D-CINE DP50
BARCO Digital Cinema Projector

Incorporating Texas Instruments State-of-the-Art 'Dark Chip' Digital Micromirror device - exclusively approved by Hollywood for feature film display - D-CINE combines the superb quality of the reference Kinoton lamp console with Barco's world leading optical expertise to provide a Digital Cinema projector of truly exceptional performance.

Enjoy stunning 'Premier' quality film-like images delivered to your cinema without jitter, weave, scratches, flicker or "shutter ghosting". Images that are consistently bright, clear and even. First time, every time... Just as the Cinematographer intended.

Features

- Based on the industry reference Kinoton FP 50 D lamp console; no need to make modifications to the projection booth or port glass
- 24p frame per second display for a natural film look
- Meets or exceeds SMPTE screen brightness standards up to 15m / 50ft wide
- Integrated design for simple installation and the most reliable operation
- Dust proof construction to guarantee consistently clean, high contrast images
- Twin anamorphic lens attachment for fast changeover between 1.85 and 2.39 format displays
- Liquid cooled Digital Micromirror Devices™
- Provided with local projector control and LED status indication
- Temperature alarm and auto shutdown protection
- Optional touch screen D-CINE control and automation interface

DLP CINEMA™
A TEXAS INSTRUMENTS TECHNOLOGY

BARCO

innovators in image processing

Specifications D-Cine DP50

Digital Micromirror Device™
3 x high resolution S-XGA
DLP Cinema™ DMD

Cooling
Integrated 3 chip liquid cooling system and heat exchanger

Resolution
1280 x 1024 per Red, Green and Blue channels
Equivalent to 3.9 million pixels

Light Output
12fL up to 15m (50ft) wide (equivalent to 16fL open gate in a film projector)
Uniformity: within 90% over the entire screen area

Contrast Ratio
1000:1 (full white / full black)

Color Processing
• Bit depth: 42 bit
• Color Shades: 4.4 trillion
• Color Gamut: 40% better than HDTV

Time Code Input
LTC. Required for 60 frame HD projection only

Graphics Input
DFP (Digital Flat Panel) interface, 24 bit RGB, 1280 x 1024, 50 and 60 fps mode only.
Optional: All digital, analogue, video and graphics inputs can be displayed via the Acsar alternative content router and switcher.

Control Interface
RS232 (DB9 connector) for RC567 D-Cine controller and PC set-up software.

Prime Lenses
All focal lengths covered by a wide range of fixed focal length and zoom lenses.
Prime lens shift range: 50% horizontal plus vertical.

Anamorphic Lenses
Optional 1.5 (flat) and 1.9 (scope) lenses

Masking
Electronic masking left, right, top and bottom. Independent left and right keystone correction.
Correction of keystone distortion in up to 15% down or side angle

Unique, dust-proof digital head with twin anamorphic lens attachment

Lamp Housing
Kinoton, FP50 D console

Illumination
Optional 2kW, 3kW, 5kW, 6KW and 7kW Xenon Arc lamp depending on screen size

Reflector
Standard f2.0 dichroic glass type

Projector Inputs

There are two SMPTE 292M input ports, individually selectable, which support:

Source Standard	Source Format	Vertical Rate	Scan Type	Display Format
SMPTE 274M	1920 x 1080	60 Hz	Interlaced [1]	1280 x 1024; 24 Hz; Progressive
	1920 x 1080	59.94 Hz	Interlaced [1]	1280 x 1024; 24 Hz; Progressive
	1920 x 1080	24 Hz	Progressive	1280 x 1024; 24 Hz; Progressive
	1920 x 1080	23.98 Hz	Progressive	1280 x 1024; 24 Hz; Progressive
	1920 x 1080	24 Hz	Segmented Frame	1280 x 1024; 24 Hz; Progressive
	1920 x 1080	23.98 Hz	Segmented Frame	1280 x 1024; 24 Hz; Progressive
SMPTE 260M	1920 x 1035	60 Hz	Interlaced [1]	1280 x 1024; 24 Hz; Progressive
	1920 x 1035	59.94 Hz	Interlaced [1]	1280 x 1024; 24 Hz; Progressive
SMPTE 296M	1280 x 720	60 Hz	Progressive	1280 x 720; 60 Hz; Progressive [2]

Note 1: Requires source to be encoded with 3:2 Pull-Down
Note 2: Image centered vertically on DMD, non-anamorphic only

Options

Power Supply
US Version
Lamp Power Supply: 3 Phase 208V+N / 60hz
Digital head, cooling pump and touchscreen: Auto-ranging 80 - 240V
Lamp console: 110V
EUR version
Lamp Power Supply: 3 Phase 400V+N / 50hz
Digital head, cooling pump and touchscreen: Auto-ranging 80 - 240V
Lamp console: 220V

Local control
• 4 x LED status indication: OK, Touch Panel ready, Projector Head ready and Projector Error
• 4 x push button control of digital head modes
• 4 x user definable lamp house or automation controls
• 4 x general purpose relays

Weight
Digital head and anamorphic lens holder (without lenses):
33 Kg / 72.7 lb.

D-CINE order Reference
D-CINESTAR Projector
DP50 (3N400V LPS)   R9006000
DP50 (3x220V LPS)   R9006009
D-CINESTAR Digital Head
F2.0   R9006010
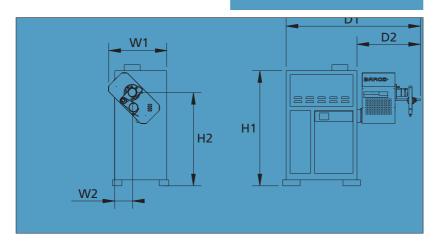
Touch Screen Remote Control
A convenient, easy to use wall or desk mount touch screen remote control that provides all of the operations of the D-CINESTAR, ACSAR and CLO (Constant Light Output) control plus protection of the digital projection head.
One of the Barco RC567 control range available in several forms for configuration to suit almost any installation requirement.

• Compatible with the Barco D-CINESTAR DP50 and DP60 Digital Cinema Projectors

Dimensions	mm	inch
W1	735	28.9
W2	228	9.0
H1	1464	57.6
H2	1186	46.7
D1	1707	67.2
D2	806	31.7

ACSAR
A powerful, yet simple to operate, scaler and router designed to convert any incoming signal to the DVI digital input of the D-CINESTAR projection head.

With ACSAR you can now take advantage of the full potential of Digital Cinema for the first time ...to screen any standard of digital advertising plus the wide range of 'alternative content' applications - live broadcast sports, news and current affairs, business presentations, HDTV and art-house movies.

• Quick and easy configuration - For the connection of any combination of fixed or temporary inputs .

• Advanced Barco pixel map processing (PMP) for the scaling and reformatting of any standard or HD video or PC input to the native resolution of the D-CINESTAR digital head.

• Simple front panel or remote control via the D-CINESTAR Touch Screen LCD panel or Barco RC5 infra-red controller.

Founded in 1934, Barco is based in Kortrijk, Belgium, and leads in four major global markets as suppliers of Projection Systems for a wide range of professional appliciations; Graphics equipment for packaging and special printing requirements; High grade monitor displays used in television, medical and avionics applications; and in Broadcast network control and cable, satellite equipment.

The BARCO group has a network of subsidiaries, distributors and agents in 97 countries worldwide.

Barco Digital Cinema is a Business Unit of Barco Projection Systems, a registered ISO 9001 company, and world leader in developing and manufacturing large screen projection systems for Presentation, Rental and Staging, Control room, Simulation and Advertising displays in addition to Digital Cinema.

Established in 1999 the Barco Digital Cinema Division (BDC) is one of only three appointed licensees of the Texas Instruments DLP Cinema™ Digital Micromirror Displays and has quickly established a commanding lead in the supply of innovative solutions for Post-Production, Lobby, Feature Film, Digital Poster and Marquee displays.

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