

DDN-2516-200N16 Recorder 16ch, 16PoE, no HDD

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BOSCH
Invented for life



- ▶ 16 IP channels with 256 Mbps incoming bandwidth
- ▶ 8 MP (UHD) IP camera support for view and playback
- ▶ Real time live display for 8 channels @1080p or 2 channels @4k
- ▶ Compact, sturdy and stylish design

Certifications and approvals

Standards

Alarm	EN 50130-5:2011, Alarm systems - Part 5: Environmental test methods, Class I, Fixed equipment
Lightning protection	To ALL long input / output - and supply-wiring. Alarm inputs and relay output, Video inputs and Outputs, dome-control outputs, power-cable, Audio In/Out. ± 0.5, 1kV line to line, ± 0.5, 1 and 2kV line to earth

EMC + Safety - Europe

EU Directives	2014/35/EU (LVD), 2014/30/EU (EMC), 2011/65/EU (RoHS)
EMC Emission	EN 55032:2012/AC2013, class B
EMC Immunity	EN 50130-4:2011/A1:2014
EMC mains Harmonics	EN 61000-3-2:2014
EMC Mains fluctuations	EN 61000-3-3:2013

EMC + Safety - Europe

LVD Safety	CB scheme + IEC/EN/UL 62368-1:2014/AC:2015
RoHS	EN 50581:2012

EMC + Safety - USA and Canada

EMC USA	47CFR part 15 (FCC), Class B
Safety USA (UL, cUL)	UL 62368-1, Edition 2, Dec 1, 2014
Safety Canada	CAN/CSA-C22.2 No. 62368-1

India

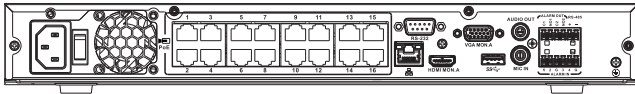
BIS (Bureau of Indian Standards)	BIS registration for external Power adapter (comes / packed with the main product)
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Australia

ACMA EMC	RCM logo on product label
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Region	Regulatory compliance/quality marks	
Australia	RCM	DOC SAL Variants
	RCM	DOC SAL
Europe	CE	ST-VS 2016-E-087
USA	UL	FCC & UL
	FCC	ST-VS 2016-E-088

Installation/configuration notes



DIVAR 2000 network back panel (16 PoE)

PoE	Max. 16 PoE ports (130 W; 25.5 W max. per port) connected with DHCP configuration (max. 16 IP cameras for DIVAR 2000; max 32 IP cameras for DIVAR 3000)
	RJ45 Ethernet connection (10/100/1000Base-T according to IEEE802.3)
VGA MON.A	1 D-SUB (Monitor output)
HDMI MON.A	1 HDMI (Monitor output)
ALARM IN	4 screw terminal inputs, cable diameter AWG26-16 (0.4–1.29 mm)
ALARM OUT	2 screw terminal outputs, cable diameter AWG26-16 (0.4–1.29 mm)
AUDIO OUT	1 RCA (Audio output)
MIC IN	1 RCA (Audio input)
RS-485	Screw terminal output
RS-232	DB9 male, 9-pin D-type
	One USB (3.0) connector for mouse or USB memory device; one USB (2.0) also on front panel
Power input with On/Off switch	100~240 VAC, 50-60 Hz, 3.5 A, 190 W
	Ground connection

Parts included

Quantity	Component
1	Recorder
1	Optical disc containing software licenses and user documentation
2	Power supply cables (120VAC US type; 230VAC Euro type)

Quantity	Component
1	External power supply adapter (only for non-PoE models)
	Terminal connector blocks
1	Hard disk mounting kit (including SATA cables, brackets and screws)
1	Optical USB mouse
1	IR remote Control with 2 AA (1.5 V) batteries
1	Ground screw
	Installation guides for Recorder, HDD, plus safety instructions

Technical specifications

Power

External power adapter AC input (without PoE)	100-240 VAC; 50-60 Hz; 1.5 A
AC input (with PoE)	100-240 VAC; 50-60 Hz; 3.5 A
RTC battery on main PCB	Lithium CR2032, 3 VDC
Power adapter DC output (without PoE)	12 VDC; 5 A
DVR Power input (without PoE)	12 VDC
Maximum main power consumption (no HDD)	8.7 W without PoE 15.2 W with PoE
Maximum power consumption of PoE+ switch	115 W
Maximum power consumption (per PoE+ port)	25.5 W

Mechanical

Dimensions (WxDxH)	375 x 323 x 53 mm (14.8 x 12.7 x 2.1 in)
Weight with PoE switch (excluding HDD(s) and DVD)	4.2 kg (9.3 lb) approx.
Weight without PoE switch (excluding HDD(s) and DVD)	3.8 kg (8.4 lb) approx.

Environmental	
Operating temperature (incl. HDD(s) and DVD)	+0°C to +40°C (+32°F to +104°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Operating humidity	<93% non-condensing
Storage humidity	<95% non-condensing
Video storage	
Internal storage options	Max. 2 SATA HDD or 1 SATA HDD + 1 DVD (R/RW) Max. capacity per HDD: 6 TB Max. supported speed per HDD: 6 Gb/s
Alarms and detections	
Motion detection set by camera	Essential or Intelligent Video Analytics (IVA), Motion +
Alarm activations	Video loss, motion detection, input alarm, system alarm
Events triggered by alarm	Recording, PTZ movement, alarm out, email, buzzer, screen message, Mon A and B activated, mobile push notification
Inputs	4 inputs configurable NO/NC, max. input voltage 12 VDC +/-10%
Outputs	2 relay outputs
Relay contact	Max. rated, 30 VDC, 2 A continuous or 125 VAC, 1 A (activated)
Exporting	
DVD (optional)	Built-in DVD+R/RW writer
USB	Flash memory or external HDD (FAT32)
Network	Web Client software or Video Client
Playback	
Multi-channel	Simultaneous 1/4/9/16 channels
Mode	Forward, reverse, slow play, fast play, frame-by-frame
Search	Time, channel, type, smart
Network	Video Client, Web client, App
Restrict	Restrict video by user rights for viewing
Protection	Protect video against overwriting
Retention time	Automatically delete recordings after 1 to 365 days

Recording	
Decoding compression	H.265/H.264/MJPEG
Speed	Max. 60 IPS per channel, configurable
Bit rate	16 kbps to 24 Mbps per channel
Record interval	1~120 min (default: 60 min), Pre-record: 1~30 sec, Post-record: 10~300 sec
Mode	Manual, Scheduled (regular, motion detection, alarm), Stop
Resolution	8MP, 6MP, 5MP, 3MP, 1.3MP, 1080p, 720p
Network control	
Ethernet	RJ45 port (10/100/1000 Mbps)
PC software	Video Client, Web client
APPS	iPhone, Android
User access	Maximum 128 users. Bosch advises a maximum of 4 simultaneous connections. More connections can cause performance limitations.
Protocols	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS/DDNS, IP Filter, PPPoE, FTP
Video performance	
Maximum IP camera channels	16
Maximum incoming bandwidth	256 Mbps
Maximum recording bandwidth	192 Mbps
Maximum transmission bandwidth	128 Mbps
Display	
Resolution	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768
OSD	Camera title, Time, Video loss, Motion detection, Recording, PTZ
Audio	
MIC Input	1 channel (via RCA) 200 to 3000 mV, 10 kOhm
Output	1 channel (via RCA) 200 to 3000 mV, 5 kOhm
Direction	Bidirectional (audio input and output connected via device)

Ordering information

DDN-2516-200N16 Recorder 16ch, 16PoE, no HDD

High-resolution recorder for network surveillance systems.

Recorder 16ch w/o HDD 16PoE

Order number **DDN-2516-200N16**

Services

EWE-DIP2BS-IW 12mths wrty ext DIVAR 2000 w/out HDD

12 months warranty extension

Order number **EWE-DIP2BS-IW**

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