

REV	ECN	Revision History		Date	Editor
A01	INPR00003	First Release		2019-08-23	Xu Lin
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VLS-55 Series Light Source Technical Specifications



SonoScape

SONOSCAPE MEDICAL CORP.

1 Overview

The VLS-55Q and VLS-55T light sources are designed to form a multispectral illumination endoscopic light source system by four LED lamps with different colors. The VLS-55Q provides four light modes, including the white light mode (WL), the enhanced white light mode (EWL), the spectral focused imaging (SFI) and the versatile intelligent staining technology (VIST). Compared with the VLS-55Q, the VLS-55T does not support the EWL mode. The WL mode is used for the observation under white light with high brightness (luminous flux ≥ 800 lm); The color tone of the EWL mode is similar to that of the WL mode and this mode can highlight the micro structure and micro vessels on the superficial mucosa; The SFI mode provides high color contrast observation, which is suited to identify lesions within the middle and far fields; The VIST mode can highlight the micro vessels and micro structure in the superficial mucosa, which is suited to the careful observation in the middle and near fields.

2 Advanced Technologies

- Multispectral illumination

- VLS-55Q supports four light modes:
 - WL
 - EWL
 - SFI
 - VIST
- VLS-55T supports three light modes:
 - WL
 - SFI
 - VIST
- Aspheric optical technique
- Capacitor touch screen
- Quick brightness adjustment based on electronic light control
- Fast light mode switch in millisecond order

3 Functions

- Power switch: on/off
- Powering on/off the light source:
 - Powering on: press the **LIGHT** button once to turn on the lamp and the <LIGHT> indicator lights.
 - Powering off: press and hold the **LIGHT** button for about 2 seconds to turn off the lamp and the <LIGHT> indicator lights off.
- Brightness adjustment:
 - Modes: automatic and manual
 - Adjusting level: 1 – 19

- Air-feeding pressure adjustment:
low/medium/high
- Light transmission function:
 - Press any button to disable the light transmission mode.
 - If no button is pressed, the light transmission mode can maintain for 6 – 8 seconds.
- Service time indication:
 - When the light source is powered on, the elapsed time of the light source is counted every other minute and the left time is indicated.
 - The service time indicator flashes when the elapsed time reaches 10000 hours.
- Over-heat protection
- Abnormal report and processing:
Provide the LED flashing, buzzer alarming and so on according to the malfunction processing requirements.
- Power-down protection:
Provide power-down protection for the light control mode, light control level, air pump powering on/off, air pump flow level and service time

4 Parameters

- Light source: Four LED lamps with

different colors

- Air-feeding levels:
low/medium/high/off
- Light control level: level 1–19
- Total luminous flux output of main lamp: ≥ 800 lm, allowance: -10%
- Service time of main lamp: 10000 hours (continuous use)
- Air-feeding system:
 - Air-pump flow levels: high/medium/low
 - Pressure range: 45Kpa – 65Kpa
 - Maximum air flow volume:
 - High: 3.7L/min – 5.5L/min
 - Medium: 3.0L/min – 4.7L/min
 - Low: 2.0L/min – 3.7L/min

5 Ports

- Endoscope port
- Light source control port
- Power supply input port
- Equipotential terminal
- Optical fiber cable port
- Water bottle connector

6 Compatible Equipment

- Image processor: HD-550 series
- Video gastroscopes: 550 series video gastroscopes (EG-550, EG-550L);

- Video colonoscopes: 550 series video colonoscopes (EC-550, EC-550T, EC-550L, EC-550L/T)
- Trolley: HDT-330
- Size and Weight
 - Size: 512 mm (L) × 370 mm (W) × 154 mm (H)
 - Weight: 17.4 kg (approx.)

7 Standards

- IEC 60601-1:2005+A1:2012
- IEC60601-2-18:2009
- IEC 60601-1-2:2014

8 Environment Requirements

- Operation environment
 - Temperature: 0°C – +40°C
 - Relative humidity: 30% – 80% (non-condensing)
 - Atmosphere pressure: 700 –

1060hPa

- Storage environment
 - Temperature: -5°C – +40°C
 - Relative humidity: 30% – 80% (non-condensing)
 - Atmosphere pressure: 700 – 1060hPa
- Transportation environment
 - Temperature: -20°C – +55°C
 - Relative humidity: 20% – 90% (non-condensing)
 - Atmosphere pressure: 700 – 1060hPa
- Power supply requirements:
 - Input voltage: 100 – 240V AC 50/60Hz
 - Input power: 300VA

NOTE:

- The specifications of this system may change without any prior notification.
- Some products or features may not be available in some countries.
- Please contact the local distributor for more information.

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