Nikon Digital SLR Camera Df Specifications

Type

Type Single-lens reflex digital camera

Lens mount Nikon F mount (with AF coupling and AF contacts)

Effective angle of

view

Nikon FX format

Effective pixels

Effective pixels 16.2 million

Image sensor

Image sensor 36.0 x 23.9 mm CMOS sensor

Total pixels 16.6 million

Dust-reduction Image sensor cleaning, Image Dust Off reference data (optional Capture NX

system 2 software required)

Storage

• FX format (36x24): 4,928 x 3,280 [L], 3,696 x 2,456 [M], 2,464 x 1,640 [S]

Image size (pixels)

• DX format (24x16): 3,200 x 2,128 [L], 2,400 x 1,592 [M], 1,600 x 1,064 [S]

- NEF (RAW): 12 or 14 bit, lossless compressed, compressed, or uncompressed
- TIFF (RGB)

File format

- JPEG: JPEG-Baseline compliant with fine (approx. 1:4), normal (approx. 1:8) or basic (approx. 1:16) compression (Size priority); Optimal quality compression available
- NEF (RAW)+JPEG: Single photograph recorded in both NEF (RAW) and JPEG formats

Picture Control System

Standard, Neutral, Vivid, Monochrome, Portrait, Landscape; selected Picture Control can be modified; storage for custom Picture Controls

Media

SD (Secure Digital) and UHS-I compliant SDHC and SDXC memory cards

DCF (Design Rule for Camera File System) 2.0, DPOF (Digital Print Order

File system

Format), Exif (Exchangeable Image File Format for Digital Still Cameras)

2.3, PictBridge

Viewfinder

Viewfinder

Eye-level pentaprism single-lens reflex viewfinder

• FX (36x24): Approx. 100% horizontal and 100% vertical

Frame coverage

• DX (24x16): Approx. 97% horizontal and 97% vertical

Magnification

Approx. 0.7x (50 mm f/1.4 lens at infinity, -1.0 m⁻¹)

Eyepoint

15 mm (-1.0 m⁻¹; from center surface of viewfinder eyepiece lens)

Diopter adjustment

-3 to +1 m⁻¹

Focusing screen

Type B BriteView Clear Matte Mark VIII screen with AF area brackets (framing grid can be displayed)

Reflex mirror

Quick return

Depth-of-field preview

Pressing Pv button stops lens aperture down to value selected by user (exposure modes A and M) or by camera (exposure modes P and S)

Lens aperture

Instant return, electronically controlled

(some restrictions apply to PC lenses) and DX lenses (using DX 24 x 16 1.5x image area), AI-P NIKKOR lenses and non-CPU lenses. IX NIKKOR lenses and lenses for the F3AF cannot be used. The electronic rangefinder can be used with lenses that have a maximum aperture of f/5.6 or faster (the electronic rangefinder supports the center 7 focus points with lenses that have a maximum aperture of f/8 or faster and the center 33 focus points with lenses that have a maximum aperture of f/7.1 or faster)

Compatible with AF NIKKOR lenses, including type G, E, and D lenses

Shutter

Type

Compatible lenses

Electronically controlled vertical-travel focal-plane shutter

Speed

1/4,000 to 4 s in steps of 1 EV (1/4,000 s to 30 s in steps of 1/3 EV with main command dial), X200 (with shutter-speed dial only), bulb, time

Flash sync speed X=1/200 s; synchronizes with shutter at 1/250 s or slower

Release

Release modes

S (single frame), CL (continuous low speed), CH (continuous high speed), Q (quiet shutter-release), \heartsuit (self-timer), MUP (mirror up)

Frame advance rate

1 to 5 fps (CL) or 5.5 fps (CH)

Self-timer

2 s, 5 s, 10 s, 20 s; 1 to 9 exposures at intervals of 0.5, 1, 2 or 3 s

Exposure

Metering

TTL exposure metering using 2,016-pixel RGB sensor

- Matrix: 3D color matrix metering II (type G, E and D lenses); color matrix metering II (other CPU lenses); color matrix metering available with non-CPU lenses if user provides lens data
- Center-weighted: Weight of 75% given to 12-mm circle in center of frame; diameter of circle can be changed to 8, 15 or 20 mm, or weighting can be based on average of entire frame (non-CPU lenses use 12-mm circle)

Metering method

Spot: Meters 4-mm circle (about 1.5% of frame) centered on selected focus point (on center focus point when non-CPU lens is used)

Range (ISO 100, f/1.4

Matrix or center-weighted metering: 0 to 20 EV

lens, 20° C/ 68° F) • Spot metering: 2 to 20 EV

Exposure meter coupling Combined CPU and AI (collapsible metering coupling lever)

Exposure modes Programmed auto with flexible program (P); shutter-priority auto (S);

aperture-priority auto (A); manual (M)

Exposure compensation -3 to +3 EV in increments of 1/3 EV

Exposure bracketing 2 to 5 frames in steps of 1/3, 2/3, 1, 2 or 3 EV

Flash bracketing 2 to 5 frames in steps of 1/3, 2/3, 1, 2 or 3 EV

Exposure lock Luminosity locked at detected value with AE-L/AF-L button

ISO sensitivity (Recommended Exposure Index)

ISO 100 to 12800 in steps of 1/3 EV; can also be set to approx. 0.3, 0.7 or 1 EV (ISO 50 equivalent) below ISO 100 or to approx. 0.3, 0.7, 1, 2, 3 or 4 EV (ISO 204800 equivalent) above ISO 12800; auto ISO sensitivity control available

Active D-Lighting Can be selected from Auto, Extra high +2/+1, High, Normal, Low, or Off

ADL bracketing 2 frames using selected value for one frame or 3 to 5 frames using preset values for all frames

Focus

Autofocus

Nikon Multi-CAM 4800 autofocus sensor module with TTL phase detection, fine-tuning, and 39 focus points (including 9 cross-type sensors; the center 33 points are available at apertures slower than f/5.6 and faster than f/8, while the center 7 focus points are available at f/8)

Detection range -1 to +19 EV (ISO 100, 20°C/68°F)

Lens servo

Flash control

Autofocus (AF): Single-servo AF (AF-S); continuous-servo AF (AF-C); predictive focus tracking activated automatically according to subject status

• Manual focus (M): Electronic rangefinder can be used

Focus point Can be selected from 39 or 11 focus points

AF-area modes Single-point AF, 9-, 21- or 39-point dynamic-area AF, 3D-tracking, auto-area AF

Focus lock

Focus can be locked by pressing shutter-release button halfway (single-servo AF) or by pressing AE-L/AF-L button

Flash

SB-910, SB-900, SB-800, SB-700, SB-600, SB-400 or SB-300; i-TTL balanced fill-flash for digital SLR is used with matrix and center-weighted metering, standard i-TTL flash for digital SLR with spot metering

TTL: i-TTL flash control using 2,016-pixel RGB sensor is available with

Flash modes

Front-curtain sync, slow sync, rear-curtain sync, red-eye reduction, red-eye reduction with slow sync, slow rear-curtain sync, Auto FP High-Speed Sync

supported

Flash compensation

-3 to +1 EV in increments of 1/3

Flash-ready indicator

Lights when optional flash unit is fully charged; flashes after flash is fired at

full output

Accessory shoe

ISO 518 hot-shoe with sync and data contacts and safety lock

Advanced Wireless Lighting supported with SB-910, SB-900, SB-800 or SB-700 as a master flash and SB-600 or SB-R200 as remotes, or SU-800 as

Nikon Creative Lighting System (CLS)

commander; Auto FP High-Speed Sync and modeling illumination

supported with all CLS-compatible flash units except SB-400 and SB-300; Flash Color Information Communication and FV lock supported with all

CLS-compatible flash units

Sync terminal

ISO 519 sync terminal with locking thread

White balance

White balance

Auto (2 types), incandescent, fluorescent (7 types), direct sunlight, flash, cloudy, shade, preset manual (up to 4 values can be stored, spot white balance measurement available during live view), choose color temperature

(2,500 K to 10,000 K); all with fine-tuning

White balance bracketing

2 to 3 frames in steps of 1, 2 or 3

Live View

Autofocus (AF): Single-servo AF (AF-S); full-time servo AF (AF-F)

Lens servo

Manual focus (M)

AF-area modes

Face-priority AF, wide-area AF, normal-area AF, subject-tracking AF

Autofocus

Contrast-detect AF anywhere in frame (camera selects focus point automatically when face-priority AF or subject-tracking AF is selected)

Monitor

Monitor

8-cm (3.2-in.), approx. 921k-dot (VGA), low-temperature polysilicon TFT LCD with approx. 170° viewing angle, approx. 100% frame coverage, and brightness control

Playback

Playback

Full-frame and thumbnail (4, 9 or 72 images or calendar) playback with playback zoom, photo slide shows, histogram display, highlights, photo information, location data display, and auto image rotation

Interface

USB

Hi-Speed USB

HDMI output

Type C mini-pin HDMI connector

Accessory terminal

Wireless remote controllers: WR-R10 and WR-1 (available separately)

• Remote cord: MC-DC2 (available separately)

• GPS units: GP-1/GP-1A (available separately)

Supported languages

Arabic, Chinese (Simplified and Traditional), Czech, Danish, Dutch,

English, Finnish, French, German, Greek, Hindi, Hungarian, Indonesian, **Supported** Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Portugal and languages

Brazil), Romanian, Russian, Spanish, Swedish, Thai, Turkish, Ukrainian

Power source

One EN-EL14a Rechargeable Li-ion Battery **Battery**

AC adapter EH-5b AC Adapter; requires EP-5A Power Connector (available separately)

Tripod socket

1/4 in. (ISO 1222) Tripod socket

Dimensions / weight

Dimensions

Approx. 143.5 x 110 x 66.5 mm/ 5.6 x 4.3 x 2.6 in. $(\mathbf{W} \mathbf{x} \mathbf{H} \mathbf{x} \mathbf{D})$

Approx. 765 g/1 lb 11 oz with battery and memory card but without body Weight

cap; approx. 710 g/1 lb 9 oz (camera body only)

Operating environment

Operating Temperature: 0 to 40°C/32 to 104°F; humidity: 85% or less (no

environment condensation)

Accessories

Supplied EN-EL14a Rechargeable Li-ion Battery, MH-24 Battery Charger, DK-26 Eyepiece Cap, String for eyepiece cap, UC-E6 USB Cable, AN-DC9 accessories Camera Strap, BF-1B Body Cap, BS-1 Accessory Shoe Cover, ViewNX 2 (may differ by

country or area) CD-ROM

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Memory card capacity

The following table shows the approximate number of pictures that can be stored on an 8 GB SanDisk Extreme Pro SDHC UHS-I card at different image quality, image size, and image area settings.

FX (36 x 24) image area*

Image quality File No. of **Buffer Image**

	size	$size^1$	images ¹	capacity ²
NEF (RAW), Lossless compressed, 12- bit	-	15.4 MB	279	37
NEF (RAW), Lossless compressed, 14- bit	-	19.4 MB	216	29
NEF (RAW), Compressed, 12-bit	-	13.9 MB	377	47
NEF (RAW), Compressed, 14-bit	-	17.0 MB	315	38
NEF (RAW), Uncompressed, 12-bit	-	26.5 MB	279	30
NEF (RAW), Uncompressed, 14-bit	-	34.3 MB	216	25
TIFF (RGB)	Large Medium Small	49.1 MB 28.3 MB 13.2 MB	265	21 25 36
JPEG fine ³	Large Medium Small	7.9 MB 5.4 MB 3.0 MB	729 1100 2200	100 100 100
JPEG normal ³	Large Medium Small	4.5 MB 2.8 MB 1.6 MB	1400 2300 4300	100 100 100
JPEG basic ³	Large Medium Small	2.2 MB 1.5 MB 0.9 MB	2800 4600 8000	100 100 100

^{• *}Includes images taken with non-DX lenses when On is selected for Auto DX crop.

DX (24 x 16) image area*

Image quality	Image size	File size ¹	No. of images ¹	Buffer capacity ²
NEF (RAW), Lossless compressed, 12- bit	-	7.2 MB	618	100
NEF (RAW), Lossless compressed, 14- bit	-	8.9 MB	484	96
NEF (RAW), Compressed, 12-bit	-	6.6 MB	818	100
NEF (RAW), Compressed, 14-bit	-	7.9 MB	692	100
NEF (RAW), Uncompressed, 12-bit	-	12.0 MB	618	72
NEF (RAW), Uncompressed, 14-bit	-	15.3 MB	484	53
TIFF (RGB)	Large Medium Small	21.5 MB 12.6 MB 6.2 MB		29 39 69
JPEG fine ³	Large Medium Small	3.7 MB 2.8 MB 1.9 MB	1500 2200 3600	100 100 100

	Large	2.3 MB	2900	100
JPEG normal ³	Medium	1.6 MB	4400	100
	Small	1.1 MB	7100	100
	Large	1.2 MB	5700	100
JPEG basic ³	Medium	0.9 MB	8600	100
	Small	0.7 MB	12100	100

- *Includes images taken with DX lenses when On is selected for Auto DX crop.
- 1All figures are approximate. File size varies with scene recorded.
- 2Maximum number of exposures that can be stored in memory buffer at ISO 100. Drops if optimal quality is selected for JPEG compression, NEF (RAW) photos are taken with ISO sensitivity set to Hi 0.3 or higher, or long exposure noise reduction or auto distortion control is on.
- 3Figures assume JPEG compression is set to Size priority. Selecting optimal quality increases the file size of JPEG images; number of images and buffer capacity drop accordingly.

Approved memory cards

The following SD memory cards have been tested and approved for use in the camera.

	SD memory cards	SDHC memory cards ²	SDXC memory cards ³
SanDisk Toshiba		4 GB, 8 GB, 16 GB, 32 GB	64 GB
Panasonic	2 GB* ¹	4 GB, 6 GB, 8 GB, 12 GB, 16 GB, 24 GB, 32 GB	48 GB, 64 GB
Lexar Media		4 GB, 8 GB, 16 GB	
Platinum II Professional		4 GB, 8 GB, 16 GB, 32 GB	-
Full-HD Video) -	4 GB, 8 GB, 16 GB	