



The dnp Cross Prism Screen sets new standards for the image quality of multi-screen installations. It offers unsurpassed contrast, excellent viewing angles and allows design of near-seamless display walls with bright, speckle-free images.



dnp optical rear projection screens

The dnp Cross Prism Screen solves two quality issues in design of modern control room displays: seam size and image speckle from single lens projectors.

Made from an acrylic styrene copolymer material the dnp Cross Prism Screen is highly resistant to unstable projection environments. While acrylic based screens expand/retract with room humidity, the Cross Prism Screen retains its dimensions. This allows design of cubes and display walls with almost invisible seams.

Moreover, the Cross Prism Screen incorporates technology that eliminates “speckle” – the small bright spots in the image which are a well-known problem with single lens engines. The result is a smooth and clean image – even at close view.

The advanced lens design includes a Fresnel lens and two crossed prism lenticular structures with contrast enhancing

dnp Black Stripe technology. As a result, the screen is extremely tolerant to ambient light. The front surface of the screen features a non glare, hard coat surface that protects the screen and avoids specular reflections from light sources such as windows and room lighting.

- > Unsurpassed contrast
- > Centre-to-corner brightness uniformity
- > Wide viewing angles
- > No speckle
- > Low humidity expansion/absorption
- > Non glare easy clean surface
- > Multiple options for focal length
- > Compatible with all standard projectors

| Application suitability | |
|--|-------------|
| Auditorium/sports arena | ★ ★ |
| Conference room | ★ ★ ★ ★ |
| Control room | ★ ★ ★ ★ ★ ★ |
| TV studio | ★ ★ ★ ★ |
| Advertising – in-store | ★ ★ ★ |
| Advertising – window display | ★ ★ |
| Home entertainment – bright living room | ★ ★ ★ |
| Home entertainment – darkened home theatre | ★ |

dnp Cross Prism Screen™ Specifications

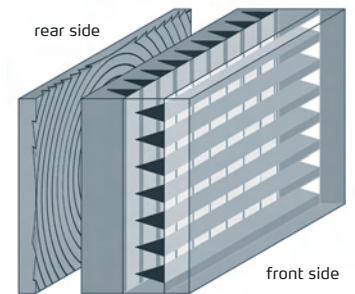
Product details

| Cross Prism Screen Type | | XPS 772 | XPS 826 | XPS 850 | XPS 1100 | XPS 1200 | XPS 1600 | XPS 1360 | XPS 1450 |
|-------------------------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Screen size | | 50" | 50" | 50" | 70" | 70" | 70" | 80" | 80" |
| Dimensions | | | | | | | | | |
| Width | mm | 1040 +/-1 | 1040 +/-1 | 1040 +/-1 | 1404 +/-1 | 1404 +/-1 | 1404 +/-1 | 1625 +/-1 | 1625 +/-1 |
| Height | mm | 790 +/-1 | 790 +/-1 | 790 +/-1 | 1054 +/-1 | 1054 +/-1 | 1054 +/-1 | 1219 +/-1 | 1219 +/-1 |
| Thickness | mm | 6.0 +/-0.3 | 6.0 +/-0.3 | 6.0 +/-0.3 | 6.0 +/-0.3 | 6.0 +/-0.3 | 6.0 +/-0.3 | 6.6 +/-0.3 | 6.6 +/-0.3 |
| Weight | kg | 5.7 +/-0.3 | 5.7 +/-0.3 | 5.7 +/-0.3 | 10.3 +/-0.3 | 10.3 +/-0.3 | 10.3 +/-0.3 | 15.0 +/-0.3 | 15.0 +/-0.3 |
| Width | inch | 40.9 +/-0.04 | 40.9 +/-0.04 | 40.9 +/-0.04 | 55.3 +/-0.04 | 55.3 +/-0.04 | 55.3 +/-0.04 | 64.0 +/-0.04 | 64.0 +/-0.04 |
| Height | inch | 31.1 +/-0.04 | 31.1 +/-0.04 | 31.1 +/-0.04 | 41.5 +/-0.04 | 41.5 +/-0.04 | 41.5 +/-0.04 | 48.0 +/-0.04 | 48.0 +/-0.04 |
| Thickness | inch | 0.22 +/-0.01 | 0.22 +/-0.01 | 0.22 +/-0.01 | 0.22 +/-0.01 | 0.22 +/-0.01 | 0.22 +/-0.01 | 0.26 +/-0.01 | 0.26 +/-0.01 |
| Weight | lbs | 12.5 | 12.5 | 12.5 | 22.7 | 22.7 | 22.7 | 33.0 | 33.0 |
| Image area | | | | | | | | | |
| Width | mm | 1016 | 1016 | 1016 | 1400 | 1400 | 1400 | 1600 | 1600 |
| Height | mm | 762 | 762 | 762 | 1050 | 1050 | 1050 | 1200 | 1200 |
| Width | inch | 40 | 40 | 40 | 55.1 | 55.1 | 55.1 | 63 | 63 |
| Height | inch | 30 | 30 | 30 | 41.3 | 41.3 | 41.3 | 47.2 | 47.2 |
| Optical specifications | | | | | | | | | |
| Focal length | mm | 772 | 826 | 850 | 1100 | 1200 | 1600 | 1360 | 1450 |
| Focal length | inch | 30.4 | 32.5 | 33.5 | 43.3 | 47.2 | 63 | 53.5 | 57.1 |

Other focal lengths and screen sizes are available on request
Subject to change without notice. Check specification at time of ordering.

Screen profile (horizontal section)

The ultra fine pitch Fresnel lens focuses the projected image and distributes it through a 4-layer lenticular lens. This element enhances the image for optimum viewing by distributing light vertically and horizontally. The black stripes on the crossed prism structures effectively absorb ambient light. Finally the image is transported through a carrier layer that is protected by scratch-proof, non glare surface.



dnp Cross Prism Screen™ **General information**

General specifications

Optical specifications

Peak gain 1.9 +/- 10%
Lenticular pitch 0.065

Operating environment

Temperature °C 5-35
°F 41-95
Humidity (non-condensing) %RH 30-70

Humidity/temperature expansion coefficient

Coefficient of thermal expansion (10^{-6} m/m/°C)
Fresnel element 67
Front side element 57
See [graph](#) for details on humidity expansion

Included in the package

Gloves, quality certificate

Certificates



Gain chart

