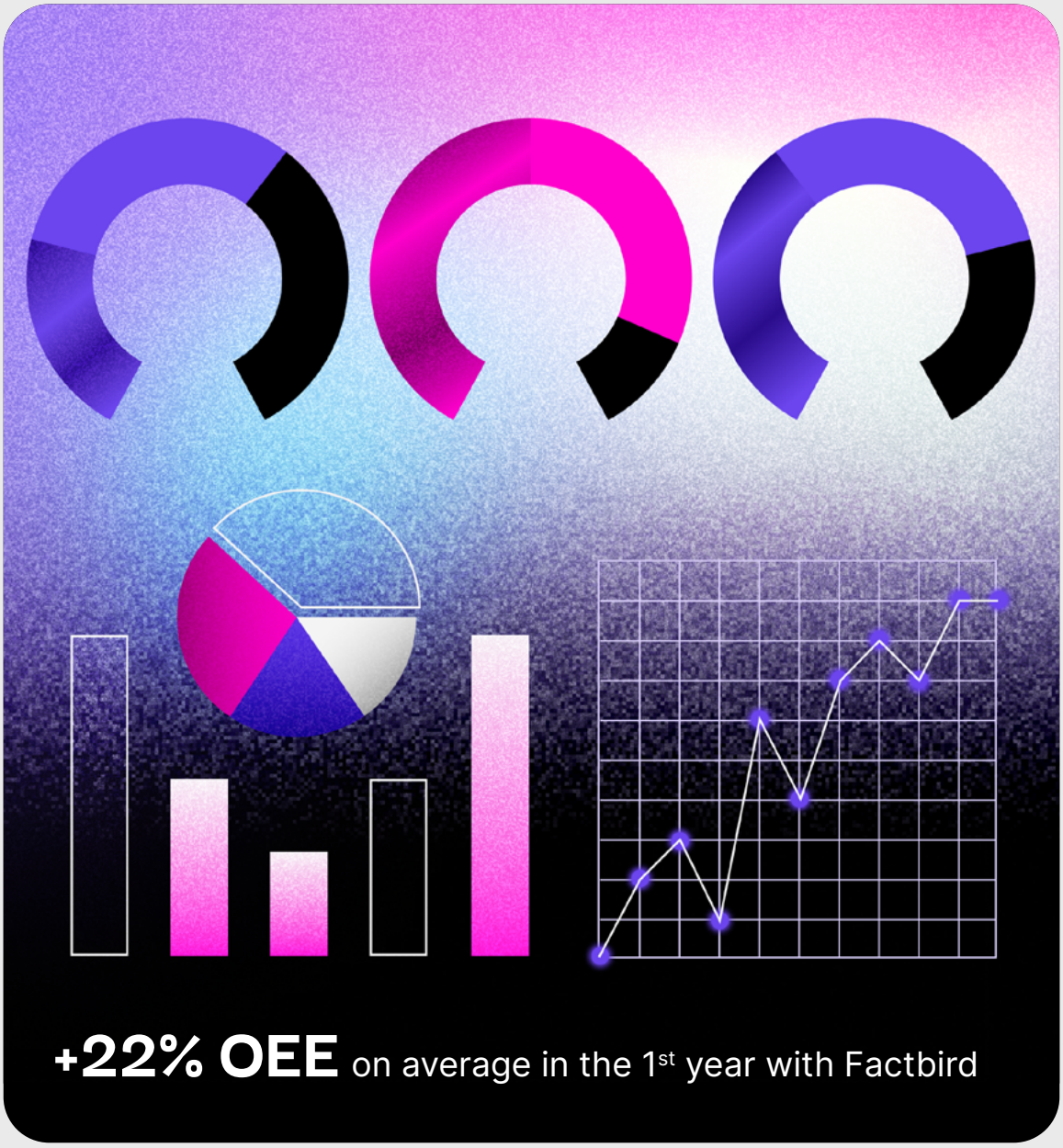
FACTBIRD

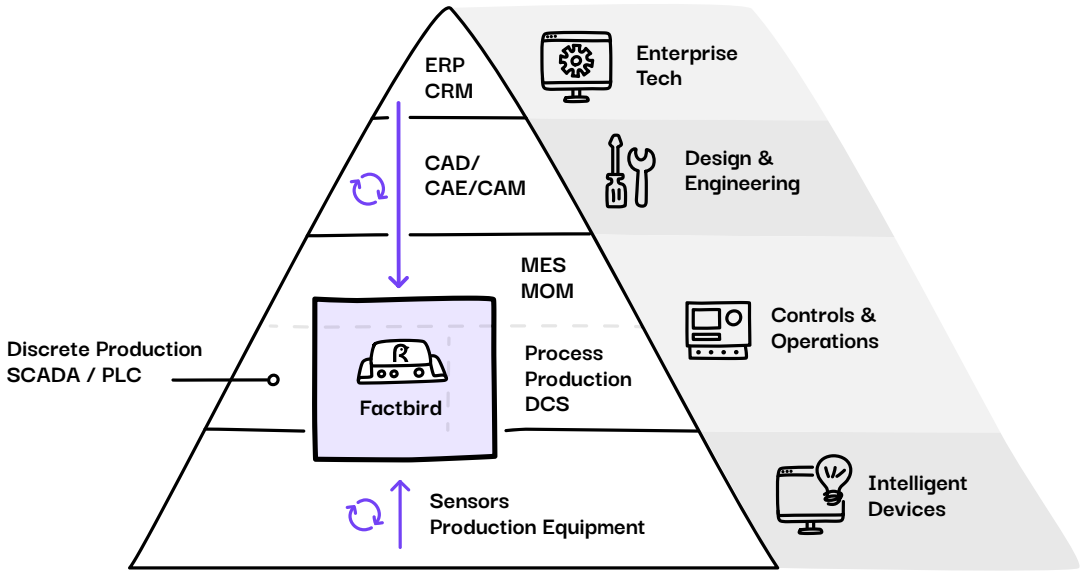
MANUFACTURING INTELLIGENCE SOLUTION

MANUFACTURING WITH CERTAINTY



+22% OEE on average in the 1st year with Factbird

Pioneering the future of intelligent manufacturing



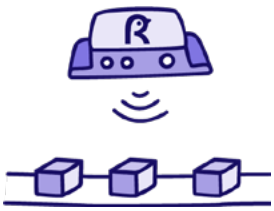
At Factbird, we revolutionize the world of manufacturing with our advanced digital solutions. Founded in Denmark, a land celebrated for its innovation and creative design, we have expanded our horizon across the globe, leaving a profound impact in Europe and the USA.

Our mission is to redefine the boundaries of manufacturing intelligence, promoting operational efficiency, enhanced process optimization, and sustainable practices.

Know for a fact what's causing

Downtime ^

Bottlenecks
Inefficiencies
Defects



Collect data

Identify bottlenecks

Optimize production

Factbird is an end-to-end manufacturing intelligence solution that simplifies data gathering and analysis for all manufacturers.

With this solution at your fingertips, you can finally take charge of your manufacturing efficiency and redefine the boundaries of success.

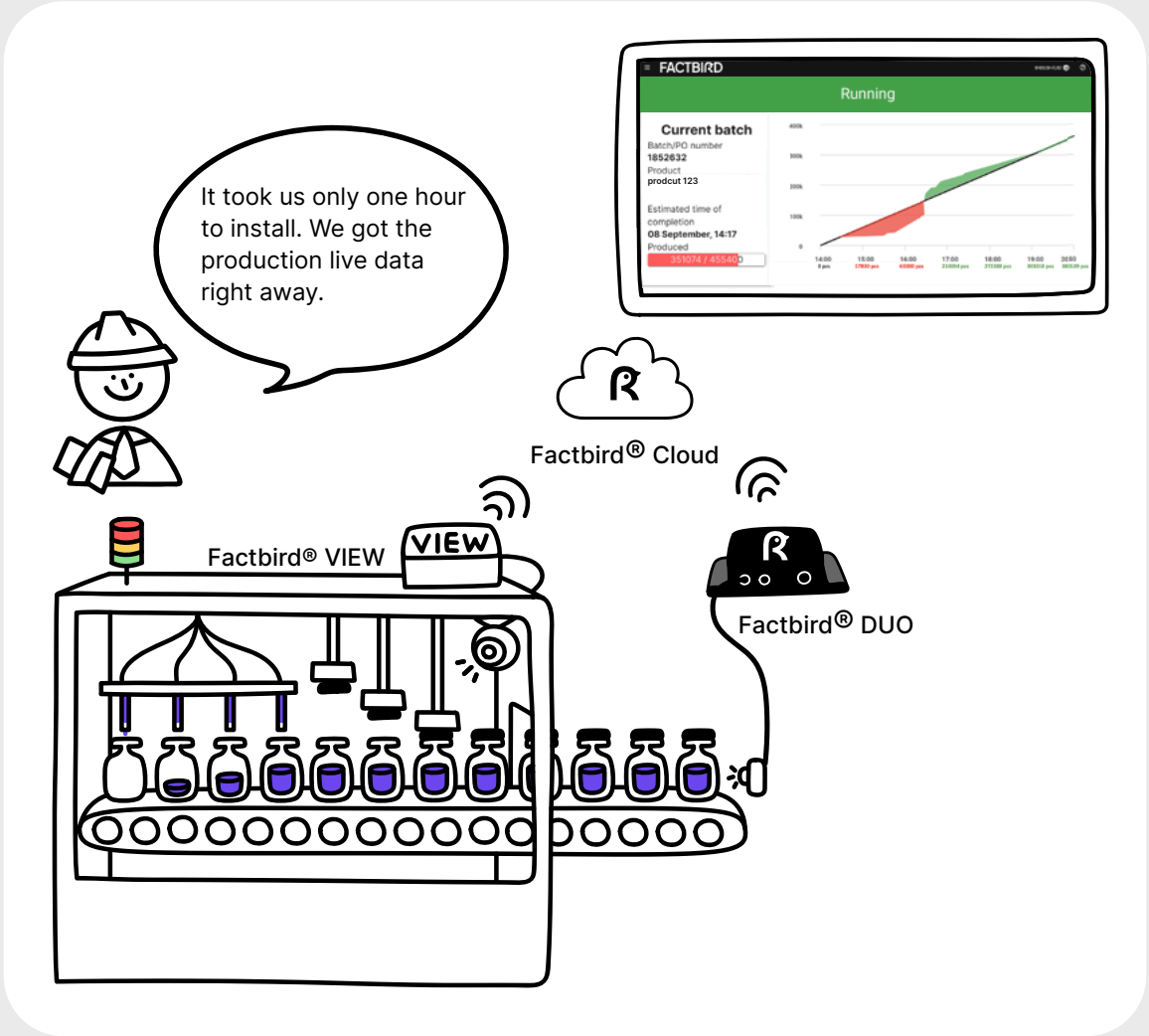
- No equipment upgrades required
- No IT integrations necessary
- Production remains uninterrupted

Tap into the power of automated plug-and-play data collection

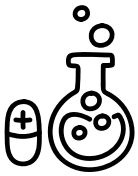
How it works

Factbird automatically collects manufacturing data from sensors, PLCs, and cameras using Factbird® edge devices or from your equipment's PLC.

The data is securely transmitted to the Factbird Cloud, skipping various complex automation layers, and transformed into real-time actionable insights.



Manufacturers using Factbird see significant OEE increase after only 1 year*



Pharmaceutical

+26%

Ensure seamless batch production and data traceability

Food & Beverage

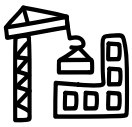
+25%

Optimize yield with production monitoring and analytics

Industrial Equipment & Devices

+21%

How to reduce downtime with instant visibility into manufacturing process



Construction & Building

+23%

Optimize material and resource usage and become more efficient

Automotive

+26%

Accelerate throughput in a high-mix production environment

Packaging & Containers

+38%

Sustain high-speed quality production and reach output target

*Based on customer data, between June 2016 and December 2022.

Software Advice ★★★★★

Capterra ★★★★★

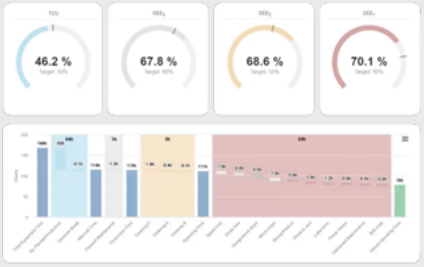
G2 ★★★★½

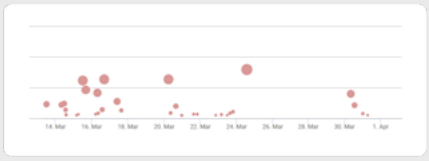
Reach your manufacturing excellence goals with ease

Step 1 - Track Flow

Start by attaching a sensor to the bottleneck area of your production line, which will count and time stamp the flow of products. From that single data point, you can gain a deeper understanding of your production process and track various KPIs.

Step 2 - Track Stop Reasons





Whenever the production line comes to a halt, you can track the duration of the stop and inquire about the reason from the operator, or, where possible, extract the stop cause directly from the machine's PLC.

On the analytics page, users can deep dive into the most significant contributors to downtime per shift, day, week, month etc.

During continuous improvement meetings with operators and technicians, we recommend focusing on the top 3-5 stop causes. Utilize the scatter plot in analytics to assess whether the measures taken have had the desired effect.

Step 3 – Set performance targets and start tracking

Start by setting the expected speed for batch or shift, helping determine if the line is at it's optimal speed or lagging. Factory operators and technicians should be actively involved in setting these performance targets. Real-time insights can drive behavioral changes and instill ownership on the factory floor.

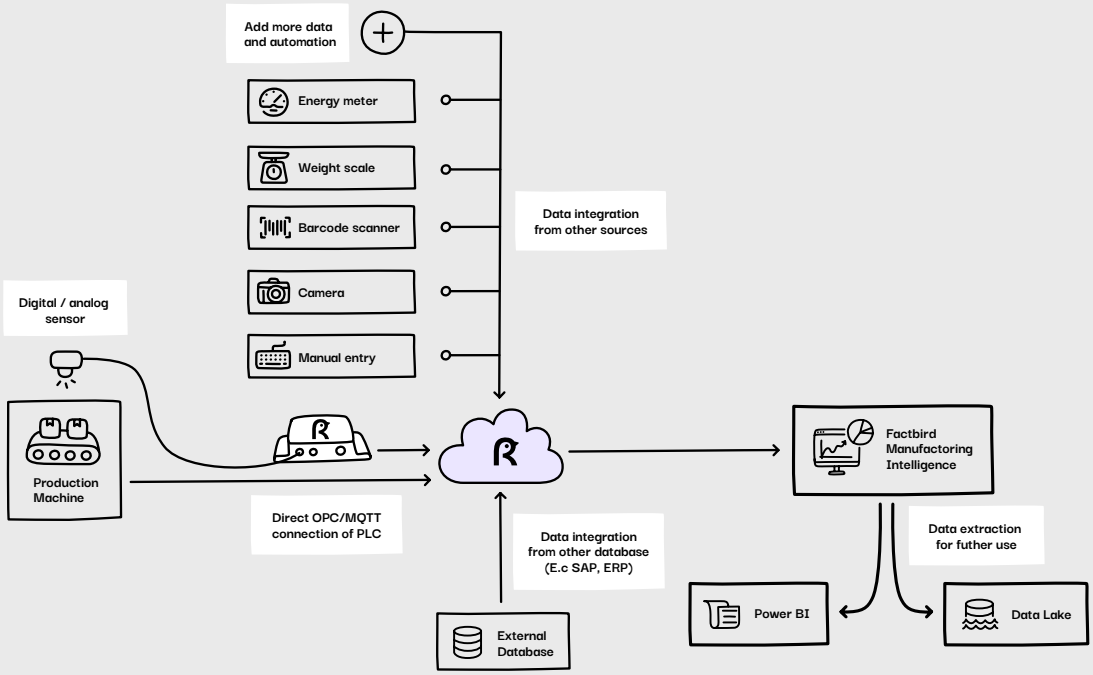
Step 4 – Monitor process performance, rejects and defects

By monitoring rejects and defects, you can identify whether the process is under control or not.
With Factbird, you can add sensors to count rejects on the line and register defects on the batch, allowing you to track process performance at a granular level.

Step 5: Automate preventive and predictive maintenance

Place sensors on critical equipment to track parameters and detect unwanted variations that could lead to failure. Sensors on electrical motors, pumps, and conveyor belts, make it easy to monitor equipment wear and tear.
By correlating this data with manufacturing output, you can establish a baseline and get early warning signs of potential issues.

Factbird Manufacturing Intelligence



Edge devices to collect data...

	Edge Devices and IIoT Gateways Pre-configured IIoT devices and sensors to collect production data with no system interference			**Integrated Data Collection** Solutions for sending PLC data to the cloud through MQTT or Kepware	
	 Factbird® Duo	 Factbird® Omron NX1	 Factbird® View (Video option)	 Omron PLC	kepware Kepware (or similar)
Plug-and-play installation	✓	✓	✓	—	—
Serverless solution	✓	✓	✓	✓	—
Number of inputs	2	8 to unlimited	1 camera	Unlimited	Unlimited
Input with physical input	Digital/Analog	Digital/Analog/ IO-Link	—	Digital/Analog/ IO-Link	—
PLC connectivity	Copying PLC signals	Copying PLC signals	—	Direct PLC interface	Direct PLC interface
Device connection to the cloud	Cellular/Wi-Fi	Cellular/Wi-Fi/ Ethernet	Wi-Fi/Ethernet	Existing network	Existing network
Event handling e.g. Auto stop cause registration	—	✓ Only in case of a few signals	—	✓	✓

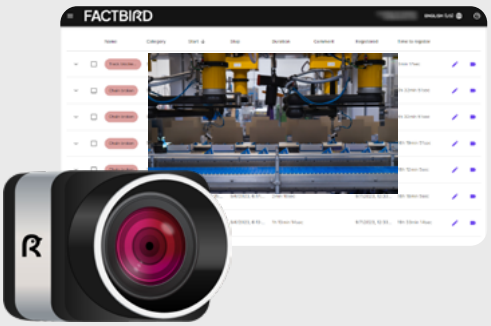
...with powerful add-ons

Sensors

Factbird® edge devices are designed to be compatible with a wide range of sensors on the market.
We also offer a vast selection of Omron sensors tailored to specific industries and application needs, such as distance and diffuse sensors, humidity, inductive, temperature, vibration, pressure and current sensors.

Video data capture

Gain an unparalleled understanding into every aspect of your production process with high-quality video data without the need for integration with SCADA or HMI systems.
Simply click on the relevant data point and view the corresponding video footage to quickly identify and resolve production stops.



Energy monitoring devices

Monitor your energy consumption during standby or at various performance levels to draw value adding insights.
Factbird® connects to existing energy meters on the market or you can get our chosen solutions available for direct monitoring and transformer monitoring.

Factbird® DUO

COLLECT DATA WITH PLUG-AND-PLAY EASE

Factbird® DUO is and IoT data collection device that is designed to provide you with reliable data, automatically from any two sensors of your choice. It works with any digital or analog sensors on the market and is design to withstand any production environment.

Access your data from anywhere at any time, and start making data-driven decisions.

How it works

Factbird® DUO collects data from sensors such as production units, material temperature, and more. This data is securely transmitted directly to the Factbird cloud server via Wi-Fi or mobile network and visualized in real time on a secure web-based user interface accessible from your smartphone, tablet, or PC.

Key features

Non-invasive solution

An end-to-end solution that is retrofitted to seamlessly integrate with existing infrastructure.

Effortless Installation

Installation can be done in under 1 hour, while production continues uninterrupted.

Secure data

Advanced encryption and secure network communication ensure maximum protection of your data.

Checklist for installation

- Factbird® DUO data collection device
- Power supply unit
- Sensor (digital or analog)
- Analog convertor (when installing a analog sensor)
- Sensor cable

Product Specifications

General product specification	
Sensor input	2 inputs (digital or analog*)
Dimensions WxHxD	151×43×73mm / 5.9×1.7×2.8 in
Weight	175 g / 6 oz
Enclosure material	ABS
Gasket material	Silicone
Connector power	M8 male (4 pin)
Connector sensor	M8 female (4 pin)
Operating temperature	-20 to +65°C
Power	
Input power	24 VDC
Input current	1 A
Sensor voltage	24 VDC
Sensor max current	200 mA
Sensor Input Digital	
Sensor input levels	IEC 61131-2 Type 1, 2, 3
Input frequency max	100 Hz
Pulse width minimum	5 ms
Sensor type	NPN or PNP
Counter increment	Falling edge
Sensor Input Analog*	
Sensor input levels (via convertors)	4-20 mA / 0-10V

**Only on hardware version 2 and higher and via adaptor*

Connectivity	
Connection types	Cellular (4G LTE, 3G 2G), Wi-Fi
LTE bands	LTE FDD: 12, 28, 13, 20, 18, 19, 26, 5, 8, 4, 3, 2, 1, 7. LTE TDD: 39, 40, 41, 38. WCDMA: 5, 8, 2, 1. GSM: GSM 850, E-GSM 900, DCS 1800, PCS 1900.
Wi-Fi frequencies	2.4 / 5 GHz
IEEE 802.11 standards	a/b/g/n
EMC Emission	
Radiated emission and conducted emission	EN 55022: 2006 + A1:2007 47 CFR Part 15 Class B
EMC immunity	
ESD	EN 61000-4-2:2009
Radiated RF	EN 61000-4-3:2006 + A1:2008 + A2:2010
Conducted fast transient	EN 61000-4-4:2004 + A1:2010
Conducted surge transient	EN 61000-4-5:2006
Conducted RF	EN 61000-4-6: 2009
Power frequency magnetic field	EN 61000-4-8:2010
Voltage dips and interruptions	EN 61000-4-11:2004

Factbird® Omron NX1

UNLOCK ADVANCED DATA COLLECTION

The Factbird® Omron NX1 is designed for organizations with the most demanding data needs. With this advanced IoT device you'll get a comprehensive and customizable data collection solution as you can add your own PLC programs to collect data.

Gather, process, and analyze large amounts of data from various sources in real-time.

How it works

Factbird Omron NX1 is a IIoT data collection hardware with multi sensor connections based on Omron PLC technology. This edge device collects data from digital and analog sensors such as production units, material temperature, and more. The data is securely transmitted directly to the Factbird cloud server via Wi-Fi, mobile network or ethernet and visualized in real time on a secure web-based user interface accessible from your smartphone, tablet, or PC.

Key features

Non-intrusive solution

An end-to-end solution that is retrofitted to seamlessly integrate with existing infrastructure.

Effortless Installation

Installation can be done in under 1 hour, while production continues uninterrupted.

Secure data

Advanced encryption and secure network communication ensure maximum protection of your data.

Checklist for installation

- Factbird® Omron NX1 data collection device
- Power supply unit
- Sensor (digital or analog)
- Sensor cable

Product Specifications

General product specification	
Sensor input	8 inputs from GX-ILM08C. *More IO-Link master modules can be added.*
CPU module	Omron NX102
Input module	Omron NX-ID4342 *Can be customized with other NX input module.*
Router	RUT240 *D, RUT240 *1
Width	250 mm
Height	120 mm
Depth	160 mm
Connectivity	
Connection types	LTE, WiFi, Ethernet
LTE bands	1, 2, 3, 4, 5, 7, 8, 12, 20
UMTS bands	850, 900, 1900, 2100
Wi-Fi frequencies	2.4 GHz
IEEE 802.11 standards	b/g/n
LAN speed	10/100 Mbps
Ethernet standards	IEEE 802.3, IEEE 802.3u

Sensor Input Digital	
Power supply to sensor	24 VDC
Sensor input levels	IEC 61131-2 Type 3
Input frequency max	100 Hz
Pulse width minimum	5 ms
Sensor type	PNP
Sensor max current draw	200 mA
Connector plug	M12 (4 pin)
Power Input	
Input Voltage	24 VDC
Input Current	2.4 A
Connector plug	M8 (4 pin)
Power Supply Unit (Packaged)	
Input Voltage	90-264 VAC
Input Current	1.5 A
Frequency	47-63 Hz
Model	125-4248
Manufacteur	RS Pro
Plug Type	M8 (4 pin)
Operating Temperature	0-40°C

Factbird® VIEW

ENHANCE PRODUCTION INSIGHTS WITH VIDEO

Leverage Factbird® VIEW to Take the guesswork out of your production process.

Quickly and easily identify the root cause of stops by just clicking on the datapoint, and watch the video. You'll get actual video footage of the line at the exact moment to diagnose and fix problems straight away.

How it works

Factbird® VIEW collects and synchronizes video data images from a network camera. The captured images are instantly transmitted to the Factbird Cloud server, where they are seamlessly integrated with your production data and archived in real-time, providing a comprehensive and up-to-the-minute record of your operations.

Facilitate video historical analysis to understand what led to that significant stop or incident last week. Further support root cause analysis and process improvement.

Key features

Non-intrusive solution

An end-to-end solution that is retrofitted to seamlessly integrate with existing infrastructure.

Effortless Installation

Installation can be done in under 1 hour, while production continues uninterrupted.

Secure data

Advanced encryption and secure network communication ensure maximum protection of your data.

Checklist for installation

- Factbird® VIEW
- USB camera
- Power supply unit

Product Specifications

Factbird View Box	
IP Rating	IP66/IP67
Dimensions (LxWxH)	160 × 80 × 65 mm
Material	Polycarbonate
Gasket Material	Polyurethane
UV Resistance	UL 508
Temperature	0-45°C
Camera connection	USB / HDMI
Supported cameras	Logitech Webcam / GoPro
Avg. bitrate	2.4 mbps
Resolution	480 p
Frame rate	30 fps
Connectivity	
Connection types	Ethernet, WiFi
WiFi Protocols	802.11 b/g/n/e/i
Security	WPA/WAP2 PSK, WPS
Frequency band	2.4 GHz
Transmission power	max 31 dBm
Ports & Protocols	80 (TCP) HTTP, 443 (TCP) HTTPS, 53 (UDP) DNS, 123 (UDP) NTP

Power Input	
Input Voltage	5 VDC
Input Current	2 A
Power Supply Unit (Packaged)	
Input Voltage	100-240 VAC
Input Current	0,5 A
Frequency	50-60 Hz
Model	T6259ST
Manufacturer	Stontronics
Plug Type	EU Type
Operating Temperature	0-40°C
IP Rating	No

Factbird® Energy Meter

TRACK AND REDUCE THE EQUIPMENT ENERGY CONSUMPTION 24/7

Reduce equipment energy consumption without compromising on output and performance.

Conveniently track and monitor the machinery power consumption to shed light on usage while on standby or at different speed levels.

How it works

Factbird's energy monitoring solution, which utilizes off-the-shelf current transducers, offers an easy Plug-and-Play solution. The solution allows for easy measurement of current consumption in both single-phase and three-phase systems, providing estimates of total power consumption.

By connecting current transducers of split-core types to Factbird® devices, the data is securely transmitted to the Factbird® cloud server. The current data is converted to energy consumption values in kilowatts (kW) , and analyzed and visualized together with other relevant data such as production output.

Factbird® offers four types of standard transducers depending on the maximum current draw of the machines. Our standard current transducers measure up to 50A, 150A, 250A, and 500A. Other current transducers can be used for specific use cases.

Key features

Non-intrusive solution

An end-to-end solution that is retrofitted to seamlessly integrate with existing infrastructure.

Effortless Installation

Installation can be done in under 1 hour, in many cases while production continues uninterrupted.

Machine level analysis

Energy consumption data can be correlated and analyzed at the machine level alongside production performance data.

Checklist for installation

- Factbird® devices
- Power supply unit of Factbird® devices
- Split core current transducer
- Converter
- Cable with wire-ends and an M12 connector
- Cable with M12 and M8 connectors

Product Specifications

LEM AT50 B420L (Current transducer)	
Dimentions	44.5 × 36.5 × 67 mm / 1.8 × 1.4 × 2.6 in
Primary aperture	⌀16 mm / 0.6 in
Weight	90 g / 3.2 oz
Operating temperature	-20°C to 60°C / -4°F to 140°F
Measuring range	50 A
Precision	±1.5% of full-scale

LEM AT150 B420L (Current transducer)	
Dimentions	44.5 × 36.5 × 67 mm / 1.8 × 1.4 × 2.6 in
Primary aperture	⌀16 mm / 0.6 in
Weight	90 g / 3.2 oz
Operating temperature	-20°C to 60°C / -4°F to 140°F
Measuring range	150 A
Precision	±1.5% of full-scale

J&D CT Clamp 0-250A (Current transducer)	
Dimentions	45 × 46.6 × 75.5 mm / 1.77 × 1.83 × 2.97 in
Primary aperture	⌀24 mm / 0.9 in
Weight	195 g / 6.9 oz
Operating temperature	-20°C to 50°C / -4°F to 122°F
Measuring range	250 A
Precision	±2% of full-scale

J&D CT Clamp 0-500A (Current transducer)	
Dimentions	57.1 × 52.8 × 91.4 mm / 2.3 × 2.1 × 3.6 in
Primary aperture	⌀36 mm / 1.4 in
Weight	308 g / 10.9 oz
Operating temperature	-20°C to 50°C / -4°F to 122°F
Measuring range	500 A
Precision	±2% of full-scale

ifm DP2200 (Converter)	
Dimentions	4563 × 30 × 24 mm / 2.5 × 1.2 × 0.9 in
Weight	108 g / 3.8 oz
Operating temperature	-25°C to 60°C / -13°F to 140°F
Measuring range	4-20 mA
Precision	±0.75% of full-scale

Please refer to each manufacturer's website for more information.

Please refer to the Factbird® energy monitoring solution that utilizes an energy meter for applications requiring higher precision.

Trusted by hundreds of manufacturers

Collect data with plug-and-play ease

Dean O'Loughlin,
Continous improvemnet Manager

Star Brands

"It was surprisingly impressive how quickly we completed the installation, and we were thrilled to discover that we could access live data right away."

We have improved our OEE by 27%

Miguel Rodriguez, Operations Manager

autins

"With Factbird we have improved our OEE by 27%. The monthly production reports boost our confidence in decision-making, and the operators appreciate being able to easily monitor their shift performance. This clear visibility helps us find areas for improvement and understand why any machine issues occur."

40% increase in production performance in less than a year

Martin Ole Madsen,
Operation Excellence Manager, SVS Europe

Danfoss

"By integrating camera and sensors, we can combine video footage and data to quickly identify and resolve issues on the line. This has resulted in up to 40% increase in output on the line."

My work on the shop floor became so much easier with valid data

Thomas Buthler, Team Leader

xellia

"It did not take us long to set up the system and start analyzing each batch to identify reasons for stops. I was really existed. We were able to save a lot of time and suddenly had a clear view of our production."

Join the community that achieves more with Factbird!

Software Advice ★★★★☆

Capterra ★★★★☆

G2 ★★★★☆

FACTBIRD

Book a demo

Website:
factbird.com

For sales inquiries:
sales@factbird.com

Denmark office (HQ):
Nyropsgade 37, 3, 1602 København V

The USA office:
1 High Street Court, Suite 2, Morristown, NJ 07960