

# FS400-N4K

Native 4K up to 240Hz projector for NVG training



- **Native 4K resolution @60-240Hz framerate for incredible image performance**
- **Dynamic resolution up to 6K with built-in or external pixel-shift**
- **Revolutionary static laser-phosphor for speckle-free, outstanding image quality**
- **Superior IR illumination with more than 7x higher IR intensity for NVG stimulation**
- **Rock-solid and true solid-state, fully rated for shock and vibration**
- **Next Gen Barco Pulse for more powerful processing and unified**

For more information on availability, please contact your Barco sales representative. Contact us

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The FS400-N4K is a true solid-state static laser-phosphor projector designed for the simulation and training market. A native 4K resolution up to 240Hz processing speed projector, the FS400-N4K combines extreme detail and very high speed, suitable for any simulation environment. The FS400-N4K adds a dedicated IR light source to the F400-N4K's solid-state RGB light engine with more than 7x higher IR intensity than previous models, allowing for individual control of visible light and IR intensity.

### High resolution and extreme speed

The FS400-N4K is Barco's first single-chip DLP native 4K (4,096 x 2,176) projector. Using built-in or external pixel-shift, the dynamic resolution can be raised beyond 4K, up to 6K. In this way, you can project larger screens without losing any detail, further expanding the freedom of the simulation system designers.

With its processing speeds of up to 240 Hz at 4K resolution, the FS400-N4K brings all details to life in even the fastest moving scenarios. This extreme performance never comes at a cost of the image quality, which follows the high-speed scenario perfectly, with very low latency. This makes the projector a brilliant match for even the most demanding applications, including fast jet or racing simulators.



### Designed to perform - in all circumstances

The FS400-N4K also benefits from the next generation proprietary Barco Pulse electronics, the powerful and flexible software architecture that ensures advanced low-latency processing operations, like pixel-shifting, warping, and blending, to take place in one single step. This is a huge advantage in the real-time processing environment of most simulator systems today. What's more, our Barco Pulse API enables partners to integrate custom management tools and value-added features to complement the projector's software.

Motion platforms, with their rapid sudden movements, are challenging environments for projectors. The FS400-N4K is a true solid-state product, which means no moving parts like color or phosphor wheels, and is fully rated for shock and vibration. With the electronics, hardware and software built around a unique H-beam shaped aluminum core, the FS400-N4K has an optimized strength-to-weight ratio providing a sturdy platform as well as easy access if servicing is required. Optional accessories to support the lens on motion-based simulators are also available, contributing to even higher image robustness.

**Product specifications****FS400-N4K**

General specifications	
Notes	PRELIMINARY
Brightness	5,300 Center Lumens 5,000 ANSI Lumens*
Contrast ratio	2,000 – 10,000:1 sequential
IR for NVG	Yes (740nm)
Brightness uniformity	90%
Aspect ratio	1.88:1
Projector type	4K 1-chip DLP LaPh RGB projector
Resolution	4,096 x 2,176 (native) 6,144 x 3,264 (6K)
Lens type	FLC, and FLDX with separate F400 lens holder adapter
Optical lens shift	Vertical up to 134% depending on iris Horizontal up to 50% depending on lens Motorized zoom & Focus + Lens memory (FLDX) Motorized lens shift (all lenses)
Color correction	P7 RealColor™
Color space	REC709
CLO (constant light output)	Yes
Light source	RGB LaPh (static laser phosphor)
Light source lifetime	25,000 hours @ Full Power Up to 50,000 hours
Sealed DLP™ core	Yes
Orientation	360° rotation, no restrictions
3D	Active stereoscopic 3D
Image processing	Embedded warp & blend engine
Keystone correction	Yes
Inputs	1 x DP 1.4 (HDCP 2.2) 1 x HDMI 2.1 (HDCP 2.2) 4 x DP 1.2
Input resolutions	Including and up to: 4,096 x 2,176 @ 60Hz 4,096 x 2,176 @ 120Hz 4,096 x 2,176 @ 240Hz 6,144 x 3,264 @ 60Hz
Input color depth	Up to 12Bits depending on set-up
Software tools	Prospector, PToolSet
Control	IR, RJ45, Cabled Remote Control
Network connection	10/100/1000 Mbit
Power requirements	100-240V / 50-60Hz
Power consumption	1103W, 705W nominal
BTU per hour	2404 BTU/h Typical 3763 BTU/h Maximum
Noise level (typical at 25°C/77°F)	34 db(A)
Operating temperature	10 -40 °C (sea level)
Storage temperature	-20 to 60 °C
24/7 operation	Yes
Operating humidity	20 -80% RH
Storage humidity	10 -90% RH
Dimensions (WxLxH)	472 x 562(542) x 286 mm / 18,6 x 22,1(21,3) x 11,3 in (front cover removed)
Weight	31,0 kg / 68 lbs
Standard accessories	Power cord, wireless remote control
Certifications	CE, FCC Class A and cNus
Warranty	Limited 5 years parts and labor, extendable
*	* Typical ANSI lumens ** Mode dependant

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