

# 32" 4K Medical Display

## FM-E3230D, FM-E3230DG, FM-E3230DN

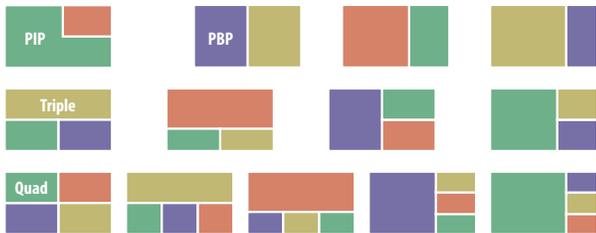


- Supports HDR for incredible picture quality.
- Options for 12G-SDI or 10G SFP+ support.
- Web-based network control system.



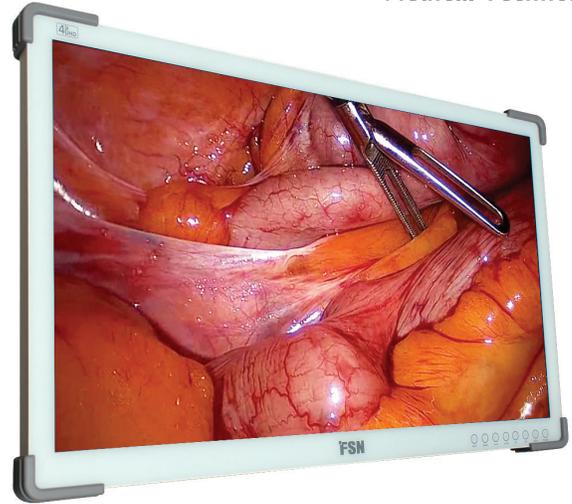
### Enhance Image Quality

The next level of surgical display monitor performance has arrived with FM-E3230D series. This model features UHD resolution for high levels of detail and ultra-sharp picture clarity. In addition to HDMI and DisplayPort, FM-E3230DG offers 12G-SDI signal input and output. FM-E3230DN supports video over IP using 10G SFP+ technology.



Quad window layouts are available with FM-E3230DG and FM-E3230DN.

Additional benefits of this display include multi-window layouts, save and recall preset configurations, HDR support (wide color gamut), and smart input sensing that switches to



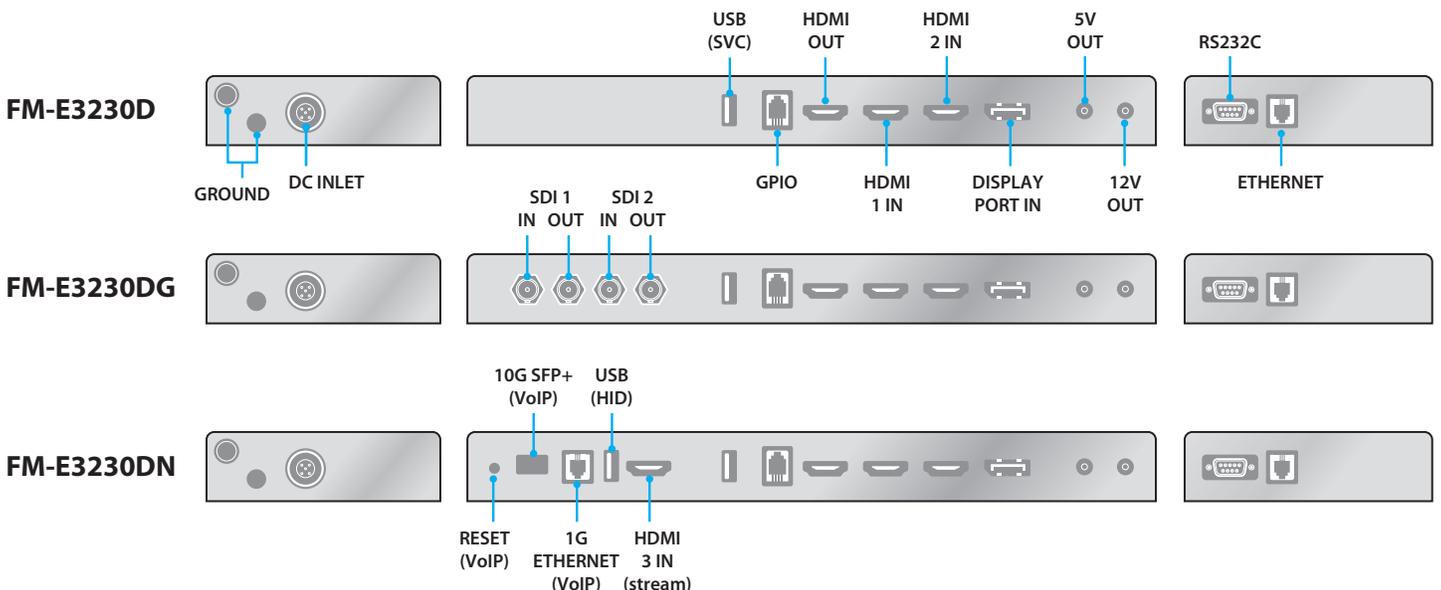
a designated second source when the main signal is no longer available. 5V and 12V output power on the displays can be utilized for components such as a wireless receiver.

### Built for the OR

FSN monitors are designed with maximum viewing angles, allowing several clinicians to view the display in the same room without loss of image quality or distortion. Protective guards on the bezel corners help reduce bumping incidents. A back cable cover is provided with each monitor to manage cords and wires.

### Web-Based Control

These monitors have a built-in network control system. Using REST API architecture, users can configure various parameters including firmware, EDID data, and 3D LUT data.



# 32" 4K Medical Display

Medicininis monitorius  
p. 1.5.



## FM-E3230D, FM-E3230DG, FM-E3230DN

### Specifications

32"  
p. 1.2.

Raiška 3840 x 2160 taškų  
p. 1.1.



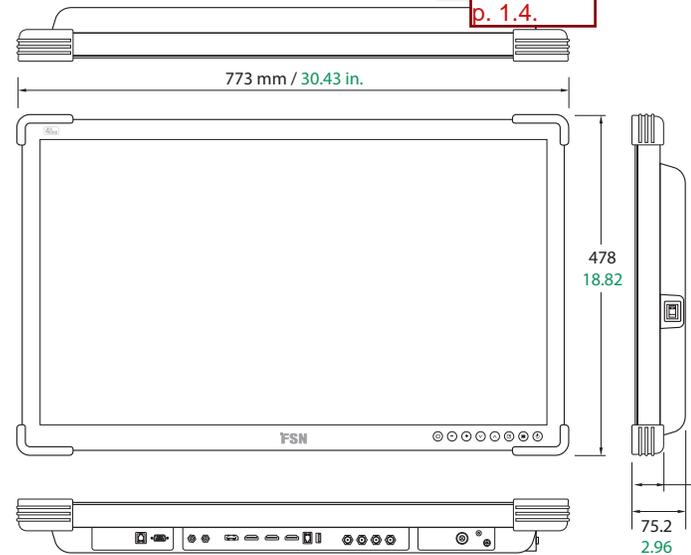
#### General Features

Item	Description
Panel	32 inch TFT LCD (LED)
Resolution	3840 x 2160 pixels
Active Area	708.48 (H)mm x 398.82 (V)mm
Pixel Pitch (mm)	0.1845 x 0.1845
Response Time (typical)	20 ms
Number of Colors	1.07 Billion
Brightness (typical)	850 cd/m <sup>2</sup>
Color Gamut	BT.709 and BT.2020
Contrast Ratio (typical)	1500 : 1
Surface Treatment	Anti-glare
Viewing Angle (CR>10)	R/L 178°, U/D 178°

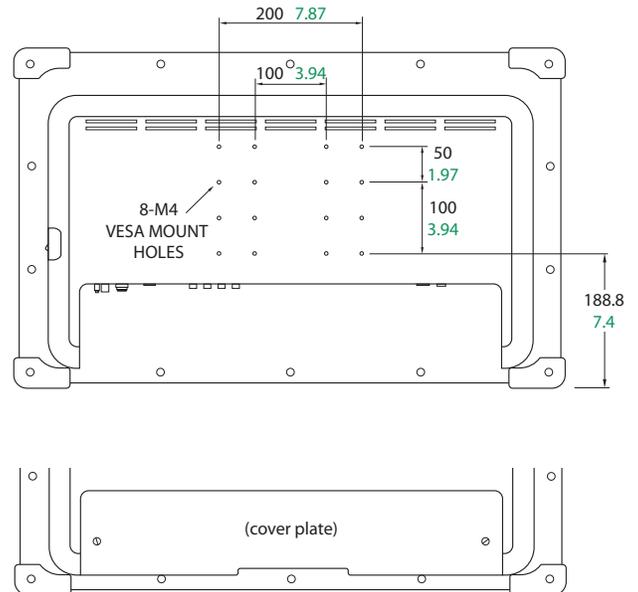
Sviesumas 850 cd/m<sup>2</sup>  
p. 1.3.

		FM-E3230D	FM-E3230DG	FM-E3230DN
Input Signal	HDMI	x 2	x 2	x 3
	DP	x 1	x 1	x 1
	SDI (12G)	-	x 2	-
	10G SFP+ (Rx)	-	-	x 1
Output Signal	HDMI	x 1	x 1	x 1
	SDI (12G)	-	x 2	-
	10G SFP+ (Tx)	-	-	x 1

HDMI, DP  
p. 1.4.



Item	Description
Power Supply	AC/DC Adaptor (AC 100~240V, DC 24V/8.3A)
Power Consumption	190W max
Accessories Included	User manual, AC-DC adaptor, AC power cord, DP cable, HDMI cable, BNC cable (FM-E3230DG), Screw BH M4 x 14
Latency	2 ms
Unit Dimension	773(W) x 478(H) x 75.2(D) mm 30.43(W) x 18.82(H) x 2.96(D) inch
Package Dimension	914.4(W) x 749.3(H) x 234.95(D) mm 36(W) x 29.5(H) x 9.25(D) inch
IP Rating	IP33 - overall
Weight	FM-E3230D 10.5 kg, 23.15 lbs. (monitor with cover) 16.3 kg, 35.94 lbs. (shipping package)
	FM-E3230DG 10.7 kg, 23.6 lbs. (monitor with cover) 16.5 kg, 36.38 lbs. (shipping package)
	FM-E3230DN 10.6 kg, 23.4 lbs. (monitor with cover) 16.4 kg, 36.16 lbs. (shipping package)
Certifications	ANSI/AAMI ES60601-1 (UL60601-1), CAN/CSA C22.2 No. 60601-1, FCC Class B, EN60601-1, EN60601-1-2, CE, MDR(EU) 2017/745 Class I Medical Device



FSN Medical Technologies products meet EU RoHS Directive 2011/65/EU+2015/863/EU and Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) obligations. FSN manages the information flow as required by regulations.

Specifications are subject to change with or without notice. Doc. # FSN2086 Rev. 7/24

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# ELUXEO Lite

VIDEO PROCESSOR WITH BUILT-IN LED LIGHT SOURCE

## ELUXEO™ Lite EP-6000



The ELUXEO™ Lite EP-6000 combines a reliable 3-LED light source with a processor that enables you to make use of the many features provided by Fujifilm's wide range of scopes. Combined with the 700 series the innovative visualisation modes LCI (Linked Colour Imaging) and BLI (Blue Light Imaging) are available.

Due to the use of economical LED lamps with a long durability this system is very eco-friendly. It is also compatible with the 600 and 500 series of scopes. The ELUXEO Lite EP-6000 creates quality images and videos displayed in full HD on the monitor. Automatic back-up mode for data storage is integrated and the processor is also DICOM compatible.

Available observation modes

	White Light	BLI	LCI	FICE
700 system scopes	X	X	X	X
500 / 600 system scopes	X	-	-	X

Stebėjimo režimai: baltos šviesos, BLI, LCI p. 2.4., p. 2.4.1.

Šviesos šaltinis su 3 LED p. 2.3.

DVI-D jungtis p. 2.1.

USB jungtis išorinės atminties įtaisiui p. 2.2.

Light Source	3 LED
IEE modes	BLI, BLI-bright, LCI, FICE
Outputs	DVI-D x 2, RGB-TV x 1, S VIDEO x 1, VIDEO x 1
Mask type	Full HD, SXGA
Internal memory	4 GB
External memory	USB (2GB)
Compatible scopes	760, 740, 720, 600, 580, 530*
EUS compatibility	SU-1
Power rating	100-240 V / 50/60 Hz / 2.0-1.1 A
Dimensions (WxHxD)	395 x 210 x 485 mm (including projection)
Weight	15.0 kg

\* Excluding EG-530UT2, EG-530UT, EG-530UR2 and EG-530UR



Optimal illumination using variable LED light intensity.



The combination of special light wavelengths results in improved and accurate contrast imaging.



The clearest image among multiple images is automatically selected.



Increased contrast in red colour leads to improved detection of inflammation and accurate delineation.



The goal of the DICOM Standard is to achieve compatibility and improve workflow efficiency between imaging systems and other informations systems.



Combine equipment displaying this logo to ensure that you view HDTV images on your monitor.

**FUJIFILM**

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# PUBLICATION C

New **BASIC** classif

More » (<https://www.bli.eu/2017/10/27/combination-use-acetic->

## About LCI

### Optimal combination of 4 LED lights

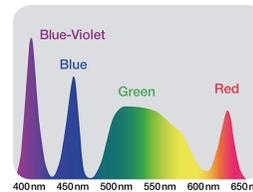
The combination of an optimal light spectrum and advanced signal/image processing allows LCI to differentiate red colour tones more effectively than White Light imaging.

### Advanced signal processing

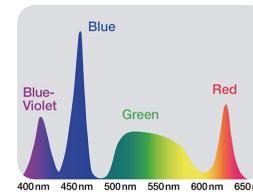
Digital signal/image processing emphasises slight colour differences and provides a better colour contrast within the red colour range. Consequently, the originally red regions appear redder, and originally white regions appear whiter, but with natural tones. As a result, the increased colour contrast supports a more accurate delineation as well as the detection of lesions and inflammation.

Signalų/vaizdų apdorojimas padidina silpnus spalvų skirtumus ir suteikia geresnį spalvų kontrastą raudonos spalvos diapazone. Todėl, originaliai raudonos zonos tampa dar raudonesnėmis, o baltos - baltesnėmis, tačiau išlaikant originalius spalvų tonus. Rezultate, padidintas spalvų kontrastas padaro ryškesnes ribas ir leidžia geriau aptikti pažeidimus ir uždegimus. p. 2.4.3.

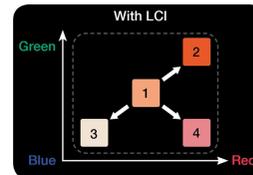
### LCI mode



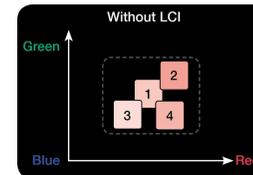
### White light mode



### LCI mode



### White light mode

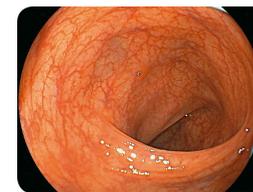


### LCI mode



Adenoma, 0-IIa, Sigmoid colon

### White light mode



Adenoma, 0-IIa, Sigmoid colon

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# ABO

## Blue I

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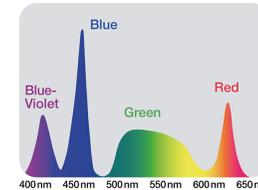
## About BLI

### Advanced signal processing

High-intensity contrast imaging with BLI allows superior visualisation of superficial vascular and mucosal patterns. Focussing on the characteristics of short wavelength absorption of haemoglobin (at 410 nm) combined with specific white light spectral colours results in improved and accurate contrast imaging.

### BLI mode

### White light mode



### General Information about BLI

Blue Light Imaging (BLI) concentrates and intensifies specific wave lengths of light, resulting in a better visualisation of the superficial microvessel and mucosal surface structures to enhance the subtle contrast of the irregularities of the mucosa. For a safe diagnostic and therapeutic procedure.

### BLI mode



### White light mode



BLI fokusuoja ir padidina specifinius šviesos bangų ilgius, o tai leidžia geresnę paviršinių kraujagyslių ir gleivinės struktūrų vizualizaciją, padidina kontrastą ir išryškina gleivinės netolygumus.  
p. 2.4.2.

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Processor

# OPERATION MANUAL

Version 1.0 2022-04-19

EP-6000

Thank you for purchasing our product. Read this manual carefully before use to avoid unexpected accidents and to take full advantage of the product's capabilities.

## Introduction

- 1 Precautions
- 2 System Configuration
- 3 Name and Function of Each Part
- 4 System Installation and Initial Settings
- 5 Function Settings
- 6 Preparation and Inspection of the System
- 7 Method of Use
- 8 Image Recording
- 9 Storage and Maintenance
- 10 Troubleshooting
- 11 Main Specification



## ◆ Specification

Power	100 - 240 V ~ 50/60 Hz
Current consumption (rated)	2.0-1.1 A
Fuse	T3.15AH 250V×2 (Rating: 3.15A/250V)
Type of color	NTSC/PAL
Video output	DVI (Resolution: 1280 × 1024 pixels, 1920 × 1080 pixels)
Light control	Automatic light control by the control signal
Light cooling method	Forced air cooling
Air supply pump	HI/MID/LOW/OFF
Maximum air supply pressure	65kPa
Maximum water supply pressure	65kPa
Illumination source	LED
Maximum light output	750lm or less (Measured with our jig)
Optical radiation safety (LED for infrared communication)	Class 1 LED product <sup>*1</sup> (IEC 60825-1: 2007, IEC 60825-1: 2014)
Power transmission frequency	110 to 205 kHz
Effective radiated power	15 W or less
Serial control	UP-55MD
Image pickup method	Simultaneous <sup>*2</sup>
Iris mode	AUTO/PEAK/AVE
Image zoom <sup>*3</sup>	Electronic zoom × 1.00 to × 2.00 (0.05 steps)
Memory	Patient data: 45 patients Clinical procedure: 20 types Dr. Name: 20 doctors Image Setup Page: 5 patterns
Built-in clock	Date, time (back up from the secondary battery)
Shooting counter	Adding up display
Applicable endoscope	700 system scopes, 600 system scopes, 500 system scopes <sup>*4 *5</sup>
Dimensions (W × H × D)	395 × 210 × 485 mm (including projection)
Mass	15.0 kg

Automatinė šviesos kontrolė priklausomai nuo gaunamo signalo. p. 2.5.

\*1 “Chapter 3 Name and Function of Each Part” > “3.1 Front Panel” > “20. Communication Window (LED)” falls into this class.

\*2 Image pickup method using the imaging sensor with color filters (red, green and blue) at the distal end of scope. White light is used as illumination light.

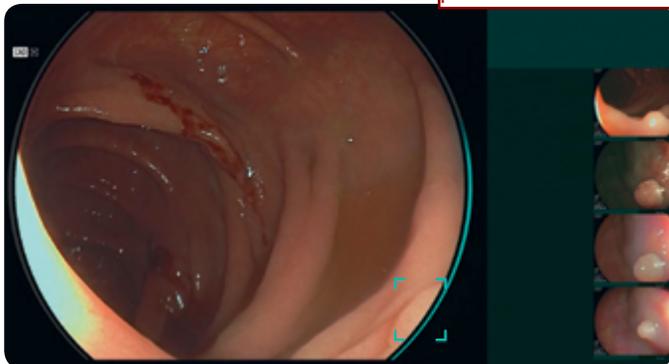
\*3 The zoom ratio of some 530 series scopes is × 1.00 to × 1.95.



# LCI REAL-TIME DETECTION

**CAD EYE is aimed to improve the real time polyp detection rate** to expert level, helping to recognise flat lesions, multiple polyps simultaneously, as well as any lesions at the corner of the image. CAD EYE Detection is possible with White Light and LCI (Linked Color Imaging) mode.

CAD-EYE yra skirtas realiu laiku aptikti polipus.  
p. 2.6.



White Light Mode



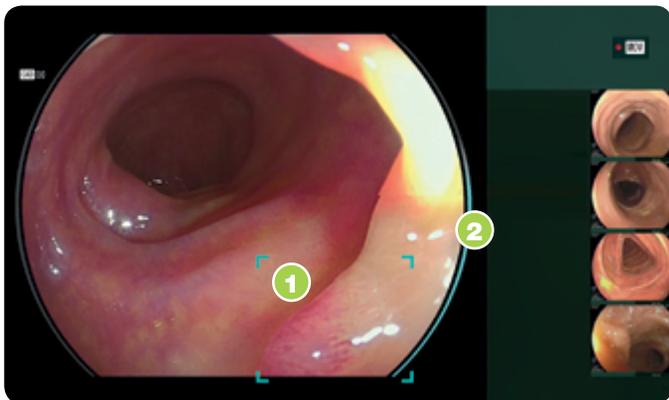
LCI Mode



CAD EYE received the prestigious Good Design Award for its

## USER-FRIENDLY INTERFACE

The development of the interface has been designed to enable comfortable procedures. It does not interfere with clinical images and minimises required eye movement. Its display is designed to be simple and intuitive for excellent support during long hours in the examination room.



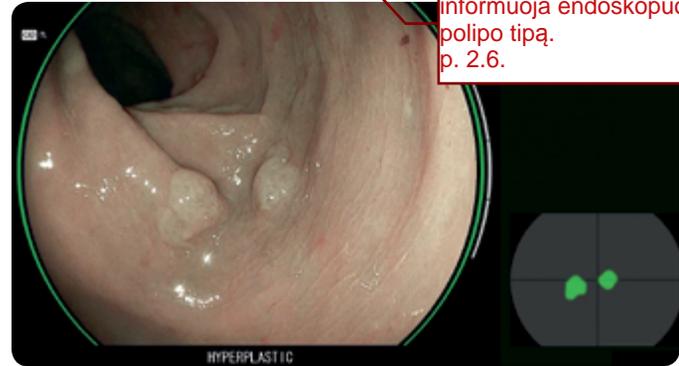
- 1**  **DETECTION BOX**  
Displays the area where the suspicious polyp is detected.
- 2**  **VISUAL ASSIST CIRCLE**  
Lights up in the direction where the suspicious polyp is detected.
-  **DETECTION SOUND**  
Sound signal when a suspicious polyp is detected. Volume can be defined for each user.

# BLI CHARACTERISATION SUPPORT

Once a suspected polyp is detected by CAD EYE Detection (WLI or LCI), CAD EYE Characterisation – in combination with BLI – can support endoscopists in the diagnosis of the polyp. This function analyses in real-time and without freezing or zooming if a polyp is hyperplastic or neoplastic, which is visually indicated by the use of different colour codes in the Position Map. CAD EYE Characterisation is aimed to make procedures more efficient by increasing the accuracy of diagnosis to expert-level.\*

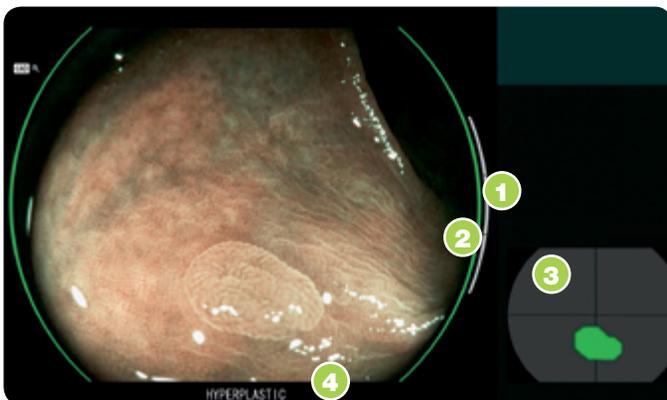


BLI Mode – Neoplastic



BLI Mode – Hyperplastic

Aptikus polipą, CAD-EYE informuoja endoskopusuotoją apie polipo tipą. p. 2.6.



Polipo charakterizacija p. 2.6.

- 1 **STATUS BAR**  
Indicates status of characterisation analysis regarding to area suspected.
- 2 **VISUAL ASSIST CIRCLE**  
GREEN: Characterisation HYPERPLASTIC  
YELLOW: Characterisation NEOPLASTIC
- 3 **POSITION MAP**  
Indicates the position of the suspicious area, this software is characterising.
- 4 **CHARACTERISATION RESULT**  
HYPERPLASTIC: hyperplastic polyps & SSL  
NEOPLASTIC: adenoma and cancer

\*According to the validation study, the accuracy of non experts with the assistance of CAD EYE Characterisation was equivalent to that of an expert.



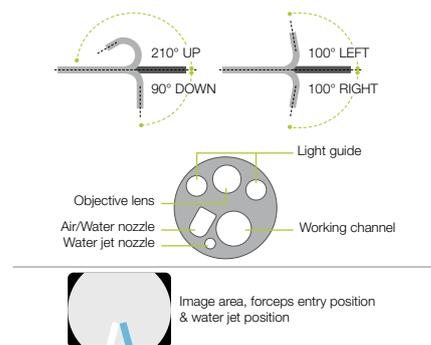
### EG-760R ELUXEO™ VIDEO GASTROSCOPE Routine Type



This routine gastroscope from the ELUXEO™ 760 series is equipped with CMOS technology and provides HD images and videos for daily practice. Close Focus allows observation from as little as 2 mm in depth.



<b>Field of view</b>	140°
<b>Observation range</b>	2–100mm
<b>Bending capability</b>	Up 210°/Down 90° Right 100°/Left 100°
<b>Ø Distal end</b>	9.2mm
<b>Ø Flexible portion</b>	9.3mm
<b>Ø Working channel</b>	2.8mm
<b>Working length</b>	1,100mm
<b>Total length</b>	1,400mm



Gastroskops su optine "zoom" funkcija p. 2.7.1.

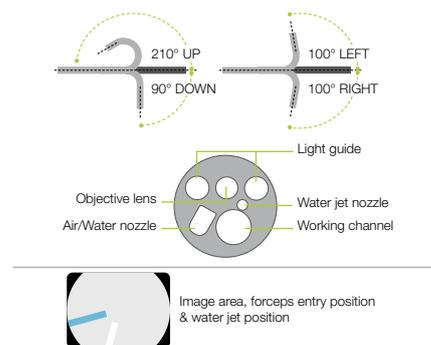
### EG-760Z ELUXEO™ VIDEO GASTROSCOPE Optical Magnification



This zoom gastroscope features the well-known 145x Multi Zoom\* which leads to clear and more detailed visualisation, supporting deeper analysis of mucosal structures. It has a small bending radius and similar functionality to the routine gastroscope including all features.

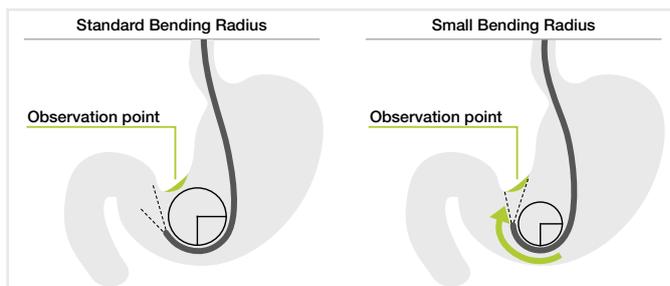


<b>Field of view</b>	Normal 140°/Close 56°
<b>Observation range</b>	Normal 3–100mm Close 1.5–2.5mm
<b>Bending capability</b>	Up 210°/Down 90° Right 100°/Left 100°
<b>Ø Distal end</b>	9.9mm
<b>Ø Flexible portion</b>	9.8mm
<b>Ø Working channel</b>	2.8mm
<b>Working length</b>	1,100mm
<b>Total length</b>	1,400mm



#### Small Bending Radius

Features a tight bending section radius with improved angulation. It is designed to approach the targeted observation point and lesion more easily and with less effort.



\* In combination with 26" screen.

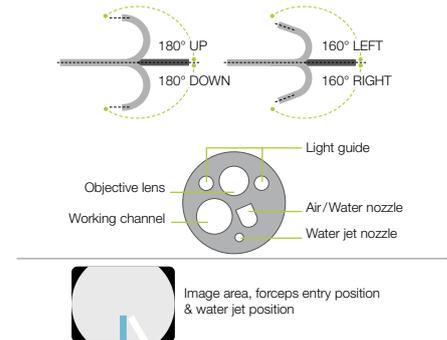
## EC-760R-V/M, I, L ELUXEO™ VIDEO COLONOSCOPE Routine Type



This routine colonoscope has a wide field of view of 170° as well as a large working channel diameter of 3.8 mm. It features the G7 grip and the Flexibility Adjuster. In addition, it has a slim diameter of 12.0 mm and includes a water jet function and CMOS technology.

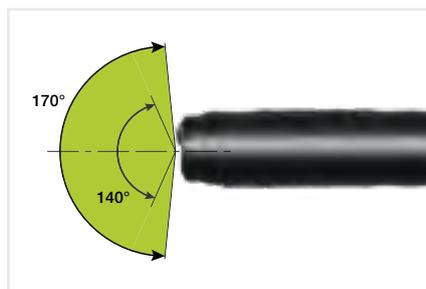


<b>Field of view</b>	170°
<b>Observation range</b>	2–100 mm
<b>Bending capability</b>	Up 180°/Down 180° Right 160°/Left 160°
<b>Ø Distal end</b>	12.0 mm
<b>Ø Flexible portion</b>	12.0 mm
<b>Ø Working channel</b>	3.8 mm
<b>Working length</b>	1,330/1,520/1,690 mm
<b>Total length</b>	1,650/1,840/2,010 mm



### Wide 170° field of view

With EC-760R and EC-760P, a wide 170° field of view is available. It is designed to observe and approach smoothly, even areas that are hard to observe, such as the reverse side of folds.

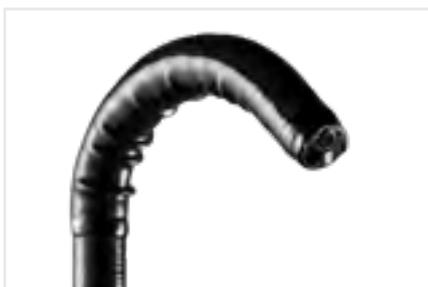


Kolonoskopas su optine "zoom" funkcija p. 2.7.2.

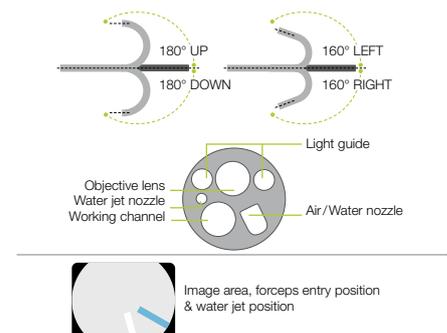
## EC-760Z-V/M, L ELUXEO™ VIDEO COLONOSCOPE Optical Magnification



The zoom colonoscope is an all-rounder. It features the brilliant and easy-to-operate 145x Multi Zoom\* magnification which leads to more detailed visualisation, supporting a deeper analysis of mucosal and vascular patterns. Compared to the EC-760ZP ultra slim zoom type, it comes with a stiffer insertion tube and a larger working channel (3.8 mm vs. 3.2 mm), meaning it is also well-suited for basic therapeutic procedures.



<b>Field of view</b>	Normal 140°/Close 56°
<b>Observation range</b>	1.5–100 mm Normal 3–100 mm Close 1.5–2.5 mm
<b>Bending capability</b>	Up 180°/Down 180° Right 160°/Left 160°
<b>Ø Distal end</b>	12.8 mm
<b>Ø Insertion tube</b>	12.8 mm
<b>Ø Working channel</b>	3.8 mm
<b>Working length</b>	1,330 mm/1,690 mm
<b>Total length</b>	1,650 mm/2,010 mm

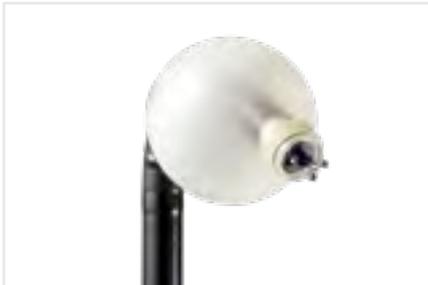


\* In combination with 26" screen  
The CAD EYE AI technology is available for all colonoscopes.

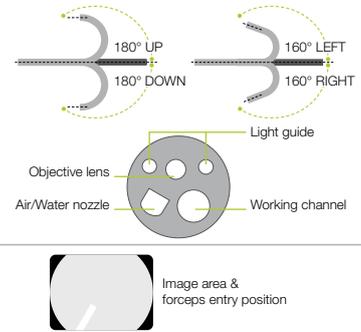


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p. 2.7.3.

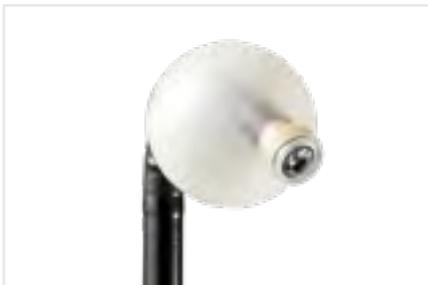
### EN-580T ENTEROSCOPE Therapeutic Type



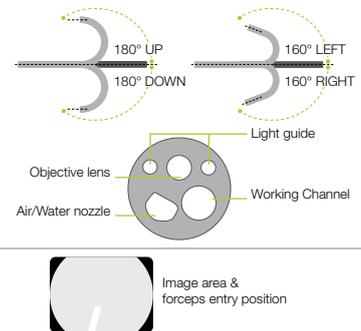
<b>Viewing direction</b>	0° (Forward)
<b>Field of view</b>	140°
<b>Observation range</b>	2–100mm
<b>Bending capability</b>	Up 180°/Down 180° Right 160°/Left 160°
<b>Ø Distal end</b>	9.4mm
<b>Ø Flexible portion</b>	9.3mm
<b>Ø Working channel</b>	3.2mm
<b>Working length</b>	2,000mm
<b>Total length</b>	2,300mm



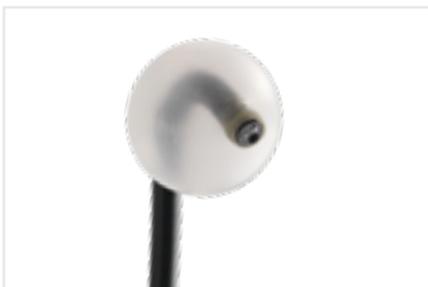
### EN-580XP ENTEROSCOPE Slim Type



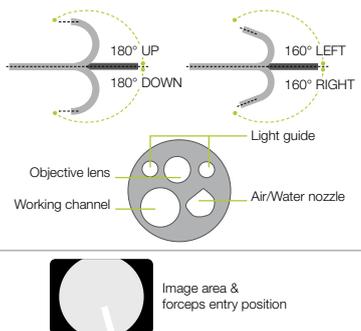
<b>Viewing direction</b>	0° (Forward)
<b>Field of view</b>	140°
<b>Observation range</b>	2–100mm
<b>Bending capability</b>	Up 180°/Down 180° Right 160°/Left 160°
<b>Ø Distal end</b>	7.5mm
<b>Ø Flexible portion</b>	7.7 mm
<b>Ø Working channel</b>	2.2mm
<b>Working length</b>	2,000mm
<b>Total length</b>	2,300mm



### EI-580BT SHORT DOUBLE BALLOON ENDOSCOPE



<b>Viewing direction</b>	0° (Forward)
<b>Field of view</b>	140°
<b>Observation range</b>	2–100mm
<b>Bending capability</b>	Up 180°/Down 180° Right 160°/Left 160°
<b>Ø Distal end</b>	9.4mm
<b>Ø Flexible portion</b>	9.3mm
<b>Ø Working channel</b>	3.2mm
<b>Working length</b>	1,550mm
<b>Total length</b>	1,850mm



Some tubes and balloons used for EN-580T and EN-580XP are made from non-latex materials.

### (3) One Step Connector with Contact-free Technology



#### Contact-free Technology

Vieno žingsnio jungtis su bekontakto technologija p. 3.1., p. 4.1.

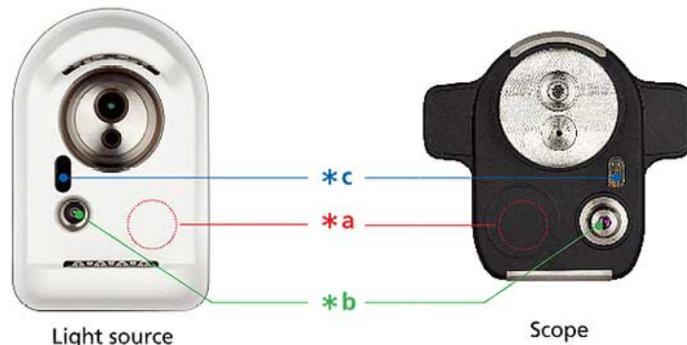


Scopes can be connected to light source in just 1 step operation. Scope cable connection is no

longer required in setting up.

One Step Connector enhances efficiency of clinical workflow.

Conventional scopes can also be connected.



\*a Power feed: Wireless electrical supply

\*b Image transmission: High speed optical laser

\*c Remote signal: infrared [IR] LED

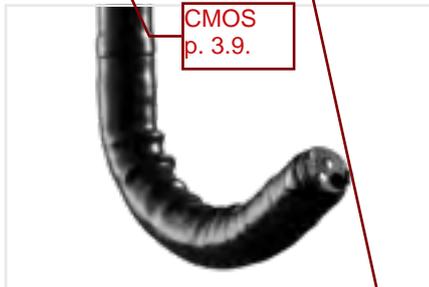
This's the generic name of below 3 points. It means connectors do not need to touch to transmit power and image data.

By this technology, durability and reliability of scopes is expected to improve.

### (4) Insertion Performance

EC-720R/M,I,L

## EG-720R ELUXEO™ Lite VIDEO GASTROSCOPE Routine Type



CMOS  
p. 3.9.

<b>Field of view</b>	140°
<b>Observation range</b>	2–100 mm
<b>Bending capability</b>	Up 210°/Down 90° Right 100°/Left 100°
<b>Ø Distal end</b>	9.2 mm
<b>Ø Flexible portion</b>	9.3 mm
<b>Ø Working channel</b>	2.8 mm
<b>Working length</b>	1,100 mm
<b>Total length</b>	1,400 mm

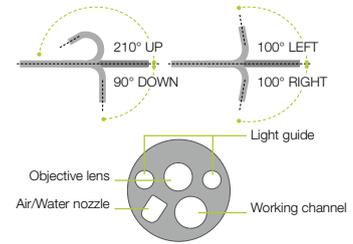


Image area &  
forceps entry position

Vieno žingsnio prijungimas  
p. 3.1.

Matymo kampas: 140 laips. (p. 3.2.);  
Stebėjimo nuotolis: 2 - 100 mm (p. 3.3.);  
Lenkimo kampai:  
A/Ž: 210 / 90 laips. (p. 3.4.);  
K/D: 100 / 100 laips. (p. 3.4.);  
Distalinis galas: 9,2 mm (p. 3.6.);  
Lanksčioji dalis: 9,3 mm (p. 3.5.);  
Darbinis kanalas: 2,8 mm (p. 3.7.);  
Darbinis ilgis: 1100 mm (p. 3.8.).

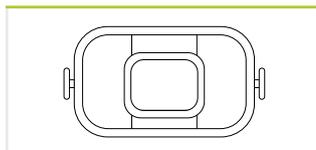


## BITE BLOCKS



Ergonomic controls, perfect fit, maximum protection.

Product code	Material Code	Characteristics	Ø Inner (mm)	Unit
BYT1-A3-20	70100146578	Standard, white, with OEKO TEX® strap	20	100
AN10018004	70100147834	With strap, latex-free	13	25
30148	70100147740	With oxygen connection, reusable		5



BYT1

Kandikliai  
p. 3.10.

## PRODUCT CLIP

Product code	Material Code	Characteristics	Unit
MIS2-PRO-CLIP	70100147813	Reusable product clip for fixation and reprocessing of flexible accessories, autoclavable up to 134° C, opening width 0-10 mm	20

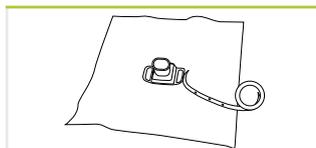


MIS2-Pro-Clip

## B1 DROPLET REDUCTION MOUTHPIECE



Product code	Material Code	Characteristics	Drape size (mm)	Compatible endoscopes	Unit
B1 Droplet reduction mouthpiece with drape	16673263	Mouthpiece with drape that functions as a face shield to reduce droplets from the gap between the mouthpiece and the corners of mouth With sponge rubber to reduce droplets from the oral cavity Latex-free silicone rubber band to fix the drape	300 x 300	Endoscopes or intubation tubes of the diameter from 3 to 16 mm	10



B1 Droplet reduction mouthpiece

## EC-720R/M, I, L ELUXEO™ Lite VIDEO COLONOSCOPE Routine Type

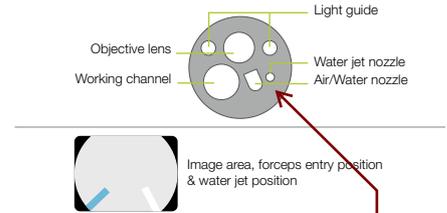
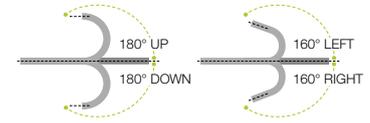


CMOS  
p. 4.9.



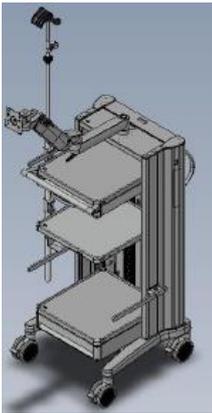
Field of view	170°
Observation range	2–100 mm
Bending capability	Up 180°/Down 180° Right 160°/Left 160°
Ø Distal end	12.8 mm
Ø Flexible portion	12.8 mm
Ø Working channel	3.8 mm
Working length	1,330/1,520/1,690 mm
Total length	1,630/1,820/1,990 mm

Vieno žingsnio prijungimas  
p. 4.1.

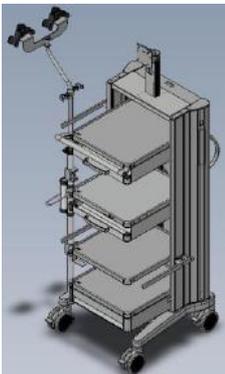


"Jet" vandens kanalas  
p. 4.8.

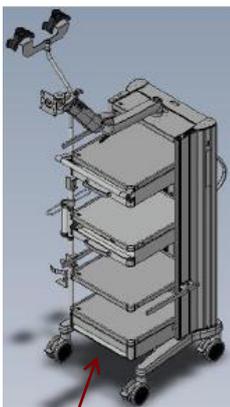
Matymo kampas: 170 laips. (p. 4.2.);  
Stebėjimo nuotolis: 2 - 100 mm (p. 4.3.);  
Lenkimo kampai:  
A/Ž: 180 / 180 laips. (p. 4.4.);  
K/D: 160 / 160 laips. (p. 4.4.);  
Distalinis galas: 12,8 mm (p. 4.6.);  
Lanksčioji dalis: 12,8 mm (p. 4.5.);  
Darbinis kanalas: 3,8 mm (p. 4.7.);  
Darbinis ilgis: 1690 mm (p. 4.10.).



<b>ITD-03 Iso plus</b>	<b>Technical Data</b>
<i>Dimension (WxHxD)</i>	618 x 1340 x 624
<i>Endoscope holder</i>	2
<i>Shelves</i>	3
<i>Monitor holder</i>	1, with flexible arm
<b>Isolating transformer with isolation monitoring function</b>	2000VA



<b>ITD-03 EUS Iso</b>	<b>Technical Data</b>
<i>Dimension (WxHxD)</i>	618 x 1500 x 624
<i>Endoscope holder</i>	2
<i>Shelves</i>	4
<i>Monitor holder</i>	1
<b>Isolating transformer with isolation monitoring function</b>	2000VA



<b>ITD-03 EUS Iso plus</b>	<b>Technical Data</b>
<i>Dimension (WxHxD)</i>	618 x 1500 x 624
<i>Endoscope holder</i>	2
<i>Shelves</i>	4
<i>Monitor holder</i>	1, with flexible arm
<b>Isolating transformer with isolation monitoring function</b>	2000VA

2 endoskopų laikiklis  
4 lentynos  
artikuluojama alkūnė  
Skiriamas transformatorius  
p. 5.

Stal ius  
p. 8.2.

E-15.5

## 1.0 L - 2.0 L jar CM EURO rail holder



(No: 73000.93)

[Open image in new tab](#)

Close

rail adapter -...

EURO rail holder

holder

adapter TM - plastic

6.1



Hose holder for  
EUROrail

E-17



Infusion holder for  
MEVACS S30/30

E-20/E-20.3



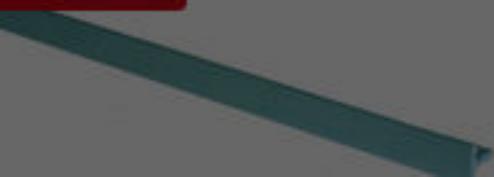
Holder UNI - complete

E-21.1/E-21.2



Stainless steel rail 25 x  
8 mm with...

2.1/E22.2



E-22.3



E-22.4





## Medical electric suction unit



**MEVACS M38, MOD-1**  
**MEVACS M46, MOD-1**

## Properties and uses



High-efficiency suction units **MEVACS M38, MOD-1** and **MEVACS M46, MOD-1** are available for using into all kinds of surgery, gynaecology, liposuction and at suction for surgical patients at AR-UIC departments. Oilless vacuum-pump guarantees long time for no service-need operation. Microbiological filter, silicone hoses and unbreakable jars guard high hygiene at work. Collecting secret jars are autoclave.



Ordering number:  
**MEVACS M38, MOD-1** No:72001.03  
**MEVACS M46, MOD-1** No:72001.04

## Technical data

<b>Typology (MDD 93/43/EEC)</b>		Medical Device CLASS IIa	
<b>Model</b>		<b>MEVACS M38, MOD-1</b>	<b>MEVACS M46, MOD-1</b>
<b>Specification by EN ISO 10079-1</b>		High Vacuum - High Flow	
<b>Electrical safety</b>		<b>Class I</b>	
<b>Direct/indirect contact safety</b>		Type B	
<b>Substances penetration protection</b>		IP 20	
<b>Safety level in presence of anaesthetic/explosive mixture</b>		Not protected device	
<b>Power consumption</b>		220-230V ± 10% / 50-60 Hz	
<b>Input power</b>		110 VA + 15%	110 VA + 15%
<b>Electric protection</b>		2 fuses Ø 5 x 20 T - 1,0A	
<b>Vacuum pump</b>		Maintenance-free diaphragm vacuum pump	
<b>Suction</b>	<b>Air flow rate of pump</b>	40 L / min	50 L / min
	<b>Maximum vacuum</b>	93 kPa (700mmHg)	
	<b>Jars (portable version)</b>	1 x 2,0 LT polycarbonate jar with overflow valve	
	<b>Jars (with trucks version)</b>	1 or 2 x 1,0 / 2,0 / 4,0 L polycarbonate jars with overflow valve	
	<b>Suction tube, autoclavable</b>	Silicone - Ø 8 x 3 mm - 1,5 m	
<b>Filtration</b>		Continuous Hydrophobic suction microbiological filter with very high bacterial efficiencies up to 99,99999% particles bigger than 0,027 micron	
<b>Weight</b>	<b>Portable version</b>	10,4 kg	
	<b>On truck version</b>	19,6 kg	
<b>Dimension (L x W x H)</b>	<b>Portable version</b>	apr. - 525 x 255 x 420 mm	
	<b>On truck version</b>	apr. - 565 x 455 x 1065 mm	
<b>Supply cord</b>		4 m	
<b>Vacuum control valve</b>			
<b>Control vacuum gauge (precision ± 2.5%)</b>			
<b>Polycarbonate jar ml. graduated - autoclavable</b>			
<b>Special features (optional):</b>			
- truck MEVOZ			
- operation with foot control (IP 68)			
<b>Working condition</b>	<b>Surrounding envir. temperature</b>	5 ÷ 35 °C	
	<b>Relative humidity</b>	30 ÷ 75 %	
<b>Storage condition</b>	<b>Surrounding envir. temperature</b>	- 40 ÷ 70 °C	
	<b>Relative humidity</b>	10 ÷ 100 %	
<b>Packing - wrappage</b>		5 laminated cardboard carton	
<b>International standards: MDD 93/42/EEC; EN 60601-1; EN 60601-1-2; EN ISO 10079-1; EN ISO 14971</b>			
<b>Technical life:</b>		10 years	

Siurbimo srautas 40 l/min  
Vakuumas 93 kPa  
p. 6.1., p. 6.2.

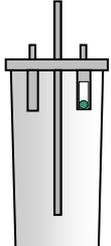
## Vacuometer



### VACUOMETER SCALE

Vacuum-meter scale is in bars.

-1bar = -100 kPa = -100% vacuum

<b>B-12</b>		<p><b>2.0 L jar CM with screw lid (No: 42011.02)</b></p> <ul style="list-style-type: none"> <li>☛ polycarbonate, autoclavable 121°C</li> <li>☛ safety valve in lid</li> </ul>
<b>B-13/14</b>		<p><b>2.0 L jar TM with pressure-fit lid</b></p> <ul style="list-style-type: none"> <li>☛ polycarbonate, autoclavable 121°C (No: 42011.11)</li> <li>☛ polysulfone, autoclavable 134°C (No: 42011.09)</li> <li>☛ safety valve in lid</li> <li>☛ metal connectors</li> </ul>
<b>B-15/16</b>		<p><b>2.0 L jar TM with silicone ring lid</b></p> <ul style="list-style-type: none"> <li>☛ polycarbonate, autoclavable 121°C (No: 42011.15)</li> <li>☛ polysulfone, autoclavable 134°C (No: 42011.13)</li> <li>☛ safety valve in lid</li> <li>☛ metal connectors</li> </ul>
<b>B-17/18</b>		<p><b>2.0 L jar TM with screw metal lid</b></p> <ul style="list-style-type: none"> <li>☛ polycarbonate, autoclavable 121°C (No: 42011.14)</li> <li>☛ polysulfone, autoclavable 134°C (No: 42011.21)</li> <li>☛ safety valve in lid</li> <li>☛ metal connectors</li> </ul>
<b>B-19</b>		<p><b>2.0 L jar TM with silicone ring lid</b></p> <ul style="list-style-type: none"> <li>☛ metal connectors - straight and angled (No: 42011.20)</li> <li>☛ polysulfone, autoclavable 134°C</li> <li>☛ safety valve in lid</li> </ul>
<b>B-20</b>		<p><b>2.0 L jar TM with screw metal lid and long plunger tube for thoracic drainage</b></p> <ul style="list-style-type: none"> <li>☛ polysulfone, autoclavable 134°C (No: 42011.19)</li> <li>☛ safety valve in lid</li> <li>☛ metal connectors</li> </ul>

2 l indas skysčiams, polisulfoninis, autoklavuojamas p. 6.3.

■ Specification

Power supply	100 V-240 V~ 50/60 Hz	
Power consumption (rated)	0.9-0.4 A	
Fuse	T 2.5 A H 250 V x 2	
Water supply pressure	0.3 MPa	
Water flow rate	When using the instrument channel tube or disposable instrument channel tube	400 - 700 mL/min
	When using the water jet tube or disposable water jet tube	60 - 190 mL/min
	When using the disposable therapeutic tube	80 - 190 mL/min
Maximum water flow rate	When using the instrument channel tube or disposable instrument channel tube	840 mL/min
	When using the water jet tube or disposable water jet tube	220 mL/min
	When using the disposable therapeutic tube	209 mL/min
Type of pump	Peristaltic pump	
Tank capacity	2000 mL	
Operation method	Turned on/off using a foot switch	
Flow rate adjustment	Unstepped continuously variable	
Dimensions(W×H×D)	215 mm × 168 mm × 289 mm (excluding projections)	
	215 mm × 175 mm × 334 mm (including water tank)	
Mass	3.0 kg (main unit)	
	3.4 kg (including the empty water tank)	

Instrumentinis kanalas  
840 ml/min  
p. 7.4.2.

Jet papildomas kanalas  
220 ml/min  
p. 7.4.1.

Peristaltinė pompa  
p. 7.1.

Talpos tūris 2000 ml  
p. 7.5.

Tėkmės reguliavimas  
p. 7.2.

Product name: Water Pump JW-3 GMDN: 63646 Generic name: Surgical irrigation pump

■ Accessories

★: Included in the package  
The number of packages indicates the quantity as an optional item.

	Re-usable items	Single-use items (Sterile)
For Instrument Channel	 <p><b>Instrument Channel Tube JT-3RC</b> 1pc/pack Total tube length: 2230 mm Product name: Instrument Channel Tube JT-3RC GMDN: 64108 Generic name: Suction/irrigation tubing, reusable</p>	 <p><b>Instrument Channel-Joint Tube JT-3RC2</b> 5pcs/pack Total tube length: 195 mm Product name: Instrument Channel Tube JT-3RC2 GMDN: 64108 Generic name: Suction/irrigation tubing, reusable</p>
For Water Jet	 <p><b>Water Jet Tube JT-3RW ★</b> 2pcs/pack Total tube length: 1340 mm Luer Connector Product name: Water Jet Tube JT-3RW GMDN: 64108 Generic name: Suction/irrigation tubing, reusable</p>	 <p><b>Disposable Instrument Channel Tube JT-3DC</b> 10pcs/pack Total tube length: 2065 mm Product name: Disposable Instrument Channel Tube JT-3DC GMDN: 60738 Generic name: Endoscopic insufflation tubing set, single-use</p>
For Therapeutic device		 <p><b>Disposable Water Jet Tube JT-3DW</b> 10pcs/pack Total tube length: 1330 mm Luer Connector Product name: Disposable Water Jet Tube JT-3DW GMDN: 60738 Generic name: Endoscopic insufflation tubing set, single-use</p>
Water tank	 <p><b>Water Tank WT-3JW ★</b> 2pcs/pack Product name: Water Tank WT-3JW GMDN: 63646 Generic name: Surgical irrigation pump</p>	 <p><b>Disposable Therapeutic Tube JT-3DT</b> 10pcs/pack Total tube length: 3350 mm Luer Connector Product name: Disposable Therapeutic Tube JT-3DT GMDN: 60738 Generic name: Endoscopic insufflation tubing set, single-use</p>

Vienkartiniai rinkiniai  
p. 7.5.

Kojinis jungiklis  
p. 7.3.

■ Related Products



Specifications are subject to change without notice.

# Water Pump JW-3



- Available for 3 use: Instrument Channel, Water jet, and therapeutic device (FlushKnife Slim: DK2620JI and DK2623JI).
- Various devices for usability support smooth examination and treatment.
- Designed for infection control and safety use.

# 3 water supply modes for a wide range of applications from examination to treatment. Water pump considering usability and infection control

## 1 Wide range of application

### 3 water supply mode: instrument channel, water jet, and therapeutic device

By flushing water from JW-3, the mucous membranes and lesions of the digestive tract are washed, supporting the ease of endoscopic diagnosis and treatment. JW-3 has 3 water supply mode:

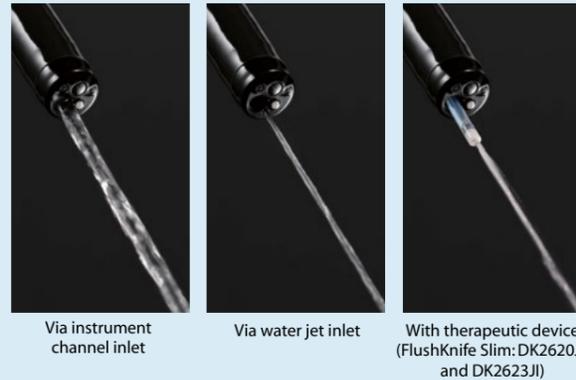
- via endoscope-instrument channel inlet.
- via endoscope-water jet inlet.
- through FlushKnife Slim (DK2620JI and DK2623JI).

This system can be used for a wide range of applications from examinations to treatment including ESD (Endoscopic Submucosal Dissection).

### High performance for water irrigation

JW-3 main unit recognizes which tube is connected by the tube detector connector joint attached to each tube. The drive of pump motor is controlled according to the detected tube. In addition, different water flow rates are designed for each tube with the aim of achieving both comfortable water response and stop performance and supporting endoscopic procedures.

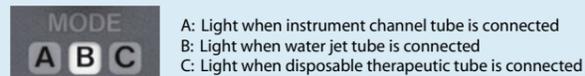
### 3 water supply mode



### Water Flow Rate

A: Instrument channel tube	400-700 mL/min.
B: Water jet tube	60-190 mL/min.
C: Disposable therapeutic tube	80-190 mL/min.

### Detected Tube Display



## 3 For infection prevention and safety

### Autoclavable tubes and water tank, Disposable tubes

Both tubes (JT-3RC, JT-3RC2, and JT-3RW) and water tank are autoclavable for effective sterilization and are re-usable. In addition, sterilized disposable tube (JT-3DC, JT-3DW, and JT-3DT) can be selected in view of infection management of hospital.

### A lineup for therapeutic device (FlushKnife Slim: DK2620JI and DK2623JI) connection tube capable of submucosal injection

JT-3DT, designed for therapeutic device (FlushKnife Slim: DK2620JI and DK2623JI) is a disposable tube that connects to a saline bag via a port connector. By combining this tube with FlushKnife Slim: DK2620JI and DK2623JI, it's possible to inject saline solution into the submucosal layer in ESD treatment.



Tip of JT-3DT to connection to saline bag

### For safety use, to avoid human error

If the cover of the pump head is opened during operation, operation is automatically stopped to protect users from injuries and accidents.

The tube detector automatically recognizes which tube is set. In consideration of safety use, the maximum flow rate is set for each tube. During continuous flowing, water supply is automatically stopped once at the set time for each type of detected tube. These are designed to avoid human error.

### Max. Water Flow Rate and Automatic Cut-off Timer

Tube Type	Max. Water Flow Rate	Automatic Cut-off Timer
A: Instrument channel tube	840 mL/min.	approx. 20-seconds
B: Water jet tube	220 mL/min.	approx. 20-seconds
C: Disposable therapeutic tube	209 mL/min.	approx. 8-seconds

## 2 Various devising for usability support smooth examination and treatment

Flexible and less bending tendency tube material is adopted for water supply tubes. Due to its characteristics, it reduces the trouble of correcting bending habits before use.

Re-usable / Disposable distinction and tube type can be recognized by the color and text of the tube detector connecting joint.



Bright Green: Re-usable tube  
White: Disposable tube

Newly developed pump head that allows intuitive attachment and detachment of tubes.



When the cover is open

Flow adjustment knob provides easy adjustment of flow rate

Compact design aiming to save necessary space on workstations and carts.

Re-usable water tank that can hold 2L of water despite its slim design, with MAX/MIN line for pouring water. Also tubes have indicator line as a guide for insertion into the water tank.

LED backlight with enough brightness and easy to see in a dark room.

Main unit design considering its cleanability.

