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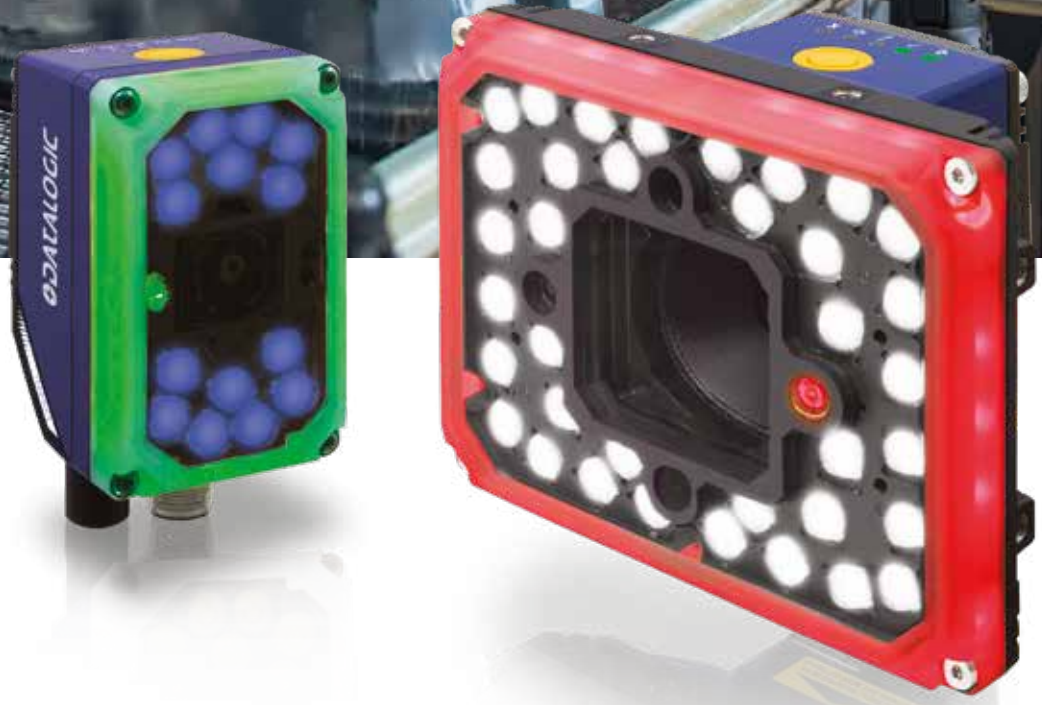
P2X SMART CAMERA

P2x

SMART CAMERA



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Impact SOFTWARE

360°

P2x

SMART CAMERA

- qHD (960x540) and 2MP (1920x1080) resolution imager options both available in monochrome and color
- Innovative 360° software configurable multi color visual feedback
- Smart camera monitor tool, allowing remote monitoring through web browser
- Automatic detection of any orientation changes, thanks to an embedded accelerometer
- Compact machine vision solution with integrated illuminator, lens and filter
- Plenty of options in terms of illuminators, filters, covers
- Possibility of selecting micro-lenses or C-mount lenses
- High quality color CMOS imager supporting color analysis
- Easy to use with IMPACT software suite with 100+ inspection tools: no code needed
- IP65/IP67 mechanical protection degree
- Operating temperature: -10...50°C

CE

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POWERFUL VISION IN COMPACT HOUSING

The P2x Series is an industrial smart camera that offers exceptional performance and flexibility in a compact, fully integrated form factor. Supporting over 100 inspection tools in the IMPACT software suite, the P2x Series allows you to tackle even the most complex application requirements.

Several illuminators, filters, covers and lenses available to maximize the quality and brightness of the acquired images

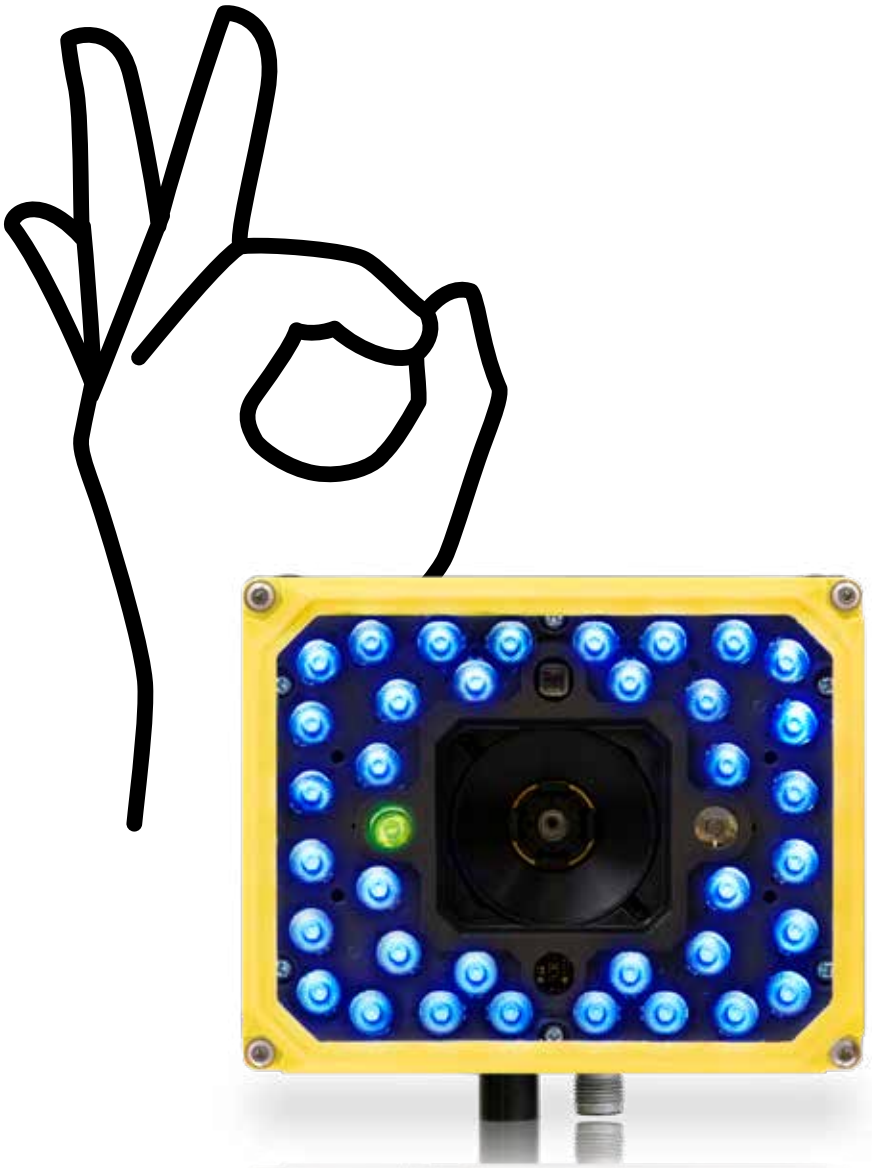
Complete vision system packed into an embedded and compact housing.
Possibility to choose between the compactness of micro-video lens or the highest quality offered by C-Mount

Two connectors: one for communication and one for power and Digital I/O.
Both can be rotated

P2X is based on one of the most sophisticated optical designs available on the market and it is easy to use by Impact

OPTIMIZED FACTORY PERFORMANCES

P2X is supported by effective tools to constantly monitor its orientation status and its output condition, thanks both to the embedded accelerometer and to the 360° multicolor visual feedback. This enhances the right degree of product maintainability.
The reduction of time devoted to product setting, orientation, maintenance and adjustment leads to higher production efficiency.
Reduction of machinery downtimes lead to higher OEE (Overall Equipment Effectiveness).



The world first smart camera featuring an embedded accelerometer to continuously monitor its orientation in space

Intuitive visual feedback even at far distances, thanks to a 360° configurable multi color visual feedback on both illuminator types

Patented green and red spots

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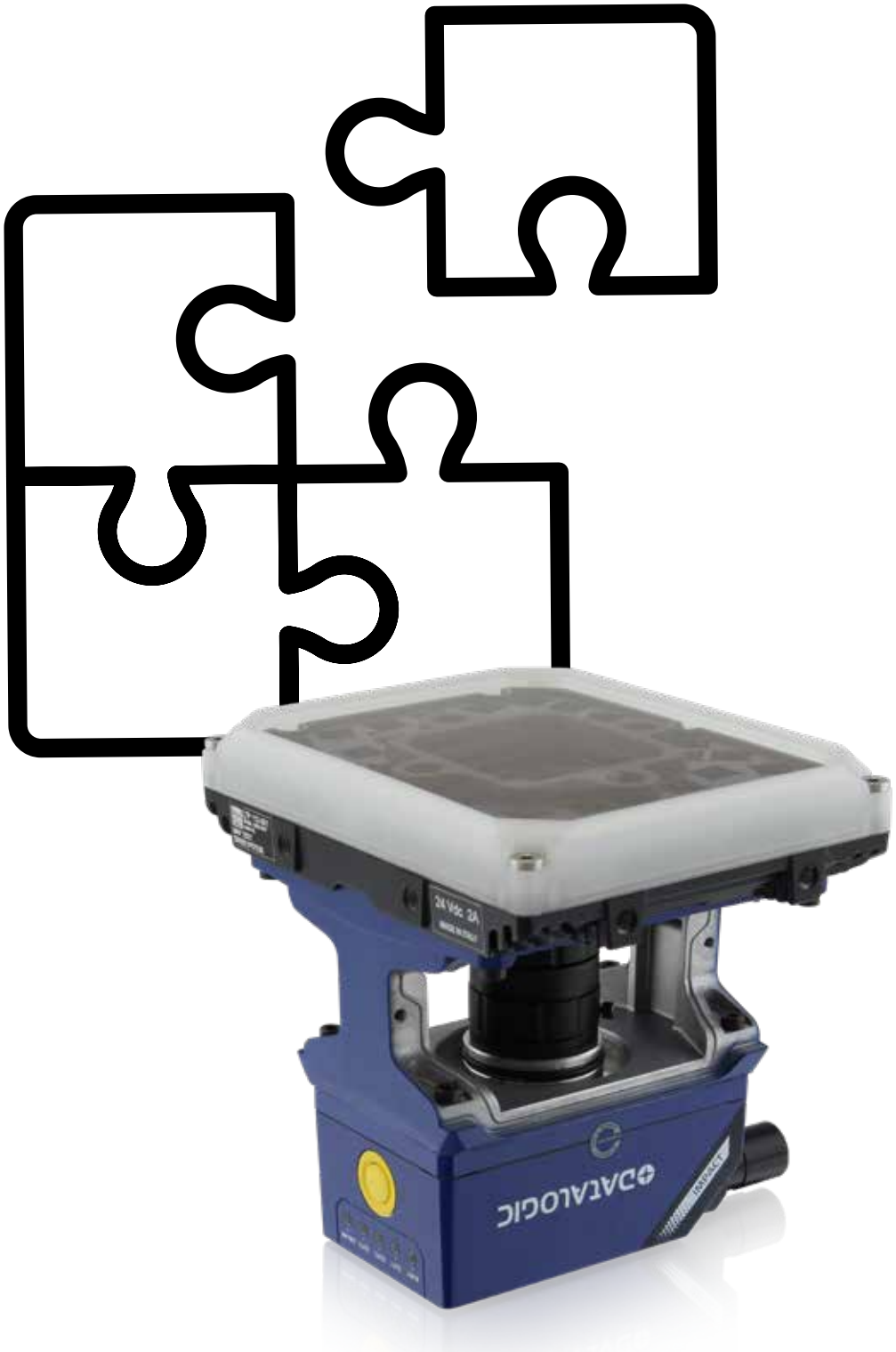
FULL FLEXIBILITY

IMPACT has no limitations when running on P2x Smart Cameras. It is possible to create your own vision program and select the vision device to be used. Some of the most powerful tools of IMPACT include:

- Advanced OCR
- Blob
- Pattern find
- Edge detection
- Color analysis
- Image filtering

Furthermore, a new monitoring panel is available, the SCM (Smart Camera Monitor), enabling the remote control of camera inspection through any device connected to the web. IMPACT configuration files are fully portable from one Datasensing hardware to the other.



A new monitoring option added to CPM and SDK, the Smart Camera Monitor (SCM), provides immediate access to inspection results, statistics and parameters, image diagnostics to any devices able to run a web browser

The SCM supports several languages and can be customized defining multiple user access level with password protection

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IMPACT: POWERFUL SOFTWARE SUITE

Impact SOFTWARE

CPM (Control Panel Manager)

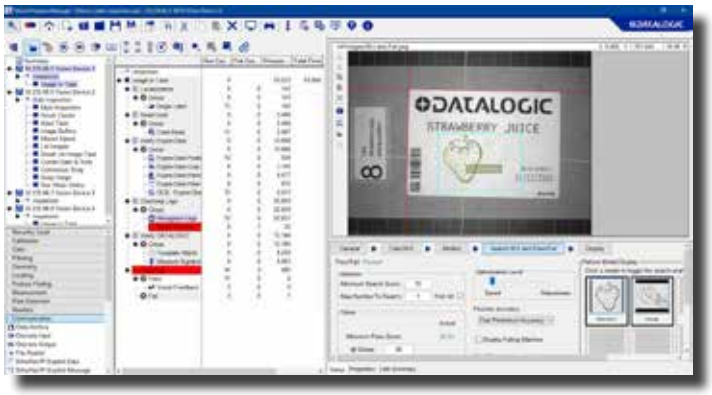
- Drag & Drop, Point & Click Programming for Customizable Operator Interfaces
- Supports Multiple Camera Connections
- Allows for Bi-Directional, Runtime Control of all IMPACT Cameras
- Supports 5 levels of Password Protection
- 45+ Standard Controls
- Available in Standard, Runtime & Embedded Versions

SDK (Software Development Kit)

Through IMPACT SDK customers can embed Machine Vision monitoring capabilities into operator HMI thus creating a single control point for the whole manufacturing line

VPM (Vision Program Manager)

- Multi-Camera Connection Support Intuitive Drag & Drop Programming
- Logic Tools allow for Explicit Control
- Tree View provides easy to follow Tool Programming & Debugging
- Tool Setups for easy Configuring,
- and Properties for greater Access100+ Standard Tools
- 20+ Composite Tools
- Built-in Display Panel provides Configurable Operator Interface



SCADA

Scada is an extension of the Smart Camera Monitor that allows to collect in one Web page the Graphical User Interfaces to more that one IMPACT device. The summary page is customizable and allows to give different space in the view at each device and this allows to go forth and back and ultimately navigate to any single Smart Camera Monitor instance

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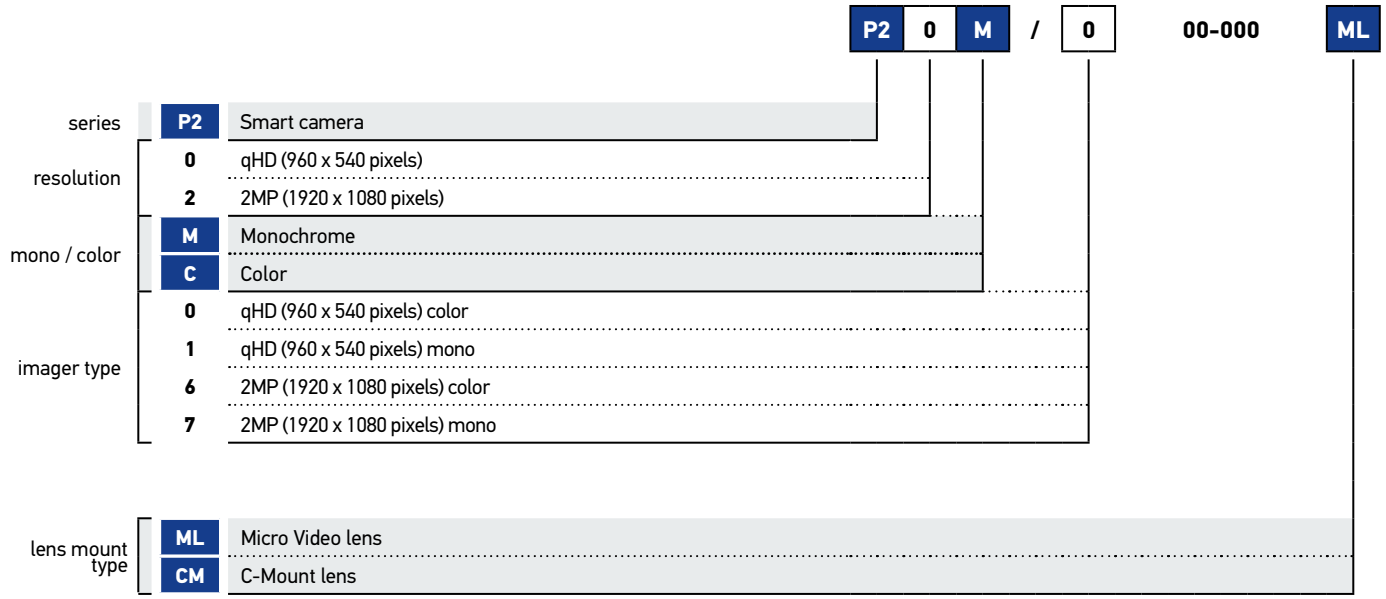
PEKAT VISION
BRAIN BEHIND THE EYE

DEEP LEARNING INTEGRATED SOLUTION

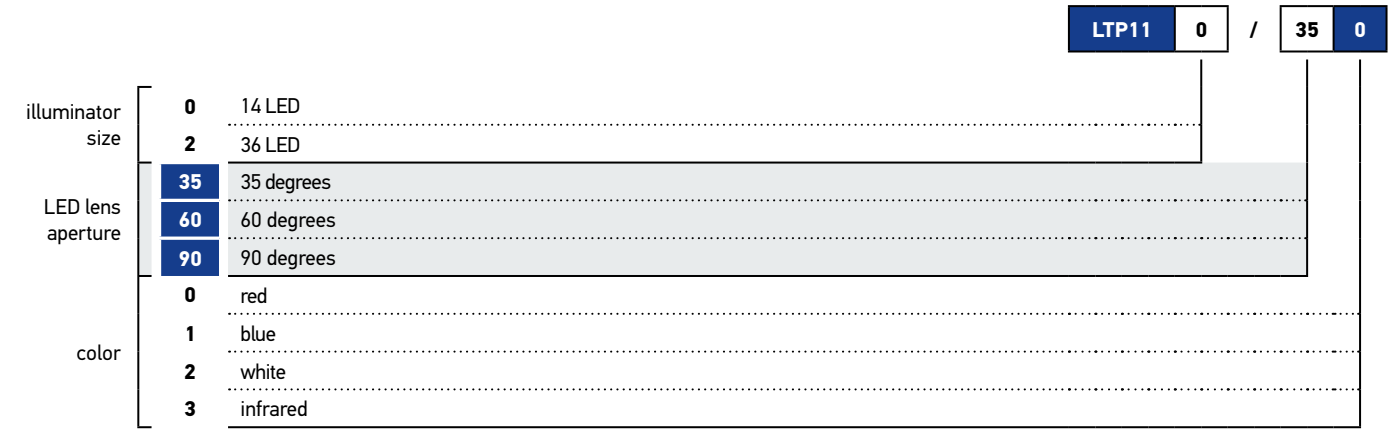
Impact SOFTWARE

- Impact sends pre-processed images to Pekat Vision
- Impact receives results and graphics from Pekat Vision

CODE DESCRIPTION



CODE DESCRIPTION



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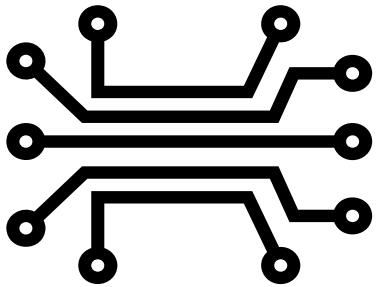
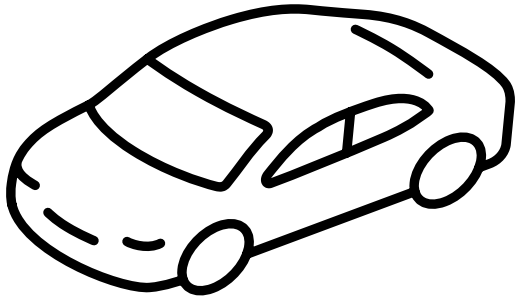
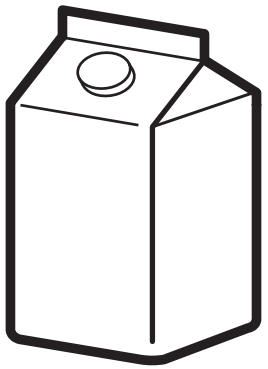
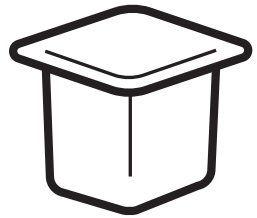
SOLUTION FOR YOUR APPLICATION









P2X represents the right solution for many applications in several industries. This powerful smart camera, supported by an extremely wide and effective vision software, offers a valid tool for automated quality inspection and an opportunity to improve process effectiveness. Some of the main industries where P2X can provide high value are:

- Automotive, with quality control in manufacturing of brakes, tires, engines, and chassis
- Electronics, with the check of right mounting and orientation of components on PCBs
- Food and beverage, in filling and packaging phases
- Tobacco, with label and content inspection
- Pharmaceutical, in filling and packaging phases

LABEL CONTENT CHECK

Thanks to the state-of-the-art performance of IMPACT Advanced OCR tool, P2x is able to read strings of text reliably, even in case of characters poorly printed

LABEL INSPECTION IN PACKAGING

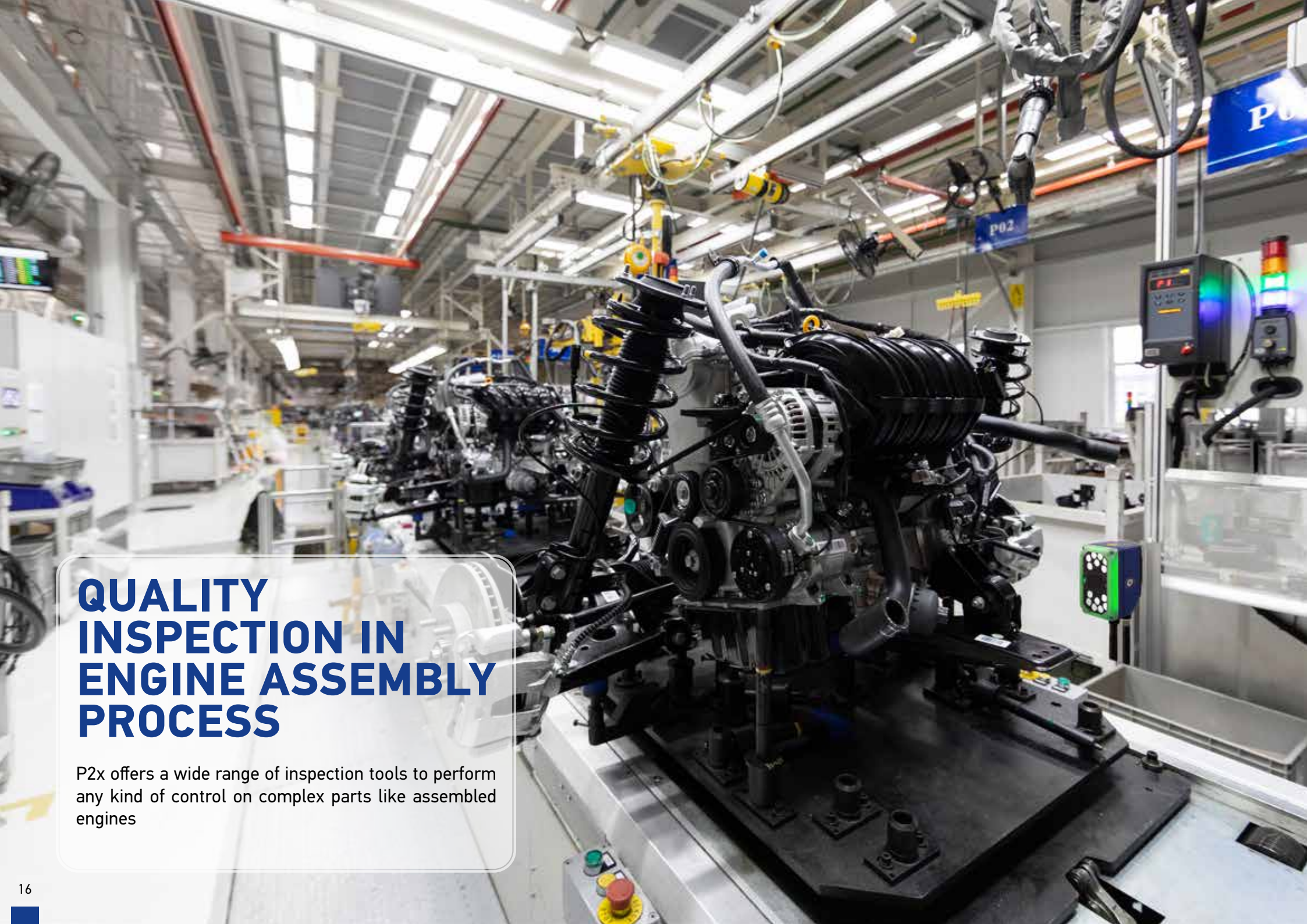
P2x smart cameras are able to check variable data printing like best before dates, batch and serial numbers to make sure that information are properly printed on primary packages

QUALITY INSPECTION IN BATTERY MANUFACTURING

With the wide range of inspection tools available in IMPACT software, P2x allows to verify the presence and correct assembling of parts in electrical batteries

QUALITY CONTROL IN BEVERAGE INDUSTRY

P2x is the perfect choice for applications in beverage industry requiring quality inspection of bottles such as cap inspection, label verification, liquid level check



QUALITY INSPECTION IN ENGINE ASSEMBLY PROCESS

P2x offers a wide range of inspection tools to perform any kind of control on complex parts like assembled engines

LABEL INSPECTION

The application of P2x smart cameras allows to check the text content of a label and verify that it is coherent with the product package content

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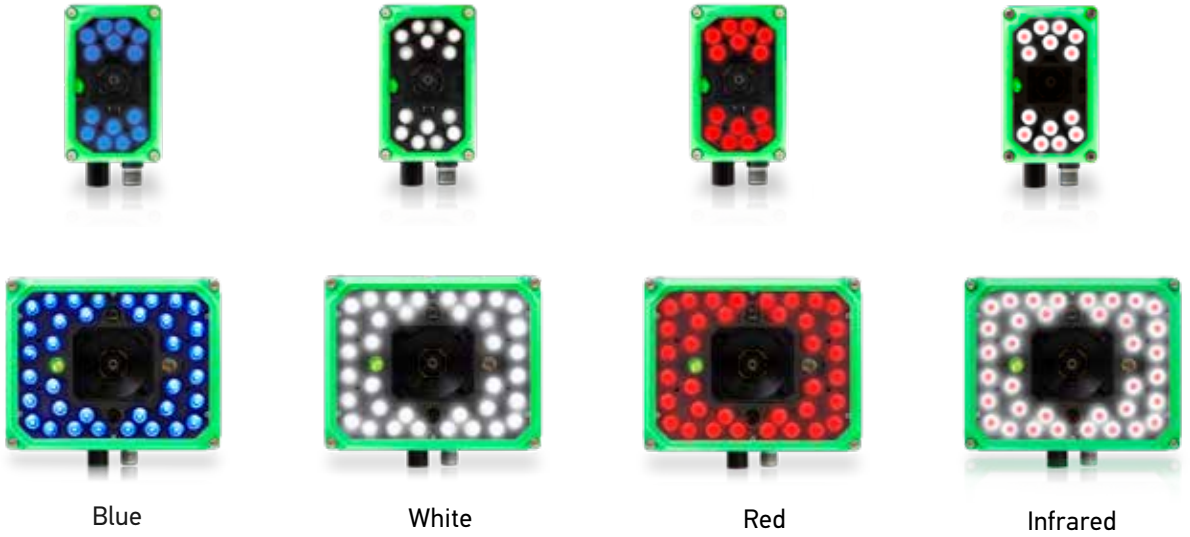
P2X
ACCESSORIES

A smart camera needs the right “ecosystem” of components to perform effectively. P2x product portfolio is characterized by a comprehensive set of accessories, with a wide range of illuminators, filters, covers and lenses.

ILLUMINATORS



Blue | White | Red | Infrared

LENSES

COVERS

Standard | ESD | Polarized | Harsh environment

FILTERS

14L optical filters

36L optical filters

Red bandpass | Blue bandpass | UV-cut | IR bandpass | YAG-cut

CABLES

CV-A1-30-F-**

CN-N1-48-F-**

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OUR EXPERTISE MAKES YOUR WORK EASIER

Datasensing is merging Datalogic's Sensor & Safety and Machine Vision business unit with M.D. Micro Detectors, both with 50 years of experience and representing the history of sensors in Italy since the early '70s.
Our company is developing, manufacturing and supplying Machine Vision, Sensor and Safety, with more than 200 product lines, including 22500 standard and custom part numbers, protected by over 100 patents.
Our products are designed to inspect, detect and protect your production in better and easier way, with diffused applications in industrial automation of manufacturing and intralogistics processes.
Datasensing means high technology and innovative products... but it's the experience of our extraordinary people that makes the difference, from pre-sales to order processing and post-sales.

We have a global presence, with Headquarters in Italy and offices in Europe, China and US, together with a qualified network of distribution partners in all countries.
Datasensing not only focus on products, but also on Environmental, Social and Governance initiatives, as reducing the impact of products, production and logistics.

Our Mission is *to create added value through smart sensing solutions based on sustainable standard and custom products, developed with care and leading know how.*
Our Vision is *to be the top of mind partner to innovate sensing solutions for industrial automation.*

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