



Blackmagic Design PYXIS 12K

ProdCode: BMDCPYXM12LFL

High end digital film camera - L-Mount

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Features

- High end digital film camera
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- Professional Connections for Custom Rigs
- Built-in Microphones and Professional Audio Inputs
- Load Custom 3D LUTs to Recreate Film Looks
- USB-C for External Disks and Ethernet Control
- Built In SRT and RTMP Live Streaming
- Wireless Bluetooth Camera Remote Control

- Power from Batteries or 12?18V DC
- Includes DaVinci Resolve Studio

Introducing the next generation customizable cinema camera! Blackmagic PYXIS is a high end digital film camera that produces precise skin tones and rich organic colours. It features an extremely versatile design that lets you build the perfect camera rig for your production. You get a full frame 36 x 24mm 6K or 12K sensor with wide dynamic range with a built in optical low pass filter that's been designed to perfectly match the sensor. Plus there are 3 models available in either EF, PL or L-Mount. You also get 2 x CFexpress media recorders and Ethernet for sharing media to Blackmagic Cloud. It even records both 12-bit Blackmagic RAW and extremely small H.264 proxies files at the same time.

Blackmagic PYXIS 6K

Advanced digital film camera with an incredibly versatile design. Includes full frame 36 x 24mm 6K sensor, wide dynamic range and choice of EF, PL or L Mount. Records Blackmagic RAW with proxies to CFexpress.

Blackmagic PYXIS 12K

Advanced digital film camera with a revolutionary full frame 36 x 24mm RGBW sensor up to 12288 x 8040 resolution, 16 stops dynamic range and choice of EF, PL or L Mount. Records Blackmagic RAW with proxies to CFexpress.

Designed for Maximum Customizability

With multiple mounting points and accessory side plates, it's easy to configure Blackmagic PYXIS into the camera you need it to be. PYXIS' compact body is made from precision CNC machined aerospace aluminum, which means it is lightweight yet very strong. You can easily mount it on a range of camera rigs such as cranes, gimbals or drones. In addition to the multiple 1/4" and 3/8" thread mounts on the top and bottom of the body, Blackmagic PYXIS has a range of side plates that further extend your ability to mount accessories such as handles, microphones or even SSDs. All this means you can build the perfect camera for the any production that's both rugged and reliable.

Get the "Hollywood Look" with Digital Film

Blackmagic PYXIS has the professional features you need for feature film, television programming and documentaries, however now this same quality can be used to create cinematic content for social media, YouTube videos and more. You get the same features found on high end digital film cameras, allowing capture of deeper

colours, higher image detail and a wider dynamic range between the brightest highlights and deepest shadows. It's the reason why feature films look so amazing and now you can get the same high end production values for any kind of work. Imagine shooting with large format digital film on low budget independent films, TV commercials or even corporate video.

Large Format Cinematic Digital Film Sensor

Blackmagic PYXIS models feature a large full frame sensor with a native resolution of 6048 x 4032 or a massive 12288 x 8040. That's almost three times larger than a Super 35 sensor and lets you shoot with a shallow depth of field or use anamorphic lenses uncropped for a true cinematic look. Whether you're shooting in bright light or in almost no light at all, the massive dynamic range with high performance sensor provides stunning low noise images in all lighting conditions. Plus, PYXIS lets you shoot up to 120 fps on the 6K model, or 112 fps on the PYXIS 12K. This amazing sensor combined with Blackmagic colour science gives you the same quality as the most expensive digital cinema cameras.

Full Frame Flexibility

The large full frame sensor in Blackmagic PYXIS lets you work in a variety of film formats and aspect ratios without sacrificing quality. Using the full area of the sensor gives you a unique open gate 3:2 image which also lets you reframe your shots in post production. The large sensor also lets you work in true 6:5 anamorphic without cropping, making widescreen cinematic images more detailed and in higher resolution than previously possible. You can even use the classic Super 35 sized window on the sensor to create an instant 'close up' version of your shot that fits seamlessly with open gate footage. All this lets you create distinctive cinematic content in the highest quality.

Choose from Three Lens Mounts

You can choose between L-Mount, EF or PL lenses, making Blackmagic PYXIS compatible with the largest range of cinema and photographic lenses in the world. The L-Mount model works with the latest full frame lenses from Leica, Panasonic and Sigma but can also accommodate lens adapters, allowing you to use a wide variety of new and vintage lenses. The EF model lets you use high quality photographic lenses you already own from DSLRs or even Blackmagic Pocket Cinema Cameras. Or the PL model lets you work with professional cinema lenses from Zeiss, ARRI, Cooke and more without needing an adapter. With Blackmagic PYXIS, you get a choice of lens mounts for unlimited creative choice.

Shoot Incredible High Dynamic Range (HDR) Images

The distance between the lightest and the darkest parts of an image is called dynamic range and is measured in stops. Blackmagic PYXIS 6K has an incredible 13 stops of dynamic range and PYXIS 12K, a massive 16 stops of dynamic range, which means they preserve more detail in the lightest and darkest areas of an image than simple video cameras can. This allows you to set exposure for an indoor scene such as a cafe and still retain the details of bright outdoor light coming through a window. Plus DaVinci Resolve Studio is included with the camera, so you get total creative freedom with full exposure adjustment and recovery controls when colour grading.

Exceptional Low Light Performance

In digital film ISO is a measurement of the image sensor's sensitivity to light. This means the higher the ISO number the more sensitivity to light so it's possible to shoot using natural light, even at night. Blackmagic PYXIS models feature ISO up to 25,600, which means they're optimized to minimize noise in images, while maintaining the full dynamic range of the sensor. PYXIS 6K has a native ISO of 400, which is ideal for scenes with on-set lighting and a secondary high base ISO of 3200, which is perfect for shooting in dimly lit environments. PYXIS 12K has an ISO of 200 to 3200 and is optimized for 800. This makes it easy to capture great images when you don't have time to set up lights.

Multiple Resolutions and Frame Rates

Blackmagic PYXIS models can shoot in all standard resolutions and frame rates from HD up to DCI 4K, 6K, 8K and even 12K. Blackmagic PYXIS 12K features a multi scale sensor with that lets you shoot in 12K, 8K or 4K at the full sensor size. Shoot up to 40 fps at 12288 x 8040 3:2 open gate or 60 fps at 12288 x 5112 2.4:1 and 112 fps at 8192 x 3408 8K. You can even work in true anamorphic 6:5 at much higher resolutions than other cameras using anamorphic lenses in 9.6K at 9648 x 8040. With the 6K model, you can shoot up to 36 fps at 6048 x 4032 3:2 open gate or 60 fps at 4096 x 2160 4K DCI. For higher frame rates you can window the sensor and shoot up to 100 fps at 2112 x 1184 Super 16.

Large 4? LCD Monitor

The built in LCD on Blackmagic PYXIS is more than just a simple status display. It's a 4? high resolution HDR touchscreen that is also perfect for monitoring and reviewing shots on set. Its full HD resolution means you can frame and focus your shots without needing to carry around a bulky external monitor. You can even use the display as a focus assist station. Plus, as an HDR display, it has 1500 nits of brightness so you can always see your shot or change settings, even in bright sunlight. On screen overlays show status and record parameters, histograms, levels,

frame guides and more. You can even quickly apply 3D LUTs for monitoring shots with the desired colour and look.

All Controls at your Fingertips

Blackmagic PYXIS features a logical design that puts important functions such as ISO, WB and shutter at your fingertips with both touchscreen and physical controls. There's even a scroll wheel for making quick adjustments to settings. A row of 3 customizable function buttons means you don't have to go hunting through menus on a tiny screen to find a command. The Blackmagic PYXIS features easy to reach recording and still buttons that are placed exactly where you expect, including function keys for high frame rate, focus, zoom, false colour and more. The controls can even be locked to avoid accidentally changing settings during a shot or when the camera is out of reach on a rig.

Add Touchscreen Monitoring with Camera Control

Blackmagic PYXIS Monitor is a versatile 5" HDR touchscreen monitor with full camera control that can be mounted almost anywhere. It provides the same controls and overlays as PYXIS' built in LCD, so it's perfect to use when rigging or accessories block the internal display. Multiple mounting points make it easy to attach on any camera rig and use as a large viewfinder for easier focusing and framing. Or use it as an assist station so crew can frame and monitor shots from any position on set. There are 3 customizable buttons for quick access to zebra, focus assist, false colour and more. Plus, the bright 1500 nit display and removable sunshade ensure visibility, even in sunlight.

Side Plates for Flexible Mounting Options

The innovative side plates expand the riggability of your camera even further. The standard plate included with Blackmagic PYXIS is made from the same aircraft grade aluminum as the camera body and features 2 1/4" thread mounts and one 3/8" thread mount, allowing you to add microphones, brackets or other accessories. Or you can attach the included SSD plate which offers a convenient location to securely attach a USB-C drive for recording or even a mobile phone for live streaming. The optional Rosette Plate gives you maximum flexibility with 5 1/4" thread mounts and 4 3/8" thread mounts for adding accessories, plus a rosette mounting point for attaching handgrips or extension arms.

Transform Into a Fast Paced Broadcast Camera

The Blackmagic PYXIS Pro Handle and Pro Grip transforms Blackmagic PYXIS into a flexible run and gun camera for ENG and documentary work. The top handle includes

an integrated HD OLED viewfinder with precision glass optics, making outdoor shooting easy and accurate. It also features high quality stereo microphone with an ultra low noise floor for great sound in any location. There's even a zoom rocker, an easy to reach record start/stop button and custom function buttons. The Pro Grip adds a secure hand strap, assignable camcorder style zoom rocker and record button, making Blackmagic PYXIS even more versatile for fast paced productions.

Post Production Friendly File Formats

Blackmagic PYXIS records in Blackmagic RAW to preserve control of detail, exposure and colour during post production. It also records HD H.264 proxies in real time making it easy to share media around the world in minutes. Blackmagic RAW is highly optimized, multi-threaded, works across multiple CPU cores and is also GPU accelerated to work with Apple Metal, CUDA and OpenCL. This means your images always maintain unprecedented resolution and quality for colour, keying, compositing, reframing, stabilization and tracking in HD, 4K, 6K, 8K or even a massive 12K. Media files work on all operating systems plus you can format media cards and disks in HFS+ for Mac and ExFAT for Windows.

Record to CFexpress Cards or External Disks

The Blackmagic PYXIS features two built in CFexpress card recorders, and a USB-C expansion port for recording direct to external flash media disks or an SSD. CFexpress media are more durable and faster than even older media so are perfect for recording full resolution, 12-bit Blackmagic RAW files. Imagine capturing over an hour of full resolution 6K images on a single 256GB CFexpress card. Plus, with dual CFexpress slots, you can keep recording because you can hot swap full cards without stopping. The very high speed of CFexpress cards makes them perfect for mounting on your computer and editing directly from them using the included DaVinci Resolve Studio software.

Blackmagic RAW - The quality of RAW and the speed of video

Blackmagic RAW is a revolutionary new format designed to capture and preserve the quality of the sensor data from your camera. Blackmagic RAW eliminates quality problems so you get stunning images with incredible detail and colour throughout the production pipeline from camera to edit, colour and mastering. It also saves camera settings as metadata so you can set ISO, white balance and exposure in camera or override them later while editing, all without any loss of quality. Blackmagic RAW files are also small and fast to use making them easy to work with. Only Blackmagic RAW gives you the highest quality, smallest files and fastest performance.

- **Colour Temperature**

Setting the colour temperature tells the camera how to interpret white and other colours in an image. Instead of saving images with colour values baked in, Blackmagic RAW makes it possible for you to change the temperature in post production with DaVinci Resolve Studio.

- **Contrast**

Adjusting contrast, or the tonal range of an image, can make different parts of the image stand out. While you should always try to get the best shot on set, Blackmagic RAW gives you the flexibility to adjust contrast without any loss of quality while you're editing and colour correcting.

- **ISO**

Changing the ISO adjusts the camera's sensitivity to light. Properly exposed shots require the right combination of ISO, aperture and shutter speed. Depending on the lights and exposure settings, you may need to adjust ISO in post.

- **Tint**

Adjusting tint is another way you can affect the overall colour balance of an image. Unlike saturation or midpoint which can make reds redder or yellows more yellow, adjusting tint actually lets you push the colours in different directions.

- **Saturation**

Saturation is the strength or purity of a colour. More saturated colours are pure and less saturated colours have a percentage of gray in proportion to their hue. Adjusting saturation in Blackmagic RAW images can help make the colours visually pop or become muted.

- **Exposure**

In order for your images to look good, you need to make sure that it's not too bright (overexposed) or too dark (underexposed). With Blackmagic RAW, the exposure settings can be changed in post so you can save shots that were not properly exposed.

Powered by Blackmagic OS

With the advanced Blackmagic OS, you get an intuitive and user friendly camera operating system based on the latest technology. Blackmagic OS is a true modern operating system where all camera features run independently for smoother control, plus the camera powers on virtually instantly. It features the same controls and menus as other Blackmagic Design cameras so you can move between cameras on set easily. The interface uses simple tap and swipe gestures to adjust settings, add metadata and view recording status. You also get full control over advanced camera features such as on screen focus and exposure tools, 3D LUTs, HDR, metadata entry, timecode, Blackmagic RAW settings and more.

Generation 5 Colour Science

Featuring the same generation 5 colour science as the high end URSA Cine, the Blackmagic PYXIS delivers an even greater advancement in image quality with stunning, accurate skin tones and faithful colour in every shot. You get a new dynamic 12-bit gamma curve designed to capture more colour data in the highlights and shadows, for better looking images. The colour science also handles some of the complex Blackmagic RAW image processing, so colour and dynamic range data from the sensor is preserved via metadata which you can use in post production. That means you get images that have a natural, film like response to colour adjustments in post with DaVinci Resolve.

Live Sync to Blackmagic Cloud and Editors

Blackmagic PYXIS supports creating a small H.264 proxy file in addition to the camera original media when recording. This means the small proxy file can upload to Blackmagic Cloud in seconds so your media is available back at the studio in real time. The ability to transfer media directly into the DaVinci Resolve media bin as editors are working is revolutionary and has never before been possible. Any editor working anywhere in the world will get the shots. If you have multiple cameras, then the new multi source feature in DaVinci Resolve's Cut page will show each camera angle in a multiview. Blackmagic Cloud is a revolution in global post production workflows.

Three Post Production Workflows

1. Record to Internal Storage

You can record to the internal media or an external USB-C flash disk. This will allow you to browse the clips and let the camera sync your media files to other users globally.

2. Select and Upload Clips

If you're offline, then later when you have internet access you can browse media and manually select which clips you want to upload to Blackmagic Cloud.

3. Record into DaVinci Resolve

Log into Blackmagic Cloud and select a DaVinci Resolve project before recording. After each individual recording the media will automatically upload and sync to all DaVinci users on that project.

Connect 5G or 4G Phones for Mobile Data

When uploading to Blackmagic Cloud, you can use an Apple or Android phone to get a connection to the internet via mobile data. Simply connect the phone to the USB-C port and Blackmagic PYXIS will configure for mobile data. Plus it works with the latest

high speed 5G phones, as well as 4G phones. You can also connect via wired Ethernet using the camera's Ethernet port. This lets you get your media out as you shoot so post production teams anywhere in the world can start work in real time. Plus on set grading can be done in a grading suite and synced back to DaVinci on set. It's a truly global post production solution that works with Blackmagic Cloud to create amazing teams of creative people.

Works with URSA Cine Viewfinder and Accessories

Blackmagic PYXIS supports the optional Blackmagic URSA Cine EVF to make outdoors and handheld shooting accurate and easy. You get an integrated high quality 1920 x 1080 colour OLED display with built in proximity sensor, 4 element glass diopter for incredible accuracy with a wide focus adjustment. A built in digital focus chart ensures you get perfect viewfinder focus setup. You can also view critical status information such as frame guides. The URSA Cine EVF is extremely easy to connect as it simply mounts to the included extension arm and connects to the camera using a single USB-C cable. The viewfinder can be positioned in multiple ways and comes with 2 different types of eyecups.

Professional Connections for Custom Rigs

Blackmagic PYXIS features a wide range of connections for audio, monitoring, power and more. The camera includes a 12G-SDI out for monitoring with support for HDR and Ultra HD output. That means you can connect an SDI display for on set monitoring of images, with or without overlays that show critical information and camera status. SDI allows for much longer cable runs than HDMI making it easier to reach monitors that are further away on set. There's also a mini XLR connection with 48 volt phantom power for microphones, a 3.5 mm video camera style microphone input, timecode in, reference input, headphone connection and a locking DC power connector.

Built-in Microphones and Professional Audio Inputs

With professional, high fidelity audio recording built in you'll never have to carry around a separate sound recorder again. Blackmagic PYXIS features a mini XLR input with 48 volts of phantom power for connecting professional microphones such as lapel mics and booms. The built in mics have an extremely low noise floor and are shock and wind resistant, capturing great sound and are ideal for recording guide tracks on location. There's also a 3.5mm audio input for connecting video camera microphones, along with a built in speaker for playback and a 3.5mm headphone jack. These audio connections allow you to record separate audio tracks using microphones, without an external mixer.

Load Custom 3D LUTs to Recreate Film Looks

Digital film cameras shoot logarithmic colourspace to preserve the dynamic range, which is great for later post production, however when these files are viewed on a monitor they can look flat and washed out. 3D LUTs solve this problem because they allow you to apply a "look" to the monitor so you get an idea of how the finished images will look when editing. LUTs can be applied temporarily for monitoring only, or they can be recorded into the Blackmagic RAW files for use in post production. The Blackmagic PYXIS works with industry standard 17 and 33 point 3D LUT files, or you can work with the built in LUTs such as Extended Video, Film to Video, Film to Rec.2020 and more.

USB-C for External Disks and Ethernet Control

The Blackmagic PYXIS features an innovative and high speed USB-C Expansion Port that operates at up to 10 Gb/s. USB-C is available on most new computers and even provides power. That means you can connect external accessories such as flash drives and high capacity SSDs for significantly longer recording times. Best of all, when shooting is complete you can simply move the external disk to your computer and start editing and colour correction from the same disk straight away, eliminating file copying. You can also use the camera's built in Ethernet port to control your camera over a network via secure and easy to use REST APIs. You can even copy files off the camera via the network.

Built In SRT and RTMP Live Streaming

Now you can live stream from film sets. Blackmagic PYXIS features a built hardware streaming engine that supports RTMP and SRT streaming to YouTube, Facebook, X and more. For internet access, you have two options, one to connect via Ethernet or you can connect a 4G or 5G phone for mobile data. As the streaming is built into the camera, you can see the stream status and data rate in the viewfinder and the LCD. If you want to create a wireless link back to the studio, then you can stream to a Blackmagic ATEM Streaming Bridge, which is an H.264 decoder that converts the video stream back to video. Now the whole post production team can keep an eye on the shoot, live, while it's happening.

Get Multi Camera Shoots in Perfect Sync

Professional cameras include professional features and you also get a timecode input, allowing shooting with more than one camera while keeping perfect sync. Simply plug in an external timecode generator to the BNC timecode input and the camera will automatically detect timecode and lock the internal generator. Now each camera can start and stop recording and all the shots from all cameras will have the

same matched timecode. Imagine shooting a music festival with multiple roving cameras. Best of all, DaVinci Resolve will automatically find and sync the shots from all cameras so you don't need to waste time sorting through thousands of shots.

Localized in 13 Popular Languages

Blackmagic PYXIS is designed to be used worldwide and supports 13 different languages. When setting up your camera, you can choose to work in English, German, French, Spanish, Portuguese, Italian, Polish, Russian, Ukrainian, Turkish, Chinese, Japanese or Korean. It's easy to switch to another language so you can share your camera with other crew when traveling to locations worldwide. When you switch languages, all on screen overlays, setup menus and monitoring information will be displayed in the selected language.

Wireless Bluetooth Camera Remote Control

If you're positioning the camera on the end of a boom, or in another hard to reach location, you can get full control via Bluetooth from up to 30 feet away. You can download the Blackmagic Camera Control app for your iPad or use third party apps such as Bluetooth+ or tRigger on your iOS and Android devices. There's even a free developer SDK with sample code available from the Blackmagic Design developer website, so you can create your own remote camera control and digital slate solutions. Imagine building an app that can jam sync timecode and trigger all cameras to record at the same time. The possibilities are endless.

Power from Batteries or 12V/18V DC

Blackmagic PYXIS uses high capacity BP-U series batteries. These popular batteries come in a variety of capacities and are commonly available around the world. The highest capacity BP-U series battery lets you shoot for over 3 hours on a single charge. Plus there are a wide range of battery adapters and charger plates available from third parties so never have a flat battery. When using DC power, a locking connector is used so you won't have to worry about losing power during a shoot, perfect for when your camera is out of reach on a mount or jib. You also get a set of international socket adapters for worldwide use.

Includes DaVinci Resolve Studio

Blackmagic PYXIS includes a full version of DaVinci Resolve Studio, which is the same software used in Hollywood for creating high end feature films, episodic television shows, commercials and more. DaVinci Resolve features the new cut page with intelligent editing tools and innovative new features designed to help you quickly find the footage you want, edit it together and output it fast. In addition to the new cut

page, you also get DaVinci's legendary professional editing, advanced colour correction, audio post and visual effects tools, all in a single software application. Now you can use the same high end software that professional editors and colourists use.

