

Focus 70 Live (APAC Only)

Highly Affordable HD System Cameras

Superb single-format cameras with legendary Grass Valley image performance.

The Focus 70 Live system cameras from Grass Valley, a Belden Brand, (available in the APAC region only) represent a new entry level into the company's legendary imaging quality.

Three Xensium-FT CMOS imagers with global shutter — similar to CCD sensors — do not produce any of the rolling shutter artifacts seen with other CMOS-based cameras, such as sensitivity to fast camera movements with short exposure time or sensitivity to short light flashes.

This makes Focus 70 Live cameras ideal for smaller live studio and field applications, including regional broadcast stations, SNG vans, small OB vans, university sports productions, staging and houses of worship.

The cameras offer strong image performance by always capturing the image in full progressive 1920x1080 HD resolution and downconverting to a single HD format for processing and output, either 1080i50/59.94 or 720p50/59.94 (format selected at purchase). In addition, the highest quality SD signals are available at the camera base unit.



The high level of camera sensitivity also allows less lighting to be used, and this contributes to lower power consumption from both lights and air conditioning. In addition, the cameras can be used with smaller iris settings to deliver an increased depth of field, while also allowing operators to hold a tighter focus.

Focus 70 Live cameras use standard B4 2/3-inch lens mounts to accommodate HD lenses that may have been already purchased or are on-hand.

The cameras offer a high level of operational excellence. Button layouts and control knobs are ergonomically designed to allow operators to make adjustments quickly. With the easily accessible and separated "info" knob, all important information is displayed in the viewfinder instantly. The user-friendliness of Focus 70 Live cameras has also been strengthened with a streamlined menu structure which allows operators to access commonly used functions very rapidly.



KEY FEATURES

- Fully digital FT CMOS imagers with global shutter operation offer absolute smear-free images under all conditions
- Best possible resolution and image sharpness from over-sampling the full HD progressive image
- Highest sensitivity in combination with the best noise performance for the best results, even under difficult lighting conditions
- Highest quality mechanical construction identical to high-end Grass Valley LDX Series broadcast camera systems

SPECIFICATIONS

Camera Head

General:

Temperature range: -10° to +45° C (-4° to 113° F) (operating)
 Weight: 2.1 kg (4.6 lbs.) (including shoulder pad)
 Dimensions: width: 170 mm, depth: 200 mm, height: 180 mm (6.7 x 7.9 x 7.1 in.)
 Power: Supplied through the transmission adapter

Camera:

Pick-up device: 3x2/3" Xensium-FT CMOS
 Picture elements: 1920x1080
 Smear: no vertical smear
 Shutter: no mechanical shutter
 Optical system: F1.4 prism
 Lens mount: 2/3" Bayonet type
 Optical filter wheels: 1x motorized wheel: clear, 1/4 ND, 1/16 ND, 1/64 ND
 Electronic color correction: 3200° K, 5600° K, 7500° K, FL, 2 AWB presets, Var, continuous auto white
 Exposure: electronic exposure down to 1/1000 sec

Video modes:

Single-format: 1080i50/59.94 or 720p50/59.94 (selected at time of purchase)
 Sensitivity at 2000 lux:
 – F12.0 (1080i50, 720p50)
 – F11.0 (1080i59.94, 720p59.94)
 S/N ratio: 60 dB typical
 Aspect ratio: 16:9
 Modulation depth: 60% (typical) at 800 TV lines (27 MHz) in 1080i50/59.94 & 720p50/59.94 modes
 Digital resolution: Floating point A/D-conversion with 16-bit performance and with 34-bit processing in RGB
 Horizontal resolution: >1,000 TV lines
 Gain selection: -6 dB to +18 dB in 3 dB steps (user-definable presets) or continuous master gain

Connectivity:

Front microphone input: XLR-3 female, balanced, phantom +48V selectable
 USB
 Ethernet RJ-45
 Lens connector: Hirose 12-pin
 Viewfinder connector: 20-pin and HDMI

Control buttons:

PickMe
 Info
 Menu control
 Intercom production/engineering
 Filter wheel selection
 Standard file recall
 2 user assignable

Control switches:

On/off
 Color bar
 Gain selection
 Color temperature
 Exposure time
 White balance

Accessories:

2.0" LCD viewfinder
 7" Economic LCD viewfinder
 7" IPS LCD viewfinder
 7.4" OLED viewfinder

Focus Base Unit

Video:

720p: 50/59.94 Hz
 1080i: 50/59.94 Hz

Compatible cameras: All Focus 70 Cameras

General:

Dimensions (HxWxL, approx.): 438 x 88 x 510 mm (19" rack, 2 RU) (17.2 x 3.5 x 20.1 in.)
 Operating temperature: 0 to +45° C (+32 to +113° F)
 Storage temperature: -20 to +70° C (-4 to +158° F)
 Operation humidity: Max. 90% (non-condensing)
 Shock resistance: Max. 10G (transport, Max. 2G (operating))
 Altitude: Max. 15,420m (50,000 ft.)
 Weight XCU 11.8 kg (26.0 lbs.)
 Power requirement: AC 100V/240V, 47 to 63 Hz
 Power connector: IEC type, 3-pin male
 Power consumption: Total power (Cam + XCU) 450W max.

Connectors:

Video:

Teleprompter in: BNC 1x (loop-through output), (C)VBS, 1.0 Vp-p, 75Ω
 Reference in: 1x (loop-through output), 1.0 Vp-p, 75Ω HD tri-level sync or SD black-burst
 HD-SDI out: BNC 4x 0.8 Vp-p, 75Ω, SMPTE ST 292, 1080i/720p at 50/59.94 Hz
 HD-SDI monitoring out: BNC 1x 0.8 Vp-p, 75Ω, SMPTE ST 292, 1080i/720p at 50/59.94 Hz
 SD-SDI out: BNC 2x 0.8 Vp-p, 75Ω, SMPTE ST 259 ITU-R, BT.601
 SD-SDI monitoring out: BNC 1x 0.8 Vp-p, 75Ω, SMPTE ST 259z ITU-R, BT.601
 Composite Video monitoring output: BNC 1x 1.0 Vp-p, 75Ω (CVBS text with video, for viewing purposes)
 Signaling in/out: D-sub 15-pin, male; preview, green tally (call), dry contact; yellow tally (iso), dry contact; red tally (on air), dry contact; remote audio level control (22-64 dB),
 Control data: RJ-45 connector for C2IP (camera control)
 Fiber (Hybrid) executions: Lemo Hybrid fiber connector acc. SMPTE ST 304
 Triax executions: Fischer, ARD, Lemo-4E, Lemo-3T, BBC-Lemo, Trilock
 External video in: 2x HD-SDI (1.5 Gb/3.0 Gb) or SD-SDI 0.8 Vp-p, 75Ω

Audio:

2-ch. audio: Audio out, XLR-3 2x ; 0/+6 dBu (±1.5 dB, max. 18 dBu, 600Ω, gain max. 70 dB)
 Frequency response: 40 Hz to 15 Hz, (+1/-3 dB, 1 kHz, -10 dBu output level)
 Distortion: Less than 0.5% (100 Hz/1 kHz, +6 dBu out, 600Ω)
 S/N ratio: 58 dB (unweighted RMS)

Intercom:

Intercom in/out (2/4-wire intercom): D-sub 15-pin, female (program in, production in/out, engineering in/out), in: 0 or 6 dBu; out: 0 or 6 dBu (±2 dB, max. 12 dBu)
 Frequency response: 150 Hz to 6 kHz (1 kHz, -10 dBu output level)
 Distortion: Less than 2% (1 kHz, +12 dBu level)

Focus Triax Adapter

Power requirements: Triax powered

Operating temperatures: -10 to +45° C (-4 to +113° F)

Storage temperatures: -25 to +70° C (-13 to +158° F)

Weight (approx.): 2.1 kg (4.6 lbs.)

Dimensions (L x W x H): 222.1 x 132.7 x 212.1 mm (8.7 x 5.2 x 8.4 in.) without handgrip

Triax connection: Swivel triax connector (Fischer, ARD, LEMO-4E, LEMO-3T, BBCLEMO and TriLock types available)

Triax cable length: 1,500m (5,000 ft.) max. with 14 mm (0.55") cable (specified for Draka triax cable)

Analog VF/Analog TP (Y only) output: BNC connector 1.0 Vp-p; 75Ω

VF output or main output: BNC connector HD-SDI 0.8 Vp-p; 75Ω

Selectable:

– Main

– VF-HD

– VF-SD

– VF-Ext

EXT video output connector: BNC connector HD-SDI 0.8 Vp-p; 75Ω

Rear microphone inputs: 2x XLR-3, balanced, +48V phantom power

Intercom: XLR-5 with 3 channels (engineering, production and program)

Focus Fiber Adapter

Power requirements: Hybrid fiber powered

Operating temperatures: -10 to +45° C (-4 to +113° F)

Storage temperatures: -25 to +70° C (-13 to +158° F)

Weight (approx.): 2.1 kg (4.6 lbs.)

Dimensions (L x W x H): 222.1 x 132.7 x 212.1 mm (8.7 x 5.2 x 8.4 in.) without handgrip

Fiber connector: Swivel hybrid fiber connector SMPTE ST 304 Lemo

Cable length: 3,000m (10,000 ft.) max. using SMPTE ST 311 hybrid fiber cable

Analog VF output: BNC connector 1.0 Vp-p; 75Ω

VF output or main output: BNC connector HD-SDI 0.8 Vp-p; 75Ω

Selectable:

– Main

– VF-HD

– VF-SD

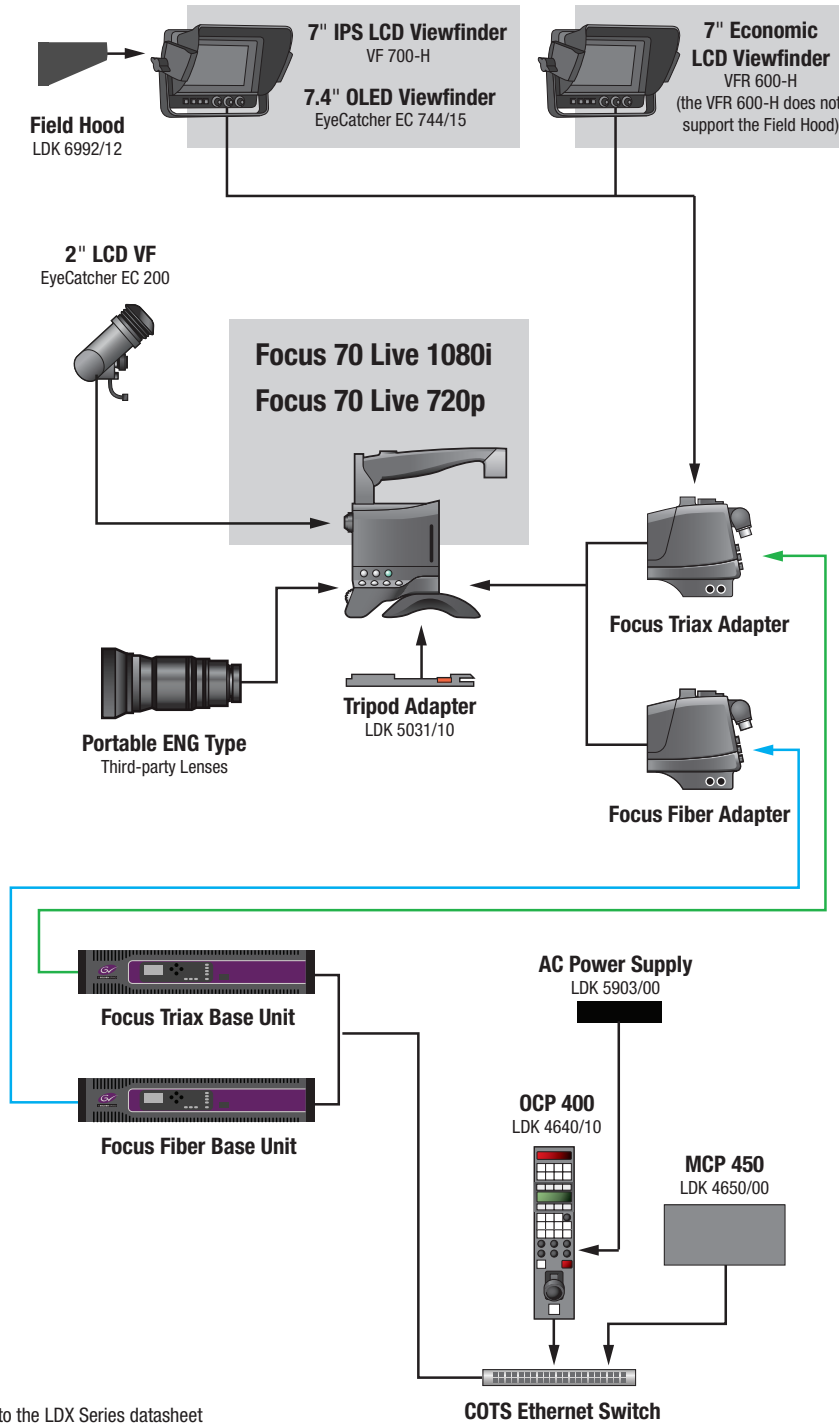
– VF-Ext

EXT video output connector: BNC connector HD-SDI 0.8 Vp-p; 75Ω

Rear microphone inputs: 2x XLR-3, balanced, +48V phantom power

Intercom: XLR-5 with 3 channels (engineering, production and program)

Focus 70 Live and Accessories



Note: For details about accessories, refer to the LDX Series datasheet

ORDERING

Please contact your authorized Grass Valley representative.

GVB-2-0507A-EN-DS



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