

Leica SL3-S Body Only Specification

Leica SL3-S

Specifications

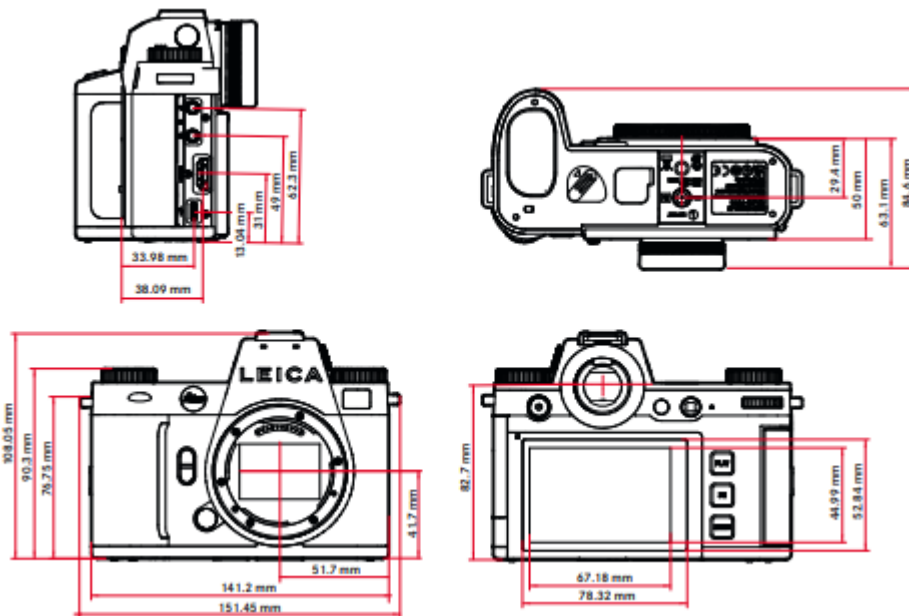
Camera type:	Mirrorless full-frame system camera
Type No.:	4506
Order No.:	10 643 (EU/US/CN), 10 644 (JP), 10 645 (ROW)
Buffer memory:	8 GB, capacity, depending on frame rate and picture format, estimated quantity (number of possible images in the buffer memory)

Continuous shooting	DNG	DNG + JPG	JPG
2 fps, 14 bit, AF	1000	1000	1000
5 fps, 14 bit, AF	1000	345	1000
7 fps, 12 bit, AF	680	255	1000
15 fps, 12 bit, AF	175	175	175
30 fps, 12 bit, AF	175	175	175

The values depend on the type of memory card used (SD or CFexpress) / resolution

Storage medium:	UHS-II (recommended), UHS-I, SD/SDHC/SDXC card + CFexpress card type B (recommended)
Material:	Full metal housing: magnesium and aluminum, leatherette covering, splash water protected in accordance with IEC Standard 60529 (protection type IP54)
Lens mount:	Leica L bayonet with contact strip for communication between lens and camera
Operating conditions:	-10 to +40°C
Interfaces:	ISO accessory shoe with additional control contacts, synch jack/timecode interface, HDMI jack 2.1 Type A, USB-C USB3.1 Gen2, Audio-Out 3.5 mm/Audio-In 3.5 mm, communication interface in the bottom cover for multifunction handgrip
Tripod thread:	A 1/4 DIN 4503 (1/4") with stainless steel in the base

Dimensions:



Weight: Approx. 768 g (without battery, SD card, body cap)

Sensor

Sensor size: CMOS sensor, 25.3 MP/24.6 MP (total/effective)

Image stabilization: 5-axis image stabilization up to 5-stops

Filter: RGB color filter, UV/IR filter, no low-pass filter

Processor: Leica Maestro series (Maestro IV)

File formats: Photo: DNG™ (raw data), DNG + JPG, JPG (DCF 2.0, Exif 3.00)

Video:

MP4	h.265	AAC	48 kHz/16 bit
	h.264	AAC	48 kHz/16 bit
MOV	h.265	LPCM	48 kHz/24 bit
	h.264	LPCM	48 kHz/24 bit
	ProRes	LPCM	48 kHz/24 bit
RAW		LPCM	48 kHz/24 bit

Image resolution:

35 mm	JPG		DNG	
L	6000 x 4000	24 MP	6000 x 4000	24 MP
APS-C	JPG		DNG	
L	3936 x 2624	10.3 MP	3936 x 2624	10.3 MP

Color depth: DNG™: 14 bit (12 bit also possible depending on the continuous shooting mode), JPG: 8 bit

Color space: Photo: sRGB



Video: Rec. 709/Rec. 2020 (HLG/L-Log)

File size: DNG™: approx. 40 MB, depending on resolution and image content, JPG: depending on resolution and image content

Video: max. length depending on ambient temperature and available memory space

Video recording mode: Video mode: P - A - S - M

Cine mode: M

Video Resolution:

	RESOLUTION	Aspect ratio
6K OG	5952 x 3968	3:2
C6K	5952 x 3136	17:9
6K	5888 x 3312 (h.265)	16:9
	5776 x 3056 (ProRes)	
C4K	4096 x 2160 (MOV/MP4)	17:9
	4128 x 2176 (RAW)	
4K	3840 x 2160	16:9
3.5K	3536 x 2656	4:3 (RAW)
Full HD	1920 x 1080	16:9

Video frame rate:

File Format	Resolution	Frame rate	Bit rate	YUV / Bit	Compression	Codec
MP4	4K 3840 x 2160	59.94 fps	100 Mbps	4.2.0 / 10 bit	Long GOP	h.265
		50.00 fps	100 Mbps	4.2.0 / 10 bit	Long GOP	h.265
		29.97 fps	100 Mbps	4.2.0 / 8 bit	Long GOP	h.264
		25.00 fps	100 Mbps	4.2.0 / 8 bit	Long GOP	h.264
		23.98 fps	100 Mbps	4.2.0 / 8 bit	Long GOP	h.264
	FHD 1920 x 1080	59.94 fps	28 Mbps	4.2.0 / 8 bit	Long GOP	h.264
		50.00 fps	28 Mbps	4.2.0 / 8 bit	Long GOP	h.264
		29.97 fps	20 Mbps	4.2.0 / 8 bit	Long GOP	h.264
		25.00 fps	20 Mbps	4.2.0 / 8 bit	Long GOP	h.264
		23.98 fps	24 Mbps	4.2.0 / 8 bit	Long GOP	h.264



MOV	6K OG (3:2) 5952 x 3968	29.97 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		25.00 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		24.00 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		23.98 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
	C6K (17:9) 5952 x 3136	29.97 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		25.00 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		24.00 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		23.98 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
	6K (16:9) 5888 x 3312	29.97 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		25.00 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		24.00 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		23.98 fps	200 Mbps	4:2:0 / 10 bit	Long GOP	h.265
	C4K (17:9) 4096 x 2160	59.94 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		59.94 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		50.00 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		50.00 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		48.00 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		48.00 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		47.95 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		47.95 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		29.97 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		25.00 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		24.00 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		23.98 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
	4K 3840 x 2160	59.94 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		59.94 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		50.00 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		50.00 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		48.00 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		48.00 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		47.95 fps	800 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		47.95 fps	600 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		29.97 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		25.00 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		24.00 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		23.98 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
	FHD 1920 x 1080	119.88 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		100.00 fps	400 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		59.94 fps	200 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		50.00 fps	200 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		48.00 fps	200 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		47.95 fps	200 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		29.97 fps	200 Mbps	4:2:2 / 10 bit	ALL-I	h.264
		25.00 fps	200 Mbps	4:2:2 / 10 bit	ALL-I	h.264
24.00 fps		200 Mbps	4:2:2 / 10 bit	ALL-I	h.264	
23.98 fps		200 Mbps	4:2:2 / 10 bit	ALL-I	h.264	
FHD Slow Motion 1920 x 1080		Sensor: 179.82 fps Recording: 29.97 fps	100 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		Sensor: 150.00 fps Recording: 25.00 fps	100 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		Sensor: 119.88 fps Recording: 29.97 fps	100 Mbps	4:2:0 / 10 bit	Long GOP	h.265
		Sensor: 100.00 fps Recording: 25.00 fps	100 Mbps	4:2:0 / 10 bit	Long GOP	h.265
C6K (17:9) 5776 x 3056		29.97 fps	1939 Mbps	422HQ		ProRes
		25.00 fps	1618 Mbps	422HQ		ProRes
	24.00 fps	1553 Mbps	422HQ		ProRes	
	23.98 fps	1551 Mbps	422HQ		ProRes	
C4K (17:9) 4096 x 2160	59.94 fps	1944 Mbps	422HQ		ProRes	
	50.00 fps	1622 Mbps	422HQ		ProRes	
	29.97 fps	972 Mbps	422HQ		ProRes	
	25.00 fps	811 Mbps	422HQ		ProRes	
	24.00 fps	779 Mbps	422HQ		ProRes	
FHD 1920 x 1080	23.98 fps	778 Mbps	422HQ		ProRes	
	59.94 fps	454 Mbps	422HQ		ProRes	
	50.00 fps	378 Mbps	422HQ		ProRes	
	29.97 fps	227 Mbps	422HQ		ProRes	
	25.00 fps	189 Mbps	422HQ		ProRes	
	24.00 fps	182 Mbps	422HQ		ProRes	
	23.98 fps	181 Mbps	422HQ		ProRes	

RAW	6K (16:9) 5888 x 3312	29.97 fps				
		25.00 fps				
		23.98 fps				
	C4K (17:9) 4128 x 2176	59.94 fps				
		50.00 fps				
		29.97 fps				
	3.5K (4:3) 3536 x 2656	25.00 fps				
		29.97 fps				
		25.00 fps				
		23.98 fps				

Bit rate: 8 bit/10 bit for recordings on SD and CF card, 10 bit for HDMI output

Video Gamma: Rec. 709, L-Log Rec. 2020, HLG Rec. 2020

Further information can be found in the "L-Log Reference Manual" for download on the Leica homepage.

Viewfinder/LCD panel

Viewfinder (EVF): Resolution: 5,760,000 dots, 60 fps or 120 fps, magnification: approx. 0.76x at aspect ratio: 3:2 / approx. 0.78x at aspect ratio: 4:3, frame coverage: 100%, exit pupil position: 21 mm, setting range – 4/+2 dpt, with eye sensor for automatic switchover between viewfinder and LCD panel, time delay 0.005 s

LCD panel: 3.2" (backlight LED) with anti-fingerprint and anti-scratch coating, 2,332,800 dots, format 3:2, touch panel

Top display: 1.28" highly reflective trans-reflective monochrome LCD, 128 x 128 pixels, viewing angle 120°, anti-fingerprint coating

Shutter

Shutter type: Electronically controlled focal plane shutter

Shutter speeds: Mech. shutter: 30 min to 1/8000 s, electr. shutter function: 60 s to 1/16000 s, flash synchronization: up to 1/200 s

Shutter button: Two-stage (1st stage: Activation of the camera electronics including autofocus and exposure metering, 2nd stage: Taking the picture)

Self-timer: Delay time: 2 s, 6 s, 12 s or 30 s

Drive Mode: Single, Continuous Shooting, Interval Shooting, Exposure Bracketing, Multi-Shot

Continuous shooting:

Setting	Shutter type	Autofocus mode for continuous shooting
2 fps, 1/4 bit, AF	Mech. or electr. shutter	AFs, even if AFs or intelligent AF is selected
5 fps, 1/4 bit, AF		
7 fps, 1/2 bit, AF		
15 fps, 1/2 bit, AF	Electr. shutter	
30 fps, 1/2 bit, AF		

Focusing

Focus mode: Automatic or manual



With manual setting: optional magnifying glass function (Magnification) and edge marking (Focus Peaking) available as focus assist

Autofocus system: Hybrid-AF due to combination of contrast metering, depth mapping, and phase comparison metering with AF metering points in the sensor.

Autofocus modes: Intelligent AF (automatically refocuses as soon as something changes in the scene), AFs, AFc, AF setting can be saved, optional Touch AF

Autofocus metering methods: Multi-field, Spot (can be shifted), Field (can be shifted and scaled), Zone (can be shifted and scaled), Tracking, Eye/Face/Body Detection, Animal Detection (Beta)

Autofocus metering fields: Contrast-AF: 315/Phase detection-AF: 779

Exposure

Exposure metering: TTL (exposure metering through the lens)

Exposure metering methods: Spot, Center-Weighted, Highlight-Weighted, Multi-Field

Exposure modes: Program AE mode (P), aperture-priority mode (A): manual aperture setting, shutter-priority mode (S): manual shutter speed setting, Manual (M): manual setting for shutter speed and aperture

Exposure compensation: ± 3 EV in $1/3$ EV increments or $1/2$ EV increments

Automatic bracketing: 3 or 5 frames, graduations between shoots up to 3 EV, in $1/3$ EV increments, additional optional exposure compensation: up to ± 3 EV

ISO sensitivity range:

	Photo	Video	L-Log	HLG
Auto ISO	ISO 100– ISO 200 000	ISO 100– ISO 200 000	ISO 400– ISO 100 000	ISO 400– ISO 200 000
Manual	ISO 50– ISO 200 000	ISO 50– ISO 200 000	ISO 400– ISO 100 000	ISO 400– ISO 200 000

Dual Basis ISO settings:

	Photo	Video	L-Log	HLG
Low Basis-ISO	ISO 50– ISO 560	ISO 50– ISO 560	ISO 400– ISO 2200	ISO 400– ISO 2200
High Basis-ISO	ISO 640– ISO 200 000	ISO 640– ISO 200 000	ISO 2500– ISO 100 000	ISO 2500– ISO 200 000

White balance: Automatic (Auto), default (Daylight, Cloudy, Shadow, Tungsten, HMI, Fluorescent (warm), Fluorescent (cool), Flash), manual metering (Gray Card (pipette), Gray Card), manual color temperature settings (Color Temperature, 2000 K to 11500 K)

Flash

Flash unit connector: Via the accessory shoe

Flash synchro socket: For flash synchronization (photo mode only)

Flash sync time: $1/200$ s, slower shutter speeds available, automatic switchover to TTL linear flash mode with HSS-compatible Leica system flash units if sync time is undercut

Flash exposure metering: Using center-weighted TTL pre-flash metering with Leica flash units (SF 26, SF 40, SF 58, SF 60, SF 64) or with systemcompatible flash units, remote controlled flash SF C1

Flash exposure compensation:

SF 40: ± 2 EV in 1/2 EV increments

SF 60: ± 2 EV in 1/3 EV increments

Equipment

Microphone: Stereo internal + microphone input 3.5 mm stereo jack

Speaker: Mono internal + headphones output 3.5 mm stereo jack

WLAN: The Leica FOTOS app is required to use the WLAN function. The Leica app is available from the Apple App Store™ or the Google Play Store™.

	2.4 GHz	5 GHz	
EU/ US/ CN	IEEE802.11b/g/n Channel 1-11 (2412-2462 MHz)	Client mode: (For indoor use only) IEEE802.11a/n/ac: Channel 36-64 (5180-5320 MHz)	Access point + client mode: IEEE802.11a/n/ac: Channel 149-165 (5745-5825 MHz)
JP		Access point + client mode: (For indoor use only) IEEE802.11a/n/ac: Channel 36-48 (5180-5240 MHz)	Client mode: (For indoor use only) IEEE802.11a/n/ac: Channel 52-144 (5260-5720 MHz)
ROW			

Encryption method: WLAN-compatible WPA2™

Bluetooth: Bluetooth 5.0 LE: Channel 0–39 (2402–2480 MHz)

GPS: Not available everywhere due to country-specific legislation; can be added via the Leica FOTOS app. Data is written to Exif header of the picture files.

Menu languages: English, German, French, Italian, Spanish, Portuguese, Russian, Japanese, Simplified Chinese, Traditional Chinese, Korean

Power supply

Rechargeable battery (Leica BP-SCL6):

Lithium-ion rechargeable battery, rated voltage: 7.2 V (DC); capacity: 2200 mAh (min.), 315 shots (based on CIPA standard), 1042 shots (based on CIPA standard with adapted shooting cycle*) Manufacturer: Panasonic Energy (Wuxi) Co. Ltd., Made in China

*Cycle 1: Switch on, 1st shutter release after 5 s, one shot every 3 s, the camera switches off after 10 shots (Auto Power Off) and switched back on after a waiting time of 5 min.

*Cycle 2: Switch on, 1st shutter release after 5 s, one shot every 3 s, the camera switches off after 50 shots (Auto Power Off) and switched back on after a waiting time of 5 min.

These cycles are repeated alternately until the battery is empty.

USB-C power adapter (Leica ACA-SCL6) (optional):

Input: AC 100–240 V, 50/60 Hz, 0.25 A, automatic switchover; Output: DC 5 V/9 V, 3 A; Manufacturer: Salom Electric (Xiamen) Co., Ltd., Made in China

Dual Charger (Leica BC-SCL6) (optional):

Input: DC 5 V/3 A, 9 V/3 A, automatic switchover; Output: DC 8.4 V, 850 mA/1000 mA; Manufacturer: Salom Electric (Xiamen) Co., Ltd., Made in China

Charging via USB: During operation: 9 V/3 A (min. 27 W)



With camera switched off: 5 V/1500 mA (2.5 W or greater)