

2D-умные камеры А30, DH, P, S, Smart, T

Технические характеристики

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A30 SERIES

```
mirror_mod.use_x = false  
mirror_mod.use_y = true  
mirror_mod.use_z = false
```

OVERVIEW

The A30 Series is a stand-alone, general purpose and cost effective Smart Camera that can be installed even in harsh industrial environments thanks to its IP67 rated housing. The A30 Series features a VGA (640×480) CCD imager, built-in discrete I/Os as well as Ethernet and Serial interfaces. Thanks to the ultimate programming flexibility offered by Impact software, the A30 Series represents the answer to every machine vision need.



APPLICATIONS

Surface Flaw Detection

Hi-Speed Product locating

Template Matching

TECHNICAL SPECIFICATION

Resolution	640 x 480 CCD
Pixel size	7.4 x 7.4 um
Imager size	1/3"
Lens mount	C-Mount
Frames/sec	60
Processor	800 MHz TI Da Vinci
Housing	Right Angle – IP67
Housing dimensions maximum (LxWxH)	123 x 65 x 86 mm (4.84 x 2.55 x 3.41 in)
Dedicated I/O	1 In / 1 Out
Configurable I/O	1 In / 2 Out
I/O optically isolated	YES
External button	YES
Power requirements	10-30 VDC 1.0 – 0.33 A
RS-232 serial	YES
Ethernet	YES
Storage	256 MB Flash

RAM	512 MB
Operating Temperature	0 to 45 °C
Humidity (non-condensing)	0 to 90%
Certifications	CE, CSA

DH-MV-SI5A20MG000E

```
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mirror_mod.use_z = false
```

OVERVIEW

- ✔ Support Win10, support secondary development based on HuaRay
- ✔ Support VGA/USB interface and extended keyboard/mouse connection
- ✔ CMOS series product covering 1.3MP~20.0M Presolution
- ✔ Support Global/Rolling shutter
- ✔ Support software trigger/hardware trigger/free run mode
- ✔ GigE interface provides maximum 1G bps bandwidth



TECHNICAL SPECIFICATION

Basic	
Certifications	CE , FCC , KC
Function	NA
Lens Mount	C-MOUNT
Max. Frame rate	20
Model	DH-MV-SI5A20MG000E
Mono/Color	Mono
Pixel Size	1.85 x 1.85
Resolution	4000 x 3000
Sensor Type	1/1.7
Series	5000
Shutter Mode	Rolling
Software	MVP
Trigger Mode	Software trigger/Hardware trigger/Free run mode
Port	
Communication Mode	RS232 or RS485 , 1Gbps Ethernet
Communication protocol	SDK , Serial , TCPServer , TCPClient , Profinet , Modbus TCP
Connector	3 physical interface: 1 GigE, 1 GPIO, 1 VGA & 1 USB port
GPIO	12 pins IO interface: 3 input without opto isolation, 3 output without opto isolation
LED Indicator	5 status indicators: 1 system, 2 network and 2 user configurable indicators
Network Port	1Gbps Ethernet

Environment	
Operating Humidity	20% ~ 95% , No condensation
Operating Temperature	-20°C ~ +50°C
Storage Temperature	-30°C ~ +80°C
Structure	
Package Weight	< 800g
Packaging Dimensions	190mm*179mm*127mm
Product Dimensions	132.2mm*69mm*62mm
Protection	IP67
Weight	< 600g
Power	
Power Consumption	≤30W
Power Supply	DC24V

P1x-Series

OVERVIEW

The P-Series is an ultra-compact cost effective smart camera offering advanced machine vision functionalities in a fully embedded stand-alone device.

The P-Series is available with gray-scale or color CMOS image sensors with two different resolutions: 640×480 pixels at over 120fps and 1280×1024 pixels at up to 60fps.

Lenses and illuminators are fully interchangeable and can be mounted and replaced by the user. Five focal lengths and nine lighting options result in 90 different combinations delivering outstanding installation flexibility while offering superior image acquisition capabilities.

With compact dimensions and the rotating connectors, the P-Series can be installed even in extremely narrow spaces. The IP67 rated metal housing guarantees maximum protection in the most harsh factory environments containing dust, water and oil.

The P-Series is powered by the IMPACT LITE software package. With more than 25 inspection tools, IMPACT LITE revolutionizes device programming by making the inspection configuration quick and intuitive. Controls are dragged and dropped into the inspection tree for easy and simple quality control deployment



APPLICATIONS

Packaging and labelling

- Correct positioning of color printing alignment markers
- Lot number and best before date OCR reading
- Bottle cap inspection
- Packaging artwork verification
- Label position, orientation and color

Medical and Pharma

- Packaging/sealing verification
- GTIN, serial and batch number OCR reading
- Medical device assembly control
- Vial in tray counting
- Color and shape detection of medical tablets
- Inspection of flip-off caps (presence and color)

Automotive

- Component assembling verification
- Dashboard inspection
- Electric fuse box inspection

Electronics

- Correct assembling verification
- Component alignment/positioning

TECHNICAL SPECIFICATION

	P10	P11	P12	P15	P16	P17
IMPACT Software version	Lite		Full	Lite		Full
Resolution	VGA (640 x 480 pixels)			SXGA (1280 x 1024 pixels)		

Imager type	Gray-scale CMOS global shutter	Color CMOS global shutter	Gray-scale CMOS global shutter	Gray-scale CMOS global shutter	Color CMOS global shutter	Gray-scale CMOS global shutter
Pixel size	5.3 um					
Imager size	1/4"			1/1.8"		
Frame rate	120 fps			60 fps		
Processor	660 MHz DSP					
Dedicated I/O	1 IN					
Configurable I/O	1 IN / 3 OUT					
I/O type	Isolated INPUT					
	Non-isolated OUTPUT					
External button	Yes					
Ethernet	10/100 Mbit/s					
RS-232 serial	Yes					
RAM	256 MB					
Storage	256 MB					
Lens options	6mm / 9mm / 12mm / 16mm / 25 mm					
Illuminator options	Wide angle 8 LEDs: Red, White, IR, Blue, Red with Polarizer, White with Polarizer Multi-chain 50 LEDs: Red, White, Blue					
Power requirements	10 – 30 Vdc					
Protection class	IP67					
Dimensions	95 x 54 x 43 mm (3.7 x 2.1 x 1.7 in.) – Connector @ 0°					
	75 x 54 x 62 mm (3.0 x 2.1 x 2.4 in.) – Connector @ 90°					
Case material	Aluminium, Plastic protective window cover					
Operating temperature	0 to 50 °C (32 to 122 °F)					
Storage temperature	-20 to 70 °C (-4 to 158 °F)					
Humidity	90% non condensing					
Certifications	CE, CSA					

P2X-SERIES

OVERVIEW

Introducing the P2x Series from Datasensor, the ultimate smart camera with the unparalleled performance and flexibility of a full-blown vision system. The heavyweight specifications packed into the industrial-grade camera housing will let you tackle the most demanding application requirements. The small form factor and large field of view make it the ideal camera on your robot guidance applications. The powerful and feature-rich built-in lighting system means that you can use this on production lines running all shapes sizes, and colors. Powerful processing power allows for use at the highest of production speeds. The features are endless, but what is clear is that the P2x Series from Datalogic is a vastly superior smart camera unlike no other.



APPLICATIONS

Automotive

- Component assembling verification
- Dashboard inspection
- Electric fuse box inspection
- Robot guidance

Electronics

- Correct assembling verification
- Component alignment/positioning
- Robot guidance

Food & Beverage

- Lot number and best before date OCR reading
- Bottle cap inspection
- Packaging artwork verification
- Label position, orientation and color

Medical and Pharma

- Packaging/sealing verification
- GTIN, serial and batch number OCR reading
- Medical device assembly control
- Vial in tray counting
- Flip-off cap inspection

TECHNICAL SPECIFICATION

	P20M	P20C	P22M	P22C
Imager sensor	CMOS with Global Shutter			
Mono/Color	Monochrome	Color	Monochrome	Color
Resolution	qHD (960 x 540 pixels)		2MP (1920 x 1080 pixels)	
Sensor frame rate	60 frames/s			
Pixel size	5.6 μm square		2.8 μm square	
Digital OUT	OUT 1 and 2: NPN or PNP short circuit protected, opto-isolated only when connected to CBX500/800 OUT 3: NPN or PNP short circuit protected, Opto-isolated only when connected to CBX800 (Strobe signal is shared with Output 3. Output 3 is active only if the External Strobe is disabled)			

Digital IN	IN 1 (external trigger) and IN 2: opto-isolated and polarity insensitive (Max voltage: 30 Vdc, Max Input current: 10mA)
Led indicators	Power, Busy/Trigger, Out 1; Out 2; Out 3, Online
Keypad Button	Reset; Camera Button Event (internal software event only); Loader
Ethernet	1000 Mbit/s (supports application protocols: TCP/IP, EtherNet/IP, Profinet IO, Modbus TCP, MC protocol)
RS232	2400 to 115200 bit/s
RAM	1 GB
Storage	380 MB
Lens options	Micro-video lens: 6mm / 8mm / 12.5mm / 17.5mm
Lens focusing	Mechanical with focusing screw
Illuminators	Illuminator colors: Blue, Red, White Illuminator power: High Power 14 LEDs, Very High Power 36 LEDs
LED safety	According to EN 62471
YAG Laser Protection	Yes, with dedicated filter accessory
Polarizing Filter	Yes, with dedicated polarizer front cover accessory
Power supply	24 Vdc $\pm$ 10%
Max power consumption	14 LEDs illuminator: 0.42 A, 10 W max 36 LEDs illuminator: 0.62 A, 15 W max
Operating temperature	-10° to 50° (14 to 122° F)
Storage temperature	-20° to 70°C (-4 to 158°F)
Max humidity	90% non condensing
Vibration Resistance EN 60068-2-6	14 mm @ 2 to 10 Hz; 1.5 mm @ 13 to 55 Hz; 2 g @ 70 to 500 Hz; 2 hours on each axis
Bump Resistance EN 60068-2-29	30g; 6 ms; 5000 shocks on each axis
Shock Resistance EN 60068-2-27	30g; 11 ms; 3 shocks on each axis
Protection Class EN 60529	IP65/67
Case Material	Aluminium case and plastic protective window cover
Dimensions (H x W x L) with lens cover	14 LEDs illuminator: 109 x 54 x 56mm (4.3 x 2.1 x 2.2in.) 36 LEDs illuminator: 116 x 126 x 70mm (4.6 x 4.9 x 2.8in.)
Weight	14 LEDs illuminator: about 380g (13.4oz.) 36 LEDs illuminator: about 640g (22.5oz.)
Warranty	2-Year Factory Warranty

S5B00MG000E

```
mirror_mod.use_x = false
mirror_mod.use_y = true
mirror_mod.use_z = false
```

OVERVIEW

- ✓ Global shutter, CMOS series products;
- ✓ 512MB RAM and 512MB non-flashable memory;
- ✓ Support Software Trigger/Hardware Trigger/Free Run Mode;
- ✓ GigE industrial Ethernet interface;
- ✓ Abundant I/O interfaces, RS232, isolated input & output;
- ✓ Support C-mount lens and M12 lens;
- ✓ Industrial grade M12 connector, IP67 protection;
- ✓ Support DC8V~26V wide voltage power supply, adapt to industrial DC12V/24V voltage environments;
- ✓ Abundant code reading types, Code128 /EAN, DM/QR, etc.;



TECHNICAL SPECIFICATION

Structure	
Casing	Aluminum alloy
Package Weight	NA
Packaging Dimensions	NA
Product Dimensions	68mm x 55mm x 28mm (without lens mount and interface height)
Protection	IP67 (with the proper lens cover installed correctly)
Weight	< 200g
Basic	
Certifications	CE , FCC , KC
Function	Abundant code reading types (Code128/Code39/Code93/EAN etc. ; QR/DM/Vericode etc.)
Lens Mount	C-MOUNT
Max. Frame rate	15
Model	DH-MV-S5B00MG000E
Mono/Color	Mono
Pixel Size	2.4 x 2.4
Resolution	5460 x 3648
Sensor Type	1
Series	5000

Shutter Mode	Rolling
Software	SVStudio
Trigger Mode	Software Trigger/Hardware Trigger/Free Run Mode
Port	
Communication Mode	RS232, Ethernet
Connector	2 industrial M12 connectors, for Ethernet and GPIO
GPIO	12pin I/O interface, RS232, 1x Opto-isolated input, 3x Opto-isolated output
LED Indicator	Power, Network, Trigger
Network Port	Code-A, GigE
Environment	
Operating Humidity	20% ~ 95%, No condensing (with the proper lens cover installed correctly)
Operating Temperature	-20°C ~ +50°C
Storage Temperature	-30°C ~ +80°C
Power	
Power Consumption	< 4.0W
Power Supply	Support DC 8V~26V wide voltage input, adapt to industrial DC12V/24V voltage environments

Smart VS

```
mirror_mod.use x = false
mirror_mod.use y = true
mirror_mod.use z = false
```

OVERVIEW

- Machine Learning Assisted Setting
- No vision Tools programming required
- No inspection threshold adjustment
- No need of skilled installers and users
- Fast and Easy Setting like standard photosensor
- Deterministic response time 50ms
- Reduced cost of ownership and maintenance
- TEACH Button and comprehensive UI with 5 status LEDs
- Electronic focus control
- 50...150mm operating distance
- Bright and visible Red LED pointer
- Powerful white polarized light illuminator
- Green/Red LED Spot for GOOD/NO GOOD part
- Ethernet point to point communication available
- Easy and Intuitive WEB Server GUI for maintenance and job setting
- Easy output interface photosensor like



TECHNICAL SPECIFICATION

Nominal sensing distance	150 mm
Sensitivity adjustment	Teach-in/GUI

Application

Description	Compact block style case
Functions	Object detection and positioning

Outputs

Output type	NPN/PNP, Ethernet
Response time	50,000

Electrical data

Operating Voltage	10-30 VDC
Emission	LED white

Mechanical data

Dimensions	47x58x38
Connections	M12
Material	Metal – Aluminium / PMMA

Generical Data

Dimensions	47x58x38
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T4X SERIES

OVERVIEW

The new T4x-Series smart camera provides customers with outstanding performance in an industrialized and compact package. Equipped with a powerful 1.1 GHz processor, the T4x-Series performance is exceptional in value and functionality.

The T4x-Series comes in 3 different camera resolutions:

- T40 – 640 x 480 (VGA) resolution
- T47 – 2.0 Mega Pixel resolution
- T49 – 5.0 Mega Pixel resolution

all in a sealed, industrially hardened enclosure for maximum protection.

Combined with Impact software, the new generation T4x-Series delivers the most rugged and versatile smart camera solution in the market today.



APPLICATIONS

Lot Code Verification

Precision Repeating Measurement

Pattern Finding

TECHNICAL SPECIFICATION

	T40	T47	T48
Resolution	640 x 480 CCD	1600 x 1200 CCD	2448 x 2048 CCD
Pixel size	7.4 x 7.4 um	4.4 x 4.4 um	3.4 x 3.4 um
Imager size	1/3"	1/1.8"	2/3"
Lens mount	C-Mount		
Frames/sec	60	15	15
Processor	1.1 GHz TI Da Vinci		
Housing	Right Angle – IP67		
Housing dimensions maximum (LxWxH)	123 x 65 x 101 mm (4.84 x 2.55 x 3.98 in)		
Dedicated I/O	1 In / 1 Out		

Configurable I/O	1 In / 2 Out		
I/O optically isolated	YES		
External button	YES		
Power requirements	10-30 VDC 1 – 0.33 A	10-30 VDC 1.05 – 0.35 A	10-30 VDC 1.2 – 0.4 A
RS-232 serial	YES		
Ethernet	YES		
Storage	256 MB Flash		
RAM	512 MB		
Operating Temperature	0 to 50 °C		
Humidity (non-condensing)	0 to 90%		
Certifications	CE, CSA		

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