



DF2000A

High-resolution Ultra Wide Dynamic Range color camera with Dallmeier *CamLinPIX*® technology

With the DF2000A Dallmeier electronic is setting new standards in the field of video camera technology for security applications. The innovative sensor concept of *CamLinPIX*® technology is based on the most up-to-date Digital Pixel System® (DPS) platform from Pixim Inc. of Mountain View, CA. With this technology, the picture information of each individual pixel is converted digitally at the point of recording and processed in an optimal way. Thus even situations with a great range in contrast can be recorded and documented in picture qualities previously unseen.

With this UWDR technology (Ultra Wide Dynamic Range), the DF2000A has the advantage over all previously known processes in that it can display considerably more details in shaded and very bright sections of a picture. The latest generation of high-resolution sensor technology also provides clear, high-contrast pictures without any blooming or smearing even in the most difficult lighting conditions in conjunction with the software developed especially for the security field.

TECHNICAL FEATURES

- 1/3" picture sensor with Dallmeier *CamLinPIX*® technology
- Progressive scan
- High-resolution:
 - 480 TV lines horizontally
 - 780K pixels per picture (effective)
- Ultra-high dynamic range: 101 dB (typical), 126 dB (max.)
- Noise ratio: > 50 dB
- High light sensitivity
< 0.8 Lux; F=1.2; 50 IRE
- Slow shutter up to 1/6 x
- Auto iris, gamma correction, AGC
- Can be equipped with all manual or DC auto iris lens types with CS/C mounts
- Robust aluminium diecast housing

FEATURES

- PAL/NTSC signal formats can be selected
- Perfect pictures "out of the box" due to several selected factory settings
- Extensive configuration possibilities through user-friendly on screen menu
- Integrated pan/tilt/zoom function
- Can be switched over to black-and-white mode
- Control either through PView or Dallmeier digital recorder
- Up-The-Coax remote function



Dallmeier CamInPIX® technology

The picture processor – the "brain" – converts the data of the picture sensor into ultra-high resolution pictures of the highest quality. The digital picture sensor – the "eye" – records each single pixel like a separate camera in optimum quality in accordance with the prevalent light conditions – every pixel is a camera.



Perfect pictures "out of the box"

Due to suitable factory settings for the DF2000A, perfect pictures can be achieved in almost any surroundings and under a great variety of light conditions by simply selecting a preset state without extensive menu control. Appealing pictograms enable intuitive selection of the optimal presetting.

Seamless integration into any CCTV-system

Convenient factory settings enable easy, quick and economical installation of the camera in any surveillance situation combined with extremely user-friendly menu control.

With the exclusive Dallmeier UTC protocol (Up The Coax), the DF2000A can be controlled directly via the video cable in most installation situations, i.e. an additional connection to the serial interface is no longer necessary! The ability to switch between the PAL and NTSC signal formats enables you to use the DF2000A across the globe in any video surveillance system. Combining it with the Dallmeier picture transmission and picture recording technologies results in a complete system with perfectly coordinated individual components in which the "components using the picture" (DVR, PView-PC, etc.) obtain dynamic control of the "components creating the picture" by means of UTC.



"Every pixel is a camera"

Conventional CCD cameras record a scene several times in complete pictures and send these to a picture processor where picture optimization by means of certain algorithms is accomplished.

CamJnPIX®, on the other hand, already optimizes every single pixel while the scene is being recorded with the picture sensor ("every pixel is a camera"). Afterwards the optimized picture data are sent to the picture processor for further processing.

Digital Image Processor

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1010101001111000010010
1010101001001001010010010
10101001100100101001010
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11010
ADC

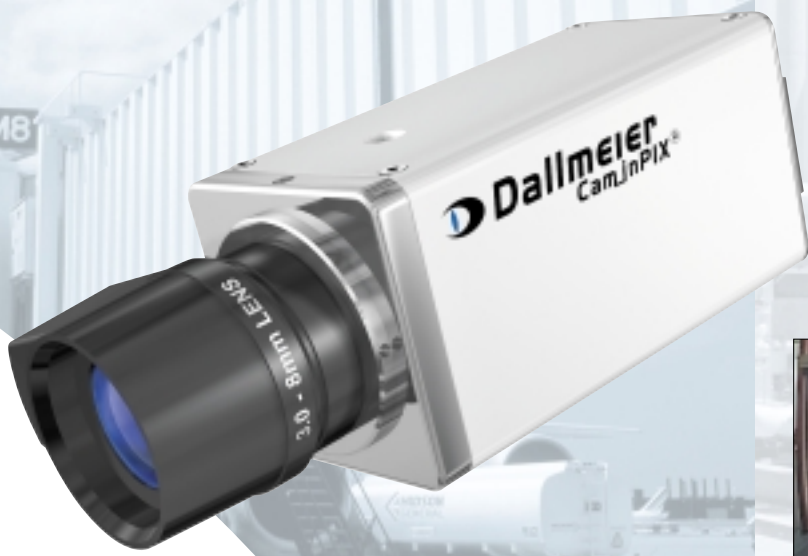
Complete CCTV systems from a single source

With the introduction of **CamJnPIX®** technology, Dallmeier electronic is now able to offer complete package solutions for video surveillance from a single source. Individual components developed especially for security applications against the backdrop of 20 years of experience in the field of security technology can be combined to form guaranteed-to-function complete systems even under demanding ambient conditions. Perfectly matched hardware components and intelligent Dallmeier system software are the ideal combination for demanding CCTV solutions.

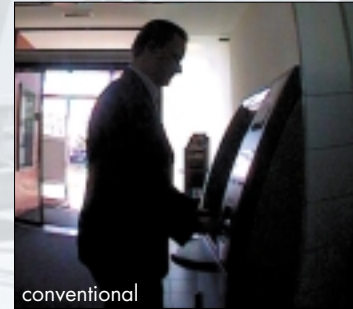
Zooming with an increase in resolution!

In conventional technology zooming only results in an enlarged representation of the picture contents – but not in an increase in the resolution of picture details.

Not so with **CamJnPIX®** technology. Thanks to the Progressive Scan process used in combination with the specific processing of the individual pixels an increase in the resolution is achieved during slight zooming! This means that the DF2000A is far superior to other systems in certain applications – such as license plate recognition.



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conventional

High dynamic range

The high dynamic range of the DF2000A makes it the ideal surveillance camera in security systems that have to fulfil the highest requirements. Even in shaded areas and against backlighting the **CamJnPix**® technology still provides high-contrast and detailed images.

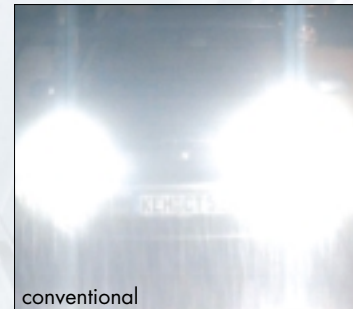
Applications

The innovative camera with **CamJnPix**® technology is used in particular situations where maximum picture quality is required even under extremely difficult light conditions. Thus, for example, the DF2000A is able to supply outstanding results when monitoring foyers with glass facades even during strong sunlight. At gas stations, the license plates of customer vehicles can be recognized reliably from vehicles approaching the camera with their headlights on. In the field of site monitoring the DF2000A in combination with intelligent video sensor equipment supplies best picture material for the detection and documentation for all incidents to be reported under all conceivable weather and light conditions. Even in relatively dark surroundings extremely fast processes – such as in casinos – can be documented reliably in best quality with the Dallmeier camera.

Additionally, the DF2000A can prove its advantages against conventional camera technology under the most varied light conditions such as the protection of airports, railroad facilities, ports, buildings, during traffic surveillance or in the field of logistics with detailed high-contrast picture in very high resolution. In combination with the intelligent Dallmeier picture sensor technology the dynamically controllable **CamJnPix**® camera provides a multitude of further possible solutions in innovative picture evaluation and archiving systems.



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No smearing

The DF2000A still supplies usable pictures in situations in which conventional cameras are overtaxed – in this example in recognizing a license plate against strong backlighting.



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conventional

High-contrast and true-color

Even at relatively low light intensity – such as seen here under the special light conditions reigning in a casino – the DF2000A still provides high-contrast and, in particular, true-color picture material.



SPECIFICATIONS

Sensor	1/3" Digital picture sensor
Dynamic range	101 dB typical, 126 dB max.
Horizontal resolution	480 TV lines
Picture size	720 (horizontal) x 540 (vertical) effective
Light sensitivity	< 0.8 Lux; F= 1.2; 50 IRE
Slow shutter	up to 16 x
Noise ratio	> 50 dB
Signal formats	PAL/NTSC
Adjustable white balance	2000 K to 11000 K
Backlighting compensation	
AGC, Auto Iris	
Gamma correction	
Digital pan/tilt/zoom function (max. 4x)	
Black-and-white mode	on/off
Video output	CVBS Composite Video Signal (75 Ohm)
Serial interface	RS232
Configuration	per PC/recorder per UTC (Up The Coax)

LENS OPTIONS

Mount	CS types and C types with 5 mm adapter
Lenses	Manual or DC auto iris lenses

OTHER HARDWARE DETAILS

Power supply	DC: 12 V; AC: 24 V to 50/60 Hz
Power consumption	< 5 Watt
Housing dimensions	W 45 x H 45 x L 95 mm
Weight	9.5 oz (270 g)
Operating temperatures	+32° F to +95° F / 0° C to +35° C (recommended)

APPROVALS

UL, CE, German Accident Prevention Regulations for Banks/UUV-Kassen

The UTC Remote Box

If the DF2000A is not controlled directly from a Dallmeier digital recorder or a PView station in CCTV systems, the camera control/configuration can be carried out by means of a UTC box inserted at any point between the camera and the recorder. This means additional cabling to the serial interface is not required in such situations and that the camera can be controlled conveniently without any great effort for example "Up The Coax" from a control room.

