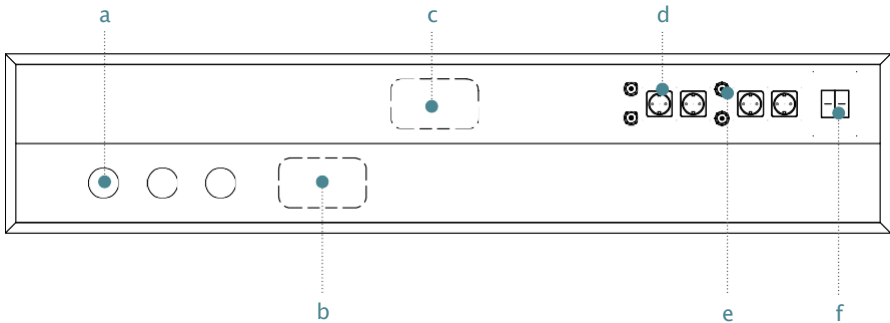
Profile and sections configurations

This diagram explains you better some of the various configurations available for Plus Recessed, that is a recessed model, in the wall.

All Plus Recessed profiles are modular and allow a wide choice of configurations:
-with none, one or both DIN rail profiles.
-rail profiles can be combined at the same time
-lighting can be put up of recessed model.



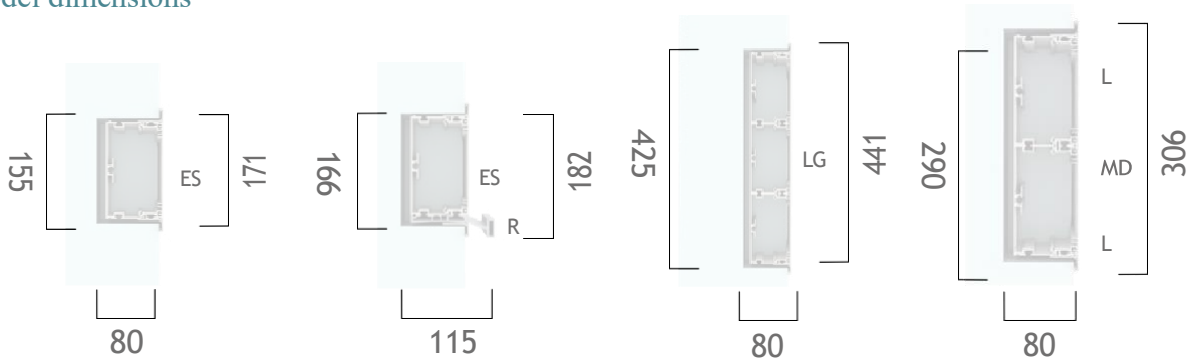
Profile overview



KEY
a - Gas outlet
b - Compartment for gas components
c - Compartment for electrical components
d - Electrical socket
e - Equipotential ground socket
f - Switches

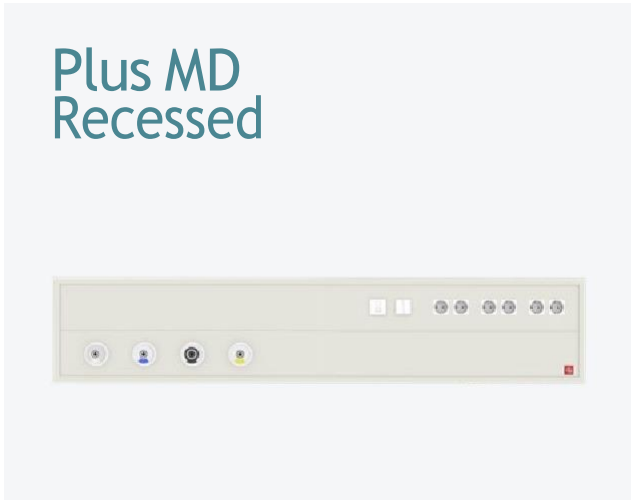
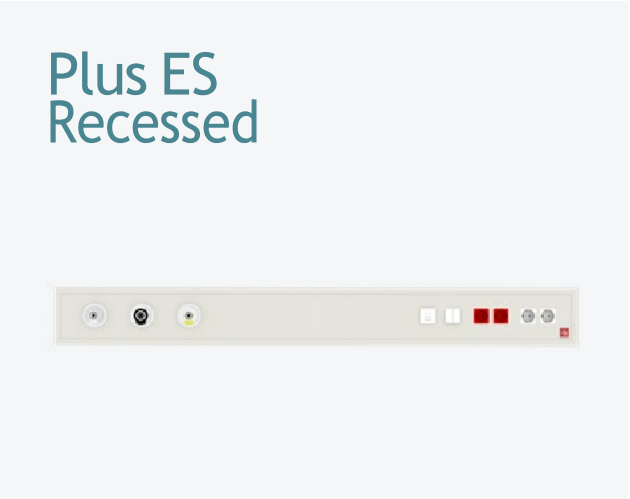


Model dimensions





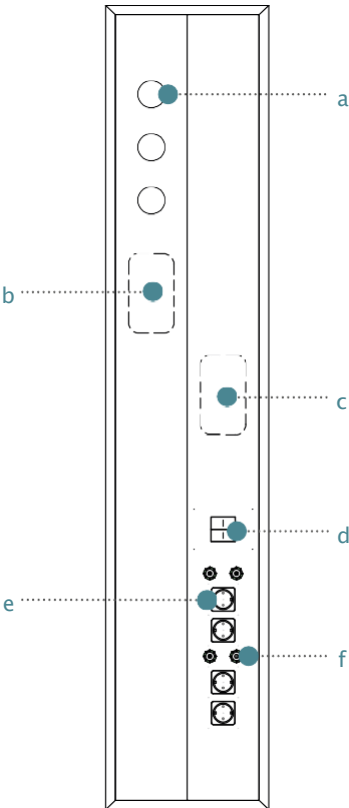
Vertical design for better adaptability



Profile overview

KEY

- a - Gas outlet
- b - Compartment for gas components
- c - Compartment for electrical components
- d - Switches
- e - Electrical socket
- f - Equipotential ground socket



Plus HTM



Introduction

Plus HTM is the model that, in addition to the features provided in the other models, also meets the HTM01 and HTM02 standards.

The Plus HTM model also offers the functions of lighting, power distribution, data connection, medical gas distribution, nurse call, and can be equipped with an instrument bar for supporting other devices.

Optional features

GAS outlets	Night lighting	Antibacterial paint treatment
Data communication	Direct lighting	Single/double din rail
Available OKI accessories	Indirect lighting	

Details

COMPONENTS
A - Electrical compartment
B - Gas piping
C - Gas compartment



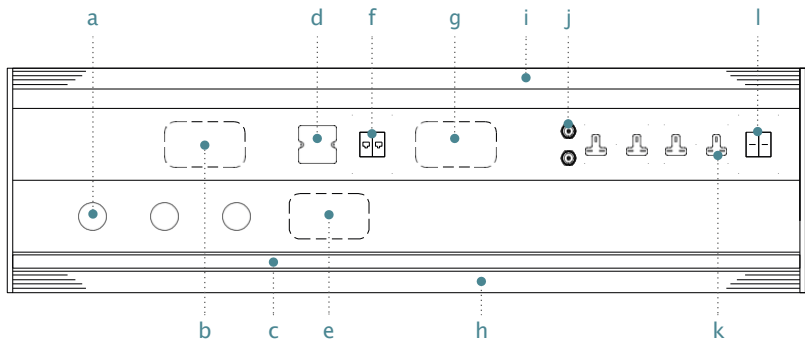
Profile and sections configurations

This diagram explains you better some of the various configurations available for Plus HTM wall mounted model.
All Plus HTM profiles are modular and allow a wide choice of configurations:
-with none, one or both lighting profiles;
-with none, one or both DIN rail profiles.

Lighting and rail profiles can be combined at the same time. Plus HTM respect and maintain all HTM normative. The internal part of the profile changes, in fact gas, electrical part and data are divided from each other through 3 separate / different inputs.



Profile overview

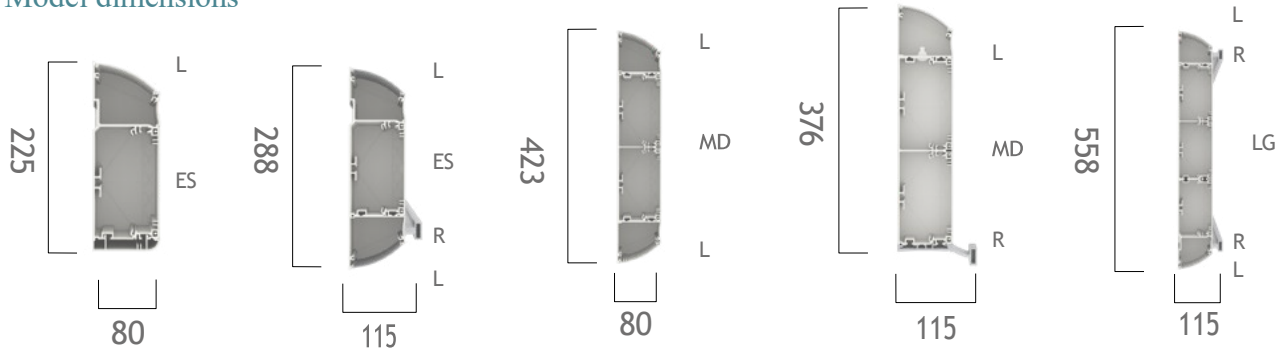


- KEY**
a - Gas outlet
b - Compartment for data components
c - Din rail
d - Nurse call
e - Compartment for gas components
f - Data socket
g - Compartment for electrical socket
h - Direct light
i - Indirect light
j - Equipotential ground socket
k - Electrical socket
l - Switches

Vertical raiser is an optional



Model dimensions











Finishing & colours







Color illustration for
aluminum profiles

RAL

			
9010	5012	3020	1034
			
5018	3015	1016	9006




Special models
and images

IMAGES

			
SAMPLE IMAGE 1	SAMPLE IMAGE 2	SAMPLE IMAGE 3	SAMPLE IMAGE 4

Special paediatric
models and images

IMAGES

			
SAMPLE IMAGE 1	SAMPLE IMAGE 2	SAMPLE IMAGE 3	SAMPLE IMAGE 4

Special finishes

WOOD EFFECT

			
4247_R	4177_R	4479_LU	4123_R

For all finishes consult the specific catalogue.

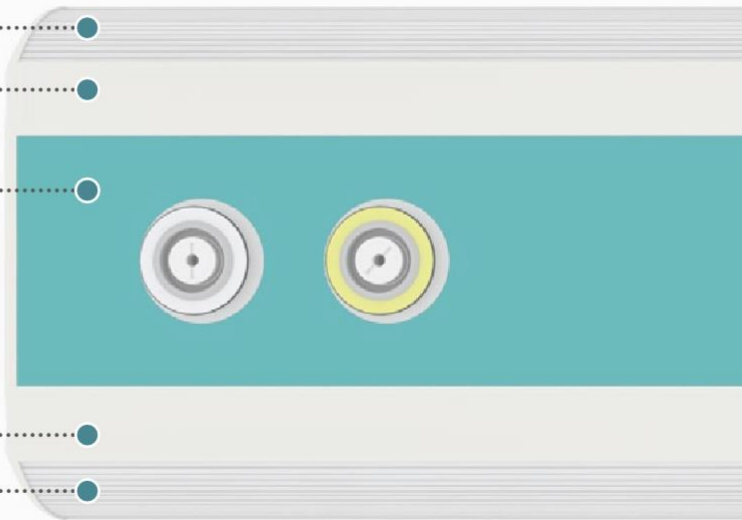
POLYCARBONATE

RAL

RAL

IMAGES

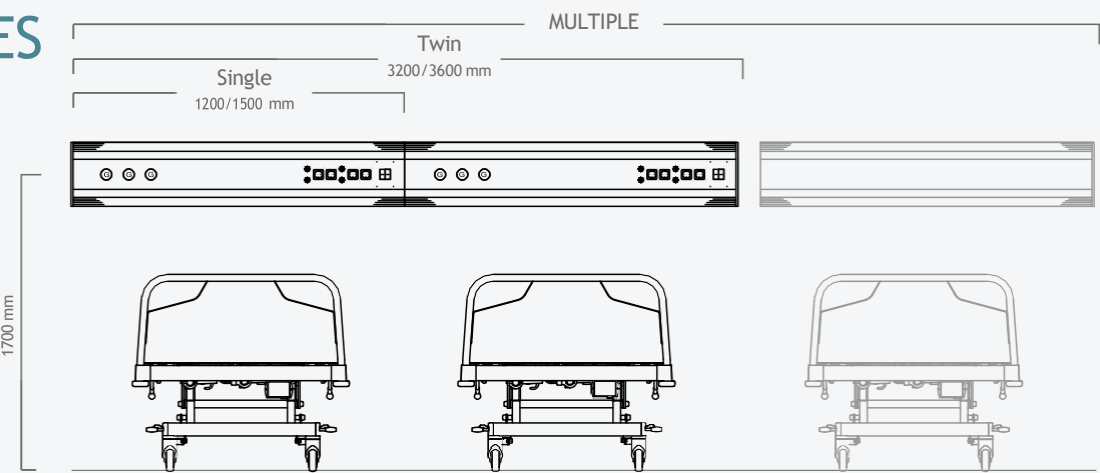
WOOD EFFECT



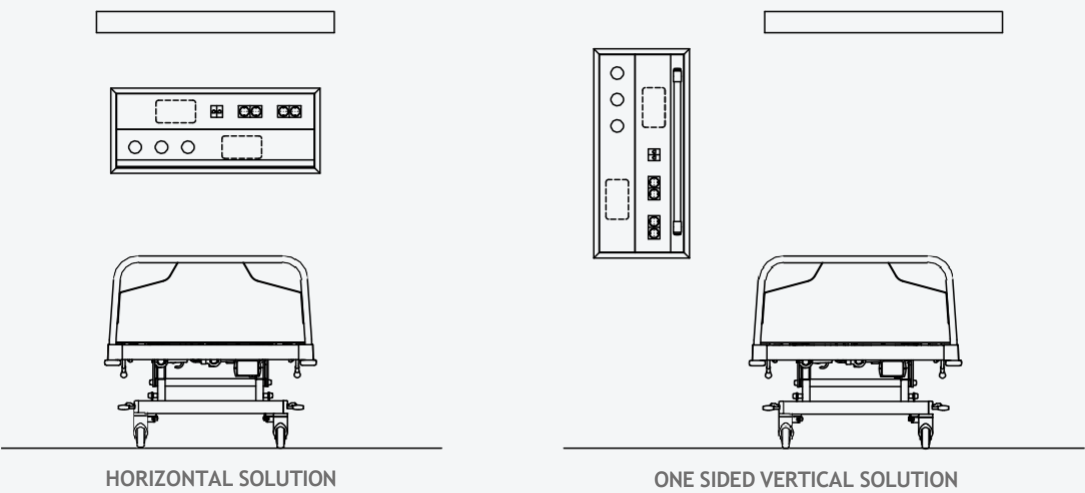
The colours shown are for guidance only, please refer to the standard RAL colour chart. The choice of any colour not commonly used might require longer delivery time. Customers are highly recommended to consult our sales office for detailed advice. Special anti-bacterial paint is also available upon request, suggested for intensive care units. Please contact us to receive the full range of available finishes.

Plus - Configurations

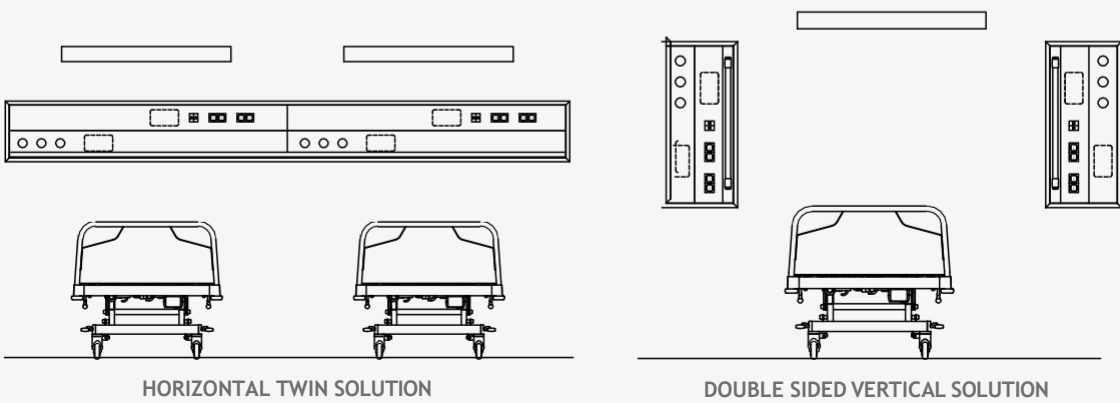
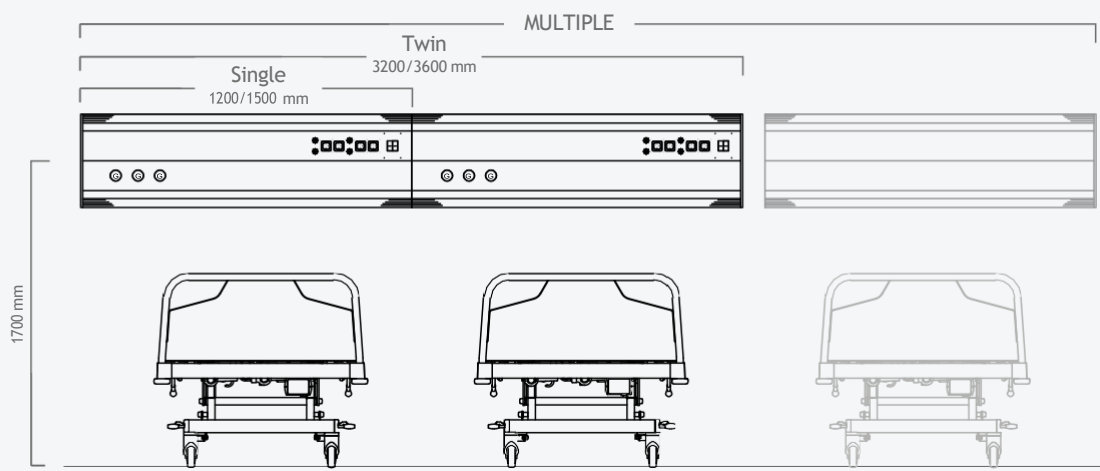
Plus ES



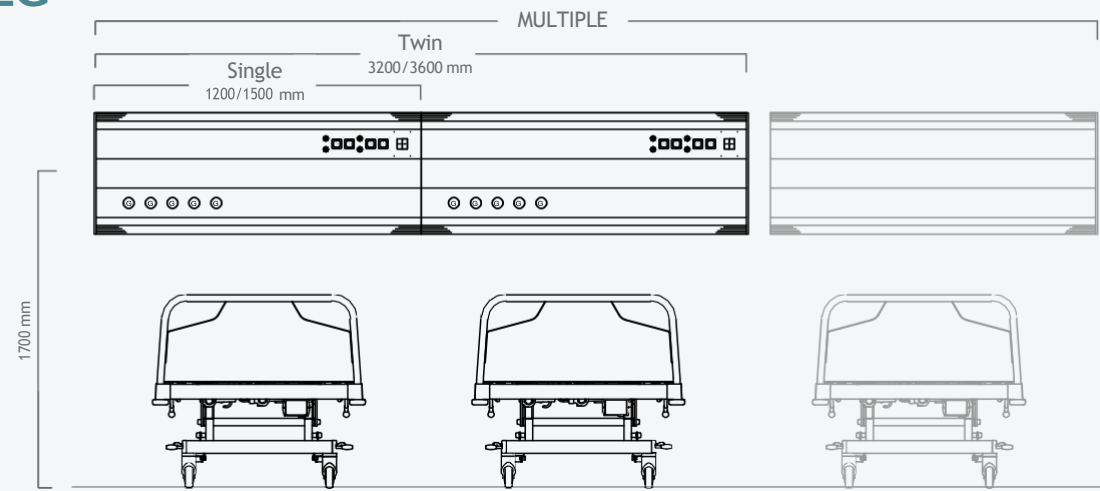
Plus Recessed



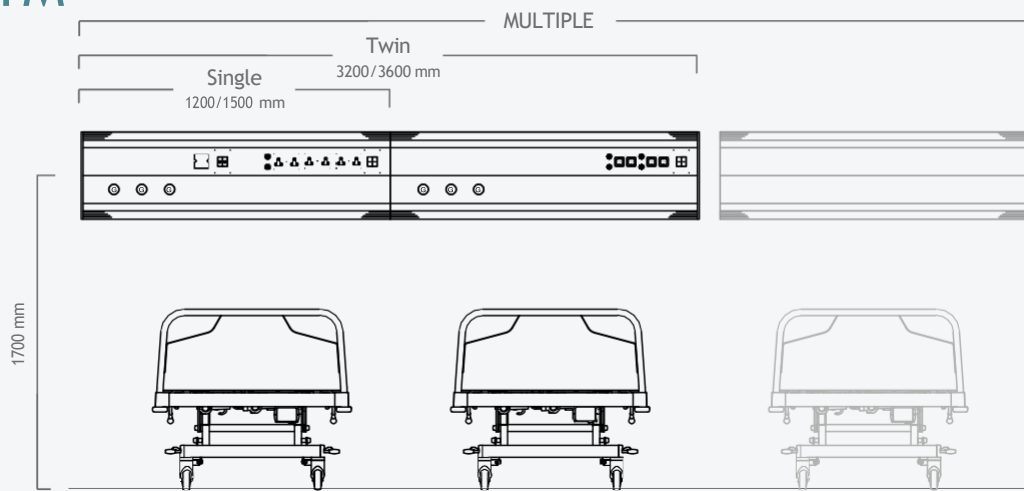
Plus MD



Plus LG

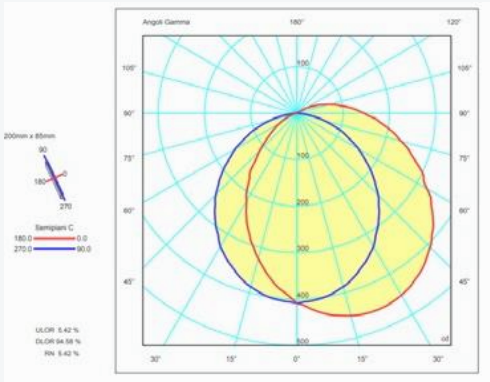


Plus HTM

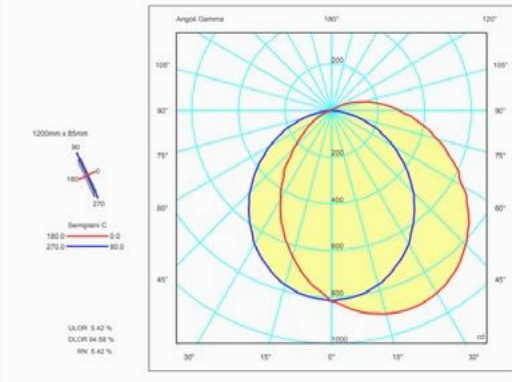


Lighting plots

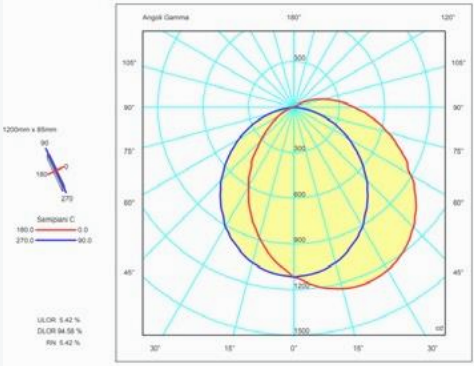
1x12W



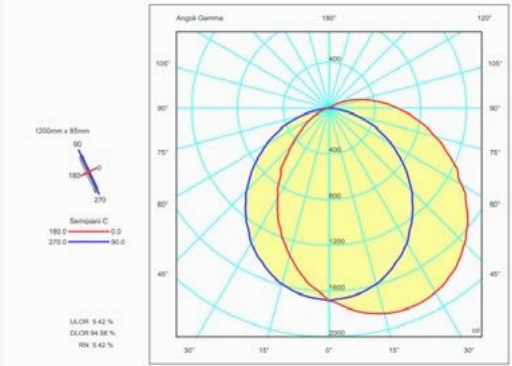
2x12W



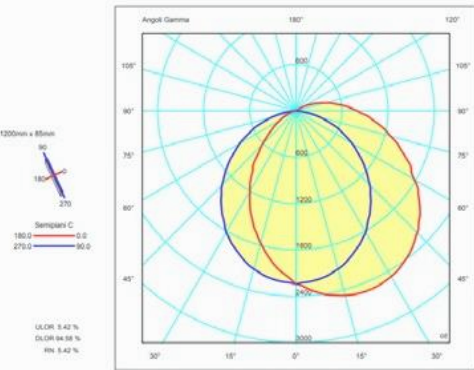
2x17W



3x17W



4x17W



Technical data sheet Oki Plus ES, Oki Plus MD, Oki Plus LG

Features	Specifications
DM Classification	The power unit is an active medical device. It is a class IIb DM according to classification rule: 9 and 12 of MDR 2017/745UE Regulation.
Classification according to type of protection against electrical hazards	Class I electrical shock protection device Protection is provided by earthed metal parts.
Classification by type of safety against direct and indirect contact	The device without accessories has parts that do not fall under the definition of APPLIED PARTS, but are considered Type B applied parts. The device supplied with light control and nurse call buttons has applied parts classified as type B.
Classification according to degree of protection against the penetration of liquids and external agents	Against penetration of liquids and external agents IPX0.
Classification according to duration of use	Long-term operation device
Target Populations and Patients	No age, gender or ethnicity restrictions.
User characteristics	Qualified healthcare worker and/or lay personnel only for lighting system control and nurse call functions.
Noise level	Less than 35 dB.
Cleaning	The surface treatment of the Power Unit and its accessories guarantees the durability of the external surfaces. Cleaning should be carried out using a soft cloth slightly moistened with non-alcoholic disinfectants or max. 70% alcohol or non-abrasive detergents. Do not use active solvents to clean plastic parts.
Production testing for each power unit	The following tests are performed for each unit: • Electrical: - protective conductor continuity test - insulation resistance test - earth leakage current test • Medical gas system: - tightness and integrity test of medical gas and vacuum system - leak test and integrity of anaesthetic gas evacuation system End-of-line product tests are available on request.
Electromagnetic interference	Operation of other devices placed close to the medical device (such as portable or mobile devices) may cause electromagnetic or other interference, always check with qualified personnel the tables at the end of this manual.
Supply voltage	100÷120 V 50/60Hz or 220÷240 V 50/60Hz.
Auxiliary voltage	24Vdc 24Vac.
Power supply absorption	Lighting system Max 150W. Max 2000W distribution system for each electrical outlet.
Components only replaceable by qualified technical support personnel	All electrical components in the 'Spare Parts List' (list provided by the manufacturer on request).
Protection provided on the external power supply circuit	Provide adequate protection with circuit breakers or fuses sized according to the power rating indicated on the label on the DM.
Reference Standard	ISO 11197; IEC 60601-1; IEC 60601-1-2; IEC 60601-1-6; IEC 62366-1; EN ISO 14971; EN ISO 15223-1; EN ISO 20417; UNI EN ISO 7396-1; EN ISO 7396-2; ISO 5359; ISO 9170-1; ISO 9170-2; ISO 10993-1; EN 62471.
Documentation available on request from the user	The manufacturer can provide if requested, circuit diagrams, spare parts list, maintenance instructions or other information that the service technician needs to maintain the DM or replace faulty and/or worn parts.
Manufacturer's registered office and production site	The registered office and production site of the manufacturer are in Via Brigate Alpine n° 9 San Pancrazio - 25036 Palazzolo Sull'Oglio (BS) - Italy. The storage and production site is in via F.lli Calvi, snc - 25036 Palazzolo sull'Oglio (BS) - Italy.
Regulatory Implementation Provision	In accordance with the provisions of Legislative Decree 151/2005 of 25.7.2005.
Units of Measurement	[mm].
Useful Life	10 years from the production date on the label.





www.lmmedicaldivision.com

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MADE IN ITALY

