

Moduevo ceiling consoles adapted for hanging endoscopic equipment and a set of Volista surgical lights:

THE MAIN COMPONENTS OF THE EQUIPMENT

- Ceiling console - 1 pc. P 1.1
- Surgical lights – 1 set. P 1.2

TECHNICAL COMPATIBILITY

- ~~The main components of the equipment set (p. 1) are functionally and structurally aligned with each other (compatible)~~ P 2

REQUIREMENTS FOR SURGICAL LIGHTS:

- ~~High intensity light-emitting LEDs~~ P 3.1

THE NUMBER OF MODULES ("DOMES") OF THE SURGICAL LUMINAIRE

- ~~Two modules - the main and auxiliary, both corresponding (compatible) to requirements set out in parameters 3.4 to 3.15~~ P 3.2

THE CONSTRUCTION OF THE SURGICAL LUMINAIRE

- ~~Two domes of the surgical luminaire (main and auxiliary) are attached to one central vertical column (axis) through separate crank structures, allowing to change the height of the dome, the position in the horizontal plane and the angle of diversion;~~ P 3.3.1
- ~~The shape of the domes of the lights is adapted to the laminar air flow in the operating room;~~
- ~~The surfaces of the lights are smooth, without protruding (uncovered) screws or other fasteners, made of materials resistant to disinfectants.~~ P 3.3.2

MAXIMUM ILLUMINATION, MEASURED AT A DISTANCE OF 1 M

- ~~160.000 lux~~ P 3.4 P 3.3.3

DEPTH OF ILLUMINATION (HEIGHT OF A HOMOGENEOUS LIGHT POLE L1+L2 AT 60%)

- ~~50 cm~~ P 3.5

DEPTH OF ILLUMINATION (HEIGHT OF A HOMOGENEOUS LIGHT POLE L1+L2 AT 20%)

- ~~105 cm~~ P 3.6

ADJUSTING THE SIZE OF THE FOCUSED LIGHTING FIELD (D10, MEASURED AT A DISTANCE OF 1 M)

- ~~Adjustable, setting range from 20 to 25 cm~~

P 3.7

ADAPTATION FOR USE DURING MINIMALLY INVASIVE OPERATIONS

- The luminaire (both modules) is adapted for use during minimally invasive operations (has an endoscopic mode of operation)

P 3.8

COLOUR INDEX OF THE LIGHT EMITTED (RA)

- 95 (Ra)

P 3.9

COLOR TEMPERATURE OF THE EMITTED LIGHT IN THE MAIN (NON-ENDOSCOPIC) OPERATING MODE (FIXED IN THE SPECIFIED RANGE (UNREGULATED), WITH THE POSSIBILITY OF SETTING AT LEAST ONE PARAMETER VALUE IN THE SPECIFIED RANGE)

- 3900 K

P 3.10

AVERAGE WORKING RESOURCE OF LIGHT SOURCES

- 60.000 hours

P 3.11

NUMBER OF LEDs

- Number of LEDs in the main module: 24;
- The number of LEDs in the auxiliary module: 12.

P 3.12.1

P 3.12.2

CONTROL OF THE SURGICAL LUMINAIRE MODULE

- The luminaire module is controlled by a dome, which can:
 - Turn the light on and off,
 - Adjust the intensity of light
 - Adjust the light patch diameter

P 3.13: 1; 2; 3

STERILE ADJUSTMENT OF THE DIRECTION OF THE LUMINOUS FLUX EMITTED BY THE SURGICAL LUMINAIRE MODULE AND THE DIAMETER OF THE LIGHTING FIELD

- Adjustable removable structures, sterilized with the help of a handle;
- With the help of the handle, it is possible to adjust the diameter of the lighting field and the intensity of illumination;
- The kit with each module of the surgical luminaire contains 2 pieces. sterilizable handles.

P 3.14: 1; 2; 3

ADJUSTING THE INTENSITY OF LIGHT

- When adjusting the intensity of light, the color temperature of the emitted light and the color index (Ra) remain unchanged

P 3.15

THE POSSIBILITY OF EXPANDING THE FUNCTIONALITY OF THE SURGICAL LUMINAIRE

P 3.16

- It is possible to integrate an additionally purchased high-definition (HD - high definition) video camera in the main module

REQUIREMENTS FOR THE CEILING CONSOLE:

Console design

P 4.1: 1; 2; 3A; 3B;3C; 3D; 4; 5; 6; 7

- A single-module (vertical column type), two-elbow console is attached to the ceiling;
- The total length of the elbows 2100 mm;
- In the functional unit of fastening the console to the ceiling, an additional bracket with two elbows is integrated (mounted on the main elbows of the console) for mounting the monitor, which meets the following requirements:
 - the length of the main elbow of the monitor holder 1200 mm;
 - the second elbow of the monitor holder 750 mm long, with vertical (height) adjustment, with a monitor mounting platform (VESA standard);
 - the monitor holder is designed to install a monitor with a diagonal of 32 inches of the screen;
 - cables passed through the elbows of the monitor holder for powering the monitor and transmitting a video signal (12G-SDI standard);
- The angle of rotation of the elbows of the console about its axis 330°;
- The length of the vertical column of the console 1358 mm;
- Possibility to change the height of the shelves and the distances (spacing) between the shelves;
- To fix the position of the console, an electromagnetic brake system is used.

MAXIMUM LOAD ON THE CONSOLE

- 140kg

P 4.2

P 4.3: 1A; 1B; 2; 3; 4; 5A; 5B; 5C; 5E

EQUIPMENT BRACKET (VERTICAL COLUMN) ASSEMBLY

- 4 shelves mounted in the front part of the console column, meeting the following requirements:
 - shelf dimensions (width x depth): (485 x 450) mm;
 - carrying capacity of each shelf 50 kg;
- On the front side of one of the racks, the console positioning control with a sensory brake control system is installed;
- The handles attached to the console column (on the opposite side of the shelves) with the brake control function for positioning the console;
- One drawer 100 mm high, which is installed under the bottom shelf;
- One height-adjustable monitor holder, one elbow, meeting the following requirements:
 - the elbow length of the monitor holder 300 mm;
 - the bracket has a connector that meets the VESA 75/100 connection standard for attaching the monitor;
 - the load capacity of the bracket 14 kg;
- the design of the bracket allows you to adjust the positioning height of the monitor attached to it and the angle of rotation to the sides, without changing the place of attachment of the bracket itself to the console.

OPTIONS FOR EXPANDING THE FUNCTIONALITY OF THE CONSOLE

P 4.4

- If necessary, the number of shelves on the console can be increased - to attach an additionally purchased shelf(s) to the console column

P 4.5: 1; 2; 3; 4; 5

CONNECTORS (SOCKETS) FOR THE SUPPLY OF MEDICAL GASES INSTALLED ON THE CONSOLE

- Vacuum connection - 2 pcs.;
- CO2 connection - 1 pc.;
- The gas supply sockets installed on the console, depending on their purpose, have a different shape, marked in different colors (for protection against improper connection).
- The gas supply sockets installed on the console are technically compatible with the gas sockets already used in the operating room of the Obstetrics and Gynecology Departments.
- The console will include a set of counter-connectors (plugs) corresponding to all types and quantities of gas supply sockets installed in it.

ELECTRICAL SOCKETS AND OTHER ELECTRICAL CONNECTIONS (SOCKETS WITH CONNECTED (UNLESS OTHERWISE SPECIFIED) CONNECTING WIRES)

- Electric sockets (230V, with grounding) - 8 pcs.
- Socket RJ45 (computer network) - 2 pcs. (one double socket of the RJ45);
- Socket for transmitting a video signal (12G-SDI standard) – 2 pcs.
- Places prepared for the installation of low-voltage signal connectors - 4 pieces. (for the subsequent installation of the desired low-voltage signal connectors (video signals, computer network), the console column is equipped with factory-prepared cavities covered with covers for connections and equipped with connecting wire guides);
- Connections for aligning electrical potentials - 8 pcs.;
- Electrical sockets and other electrical connections are installed in the side walls of the console column and in the back wall of the column.

P 4.6: 1; 2; 3; 4; 5; 6.

STRUCTURAL ELEMENTS OF THE CONSOLE THAT FACILITATE ITS CLEANING

- The surfaces of the console are smooth, without sharp edges and corners, the outer edges are rounded;
- There are no protruding screws, rivets on the console;
- Console closed type - without spaces.

P 4.7: 1; 2; 3

P 5.1

FASTENING THE CONSOLE AND SURGICAL LUMINAIRE

- The console and the surgical luminaire is provided with the structural elements optimally selected for their fastening(mounting) to the ceiling (according to the type / structure and height of the ceiling);

Special features of the Moduevo ceiling console and Volista surgical lights

- BRAKE SYSTEM** ← T1
- Friction brakes and electromagnetic brakes (dual brake system) in the supporting joints of the ceiling console and friction brake in the console column

- EXTERNAL DIMENSIONS OF AUXILIARY DOME** ← T2
- The external dimensions of the auxiliary module ("dome") of the surgical luminaire - the diameter are smaller than those of the main module - for more convenient positioning of the modules during operation

- SURGICAL LUMINAIRE:** ← T3
- The surgical light has an automatic shadow correction system, the operation of which is based on sensors that automatically turn off or reduce the intensity of the light emitted by the diodes covered by the operator's head and increase the intensity of the light emitted in the remaining uncovered segments of the light.

- TECHNICAL POSSIBILITIES TO EXPAND THE FUNCTIONALITY** ← T5
- Technical possibilities to expand the functionality of the surgical luminaire - in the future, to install (without additional changes) a luminance auto-adjustment system in the domes of the luminaire, thanks to which the lighting is automatically adjusted taking into account the changed operating field (in case of changes in the color, brightness, structure of the operating field).

- WALL CONTROL PANEL** ← T6

The surgical luminaire has a wall control panel, with the help of which it is possible to:

- Change the settings of the operating parameters of the luminaire modules and the video camera (if built-in);
- To carry out synchronization of the parameters of the modules of the surgical luminaire with each other;
- Save the settings of the operating parameters of the luminaire by discipline or by surgeon.

Name, Signature, date

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