



2021

# CATALOGUE

PRODUCTION. SIMPLIFIED.

NDI<sup>®</sup>

# CAMERAS



## BirdDog | P100

### Your entry into the world of NDI®.

Built on BirdDog's custom NDI® silicon chip with a Sony CMOS Sensor, the P100 PTZ camera is your entry into the world of full NDI®. Featuring frame rates up to 1080p60, 10x optical zoom, USB 2.0, HDMI, SDI, and Full NDI® outputs, P100 gives you professional level quality, performance, and total flexibility. 3.5mm audio connectors allow P100 to work with BirdDog Comms, the world's first NDI® audio intercom platform.

#### Full NDI®.

In the world of NDI® there are two flavours, NDI® and NDIHX. NDI® is a variable bit rate, I-Frame codec that reaches around 140Mbps at 1080p60 and is visually lossless. NDIHX is a compressed, long-GOP, H.264 variant that reaches around 12Mbps at 1080p60. Mini hardware only uses Full YUV422 NDI®.

#### Sony Sensor.

The best pictures come from the best silicon. P100 is teamed up with a world class Sony CMOS Backlit Sensor with the BirdDog custom NDI® chip to form a match made in silicon heaven. Your productions deserve the best.

#### NDI®, SDI, HDMI, & USB.

With NDI®, SDI, and HDMI simultaneous outputs the P100 is ready to go live with full NDI® today or can be used as a traditional SDI/HDMI camera. You can rest easy in the knowledge that P100 has you covered for all workflow situations. P100 can connect via USB to use as a webcam. Perfect for boardrooms and huddle rooms.

#### Tiny Footprint.

P100 is incredibly small with a diameter of just 145mm / 5.7 inches making it perfect for courtrooms, boardrooms, classrooms, and any application where you need a small, yet powerful, PTZ camera.

#### Extreme Speed. Optics done right.

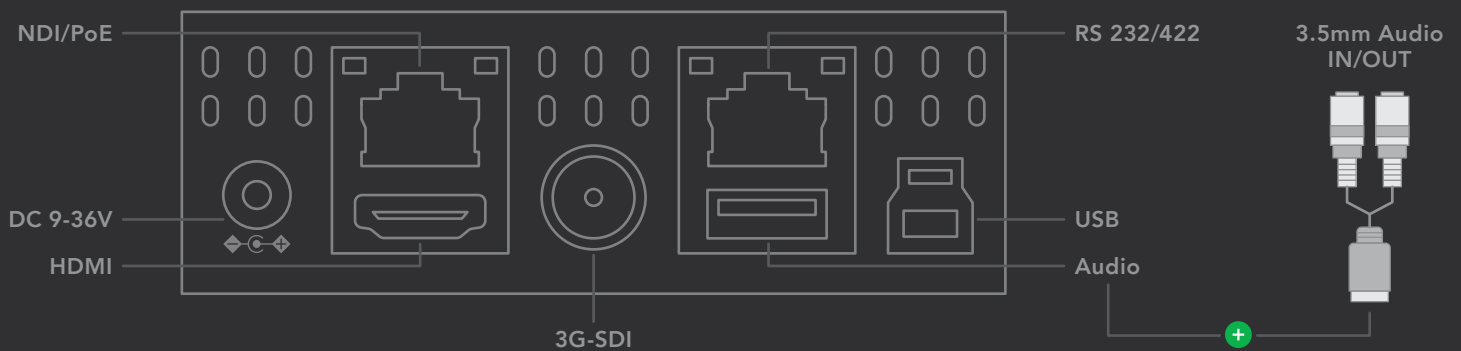
Lightning auto focus. Insanely fast zoom. Precision optics. P100 has been engineered to meet the most demanding situations whether you are in a boardroom streaming your quarterly results, producing a live event for your church, or live streaming sports.

#### PTZ Keyboard. Take control.

Combine P100 with the BirdDog PTZ Keyboard and you have total control of all functions remotely. PTZ Keyboard is a full featured controller that can control up to 255 PTZ cameras and can control P100 over NDI® or by RS422 / RS232 when using in SDI mode.



BOLIN



## Product Specifications

### Camera

Image Sensor: 1/2.86" CMOS 2.2MP  
 Lens: 4.7 - 47mm  
 Optical Zoom: 10x  
 Digital Zoom: 12x  
 Horizontal Angle of View:  
 60.9° (W) – 6.43° (T)  
 Aperture: F1.6 (W) – F3.0 (T)  
 Min. Illumination: 0.5 lux  
 Shutter Speed: 1/1 – 1/30000s  
 Focus: Auto, Push, Manual  
 White Balance: Auto, Indoor, Outdoor, Manual, OPW, ATW  
 Exposure: Auto, Manual, Shutter/Iris Priority  
 Backlight Compensation: YES

### Mechanical

Pan Movement: Horizontal:  $\pm 175^\circ$  pan (Zoom Adaptive Speed Range: 0.05° to 100°/s)  
 Tilt Movement: Vertical:  $+90^\circ$  to  $-30^\circ$  (Zoom Adaptive Speed Range: 0.05° to 72°/s)  
 Preset Positions: 128  
 (Speed adjustable: Up to 150°/s)  
 Preset Speed: 0-5 Level adjustable  
 Environmental: Indoor  
 Operating Temp.:  $-10 - +50$  (°C)  
 Operating Humidity:  $\leq 80\%$

### Video Interface

Video Output: NDI/HDMI/3G-SDI/USB 2.0  
 Video Formats: 1080p 60, 59.94, 50, 29.97, 25  
 1080i 60, 59.94, 50 • 720p 60, 59.94, 50, 29.97, 25  
 Limited Resolution support over USB

### Audio Interface

(via supplied USB accessory cable)  
 Audio I/O: 3.5mm Audio In (Stereo)  
 3.5mm Audio Out (Stereo)

### Control Interface

IP PTZ Control: NDI Control (auto config.), VISCA IP  
 Serial PTZ Control: 1x RJ45: RS232/RS422  
 Serial Control Protocol: VISCA / PELCO D

### Power & Dimension

Power Input: 12V DC, PoE+ (IEEE 802.3at)  
 Dimensions: 145x145x154mm • Weight: 1.0Kg

### Network

Video Compression: Full NDI – i-frame high quality low latency NDI for production  
 Network Protocol: NDI – Discovery, configuration and control  
 Web Control interface: Full control via Web/Mobile UI inc. Scene presets





## BirdDog | P200

### NDI® has never looked so good.

Designed for serious production the image quality of P200 is best in class. By teaming up BirdDog's custom NDI® silicon chip, a Sony CMOS Backlit Sensor, and a true Sony Image Module, P200 has lightening auto focus, incredibly sharp images, and insanely fast zoom. P200 has frame rates up to 1080p60, 30x optical zoom, and features independent, live triple outputs in SDI, HDMI and Full NDI®.

#### Full NDI®.

In the world of NDI® there are two flavours, NDI® and NDIHX. NDI® is a variable bit rate, I-Frame codec that reaches around 140Mbps at 1080p60 and is visually lossless. NDIHX is a compressed, long-GOP, H.264 variant that reaches around 12Mbps at 1080p60. P200 is a Full NDI® camera.

#### NDI®, SDI & HDMI.

With NDI®, SDI, and HDMI simultaneous outputs the P200 is ready to go live with full NDI® today or can be used as a traditional SDI/HDMI camera. You can rest easy in the knowledge that P200 has you covered for all workflow situations.

#### Sony Sensor.

The best pictures come from the best silicon. P200 teams up a world class Sony CMOS Backlit Sensor with the BirdDog custom NDI® chip to form a match made in silicon heaven. Your productions deserve the best.

#### Sony Image Module.

Lightning auto focus. Insanely fast zoom. Precision optics. The only way to achieve the best picture quality is with image module made by the world's best. P200 uses a true Sony image module to give unparalleled performance, picture quality, and responsiveness.

#### 30x Optical zoom.

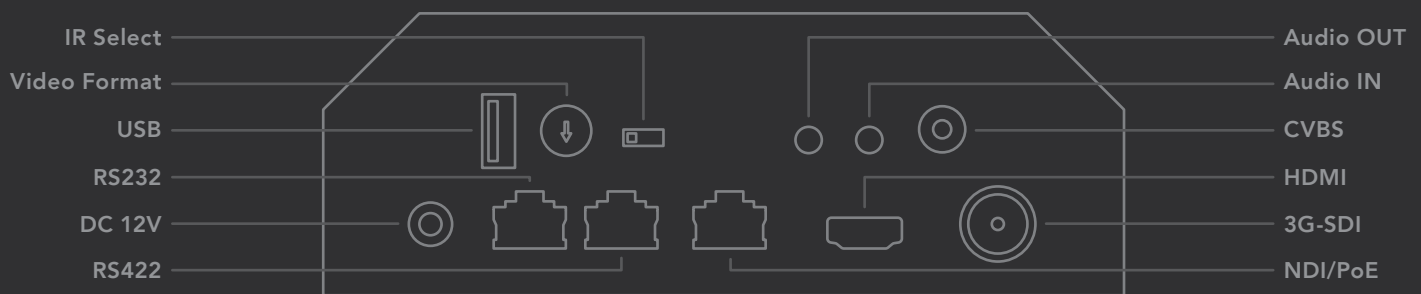
Never miss a shot again. 30x optical zoom brings the whole world to you. Now you can zoom in to the other end of a football game and stay locked in on the action. The incredible optical zoom function makes P200 perfect for sports such as football, baseball, hockey, ski fields, basketball, soccer, and more.

#### PoE or DC.

P200 can be powered by Power over Ethernet (PoE) or from the included power adapter.



BOLIN



## Product Specifications

### Camera

Image Sensor: 1/2.8" CMOS 2.13MP  
 Lens: 4.3-129mm  
 Optical Zoom: 30x  
 Horizontal Angle of View:  
 63.7° (W) – 2.3° (T)  
 Aperture: F1.6 (W) – F4.7 (T)  
 Min. Illumination: Color: 0.01 lux (F1.6, AGC on, 1/30s, High sensitive mode), 0.1 lux (F1.6, AGC on, 1/30s, Normal sensitive mode)  
 Shutter Speed: 1/1 – 1/10000s  
 Focus: Auto, Push, Manual  
 White Balance: Auto, Indoor, Outdoor, Manual, OPW, ATW  
 Exposure: Auto, Manual, Shutter/Iris Priority  
 Backlight Compensation: YES

### Mechanical

Pan Movement: Horizontal: ±175° pan (Zoom Adaptive Speed Range: 0.05° to 100°/s)  
 Tilt Movement: Vertical: +90° to -30° (Zoom Adaptive Speed Range: 0.05° to 50°/s)  
 Preset Positions: 128 (Speed adjustable: Up to 150°/s)  
 Preset Speed: 0-5 Level adjustable  
 Environmental: Indoor  
 Operating Temperature: -10 – +50 (°C)  
 Operating Humidity: ≤80%  
**Video Interface**  
 Video Output: NDI/HDMI/3G-SDI  
 Video Formats: 1080p 60, 59.94, 50, 29.97, 25  
 1080i 60, 59.94, 50 • 720p 60, 59.94, 50  
 Audio I/O: 3.5mm Audio In (Stereo)  
 3.5mm Audio Out (Stereo)

### Control Interface

IP PTZ Control: NDI Control (auto configuring), VISCA IP  
 Serial PTZ Control: 2x RJ45: RS232 / RS422 / RS485  
 Serial Control Protocol: VISCA / PELCO D  
**Power & Dimensions**  
 Power Input: 12V DC, PoE+ (IEEE 802.3at)  
 Dimensions: 160x178x220mm  
 Weight: 2.0Kg  
**Network**  
 Video Compression: Full NDI – i-frame high quality low latency NDI for production  
 Network Protocol: NDI – Discovery, configuration and control  
 Web Control interface: Full control via Web/Mobile UI includes Scene Presets



 BirdDog  
**P400**

4K NDI® WITH PROFESSIONAL  
LEVEL COLOUR CONTROL.



 BirdDog | P400

**Stunning 4K NDI® with incredible colour tools.**

P400 features stunning 4K resolution NDI and allows chroma subsampling in your choice of 4:2:0 or 4:2:2. Wow.

P400 teams up BirdDog's custom NDI® silicon chip, a 4K Sony CMOS Backlit sensor, and a true Sony Image Module. Double Wow.

P400 includes professional-level colour tools including Colour Matrix control, Black level, Gamma including 512 pre-set gamma positions. Triple Wow.

**4:2:2 4K. Numbers matter.**

P400 debuts the world's first 4K NDI with chroma subsampling at 4:2:2 which can be decoded natively in hardware by BirdDog's 4K Family of NDI Encoders and Decoders. If decoding with a 4:2:0 receiver the stream will automatically serve 4:2:0 and this is what will be decoded. Think of it as an automatic and virtual handshake.

**Cam Control. Shade like a pro, bro.**

BirdDog Cam Control allows full access to the entire colour matrix, black levels, and even the gamma to be able to shade your P400's like a total pro. Right click to view camera full screen on a secondary monitor to

really dial in the look you want and then copy the settings to colour match cameras in seconds. Yes that's right. Colour match cameras in seconds.

**Incredible low light performance.**

In low light conditions the camera automatically switches from day to night mode, removing the IR-cut filter to boost sensitivity for clear pictures in near-darkness.

**Triple output. NDI®, 6G-SDI & HDMI.**

With NDI®, 6G-SDI, and HDMI simultaneous outputs, the P400 is ready to go live with your full NDI® workflow today or if you are still in an old school SDI workflow you can

use as an SDI camera and ease your way into the world of NDI® when you are ready. We'll be here to welcome you into the future with open arms.

**Superfine Robotics.**

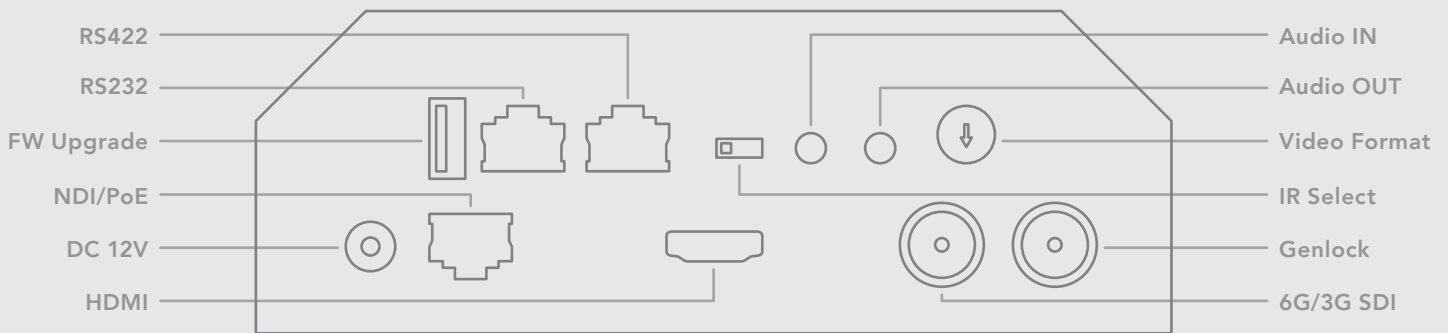
P400's robotics are super precise and super sensitive. Wind down the panning and tilting speeds to create super professional shots that are dramatic, or crank up the speeds for high action sports to allow you to follow the movements.

The 20x optical zoom offers a bright F2.0 aperture with a super smooth and fast zoom. Transition from wide to tele and recall pre-set positions really quickly.





BOLIN



## Product Specifications

### CAMERA

**Image Sensor:** 1/2.5 inch CMOS 8.5MP  
**Lens:** 4.4-88.4mm - **Optical Zoom:** 20x  
**SRZ (Super Resolution Zoom):** 30X in 4K, 40X in FHD  
**Horizontal Angle of View:** 70.2°(W) – 4.1°(T)  
**Aperture:** F2.0 – F3.8  
**Min. Illumination:** Color: 0.4lux (1/30s, 50%, High Sensitivity mode On), 1.6lux (1/30s, 50%, High Sensitivity mode Off), 0.06lux(1/4s(1/3s),50%, High Sensitivity mode On)  
**Shutter Speed:** 1/1 – 1/10000s  
**Features:** Defog (Auto, 3 levels), Visibility enhancer, Black & White, E-Flip, Mirror, Colour enhancement, Black level, gamma, Sat/Hue Adjust, HLC, Colour Bar  
**WDR:** YES (130dB) • **Image Stabilizer:** YES  
**Color Gain:** Yes (16 step) – **Color Hue:** Yes (16 step)  
**Gamma:** Standard, Straight, 512 pattern  
**Gamma Level:** Yes (72 step)  
**Black Level:** Yes (97 step) - Flicker Cancel: Yes  
**Noise Reduction:** On/Off (level 5 to 1/Off, 6 steps), 2D/3D • **S/N Ratio:** ≥50db

**Focus:** Auto Focus (Trigger/Interval), Manual Focus (Variable Speed), One Push Trigger, Near Limit  
**White Balance:** AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto/Outdoor Auto)  
**Exposure:** Full Auto, Gain, Gain Limit, Shutter Priority, Iris Priority, Manual, Bright, Slow Shutter, Max/Min Shutter Limit, Slow AE  
**Backlight Compensation:** YES  
**MECHANICAL**  
**Pan Movement:** Horizontal: ±175° pan (Zoom Adaptive Speed Range: 0.05° to 100°/s)  
**Tilt Movement:** Vertical: +90° to -30° (Zoom Adaptive Speed Range: 0.05° to 50°/s)  
**Preset 128 Speed adjustable:** Up to 150°/s  
**Environmental:** Indoor  
**Operating Temperature:** -10 – +40 (°C)  
**Operating Humidity:** ≤80%

### VIDEO INTERFACE

**Video Output:** NDI/HDMI/6G-SDI  
**4K Video Formats:** 4Kp 30, 29.97, 25, 23.98, 24,  
**HD Video Formats:** 1080p 60, 59.94, 50, 29.97, 25 1080i 60, 59.94, 50 • 720p 60, 59.94, 50  
**Audio I/O (Mono):** 3.5mm Audio In / 3.5mm Audio Out  
**CONTROL INTERFACE**  
**IP PTZ Control:** NDI Control (auto config.), VISCA IP  
**Serial PTZ Control:** 2x RJ45: RS232 / RS422 / RS485  
**Serial Control Protocol:** VISCA / PELCO D  
**POWER & DIMENSIONS**  
**Power Input:** 12V DC, PoE+ (IEEE 802.3at)  
**Dimensions:** 142x159x217mm • **Weight:** 2.7Kg  
**NETWORK**  
**Video Compression:** Full NDI – i-frame high quality low latency NDI for production  
**Network Protocol:** NDI – Discovery, config. and control  
**Web Control interface:** Full control via Web/Mobile UI includes Scene Presets  
**Optional Mounts:** Ceiling mount, Wall mount





## BirdDog | PTZ KEYBOARD

### World's first NDI® PTZ Controller.

BirdDog PTZ Keyboard is a full featured PTZ Keyboard that supports NDI®, NDIHX, Visca over IP, RS422, and RS232. By harnessing BirdDog's next generation NDI® and IP technology, it's never been easier to discover, connect, and control your PTZ cameras. Featuring superior ergonomics, premium buttons and joystick, all in a beautiful form factor this is the PTZ controller you have been waiting for.

#### Mix and Match protocols.

Never before has a PTZ controller been so flexible. PTZ Keyboard is the world's first PTZ controller with NDI® and NDIHX support. Along with NDI® there is support for Visca over IP, RS422, and RS232. You can mix and match any of the supported protocols and control them from a single PTZ Keyboard.

#### Superior Ergonomics.

Using the PTZ Keyboard is a breeze with well thought out button layout. Quickly access all the cameras on the network, and set up quick access buttons for your favourite settings like Exposure, Focus, Zoom, and movement speeds.

#### 3-Way Joystick.

Effortless, one handed control of Pan, Tilt, and Zoom is possible with the 3-Way Joystick. For those who prefer a zoom rocker there is also one of those exactly where your left hand wants it.

#### Soft touch buttons.

Your fingers will thank you for using the PTZ Keyboard. Soft-touch silicon buttons and easy turn dials give a premium sensation while achieving the responsiveness you expect and deserve.

#### Control 255 cameras.

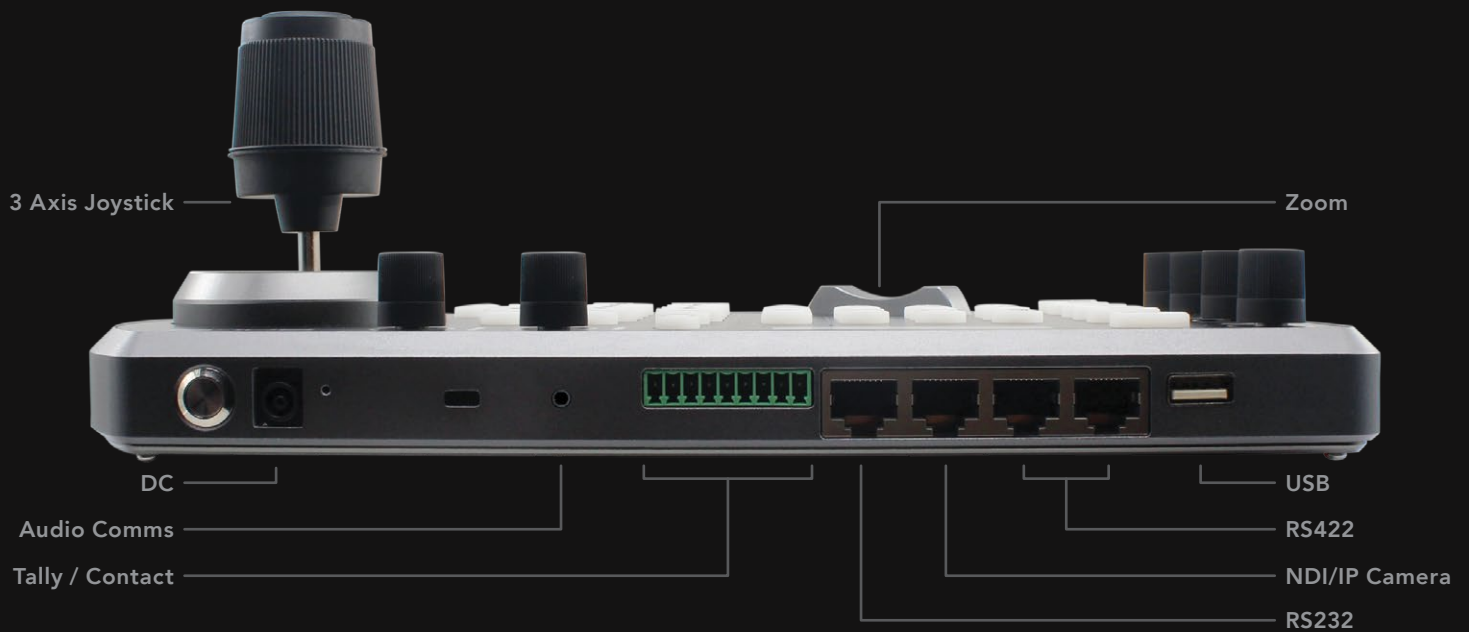
Designed to control up to 255 PTZ cameras on a single network, PTZ Keyboard can scale to even the most complex installations.

#### 6 program buttons.

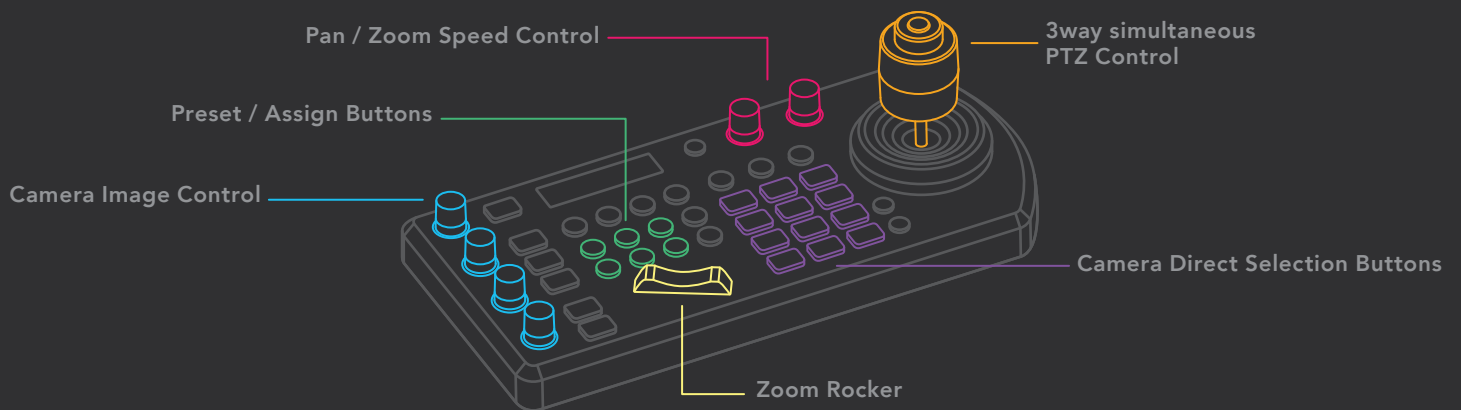
Set up your quick access buttons to work the way you want. Exposure, Focus, PT Speed, Zoom, Shutter Speed, Iris, White Balance, Compensation, and more, can all be programmed into the assignable buttons.

#### PoE or DC.

P200 can be powered by Power over Ethernet (PoE) or from the included power adapter.



**BOLIN**



## Product Specifications

### Input/Output Connectors

#### Control Input/Output

**LAN:** RJ45 x1 (With PoE) 100 BASE-TX

**RS232:** RJ45 x1 • **RS422:** RJ45 x2

**Audio:** Analog 3.5mm Mic/Headphone

**Control signal format**

**NDI® Control**

**VISCA over IP**

**RS 232/RS422:** Baud Rate

2400/4800/9600/19200/38400

(Sony VISCA Compatible)

**User Interface**

**Display:** LED

**Speed control:** Yes, 2 knobs (pan/tilt, zoom)

**Zoom rocker:** Yes

**Joystick zoom ring:** Yes

**Programmable function buttons:** 6

**Camera Control**

**Maximum camera control:** Max. 255 with multiple protocols including NDI/IP

**Maximum serial connections**

**RS232:** 7

**RS422:** 7 x 2 (A/B)

**Key/Button illumination:** Multi-colour LED Buttons

**Exposure Selection:** Yes, Button

**One push White balance:** Yes, Button

**Backlight control:** Yes, Button

**Display status of WB, Iris, Gain, Shutter, Focus:** Yes

**White balance model selection:** Yes, Button

**R, B, Gain:** Yes, Knob

**Iris Adjustment:** Yes, Knob

**Shutter Speed:** Yes, Knob

**Focus model selection:** Yes, Button

**One push auto focus:** Yes, Button

**Manual focus:** Yes, Knob

**General**

**Power input:** DC 12V, PoE (Power over Ethernet),

Power via RS232/RS422 port

**Power:** 3W

**Operating Temp:** 0 - 40 °C

**Dimensions:** 278x132x99.5

**Notes:**

*Not all features are available on all control protocols.*

## PTZ CAMERAS

### Features & Specifications Comparison

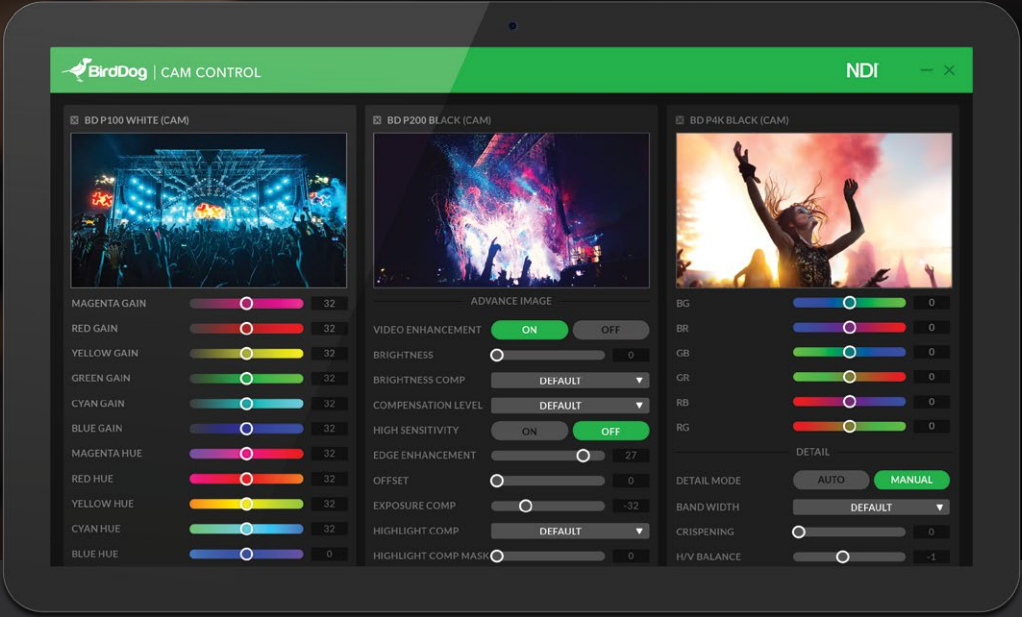
Feature/Specification	P100	P200	A200	A300
<b>CAMERA</b>				
Image Sensor	1/2.86" CMOS 2.2MP	1/2.8" CMOS 2.13MP		
Lens	4.7 - 47mm	4.3-129mm		
Optical Zoom	10x	30x		
Digital Zoom	12x	No	12x	
Horizontal Angle of View	60.9° (W) – 6.43° (T)	63.7° (W) – 2.3° (T)		
Aperture	F1.6 (W) – F3.0 (T)	F1.6 (W) – F4.7 (T)		
Min. Illumination	0.5 lux	Color: 0.01 lux (F1.6, AGC on, 1/30s, High sensitive mode), 0.1 lux (F1.6, AGC on, 1/30s, Normal sensitive mode)		
Shutter Speed	1/1 – 1/30000s	1/1 – 1/10000s		
Focus	Auto, Push, Manual			
White Balance	Auto, Indoor, Outdoor, Manual, OPW, ATW			
Exposure	Auto, Manual, Shutter/Iris Priority			
Backlight Compensation	YES			
<b>MECHANICAL</b>				
Pan Movement	Horizontal: ±175° *		Horizontal: 360° continuous pan *	
Tilt Movement	Vertical: +90° to -30° *		Vertical: -90° to +15° *	Vertical: +90° to -30° *
Preset Positions	128 (Speed adjustable: Up to 150°/s)		255 (Speed adjustable: Up to 150°/s)	
Preset Speed	0-5 Level adjustable		-	
Environmental	Indoor		Out/Indoor, IP67, corrosion resistant treated housing	Out/Indoor, IP67, corrosion resistant treated housing, wind load durability 60m/s, Nitrogen filled housing
Operating Temperature	-10 – +50 (°C)		-40 – +60 (°C)	
Operating Humidity	≤80%			
Infrared	-		Adaptive, illum. up to 100m	IR Laser, up to 500m
<b>VIDEO INTERFACE</b>				
Video Output	NDI/HDMI/SDI/USB	NDI/HDMI/SDI	NDI/SDI	
Video Formats	1080p 60, 59.94, 50, 29.97, 25 • 1080i 60, 59.94, 50 • 720p 60, 59.94, 50, 29.97, 25			
Audio I/O	3.5mm Audio In (Stereo) - 3.5mm Audio Out (Stereo)			
<b>CONTROL INTERFACE</b>				
IP PTZ Control	NDI Control (auto configuring), VISCA IP			
Serial PTZ Control	2x RJ45: RS232/RS422/RS485			
Serial Control Protocol	VISCA / PELCO D			
<b>POWER &amp; DIMENSIONS</b>				
Power Input	12V DC, PoE+ (IEEE 802.3at)	12V DC, PoE+ (IEEE 802.3at)	AC 24V, PoE 97W (BirdDog PoE 97W Injector, optional)	
Power Consumption	Min. 11.1W Max. 15.2W	Min. 15.2W Max. 19.7W	Min. 22W Max. 51.84W	Min. 36W Max. 76.68W (IR Laser ON)
Dimensions	145x145x154mm	160x178x220mm	210x210x333mm	180x180x423mm
Weight	1.0Kg	2.0Kg	5.5Kg	10.2Kg
<b>NETWORK</b>				
Video Compression	Full NDI – i-frame high quality low latency NDI for production			
Network Protocol	NDI – Discovery, configuration and control			
Web Control interface	Full control via Web/Mobile UI inc. Scene presets			

\* Check Zoom Adaptive Speed Range on the single camera page.

Feature/Specification	P400	P4K
<b>CAMERA</b>		
Image Sensor	1/2.5 inch CMOS 8.5MP	1.0-type back-illuminated Exmor R CMOS sensor 14.2MP
Lens	4.4-88.4mm	Zeiss Vario-Sonnar T lens
Optical Zoom	20x	12x
Digital Zoom	SRZ (Super Revolution Zoom) 30x in 4K, 40x in Full HD	12x, with SRZ feat., 18x zoom at 4K, or 24x zoom at FHD
Horizontal Angle of View	70.2° (W) – 4.1° (T)	64.6 (Wide) – 6.1 (Tele), f=9.3 to 111.6mm, F2.8(Wide),
Aperture	F2.0 (W) – F3.8 (T)	F4.5(Tele)
Min. Illumination	Color: 0.4lux (1/30s, 50%, High Sensitivity mode On), 1.6lux (1/30s, 50%, High Sensitivity mode Off), 0.06lux(1/4s(1/3s),50%, High Sensitivity mode On)	F2.8 Constant (W)~(T), 16 Steps 0.5 lx (1/30 sec, 50%, High Sensitivity mode On) 2.0 lx (1/30 sec, 50%, High Sensitivity mode Off) 0.067 lx (1/4 sec (1/3 sec), 50%, High Sensitivity mode On) 0.267 lx (1/4 sec (1/3 sec), 50%, High Sensitivity mode Off)
Shutter Speed	1/1 – 1/10000s	1/10000s to 1/8 (59.94/29.97)
Focus	Auto Focus (Trigger/Interval), Manual Focus (Variable Speed), One Push Trigger, Near Limit	
White Balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor Lamp (Fix/Outdoor/Auto)	
Exposure	Full Auto, Gain, Gain Limit, Shutter Priority, Iris Priority, Manual, Bright, Slow Shutter, Shutter Limit, Slow AE	
Features	High Sensitivity, Backlight Compensation, HLC, E-FLIP, Mirror, Day/Night, Visibility Enhancer, Black Level, WDR, ND Filter, Image Stabiliser, Color Gain, Color Hue, Gamma, Gamma Level, Flicker Cancel, Noise Reduction	
S/N Ratio	≥50dB	
<b>MECHANICAL</b>		
Pan Movement		
Tilt Movement	Vertical: +90° to -30° (Zoom Adaptive Speed Range: 0.05°~50°/S)	
Preset Positions	128 (Speed adjustable: Up to 150°/S, 6 presets on remote controller)	
Preset Speed	0~5 Level Adjustable	
Preset Memory	YES, ( Picture Profile Preset-Preset Memory for image parameters)	
Environmental	Indoor	
Quietness	49dB	
Home Position	YES	
Operating Temperature	-10 to +40 (°C)	
Operating Humidity	≤80%	
<b>INTERFACE</b>		
Video Output	NDI/HDMI/6G-SDI	4K: Main 4K HDMI Type-A (x1) 6G-SDI (x2) or Dual Link 3G-SDI(2SI only) x2. HD: Main HD HDMI Type-A (x1) 3G-SDI x2
4K Video Formats	2160p 30, 29.97, 25, 23.98, 24	
HD Video Formats	1080p 60, 59.94, 50, 30, 29.97, 25 • 1080i 60, 59.94, 50 • 720p 60, 59.94, 50	
HDMI Color Space	YCbCr, 4:2:2 RGB, 4:4:4	
NDI Video Encode	Full bandwidth NDI	
IP Video Stream	Up to 4K/30 and 1080p60	
Camera Control Interface	RS232/RS-422/RS485(RJ45 x2), NDI/IP Control (RJ45), IR Remote Control	
Control Protocol	NDI, VISCA, VISCA IP	
LAN	RJ45X1(1000Mb), NDI/IP video streaming, System upgrade, PoE+ (IEEE 802.3at)	
Audio I/O	3.5mm Audio In (Mono) - 3.5mm Audio Out (Mono)	
Tally Light	Front	Front and Back
<b>POWER &amp; DIMENSIONS</b>		
Power Input	12V DC, PoE+ (IEEE 802.3at)	
Power Consumption	Min. 23.2W - Max. 26.8W	Min. 22.4W - Max. 28W
Dimensions	142x159x217mm	165x196x247mm
Weight	2.7Kg	3.4Kg
<b>NETWORK</b>		
Video Compression	Full NDI – i-frame high quality low latency NDI for production	
Network Protocol	NDI – Discovery, configuration and control	
Web Control Interface	Full control via Web/Mobile UI inc. Scene presets	



FREE



# BirdDog | CAM CONTROL

## Colour match cameras in seconds.

The free Cam Control app is the easiest and most user-friendly way to dial in BirdDog cameras. Simply load on a Windows 10 machine on the same network as your BirdDog cameras and access all functions of the camera through a beautiful interface. Quickly dial in the look you like and easily match multiple cameras.

### Realtime Sync.

The unparalleled flexibility of BirdDog cameras means there are multiple ways to access each setting. You can use Cam Control for remote shading and colour matching, the On Screen Display (OSD) via the remote control, the controls on the BirdDog PTZ Keyboard, or by using the Web Dashboard. Now as soon as you make a change anywhere it will realtime sync to everywhere else.

### P400 and P4K tools included.

P400 and P4K have an unbelievably powerful set of colour tools, exposure and gamma controls, and so many more powerful features. Now you have access to them all within Cam Control.

### Save and Recall Pre-sets.

As if Cam Control wasn't already the fastest and easiest to use camera shading tool on the planet, you can also save and recall camera pre-sets. Load your saved settings up on your next job, copy across all cameras in just seconds, and then sit back and work out what you are going to do with all that time you just saved. We strongly suggest cat videos on YouTube.

### Full Screen Confidence Monitor.

Load up the BirdDog PTZ cameras you want to work with and right click to output to a full screen confidence monitor to dial in the exact look you are after.

### Direct text entry. Tuning made easy.

Slider bars are great for quick control but sometimes can be hard to dial in the exact levels you need. To change a value from 89 to 88, just click in the direct text box next to the slider bar and type 88. It's really that easy.

### Scales with camera capabilities.

Some BirdDog cameras such as P4K have more colour adjustment capabilities such as black level and gamma control. If the camera supports these extra features the access to them will appear automatically in Cam Control.

Full user interface at [bird-dog.tv/camcontrol](http://bird-dog.tv/camcontrol)