

# FS35 IR series

World's highest resolution and brightest LED projector for Night Vision Goggle Stimulation



Barco's FS35 IR series is a LED projector range for unprecedented day, night and IR stimulated simulation. It is available in two models: the 4.1 Megapixel FS35 IR WQXGA (2,560 x 1,600 pixels) featuring the highest resolution NVG stimulated images available, and the FS35 IR WUXGA featuring dual IG input capability for simultaneous RGB + IR imagery. Benefitting from the 2nd Generation ReaLED illumination technology the FS35 IR offers improved IR optics and boosts up to 80% higher intensity in IR, and its optics are purpose designed for IR transmission up to 760nm. Adding to the projector's flexibility, the FS35 IR series can be calibrated for night-time and day-time vision with 0-100% adjustable visible RGB dimming properties. The brightness is fully adjustable on RGB and IR LEDs up to 1,000 lumens, featuring a seamless transition from day to night-time training.

## Smear Reduction Processing

Like all F35 platform projectors, the FS35 IR series projectors feature flicker-free Smear Reduction Processing (SRP™). It does not have to use external filters or shutters - all processing is internal, and user adjustable and configurable. This, combined with up to 120 Hz high frame rate, ensures a smear-free image at any resolution and with any fast-moving content.

## High-quality projection lenses

The optics for FS35 IR are purpose designed for IR transmission up to 760nm, and it is all-glass designs using floating aspherical lens elements and ND glass to secure sharpness and focus. At the same time it ensures high ANSI system contrast, not just sequential contrast that is easy to display on sales literature.

## Designed for 24/7 operation

As the cooling fans are the only moving components within the projector, these are

certified to run around the clock and, providing regular maintenance intervals are followed, we even warrant every model for up to five years of continuous operation. The 2nd Generation LED illumination technology has an operating time of up to 100.000 hours, for the most demanding applications.

### Key features

- IR LED for NVG stimulation
- 2nd Generation Solid state LED
- Up to 1,000 lumens brightness\*
- 2560 x 1600 and 1920 x 1200 native resolution
- Dual Input for simultaneous RGB + IR stimulated content
- Built-in adjustable SRP™ smear reduction processing
- 760 nm IR wavelength
- 0-100% adjustable visible RGB dimming properties
- Fully adjustable brightness on RGB and IR LEDs
- Wide range of Ultra High Quality projection lenses
- Designed for 24/7 operation
- Up to 100.000 hours service life
- Unrestricted installation flexibility
- Up to five years 24/7 warranty

\* WUXGA in high brightness mode with EN41 lens in full wide position

### Remote asset management and control

The FS35 IR series uses our Magnesium electronics platform, which enables remote firmware upgrades over Ethernet (also locally from a USB memory stick), ensuring it is always up to date with the latest features and formats. It can also be managed as an asset using our ProNet.site software, as well as control any feature, operation mode or otherwise addressable feature over TCP/IP or RS-232.

### X-PORT™ module expansion

The FS35 IR wuxga resolution projector is compatible with the X-PORT™ connectivity option, enabling users to configure exactly what is needed for a specific system design. With optional I/O through the versatile DCC120 Dual Channel Combiner image processor, it enables the use of two IG sources for simultaneous dedicated night and daytime content.

**Product specifications****FS35 IR SERIES**

General specifications	
Concept	ReaLED™ IR technology, all-glass optical design with lens shift
Resolution	WQXGA (2,560 x 1,600), WUXGA (1,920 x 1,200)
Brightness	Up to 1000 lumens (Infinitely adjustable)
Contrast	Up to 8,000 : 1 (Infinite contrast and total black with Dynamic Black enabled)
Technology	2nd Generation Solid State LED based single chip DLP® projector
Aspect ratio	16:10 (WQXGA), 16:10 (WUXGA)
Display colors	40-bit RGB + IR
Latency	~19 ms
Computer graphics formats	2560 x 1600 -640 x 480
Horizontal scan frequencies	15 -150 kHz (resolution dependant)
Vertical scan frequencies	48 -190 Hz (resolution dependant)
Video formats	HDTV (1080p, 1080i, 720p), EDTV (576p, 480p), SDTV (576i, 480i)
Lens operation	Motorized zoom, Focus, Shift, Iris and Mechanical shutter
Image width	0.5 -20 m
IR Wavelength	760 nm
Light source	LED
Lamp lifetime	Up to 100.000 hours
Computer inputs	2 x DVI-D, 1 x VGA, 1 x HDMI 1.3a, 1 x XPort1, 1 x XPort2
Video Input	2 x HDMI 1.3a, 1 x YPbPr, 1 x Component
Control possibilities	1 x RJ-45 TCP/IP, 1 x 9-pin D-SUB RS232, 2 x USB
Dimensions	510 x 279 x 376 mm (WxHxD)
Weight	15.4 kg
Shipping Dimensions	520 x 430 x 780 mm (WxHxD)
Shipping Weight from Factory	23 kg
Power requirements	Certified rating: 8.4A, ~100-240V, 50-60Hz / Typical consumption: Max 325W@100V, ~2.7A, 50Hz; ~1.2A, 240V, 50Hz
Conformances	CE, FCC Class A and cNus
Operating temperature	10 -40 °C
Storage temperature	-20 -60 °C
Altitude	Up to 3000 m
Operating humidity	20 -80% RH
Storage humidity	10 -90% RH
Color	Black metallic
Warranty	Limited 3 years parts and labour. Up to 5 years total warranty available. Conditions apply.
24-7 documentation	This projector is designed and warranted for heavy duty 24/7 operation. Specific measures and design considerations have been made in order for it to comply with stringent requirements in challenging applications.
MTBF	59,542 hours
BTU per hour	less than 1,100

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