



IMPACT+ OCR

IMPACT+ OCR is the new Datalogic innovative solution for robust and effective Optical Character Recognition (e.g. expiration date, lot number) for the Food & Beverage industry.

The new Datalogic P19 Smart Camera is powered by IMPACT+ OCR, providing a dedicated User Operator Interface which easily performs multiple OCR inspections.

The P19 Smart Camera is an embedded stand-alone device that features a high resolution CMOS sensor with 1280x1024 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 45 different combinations delivering outstanding installation flexibility while offering superior image acquisition capabilities.

With compact dimensions and rotating connectors, the P19 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.



VISION

HIGHLIGHTS

- Dedicated OCR user interface
- Fully integrated ultra-compact device
- Rotating connectors for 0° & 90° form factors
- Rugged IP67 rated housing
- 1.3 megapixel camera resolution
- Interchangeable lenses, illuminators and filters
- Built-in Serial and Ethernet interfaces

APPLICATIONS

- Lot and batch number reading
- Expiration date verification
- Serial number traceability
- Thermal transfer printing verification

FOCUSING ON APPLICATIONS

FOOD AND BEVERAGE

Thermal transfer printing verification



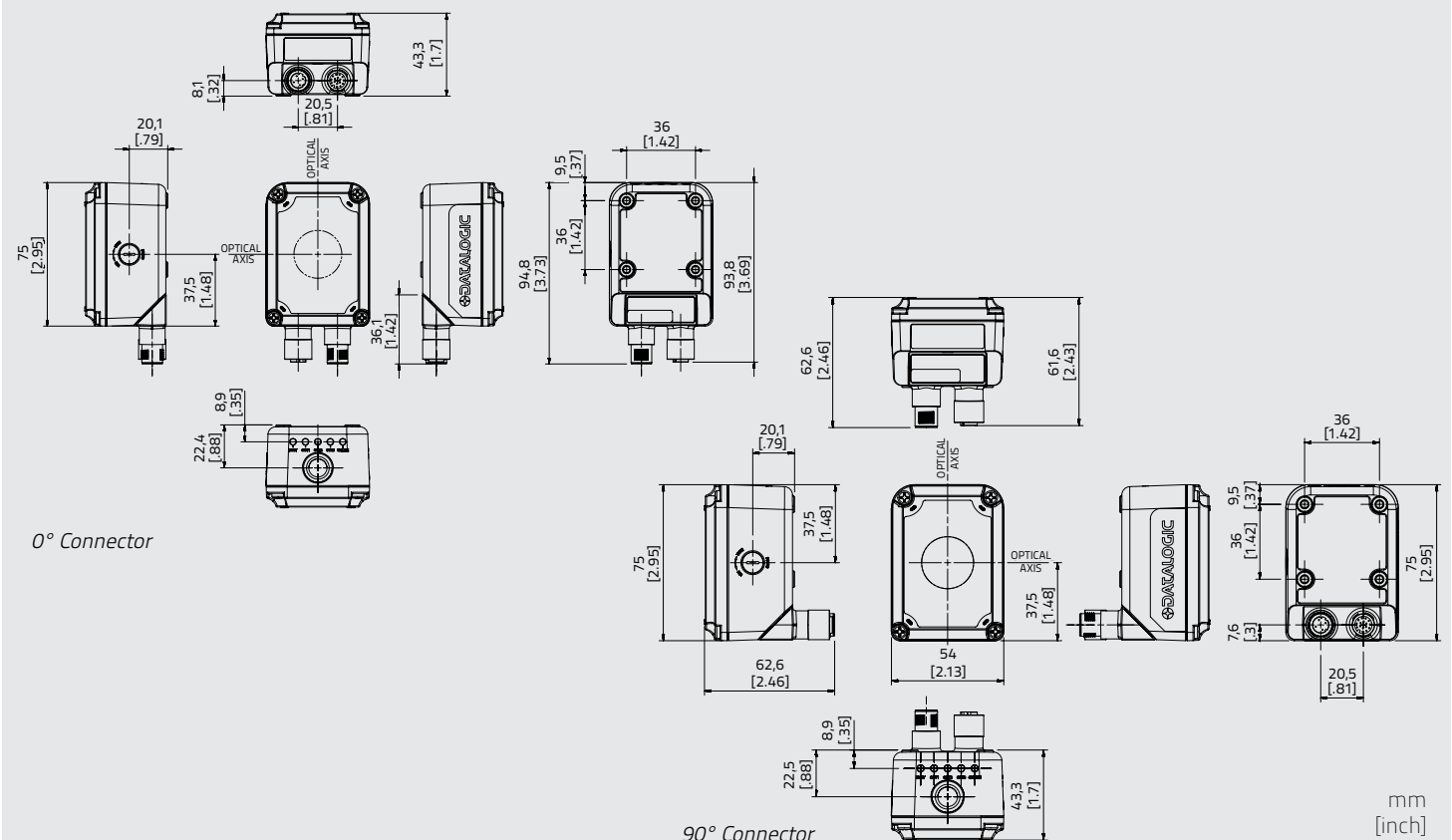
Lot number and best before date OCR reading



TECHNICAL DATA

	P19
Resolution	SXGA (1280 x 1024 pixels)
Imager type	CMOS global shutter
Pixel size	5.3 um
Imager size	1/1.8"
Frame rate	60 fps
Processor	660 MHz DSP
Dedicated I/O	1 IN
Configurable I/O	3 OUT
I/O type	Isolated INPUT Non-isolated OUTPUT
External button	Yes
Ethernet	10/100 Mbit/s
RS-232 serial	Yes
OCR recipes	Up to 10
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

DIMENSIONS



LIGHTING

AVAILABLE ILLUMINATORS

Nine different interchangeable lighting solutions are available:

WIDE ANGLE



RED



WHITE



BLUE



INFRARED



RED WITH POLARIZER



WHITE WITH POLARIZER

MULTI-CHAIN



RED



WHITE



BLUE

SUGGESTED ILLUMINATOR COLORS

		Background Color								
		White	Gray	Black	Yellow	Orange	Red	Purple	Blue	Green
TEXT COLOR	White		TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123
	Gray	TEXT123		TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123
	Black	TEXT123	TEXT123		TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123
	Yellow	TEXT123	TEXT123	TEXT123		TEXT123	TEXT123	TEXT123	TEXT123	TEXT123
	Orange	TEXT123	TEXT123	TEXT123	TEXT123		TEXT123	TEXT123	TEXT123	TEXT123
	Red	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123		TEXT123	TEXT123	TEXT123
	Purple	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123		TEXT123	TEXT123
	Blue	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123		TEXT123
	Green	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	TEXT123	

The matrix above represents a recommendation for selecting the optimum illumination color. Datalogic recommends always testing the illuminator on products to be inspected.

GLOSSY-MATTE SURFACES

Glossy surfaces



Matte surfaces

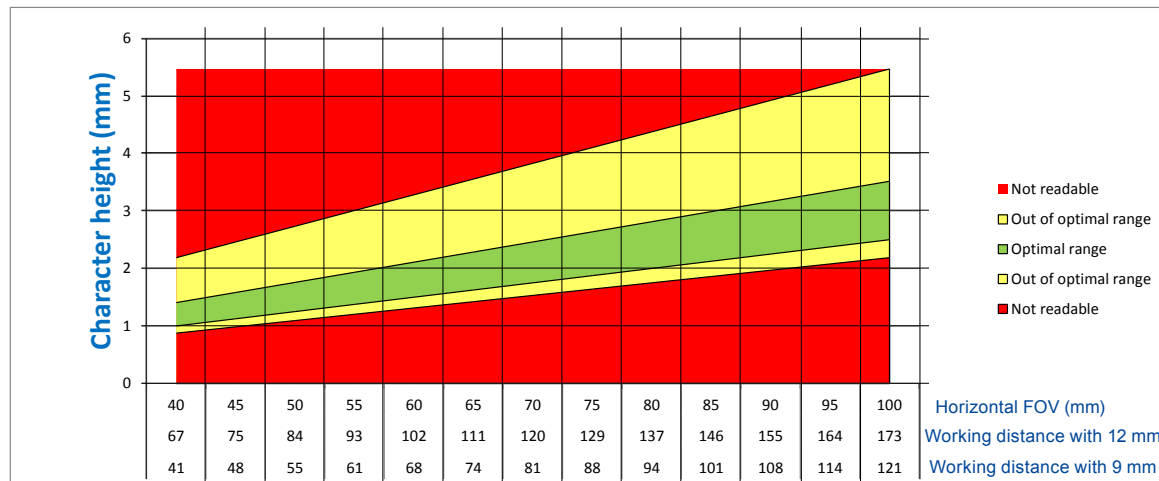


For glossy material inspections an illuminator with polarizer is recommended.
The result of an inspection using an illuminator with polarizer on a glossy surface is shown below:



OPTICS

Field of View (XxY) mm	MIN Character Height (mm)	MAX Character Height (mm)	Working Distance (mm)	
			9 mm lens	12 mm lens
40 x 32	1,0	1,4	41	67
45 x 36	1,1	1,6	48	75
50 x 40	1,3	1,8	55	84
55 x 44	1,4	1,9	61	93
60 x 48	1,5	2,1	68	102
65 x 52	1,6	2,3	74	111
70 x 56	1,8	2,5	81	120
75 x 60	1,9	2,6	88	129
80 x 64	2,0	2,8	94	137
85 x 68	2,1	3,0	101	146
90 x 72	2,3	3,2	108	155
95 x 76	2,4	3,3	114	164
100 x 80	2,5	3,5	121	173



USER AND OPERATOR INTERFACES

P19 features the intuitive and easy-to-use **IMPACT+ OCR** User Interface for creating multiple inspection recipes for OCR and code reading applications. **IMPACT+ OCR** includes the following panels:

Image Setup

A quick way of choosing the best image acquisition settings (from 4 to 16 different self-regulating combinations of shutter time and gain).



Reading tools

A combination of OCR and code reader tools for simultaneous multiple readings.



Anchor Point

An easy way to set a reference point for OCR reading (edge, shape or code location).



Input/Output

A verify string or a digital signal can be used to input the reference string. Messages and digital outputs can be sent quickly to other devices.



Monitor

IMPACT+ OCR includes a straightforward Operator Interface which shows current readings (code and OCR) and easily allows operators to load any configured inspection recipe.



MODEL SELECTION AND ORDER INFORMATION

MODEL	ORDER N°
Camera, IMPACT P19, Grayscale, 1280x1024, 60 FPS, 1/1.8" CMOS, OCR	937700009

ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	ORDER N°
ILLUMINATORS		
LT-050 - Red Wide Angle Illuminator	Lighting, P-Series, LT-050, Wide angle 8 LEDs, red	95A901780
LT-055 - White Wide Angle Illuminator	Lighting, P-Series, LT-055, Wide angle 8 LEDs, white	95A901790
LT-053 - Blue Wide Angle Illuminator	Lighting, P-Series, LT-053, Wide angle 8 LEDs, blue	95A901800
LT-052 - IR Wide Angle Illuminator	Lighting, P-Series, LT-052, Wide angle 8 LEDs, IR	95A901810
LT-057 - Red Multi Chain Illuminator	Lighting, P-Series, LT-057, Multi-chain 50 LEDs, red	95A901820
LT-059 - White Multi Chain Illuminator	Lighting, P-Series, LT-059, Multi-chain 50 LEDs, white	95A901830
LT-058 - Blue Multi Chain Illuminator	Lighting, P-Series, LT-058, Multi-chain 50 LEDs, blue	95A901840
LT-051 - Red Wide Angle Illuminator with Polarizer	Lighting, P-Series, LT-051, Wide angle 8 LEDs, red with polarizer	95A901870
LT-056 White Wide Angle Illuminator with Polarizer	Lighting, P-Series, LT-055, Wide angle 8 LEDs, white with polarizer	95A901890
LENSES		
Micro Video Lens, 6mm	Micro Video Lens, P-Series, 6mm	95A901730
Micro Video Lens, 9mm	Micro Video Lens, P-Series, 9mm	95A901740
Micro Video Lens, 12mm	Micro Video Lens, P-Series, 12mm	95A901750
Micro Video Lens, 16mm	Micro Video Lens, P-Series, 16mm	95A901760
Micro Video Lens, 25mm	Micro Video Lens, P-Series, 25mm	95A901770
Micro Video Lens with IR Filter, 25mm	Micro Video Lens, P-Series, 25mm with IR bandpass filter	95A901860
IR Bandpass Filter, P-Series	Filter, P-Series, IR bandpass filter	95A901850
YAG Cut Filter, P-Series	Filter, P-Series, YAG cut filter	95A901880
I/O CABLES		
CAB-DS01-S M12-IP67 TO CBX 1M	Cable, PWR & I/O, CAB-DS01-S, P-Series to CBX (DB25), 1 meter	93A050058
CAB-DS03-S M12-IP67 TO CBX 3M	Cable, PWR & I/O, CAB-DS03-S, P-Series to CBX (DB25), 3 meters	93A050059
CAB-DS05-S M12-IP67 TO CBX 5M	Cable, PWR & I/O, CAB-DS05-S, P-Series to CBX (DB25), 5 meters	93A050060
CAB-DS10-S M12-IP67 TO CBX 10M	Cable, PWR & I/O, CAB-DS10-S, P-Series to CBX (DB25), 10 meters	93A051390
ETHERNET CABLES		
CAB-ETH-M01 M12-IP67 ETH. CAB. (1M)	Cable, Ethernet, CAB-ETH-M01 M12-IP67 to RJ45, 1 meter	93A051346
CAB-ETH-M03 M12-IP67 ETH. CAB. (3M)	Cable, Ethernet, CAB-ETH-M03 M12-IP67 to RJ45, 3 meters	93A051347
CAB-ETH-M05 M12-IP67 ETH. CAB. (5M)	Cable, Ethernet, CAB-ETH-M05 M12-IP67 to RJ45, 5 meters	93A051348
CAB-ETH-M10 M12-IP67 ETH. CAB. (10M)	Cable, Ethernet, CAB-ETH-M10 M12-IP67 to RJ45, 10 meters	93A051391
I/O BOARDS		
Terminal block, DB25 Female	I/O Board, A30/T4x, Female DB25, DIN Rail Mountable	95A906346
CBX500 CONNECTION BOX MODULAR	I/O Board, A30/T4x, CBX500 CONNECTION BOX MODULAR	93A301068
CBX800 GATEWAY	I/O Board, A30/T4x, CBX800 GATEWAY	93A301077
BA100 DIN RAIL ADAPTERS	BA100 DIN RAIL ADAPTERS	93ACC1821
BA200 BOSCH ADAPTERS	BA200 BOSCH ADAPTERS	93ACC1822