SCHILDKNECHT

SMART DATA COMMUNICATION

Catalogue 2.2

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Liberty is wireless

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SCHILDKNECHT
SMART DATA COMMUNICATION

PREAMBLE
Liberty via technology

In 1981, more than 35 years ago, I founded an engineering office for hard- and software solutions for realizing customer requirements with microelectronics and microprocessors.

During this time we have successfully developed products for many important companies which we partly still deliver today. I was able to develop peripheral devices for the first programmable logic controllers and was allowed to intensively get to know emerging communication protocols and fieldbus systems.

In 1995, we decided to increasingly realize own product ideas and also to offer on the market under our own name.

Under the brand name DATAEAGLE ® we have successfully established ourselves in the field of Industrial Wireless with radio solutions and system networking.

In many thousands applications, our radio solutions prove of value every day anew.

Machine productivity and machine safety frequently depend directly on interference-free transmission.

This is amongst others achieved by a patented procedure which my employees have successfully elaborated from development and integrated in our products. Apart from radio technologies such as WLAN, Bluetooth, Zig-bee etc., a further mainstay are systems for mobile radio connection for machines. There is currently a lot of activity and interest in this young M2M (machine-to-machine) and IoT (Internet-of-things) market. We position ourselves as a complete solution provider capable of offering everything from a single source from initial consulting services via devices, SIM cards (worldwide connectivity) and portal, up to the development of business models together with the final customer.

DIPL.-ING. THOMAS SCHILDKNECHT
MANAGING BOARD OF SCHILDKNECHT AG

HISTORY
More than 35 years of development

Schildknecht Industrielektronik was founded as an engineering office in 1981 by the graduate engineer Thomas Schildknecht and in August 2016 celebrated its 35th company anniversary.

For continuing this business development in the long term, we have been an owner-operated public company under family ownership since 2009. Short-term profitability targets are not our objective.

We orient ourselves to customer benefit and longstanding business development.

Let us actively co-determine this techno-logically very exciting time by intelligent solutions. Permanent investments in new technology, highly qualified employees and a network of reliable business partners are nowadays the backbone of the public company.

PHILOSOPHY
Easy and reliable

Acquiring our customers every day anew: This is the objective we have in our mind's eye for ensuring a successful and durable cooperation. How we achieve this?

With service-oriented, creative heads and innovative products moving the company ahead all along.

Our common goal is creating our customers' day-to-day work easier and safer and coping with technical hurdles together. Our highly professional competence with regard to hardware and soft-ware has been convincing our customers for more than 35 years. This is the confirmation of the first-class work of our employees and encourages us every day to find new solutions for continuing the collective path. The philosophy of our pro-ducts is realizing the technically best possible availability of a transmission path. For achieving this, product innovation and further development of our technical solutions are our first priority. It is our aim to be the product on the market. This is proved every day by thousands of devices in roughest industrial environments.

We do not consider ourselves just as a product supplier, but as a solution provider and partner.

Use our wings.

OUR DATA TRANSMISSION IS

SAFE

DATAEAGLE7000

SECURITY IN DATA COMMUNICATION

Encryption, Hacking and NSA

M2M solutions, no matter how attractive they may be for practical utilization, still encounter some not entirely unjustified scepticism with regard to sufficient availability and data security. The question is always present how a communication link, running via several levels and worldwide distances may be operated without failure and protected against access by unauthorized third parties. Definitive identification of participants, high availability of network connections and above all security of the utilized data center head the user requirements.

The radio module may effectively contribute to security and availability, also with regard to the assigned memory in the data center:

It can principally restrict its function to variable data exchange. Continuing transparent access to machinery and plants for example by updates or program modifications may be prohibited.

Moreover, each participant must identify himself in several levels, protecting the system against unauthorized utilization: Each access to the module requires personal authorization; the same should apply to access to the cloud storage space via mobile radio, for reading and writing data as well as accepting data by the application. Input data from the sensor system and/or PLC may be protected by mechanisms as applied in banking activities with smartphones.

The same applies to access to the cloud server by means of the software driver specified by the device whose access codes remain secure even in the event of theft of the device. Moreover, the obligatory utilization of a high-performance data center enables best possible protection when dealing with stored data. This concerns both access control mechanisms as well as options for data encryption or possible recording of data queries.

APPLICATION IN CABLE RAILWAYS

DATAEAGLE 3702A provides for trouble-free transport

Application

Roosevelt Island Tramway is an aerial cableway in New York City (USA), connecting Roosevelt Island and Manhattan. It is the oldest urban aerial cableway in North America serving for local public transport. Built in 1976, it was replaced by a completely new cableway system of POMA. The objective is to transfer information between the terminal and both cabins. Moreover, the emergency stop function shall be ensured via PROFIsafe.

Challenges

Since the terminal is located in Manhattan at the corner 2nd Avenue/E 60th Street directly and at Queensboro bridge but the cableway has to utilize the airspace above this street, it cannot run parallel, but only in a very acute angle to the bridge. The cable railway is 945 m in length and has three aerial lift pylons of up to 76 metres. This steep ascent of 76 metres in the center of Manhatten with many radio interferences such as for example WLAN represents a challenge for automation technology. These restricted space conditions and contorted travel paths without any direct visual contact are a particular challenge to each transmission path.

Solution

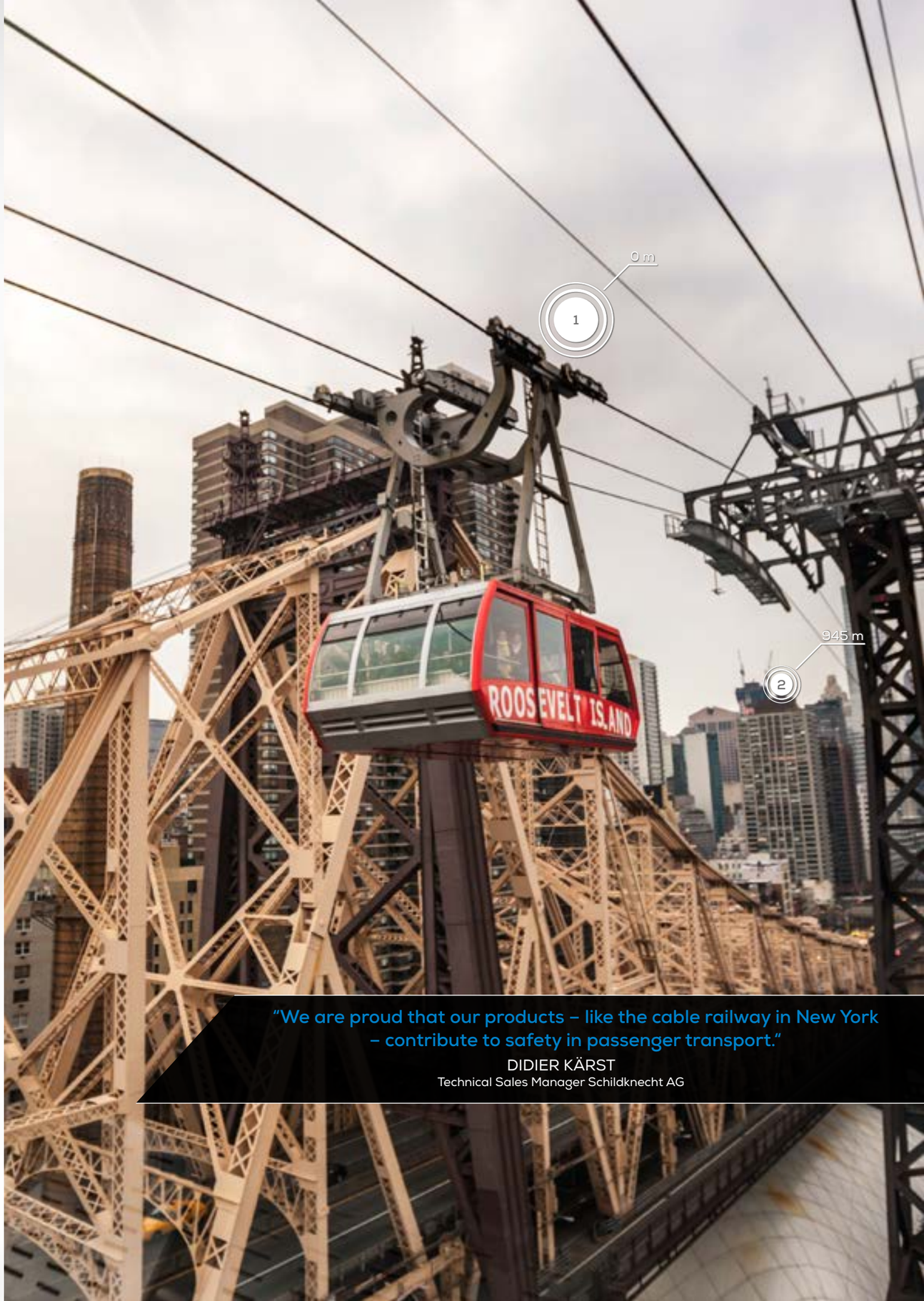
The system equipped with a PROFIBUS Safety PLC should at no time cause any disturbances. The system features the DATAEAGLE 3702A for wireless PROFIBUS transmission with Bluetooth as the radio technology applied.

Result

Despite thousands of additional radio communications around the cable railway, the devices have been running since 2010 without malfunctions and downtimes of the cable railway.

1. Directional antennas of the DATAEAGLE Classic 3702A master at the control cabinet at a mast.

2. DATAEAGLE Classic 3702A in the protection cabinet at one of the two cabins.



"We are proud that our products – like the cable railway in New York – contribute to safety in passenger transport."

DIDIER KÄRST
Technical Sales Manager Schildknecht AG

DATA TRANSMISSION IN CRUDE OIL PRODUCTION

DATAEAGLE on an oil drilling ship

Application

Seadrill Limited is a Norwegian company dealing with the oil production industry. Operated are: Jack-up drilling rigs, semi-submersibles and drilling vessels for sinking drillings for crude oil and natural gas. The 253 m long drilling ship West Navigator relies on a DATAEAGLE radio link to the driller. The driller is the fully automatic machine unit, screwing the drilling rod weighing up to 750 tons together.

Challenges

The challenge consisted in establishing a highly reliable radio link for replacing the very susceptible cable connection to the driller. One-day failure causes up to 600,000.00 euro costs. Requirements to technical solutions on an oil drilling ship are safety, ATEX and ship approval.

Solution

On the ship, a wireless PROFIBUS and PROFIsafe radio link to the driller is built up. As radio technology, Bluetooth is applied since thanks to frequency hopping it enables extremely stable and robust communication. Due to the very sophisticated application, the DATAEAGLE 3000 was installed in an explosion-proofed housing.

Result

In a two-years test, DATAEAGLE has successfully asserted itself against all market players and so saves the operator downtimes and costs amounting to millions.

1. DATAEAGLE at the fixed side in the Ex-protective housing.

2. DATAEAGLE at the mobile side of the plant by which the drill pipe is installed.

SHAFT ACCESS SYSTEM OF A HIGHWAY TUNNEL

DATAEAGLE in emergencies

Application

Since its extension in 2013, the Pfänder tunnel has been in operation with two tubes. By 2020, a traffic load of 46,000 vehicles per day is expected. In the shaft access systems, serving for investigating supply air and exhaust shafts in the Pfänder tunnel and carrying out rescues from the tunnel in the event of an emergency, our customer STB Beck GmbH relies on the proven radio technology of Schildknecht AG.

Challenges

The particular challenge consisted in implementing a safety critical radio transmission via a travel distance of up to 320 m through the lift shaft to the moved basket of the shaft access control system. In case of rescue the system is required to work reliably for example for transporting rescue service personnel into the tunnel.

Solution

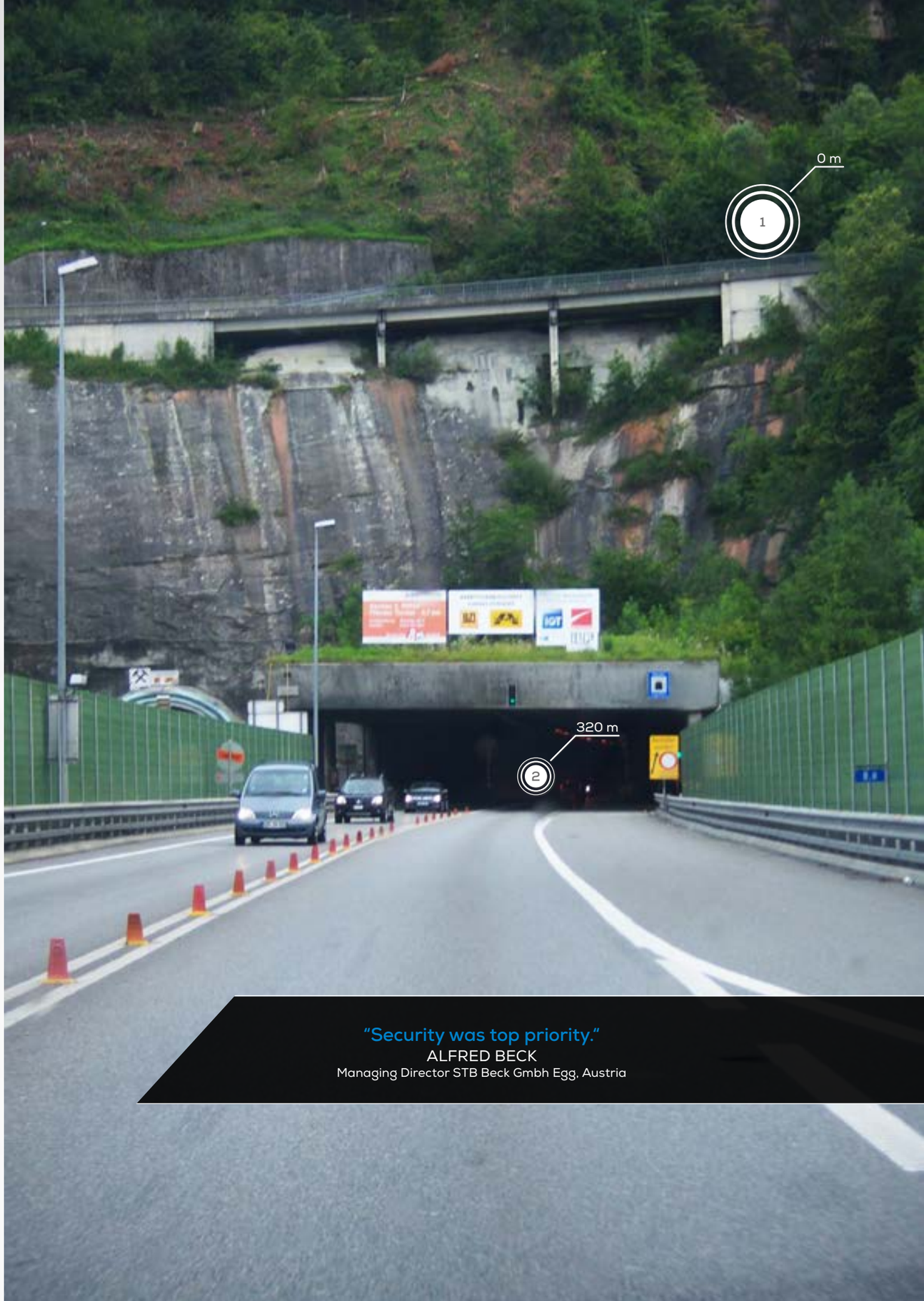
After installing the DATAEAGLE 3000 system the lift could be put into smooth operation with special functions such as e.g. access control and hooking and unhooking the lift car. The proven Bluetooth technology provides for trouble-free radio connection here despite interfering transmitters in the environment.

Result

After successful conversion of the control technology by STB Beck GmbH, the shaft access system of the tunnel has been running successfully for several years now without interferences and failures. Therefore, DATAEAGLE radio communications systems are planned to be applied also in further systems with a shaft depth of up to 700 m in the future.

1. Access to the shaft access system.

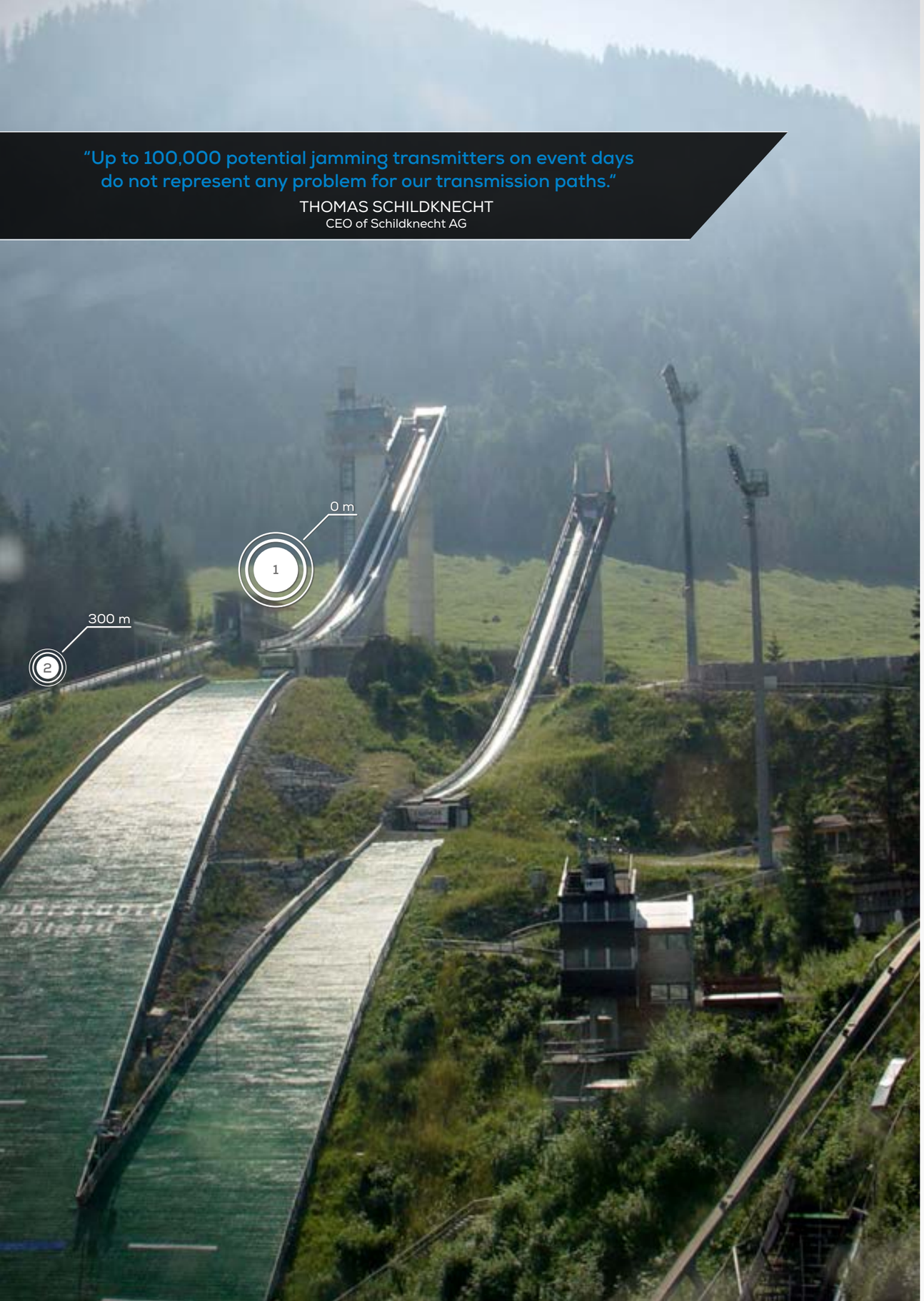
2. DATAEAGLE Classic 3000 applied at Pfänder tunnel.



"Security was top priority."
ALFRED BECK
Managing Director STB Beck Gmbh Egg, Austria

"Up to 100,000 potential jamming transmitters on event days do not represent any problem for our transmission paths."

THOMAS SCHILDKNECHT
CEO of Schildknecht AG



DATAEAGLE LETS THE EAGLES FLY

DATAEAGLE provides for uplift in Erdinger Arena

Application

Erdinger Arena is located in Oberstorf and comprises five ski jumps. In this arena, the opening ski jumping of the Four Hills Tournament takes place every year at the end of December. The inclined lift with automatic levelling specified according to European Lift Directive which is installed therein is actuated via radio modules. In November 2011, the control unit of the system control was refurbished completely.

Challenges

Due to the high degree of susceptibility, radio modules installed hithereto have been replaced by DATAEAGLE 3000. The particular challenge consisted in the fact that along the approx. 300 m travel distance of the inclined lift there was no visual contact between the central control unit and the cabin. On event days, there are thousands of interfering transmitters for example by video transmission, mobile and radio in within close proximity.

Solution

The DATAEAGLE 3000 applied transmits PROFIBUS signals to the cabin via radio. Like a lift in self-propelled mode with fully automated doors in the cabin it drives to mountain and valley stations. The entire control unit was manufactured and conducted according to EN81.1 safety rules for construction and installation of lifts for transporting persons or persons and loads.

Result

Shortly before the Four Hills Tournament the lift was released by TÜV for operation without any rework. "After the first two years we found that availability of the lift was almost 100% ", reports STB Steuerungstechnik Beck 2014.

1. Cabin of inclined lift of Erdinger Arena with beam antenna.

2. Up to now, DATAEAGLE 3000 Master in the control cabinet has been communicating reliably with the cabin.

HELENE FISCHER STAGE TECHNOLOGY

And the bird blies smoothly at every concert

Application

Stage technology on the occasion of Helene Fischer concerts could hardly be more sophisticated. Singing "Von hier bis unendlich", Helene Fischer flies over her passionate audience in up to 20 m, preferably also upside down. After the spectacular air show she lands with her gigantic bird on a central stage in the middle of the event hall. The fanciful bird is actuated via radio with DATAEAGLE.

Challenges

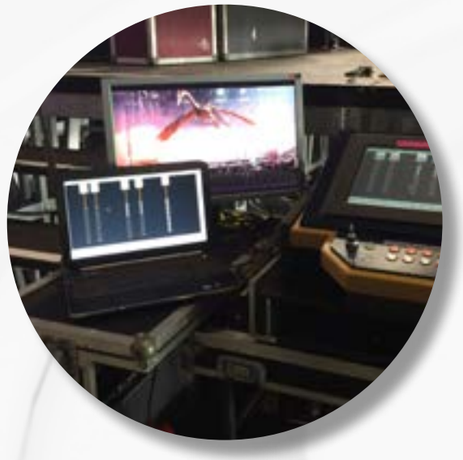
Stage technology usually requires highest availability of the transmission path as well as security of people in the interaction with technology. Due to the 80 m long and winding rails, no trailing cable connection to the bird could be realized. Power supply was via a bus bar.
This system as well as the radio link is required to work smoothly during each event with complete reliability and security.

Solution

The entire power electronics (5x Fülling & Partner Highline Slave) goes with the rail. DATAEAGLE 3702 is applied for the PROFIBUS connection between Highline Master and Slaves. In parallel, there is also an independent system for emergency stop. Transmission is realized via 2.4 GHz Bluetooth without interferences and failures. In approx. 90% of all systems, Bluetooth is meanwhile applied instead of WLAN since its robustness is a hundred times higher.

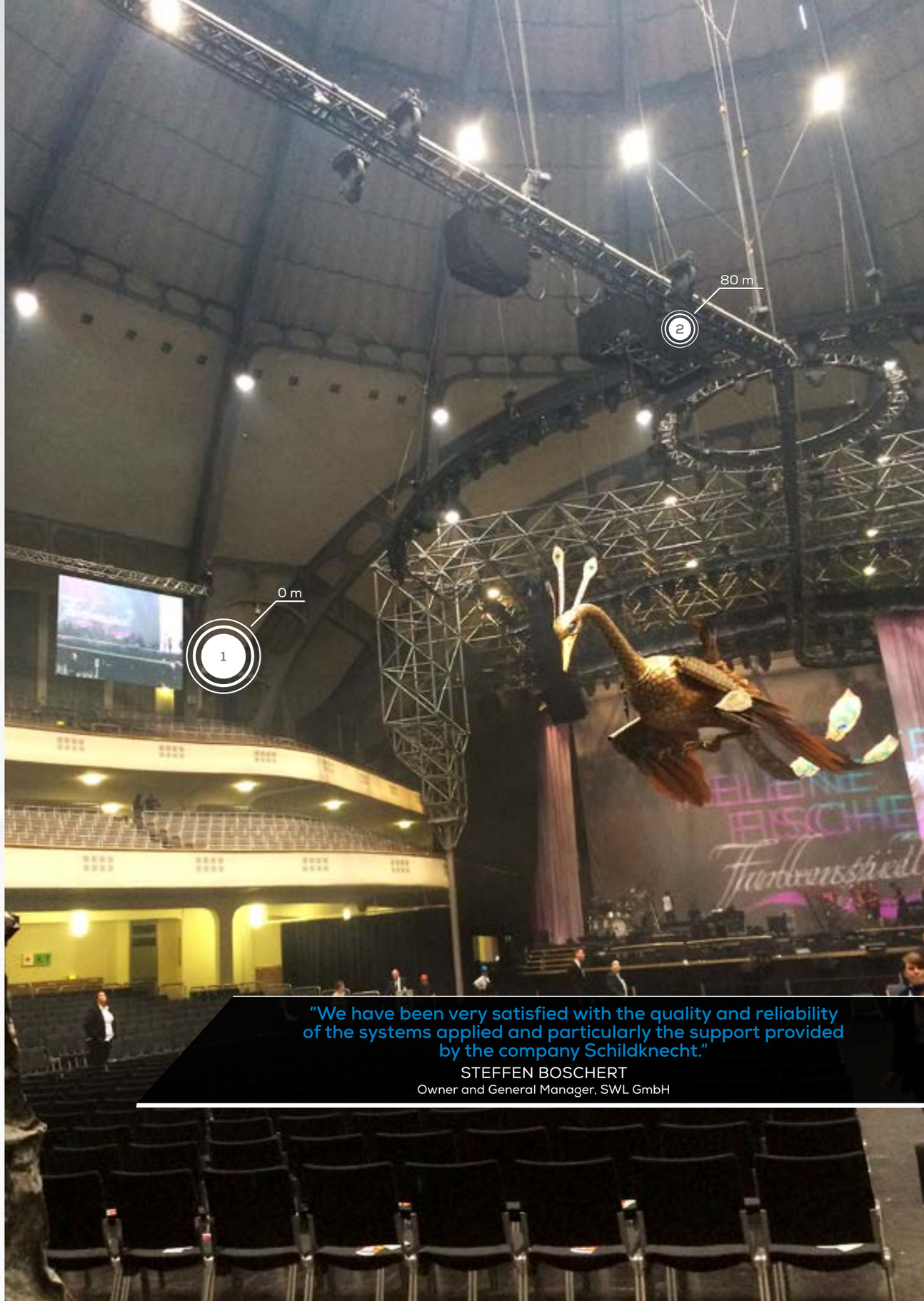
Result

Thanks to the patent for stabilizing a radio connection the team of Schildknecht AG as well as stage technology SWL and Fülling & Partner does not remain breathless (German: atemlos – according to the Helene Fischer song). All concerts as well as many further applications in the field of stage technology went smoothly without interferences and failures. For example the musicals Aladdin in Hamburg, Rocky in Stuttgart, Beauty and the Beast in the tour version for Barcelona and Moscow or also the wing carriage at the Bavarian Theatre in Munich.



1. Behind the scenes, the bird is controlled and monitored.

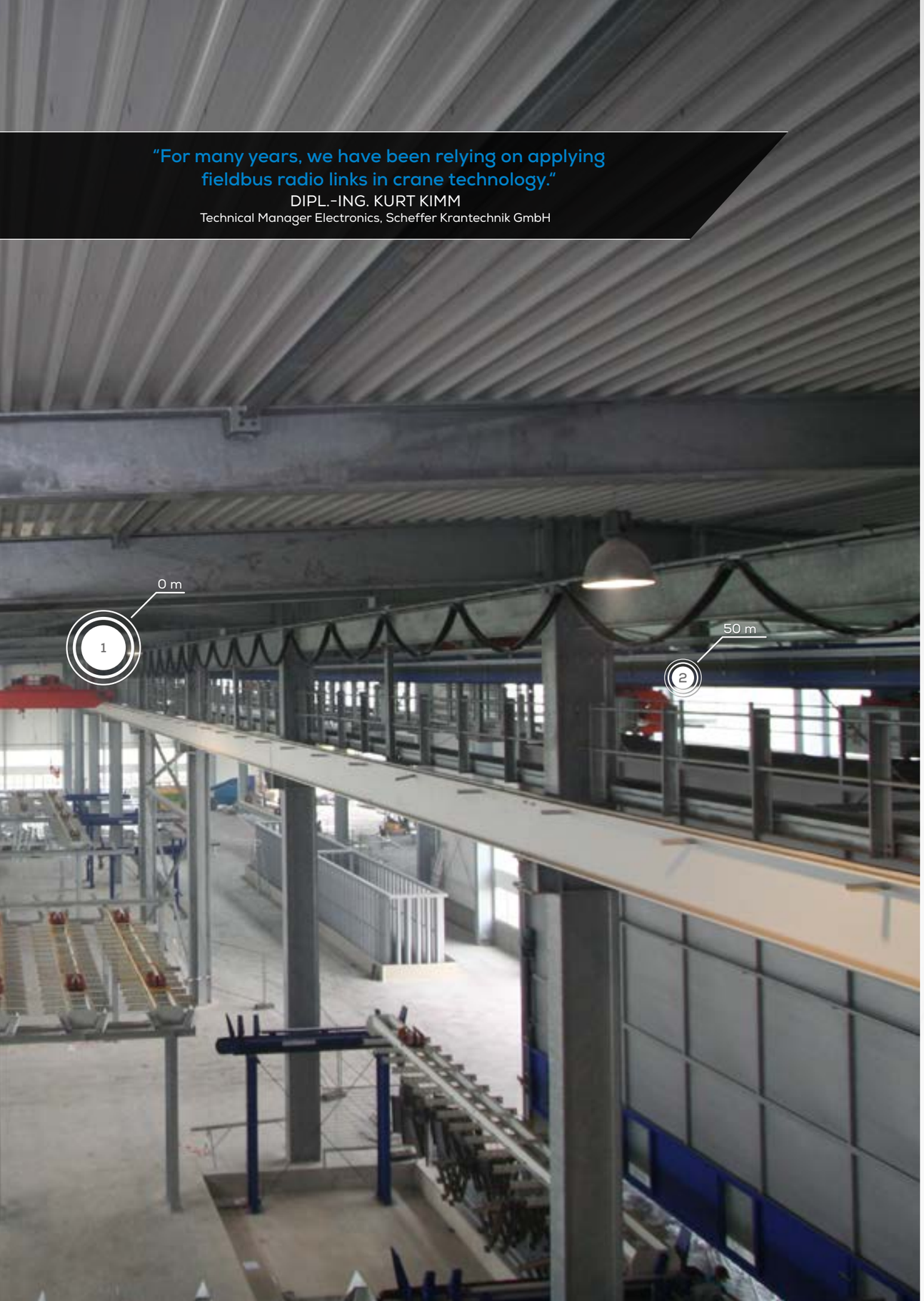
2. Via this rain construction the bird is controlled accompanied by the power electronics with DATAEAGLE.



"We have been very satisfied with the quality and reliability of the systems applied and particularly the support provided by the company Schildknecht."

STEFFEN BOSCHERT
Owner and General Manager, SWL GmbH

"For many years, we have been relying on applying fieldbus radio links in crane technology."
DIPL.-ING. KURT KIMM
Technical Manager Electronics, Scheffer Krantechnik GmbH



SCHEFFER CRANE TECHNOLOGY

Appliance in the highly automated galvanizing plant

Application

Within automation of modern crane and lifting systems, fieldbus systems are part of the standard equipment for controlling operations. Nowadays, radio links are applied within the fieldbus network, replacing conductor lines applied so far in applications with moved plant components. In 2011, OBO Bettermann established a metal competence centre as a highly integrated production facility with hot-dip galvanizing as the core element of the plant.

Challenges

Galvanization is always connected with movement processes: The workpieces run through a series of treatment steps for cleaning and pre-treatment, followed by the actual galvanizing process and completed by baths for follow-up treatment. Temporally changing restrictions of the transmission conditions by steel girders or other cranes should remain without any impact on the availability of the radio link. In addition, the fully transparent PROFIBUS connection should provide for comfortable start-up and maintenance possibilities for conveyor components hardly or incapable of being accessed.

Solution

Via the DATAEAGLE 3000 PROFIBUS radio link, data is reliably transmitted every 30 milliseconds from the central control unit S7 CPU 319 to the assigned mobile monorail crane travel units of the system over a distance of 50 metres. Thereby, their current position indications and driving tasks are continuously exchanged bidirectionally and safely actuated. Since galvanization plants are highly automated, highest availability is indispensable. In this process, Bluetooth has proved particularly interference-free.

Result

The radio modules have proved in operation. Despite restricted line of sight there are no failures which is presented in an increased efficiency of production and secured production quality.

1. The crane trolley in the galvanizing plant receives and sends data via DATAEAGLE slave.

2. DATAEAGLE is located directly in the ceiling construction and is the base station (Master).

WIRELESS TECHNOLOGY IN TREATMENT PLANTS

Wireless connection of sensor technology of any kind

Application

In treatment plants, careful monitoring of relevant parameters is essential for effective wastewater treatment. The company Endress +Hauser recommends DATAEAGLE in treatment plants where they successfully install radio systems in the control unit for transmitting measuring data.

Challenges

For ensuring a better monitoring of a treatment plant, measuring values of several locations of the plant must be collected. However, due to the extensive outdoor areas it is extremely elaborate and expensive to establish a wired sensor network of measurement points far away from each other. At a swing bridge at the aeration basin installing a cable connection is even impossible. Moreover, no further inputs were available at the control unit.

Solution

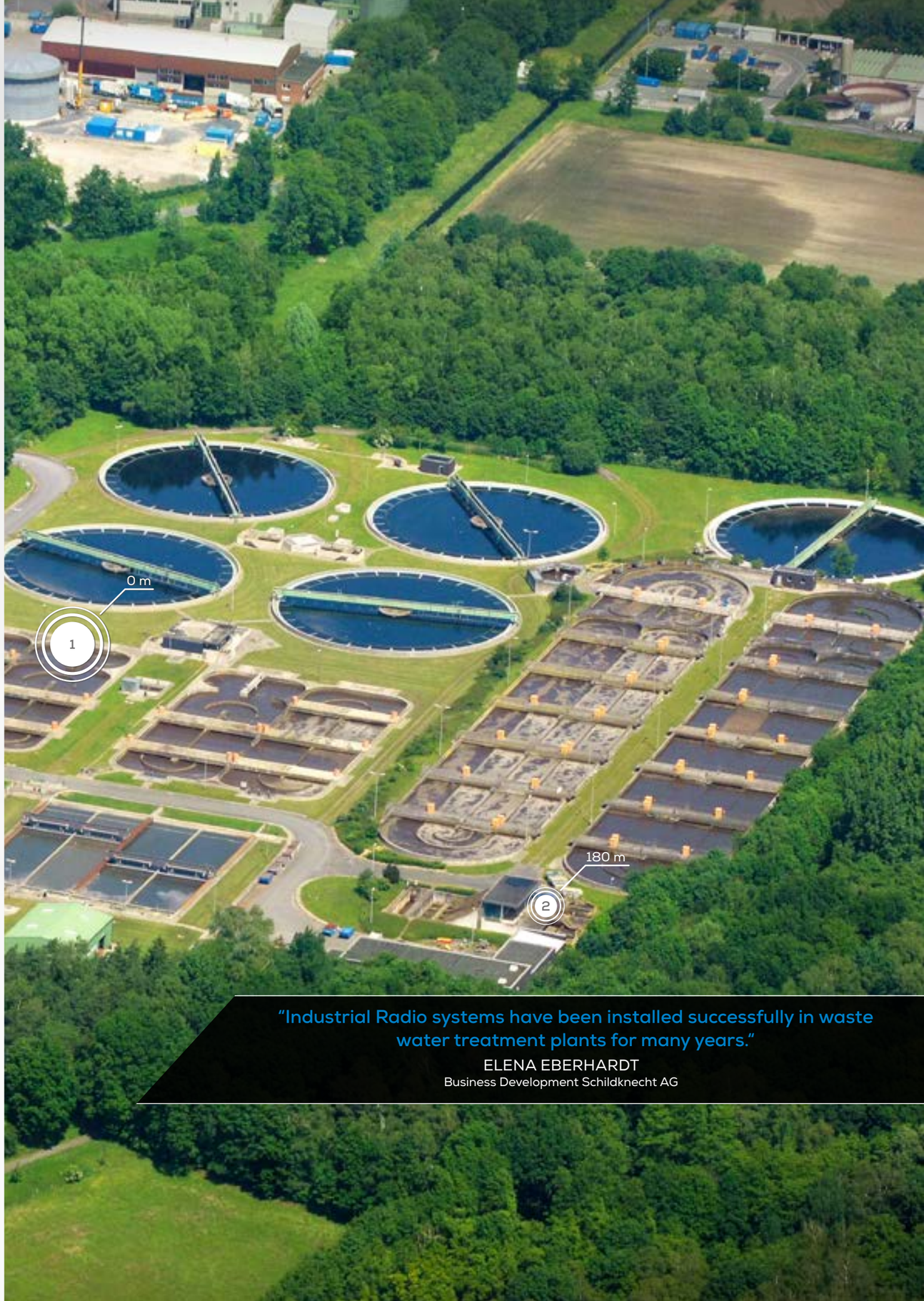
Sensors, fittings and transducers were installed at the required locations. For transmitting measuring values the DATAEAGLE 3703 radio modules of were installed, transmitting data transparently like a cable using PROFIBUS DP and up to 1.5 Mbit/s. Thanks to the applied 2.4 GHz Bluetooth technology with frequency hopping, measuring data always finds a free transmission channel.

Result

The benefits of the radio path are a better process control thanks to additional measuring values and above all time saving for employees since they are not required to carry out these measurements by hand. Further measurement parameters may be added without much effort and employees monitor the system at any time using a signal system. Since 2013, the system has been running trouble-free and reliably.

1. DATAEAGLE Slave in exterior use.

2. DATAEAGLE Master in the control cabinet directly at the clarification tank.



"Industrial Radio systems have been installed successfully in waste water treatment plants for many years."

ELENA EBERHARDT
Business Development Schildknecht AG

DATAEAGLE PRODUCT LINE

Radio data transmission system of Schildknecht AG

The development of the DATAEAGLE radio data transmission system started in 1993. This system for radio transmission is modular and meanwhile comprises six product families with more than 40 device types. This is how we enable radio transmission of fieldbus systems such as PROFIBUS DP, PROFIsafe, PROFINET IO, Modbus, CAN and Ethernet. Radio transmission by DATAEAGLE enables integration of mobile machinery and plants via radio.

The DATAEAGLE radio data transmission system works independently of the kind of radio technology applied such as WLAN, Bluetooth, DECT, Zigbee, LoRa or mobile communications (2G, 3G, 4G) and radio frequencies used. The particularity consists in the fact that DATAEAGLE carries out a preprocessing in cyclic fieldbuses already in the radio device. From the control unit point of view, the transmission path behaves like a cable. Thanks to the high availability of radio transmission also failsafe applications such as emergency stop via a transmission path by means of PROFIsafe via PROFIBUS or PROFINET have been successfully applied for years. DATAEAGLE is the technological alternative to slip rings, trailing cables and optical data transmission systems.

The radio connection via radio data transmission using DATAEAGLE is reliable and safe. In this process, the DATAEAGLE 3000 device family behaves like a PROFIBUS cable. DATAEAGLE 4000 is a device series optimized for PROFINET, DATAEAGLE 6000 supports CAN Bus.

In other variants of the DATAEAGLE family, further interfaces are realized which are required for corresponding control units. We would be pleased to personally present you DATAEAGLE and to answer all potential questions regarding the subject data radio.

We are sure that our radio data transmission system may be also successfully established in your company in the field of automation and control technology, crane, lifting and transport technology, stage technology, wastewater management and many other applications.

Liberty is wireless.

DATAEAGLE PRODUCT OVERVIEW

Reliable like a cable

- Patented filter technology
- Highly available and reliable radio connection
- Plug and Play – No device configuration required
- Up to 3 km range
- Transmission speed up to 1.5 Mbit/s
- Protection class category depending on environmental condition: IP20, IP65, ATEX
- Different fieldbus systems - Radio technology optimized to area of application

CAN PROFIBUS PROFINET PROFIsafe ETHERNET

CLASSIC

The Specialist

Suitable for control cabinet applications. Configuration and diagnostic option thanks to integrated display and control panel.

COMPACT

Der Standard

Suitable for cabinet applications. Low space requirement – thanks to compact construction.

X-TREME

The Robust

Suitable for application in indoor and outdoor areas. The high protection category enables application under extreme conditions.

WIRELESS PROFIBUS - DATAEAGLE 3000

Your benefits

The DATAEAGLE 3000er series was particularly designed for transparent data transmission of PROFIBUS DP applying various radio technologies. All devices featuring a PROFIBUS DP interface may be connected via radio. Our patented filter technology guarantees a highly available and reliable radio connection.

- Patented filter technology
- Profibus DP interface
- PROFIsafe
- Plug and Play – No device configuration required
- Up to 3 km range
- Transmission speed up to 1.5 Mbit/s

APPLICATION EXAMPLES

Versatile

- Substitute of slip rings
- Substitute of trailing cables and cable chains
- Substitute of optical data transceivers
- Crane systems
- Warehouse systems
- Automotive industry
- Transport vehicles
- Water, wastewater, waste and feedstock industry
- Engineering
- Lifts, inclined lifts and cable cars
- Oil and gas industry
- Steelworks
- Stage technology

WIRELESS PROFIBUS - DATAEAGLE 3000

The differences at a glance

PRODUCT	PROFIsafe	RADIO SLAVES	PROFIBUS SLAVES	PROTECTION CLASS	RANGE
CLASSIC 3712-A	Yes	4	8	IP 20	100 m indoor 300 m outdoor
COMPACT 3712-A	Yes	4	8	IP 20	100 m indoor 300 m outdoor
X-TREME 3712-A	Yes	4	8	IP 65	100 m indoor 300 m outdoor
CLASSIC 3713-A	No	4	4	IP 20	100 m indoor 300 m outdoor
COMPACT 3713-A	No	4	4	IP 20	100 m indoor 300 m outdoor
X-TREME 3713-A	No	4	4	IP 65	100 m indoor 300 m outdoor
CLASSIC 3715-A	No	1	4	IP 20	100 m indoor 300 m outdoor
COMPACT 3715-A	No	1	4	IP 20	100 m indoor 300 m outdoor
X-TREME 3715-A	No	1	4	IP 65	100 m indoor 300 m outdoor
COMPACT 3710-A STARTERKIT	No	1	1	IP 20	100 m indoor 300 m outdoor
X-TREME 3710-A STARTERKIT	No	1	1	IP 65	100 m indoor 300 m outdoor
CLASSIC 3323-A	No	4	4	IP 20	1 - 3 km
COMPACT 3323-A	No	4	4	IP 20	1 - 3 km
X-TREME 3323-A	No	4	4	IP 65	1 - 3 km

DATAEAGLE CLASSIC 3712-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	650 g
Width	233 mm
Height	106 mm
Depth	39 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	8
PROFIsafe	Yes

ORDER NUMBER

Master	11155
Slave	11156

DATAEAGLE COMPACT 3712-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	8
PROFIsafe	Yes

ORDER NUMBER

Master	11168
Slave	11169

DATAEAGLE X-TREME 3712-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	100 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	M12, B-coded
Max. Number PROFIBUS DP Slaves	8
PROFIsafe	Yes

ORDER NUMBER

Master	11326
Slave	11327

DATAEAGLE CLASSIC 3713-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	650 g
Width	233 mm
Height	106 mm
Depth	39 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	11152
Slave	11153

DATAEAGLE COMPACT 3713-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	11164
Slave	11165

DATAEAGLE X-TREME 3713-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	100 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	M12, B-coded
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	11324
Slave	11325

DATAEAGLE CLASSIC 3715-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	650 g
Width	233 mm
Height	106 mm
Depth	39 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	1
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	11150
Slave	11151

DATAEAGLE COMPACT 3715-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	1
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1,5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	11160
Slave	11161

DATAEAGLE X-TREME 3715-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	100 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	1
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1,5 MBit/s
PROFIBUS DP Connection	M12, B-coded
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	11320
Slave	11321

COMPACT 3710-A Starterset

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	1
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	187,5 kBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	1
PROFIsafe	No

ORDER NUMBER

11172

SCOPE OF DELIVERY

1 x DATAEAGLE Compact 3717-A Master
1 x DATAEAGLE Compact 3717-A Slave
2 x omnidirectional antenna, 3 dB with magnetic base and connecting cable (5 m)

X-TREME 3710-A Starterset

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	100 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	1
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	187,5 kBit/s
PROFIBUS DP Connection	M12, B-coded
Max. Number PROFIBUS DP Slaves	1
PROFIsafe	No

ORDER NUMBER

11173

SCOPE OF DELIVERY

1 x DATAEAGLE X-TREME 3717-A Master
1 x DATAEAGLE X-TREME 3717-A Slave
2 x omnidirectional antenna, 3 dB with magnetic base and connecting cable (5 m)

DATAEAGLE CLASSIC 3323-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	200 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	800 g
Width	233 mm
Height	106 mm
Depth	39 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	300 m
Range Outdoor	1 -3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	10949
Slave	10950

DATAEAGLE COMPACT 3323-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	200 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	160 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	300 m
Range Outdoor	1 -3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	9 pol. SUB-D
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	10998
Slave	10999

DATAEAGLE X-TREME 3323-A

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	200 mA
Fixing	4-hole screw mounting
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE
Weight	300 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Max. Number radio slaves	4 St.
Range Indoor	300 m
Range Outdoor	1 - 3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFIBUS DP Transmission rate	1.5 MBit/s
PROFIBUS DP Connection	M12, B-coded
Max. Number PROFIBUS DP Slaves	4
PROFIsafe	No

ORDER NUMBER

Master	11308
Slave	11309

WIRELESS PROFINET - DATAEAGLE 4000
Your benefits

The DATAEAGLE 4000 series was particularly designed for transparent data transmission of PROFINET IO using various radio technologies. All devices featuring a PROFINET IO interface may be connected via radio. Our patented filter technology guarantees a highly available and reliable radio connection.

- Patented filter technology
- PROFINET IO interface
- PROFIsafe
- Plug and Play – no device configuration required
- up to 3 km range

APPLICATION EXAMPLES
Versatile

- Substitute of conductor lines
- Substitute of trailing cables and cable chains
- Substitute of optical data transceivers
- Crane systems
- Warehouse systems
- Automotive industry
- Transport vehicles
- Water, wastewater, waste and raw material management
- Engineering
- Lifts, inclined lifts and cable cars
- Oil and gas industry
- Steelworks
- Stage technology

WIRELESS PROFINET - DATAEAGLE 4000
Differences at a glance

PRODUCT	PROFIsafe	INTEGRATED SWITCH	RADIO SLAVES	PROTECTION CLASS	RANGE
COMPACT 4712	Yes	Yes	4	IP 20	100 m indoor 300 m outdoor
X-TREME 4712	Yes	No	4	IP 65	100 m indoor 300 m outdoor
COMPACT 4713	No	Yes	4	IP 20	100 m indoor 300 m outdoor
X-TREME 4713	No	No	4	IP 65	100 m indoor 300 m outdoor
COMPACT 4715	No	Yes	1	IP 20	100 m indoor 300 m outdoor
X-TREME 4715	No	No	1	IP 65	100 m indoor 300 m outdoor
COMPACT 4323	No	Yes	4	IP 20	1 - 3 km
X-TREME 4323	No	No	4	IP 65	1 - 3 km

DATAEAGLE COMPACT 4712

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	150 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4 St.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	Yes
PROFINET Connection	RJ 45
Max. Number PROFINET Devices	6 pcs.
PROFIsafe	Yes

ORDER NUMBER	11174

DATAEAGLE X-TREME 4712

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	150 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4 St.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	No
PROFINET Connection	M12, D-coded
Max. Number PROFINET Devices	6 pcs.
PROFIsafe	Yes

ORDER NUMBER	11422

DATAEAGLE COMPACT 4713

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	150 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4 pcs.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	Yes
PROFINET Connection	RJ 45
Max. Number PROFINET Devices	6 pcs.
PROFIsafe	No

ORDER NUMBER	11171

DATAEAGLE X-TREME 4713

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12
Power consumption	150 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4 pcs.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	Nein
PROFINET Connection	M12, D-coded
Max. Number PROFINET Devices	6 pcs.
PROFIsafe	No

ORDER NUMBER	11421

DATAEAGLE COMPACT 4715

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	150 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	1 St.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	Yes
PROFINET Connection	RJ 45
Max. Number PROFINET Devices	4 pcs.
PROFIsafe	No

ORDER NUMBER	11170

DATAEAGLE X-TREME 4715

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12
Power consumption	150 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	1 St.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	No
PROFINET Connection	M12, D-coded
Max. Number PROFINET Devices	4 pcs.
PROFIsafe	No

ORDER NUMBER	11420

DATAEAGLE COMPACT 4323

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	250 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	160 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Max. Number radio slaves	4 pcs.
Range Indoor	300 m
Range Outdoor	1 -3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	Yes
PROFINET Connection	RJ 45
Max. Number PROFINET Devices	6 pcs.
PROFIsafe	No

ORDER NUMBER	11074

DATAEAGLE X-TREME 4323

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	250 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE
Weight	300 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Max. Number radio slaves	4 pcs.
Range Indoor	300 m
Range Outdoor	1 -3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. PROFINET Transmission rate	100 Mbit
2-fach Switch	No
PROFINET Connection	M12, D-coded
Max. Number PROFINET Devices	6 pcs.
PROFIsafe	No

ORDER NUMBER	11403

WIRELESS ETHERNET - DATAEAGLE 4000
Your benefits

The DATAEAGLE 4000 series was especially designed for a transparent data transmission of Ethernet and Modbus TCP using various radio technologies. All devices featuring an Ethernet interface may be connected via radio.

- Ethernet interface
- Modbus TCP
- Plug and Play – No device configuration required
- Up to 3 km range

ETHERNET

APPLICATION EXAMPLES
Versatile

- Substitute of conductor lines
- Substitute of trailing cables and cable chains
- Substitute of optical data transceivers
- Crane systems
- Warehouse systems
- Automotive industry
- Transport vehicles
- Water, wastewater, waste and raw material management
- Engineering
- Lifts, inclined lifts and cable cars
- Oil and gas industry
- Steelworks
- Stage technology

WIRELESS ETHERNET - DATAEAGLE 4000
Differences at a glance

PRODUCT	ETHERNET CONNECTION	INTEGRATED SWITCH	RADIO SLAVES	PROTECTION CLASS	RANGE
COMPACT 4710	RJ 45	Yes	4	IP 20	100 m indoor 300 m outdoor
X-TREME 4710	M12, D-coded	No	4	IP 65	100 m indoor 300 m outdoor
COMPACT 4320	RJ 45	Yes	-	IP 20	1 - 3 km
X-TREME 4320	M12, D-coded	No	-	IP 65	1 - 3 km

DATAEAGLE COMPACT 4710

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	150 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4 St.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. ETHERNET Transmission rate	100 Mbit
2-fach Switch	Yes
ETHERNET Connection	RJ 45

ORDER NUMBER

11175

ETHERNET

DATAEAGLE X-TREME 4710

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12
Power consumption	150 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4 St.
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. ETHERNET Transmission rate	100 Mbit
2-fach Switch	No
ETHERNET Connection	M12, D-coded

ORDER NUMBER

11423

ETHERNET

DATAEAGLE COMPACT 4320

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	250 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	160 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Range Indoor	300 m
Range Outdoor	1 - 3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. ETHERNET Transmission rate	100 Mbit
2-fach Switch	Yes
ETHERNET Connection	RJ 45

ORDER NUMBER

11068

ETHERNET

DATAEAGLE X-TREME 4320

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	250 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE
Weight	300 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Range Indoor	300 m
Range Outdoor	1 - 3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. ETHERNET Transmission rate	100 Mbit
2-fach Switch	No
ETHERNET Connection	M12, D-coded

ORDER NUMBER

11424

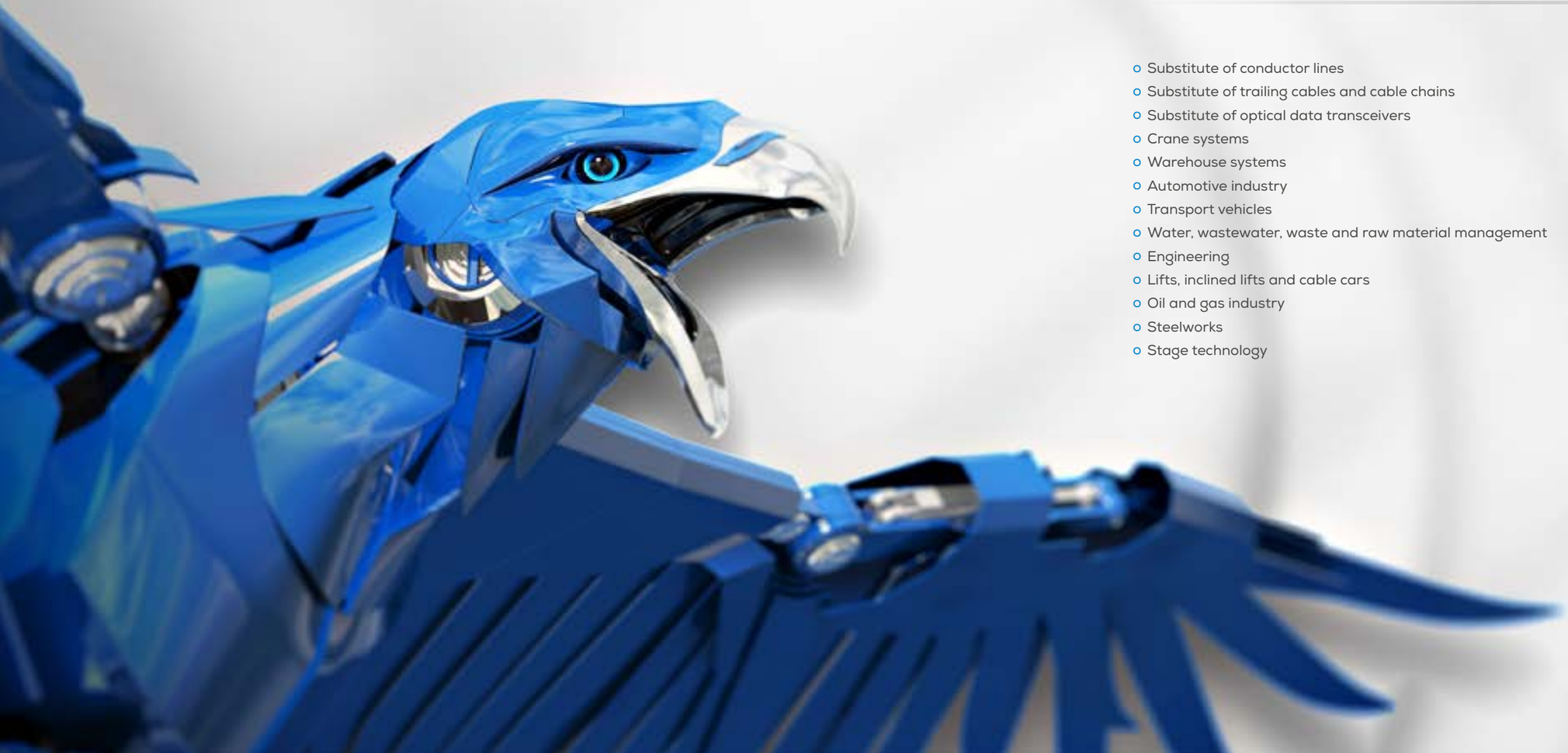
ETHERNET

WIRELESS CAN – DATAEAGLE 6000
GENERAL INFORMATION

The DATAEAGLE 6000 series was especially designed for the transparent transmission of CAN using various radio technologiest. Optionally, it can be configured which CAN identifiers shall be transmitted by radio (Whitelist) and if they shall be transmitted in the event of data change only.

- CAN interface
- Plug and Play – No device configuration required
- Up to 3 km range

APPLICATION EXAMPLES
Versatile



- Substitute of conductor lines
- Substitute of trailing cables and cable chains
- Substitute of optical data transceivers
- Crane systems
- Warehouse systems
- Automotive industry
- Transport vehicles
- Water, wastewater, waste and raw material management
- Engineering
- Lifts, inclined lifts and cable cars
- Oil and gas industry
- Steelworks
- Stage technology

DATAEAGLE COMPACT 6710

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	130 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. CAN Transmission rate	500 kBit/s
CAN Connection	9 pol. SUB-D

ORDER NUMBER	11166

CAN

DATAEAGLE X-TREME 6710

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	100 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE, FCC
Weight	280 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	2,4 GHz Bluetooth
Transmitting power	100 mW (EIRP)
Max. Number radio slaves	4
Range Indoor	100 m
Range Outdoor	300 m
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. CAN Transmission rate	500 kBit/s
CAN Connection	M12, A-coded

ORDER NUMBER	11361

CAN

DATAEAGLE COMPACT 6320

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	Terminal clamps
Power consumption	100 mA
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	160 g
Width	22,5 mm
Height	99 mm
Depth	114,5 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Range Indoor	300 m
Range Outdoor	1 - 3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. CAN Transmission rate	500 kBit/s
CAN Connection	9-pin SUB-D

ORDER NUMBER

11039

CAN

DATAEAGLE X-TREME 6320

Technical data

GENERAL

Voltage supply	24 V DC
Connection Voltage supply	M12, A-coded
Power consumption	100 mA
Fixing	4-hole screw fastening
Protection class	IP65
Temperature range	-20...+60 °C
Conformity	CE
Weight	300 g
Width	88 mm
Height	120 mm
Depth	42 mm
Colour	Black

RADIO TECHNOLOGY

Frequency	869 MHz
Transmitting power	500 mW (EIRP)
Range Indoor	300 m
Range Outdoor	1 - 3 km
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Max. CAN Transmission rate	500 kBit/s
CAN Connection	M12, A-coded

ORDER NUMBER

11362

CAN

DATAEAGLE 7000

Worldwide data transmission at a flat rate

In the area of maintenance and in a broader sense with regard to all monitoring tasks the Internet of Things always involves new expectations and developments. Gateways with globally applicable SIM cards play an important part in operations monitoring and maintenance and globally installed machines and provide the basis for brand-new business models. For customer needs arising from the Internet of Things and Industry 4.0, the DATAEAGLE 7000 IoT edge gateway with associated portal was developed. For example, signals from data sources of any kind such as diagnosis messages of heavy machines or water levels of water bodies may be transmitted globally via modile radio and Ethernet to the own portal in adjustable time cycles. Here the data is directly avaiable to authorized users for retrieval directly via internet-ready devices, is sent automatically to a defined group of recipients or integrated in a customer system via a standardized protocol (ReSTful API).

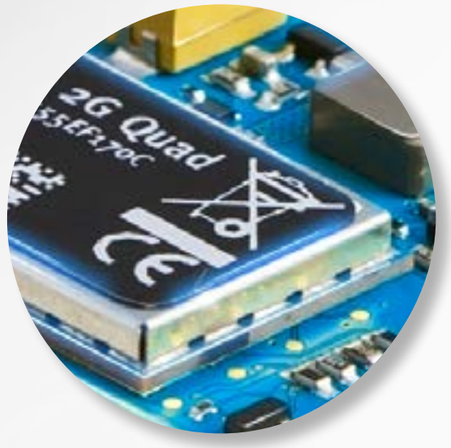
The devices are available in the protection classes IP20, IP65 as well as in ex-protectected execution. Data transmission of the DATAEAGLE 7000 is especially safe since AES (Advanced Encryption Standard) and RSA (Rivest, Shamir und Adleman) provide for applying extremely proven emcryption techniques and a professionally secured server is applied. Since no further explanatory information is transmitted with the measurement data transferred, a concrete statement is only provided to auhorized recipients. The SIM card included in the device offers global connectivity for all mobile networks at a fix and calculable flat rate. Schildknecht AG as the system provider offers all components and services required for a complete system, from a single source, from consulting and planning via hardware and software up to the SIM card. Proof of Concept (PoC) within just threee months.

THE BENEFITS

Worldwide connection to your machinery, plants and products

- Online portal
- Integrated SIM card
- Worldwide flat rate
- International M2M applications
- Rapid M2M module and antenna
- Hardware - independent application
- Development of new business models
- Scalable implementation from number of pcs. 1

1 WORLD SIM CARD PRICE



FLEXIBLE
DATAEAGLE 7000 SERIES

The DATAEAGLE 7000 series with integrated Schildknecht AG SIM card is applicable all over the world. Available in different protection classes, protocols and construction.

VISUAL
PORTAL.DATAEAGLE.DE

The DATAEAGLE PORTAL enables you global access to your machines. Safe and encrypted, they enable monitoring your system in an esay and fast manner.

UNIFORM
GLOBAL CONNECTION

International flat rate provides for calculable costs in advance.

ADVANCEMENT FOR THE INDUSTRY
DATAEAGLE 7000 reduces costs by up to 300%

For the global M2M market, a turnover in the billions is predicted. Take advantage of our know-how in the matter of connectivity for positioning yourself as a provider of M2M solutions in this especially fast-growing market. Schildknecht AG supports you in this process with a platform for the easy management of SIM cards, applications and users. So for example Schildknecht AG offers customers of the areas engineering, Smart Home, logistics or industry internationally applicable

M2M solutions and generating of new revenue streams by ourselves. Schildknecht AG supports you in this process from design via Proof of Concept and Pilot up to market maturity.

As a system integrator Schildknecht AG makes your ideas becoming successful M2M solutions and business models in the context of Industry 4.0 and IoT (Internet of Things).

DATAEAGLE M2M Platform

Online Portal for Evaluating your Radio Data and Measurements

FRONTEND	Dashboard
	Enterprise Systems
	Smartphone App
	Web Service DATAEAGLE Portal
	Configuration Templates for devices
FRONTEND API	X-Machine API
	REST API with advanced features
	FAPI for integration into frontend systems
	UAPI for integration into user agents
	Encryption, role-based user authentication,
	client IP authentication, Load Balancer
USER MANAGEMENT	Set up and management of customers/users
	Assignment of ERP codes
	User settings (user, password, e-mail, phone,
	time zone, number und date format, etc.)
FEATURES	Set up of devices and modules
	Indication of the communication status (Online, Offline, Wake up)
	Consumption data SMS, Wake up, Voice, SIM volume
	Indication of device specific set up like calibration values and
	date of maintenance etc.
	Billing
	Firmware update over-the-air(OTA)
	M2M data base
	User permission administration (IT policies)
	User statistics
	Import and export (CMS system, pdf, Email,SMS)
	GEO positioning data (Open Street Map)
	Alert via HTTP push

DATAEAGLE 7010ER Serie

Description

The DATAEAGLE 7010 series is the ideal multi-functional tool for measuring and control tasks in telemetry. The universal inputs comprise data of sensors and signal transmitters. The RS232 and RS485 interfaces enable communication with adjacent machines or control units. For controlling actuators, mA and relais outputs are available. The PAWN Sccript engine of the device enables creation of own applications. This makes it possible to implement complex arithmetical control tasks.

Moreover, the DATAEAGLE 7010 series features an integrated buffer battery enabling to send a message in the event of a failure of the supply voltage. For being able to safely cope with highly critical measuring and control tasks, DATAEAGLE 7010 with the LAN interface provides an additional backup connection. In the event of failure of the preferred transmission connection (LAN or aGSM selectable), it is automatically switched to the second connection and functionality of application remains retained.

Using the DATAEAGLE 7010 extension module the universal inputs of the DATAEAGLE 7010 can be extended in an easy and cost-effective way. The extension module features eight universal inputs, six relay outputs, two mA outputs and a PT100/ PT1000 sensor input. One DATAEAGLE 7010 allows for connection of up to three extension modules.

The display extension is an intelligent graphic display which can be directly connected to the RS232 interface of the DATAEAGLE 7010/7011.

APPLICATION EXAMPLES

Versatile

- Alarm dialer
- Direct signal detection of sensors
- Control of actuators
- Plant control
- Pump control
- Flow calculation
- Communication with machine interfaces via RS485 and RS232 connections

DATAEAGLE 7010

Technical data

GENERAL	
Voltage supply	12 V... 30 V DC
Connection Voltage supply	Terminal clamps
Power consumption	Typ. 1W, max. 3W
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	320 g
Width	157 mm
Height	86 mm
Depth	64 mm
Colour	Grey
RADIO TECHNOLOGY	
Frequency	GSM/GPRS Quad Band
SIM	integrated SIM chip
Antenna connection	SMA Connection - 50 Ohm
INTERFACE	
Universal inputs	8 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Ext. temperature sensor	1 PT1000/1000
Modbus	2 x RS485 (switchable master/ slave)
	Modes: RTU, ASCII
	64 in-, 64 output channels
Serial interface	1 x RS232 for connection of a digital sensor
	Modes: ASCII
	64 in-, 64 output channels
Outputs	6 x Relays (2 groups)
	2 x analog output
ACCESSORIES	DATAEAGLE 7010 Extension module
	Display
ORDER NUMBER	17010

7010 EXTENSION MODULE

Technical data

GENERAL	
Voltage supply	12 V... 30 V DC
Connection Voltage supply	Terminal clamps
Power consumption	-
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	320 g
Width	157 mm
Height	86 mm
Depth	64 mm
Colour	Grey
RADIO TECHNOLOGY	
Frequency	-
SIM	-
Antenna connection	-
INTERFACE	
Universal inputs	8 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Ext. temperature sensor	2 PT1000/1000
Modbus	-
Serial interface	-
Outputs	6 x Relay (2 groups)
	2 x analog output
ACCESSORIES	DATAEAGLE 7010 Extension module
	Display
ORDER NUMBER	17100

DATAEAGLE 7011

Technical data

GENERAL

Voltage supply	12 V ... 30 V DC
Connection Voltage supply	Terminal clamps
Power consumption	Typ. 1W, max. 3W
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	160 g
Width	104 mm
Height	85 mm
Depth	32 mm
Colour	Grey

RADIO TECHNOLOGY

Frequency	GSM/GPRS Quad band
SIM	integrated SIM-Chip
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Universal inputs	3 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Ext. temperature sensor	-
Modbus	1 x RS485 (switchable master/ slave)
	Modes: RTU, ASCII
	64 in-, 64 output channels
Serial interface	1 x RS232 for connection of a digital sensor
	Modes: ASCII
	64 in-, 64 output channels
Ouptputs	1 x potential-free switch contact
	1 x analog output (no galvanic isolation)

ACCESSORIES

Display

ORDER NUMBER

17011

DATAEAGLE 7012

Technical data

GENERAL

Voltage supply	12 V ... 30 V DC
Connection Voltage supply	Terminal clamps
Power consumption	Typ. 1W, max. 3W
Fixing	DIN rail mounting
Protection class	IP20
Temperature range	-20...+60 °C
Conformity	CE
Weight	160 g
Width	104 mm
Height	85 mm
Depth	32 mm
Colour	Grey

RADIO TECHNOLOGY

Frequency	GSM/GPRS Quad band
SIM	integrated SIM chip
Antenna connection	SMA Connection - 50 Ohm

INTERFACE

Universal inputs	3 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Da / interval counter
Ext. temperature sensor	-
Modbus	-
Serial interface	-
Outputs	1 x potential-free switch contact
	1 x analog output (no galvanic isolation)

ACCESSORIES

Display

ORDER NUMBER

17012

DATAEAGLE 7020 Series
Description

The DATAEAGLE 7020 series consists of compact transmission devices for direct connection of sensors. It has four free configurable analog respectively digital inputs as well as two outputs. The integrated SIM chip enables easiest operation and is ideal in long-term use. The devices are either operated by disposable or rechargeable battery. The charge controller for rechargeable battery operation is already integrated and also suitable for connecting solar panels. The connected sensor and measurement electronics may be activated and supplied via a switchable voltage output.

Devices with serial interface (RS485/RS232) are available as device variants. This enables reading out and writing values via Modbus or ASCII protocols.

APPLICATION EXAMPLES
Versatile

- Alarm dialer
- Direct signal detection of sensors
- Pump monitoring
- Flow measurement
- Temperature monitoring
- Probe value measurement transmission
- Remote meter reading system
- Data logger

DATAEAGLE 7020
Technical data

GENERAL		
	Supply	Disposable or rechargeable battery
	Charging voltage	7 V... 30 V DC (Type. 170mA, 12V)
	Protection class	IP66
	Temperature range	-20...+60 °C
	Conformity	CE
	Weight (without rechargeable battery)	400 g
	Width	86 mm
	Height	165 mm
	Depth	64 mm
	Colour	Blue
RADIO TECHNOLOGY		
	Frequency	GSM/GPRS Quad band
	SIM	Integrated SIM-Chip
	Antenna connection	FME
INTERFACE		
	Universal inputs	4 x analog or digital
		0... 20 mA, 4... 20 mA
		0... 2 V, 0... 10 V
		PWM
		Frequency
		Digital
		Day / interval counter
	Modbus	1 x RS485 / RS232 (depending on order option)
		Modes: RTU, ASCII
		64 in-, 32 output channels
	Serial interface	-
	Outputs	1 x switchable sensor supply: 15 V - 19,5 V DC, max. 66 mA
		1 x potential-free switch contact
ACCESSORIES (OPTIONAL)		Hutschienenmontageset
		Universalhalterung
		Rohrmontageset
		Batterie 26 Ah
		Akku 2,5 Ah
		Akku 13,6 Ah
		Ladegerät
ORDER NUMBER		17020

DATAEAGLE 7021

Technical data

GENERAL

Supply	Disposable or rechargeable battery
Charging voltage	7 V... 30 V DC (Typ. 170 mA, 12 V)
Protection class	IP66
Temperature range	-20...+60 °C
Conformity	CE
Weight (without rechargeable battery)	400 g
Width	86 mm
Height	165 mm
Depth	64 mm
Colour	Blue

RADIO TECHNOLOGY

Frequency	GSM/GPRS Quad band
SIM	Integrated SIM-Chip
Antenna connection	FME

INTERFACE

Universal inputs	4 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Modbus	1 x RS485 / RS232 (depending on order option)
	Modi: RTU, ASCII
	64 in-, 32 output channels
Serial interface	-
Outputs	1 x switchable sensor supply: 24 V DC, max. 41 mA
	1 x potential-free switch contact

ACCESSORIES (OPTIONAL)

DIN rail mounting set
Universal holder
Pipe mounting set
Disposable battery 26 Ah
Rechargeable battery 2,5 Ah
Rechargeable battery 13,6 Ah
Battery charger

ORDER NUMBER

17021

DATAEAGLE 7022

Technical data

GENERAL

Supply	Disposable or rechargeable battery
Charging voltage	7 V... 30 V DC (Type. 170 mA, 12 V)
Protection class	IP66
Temperature range	-20...+60 °C
Conformity	CE
Weight (without rechargeable battery)	400 g
Width	86 mm
Height	165 mm
Depth	64 mm
Colour	Blue

RADIO TECHNOLOGY

Frequency	GSM/GPRS Quad band
SIM	Integrated SIM-Chip
Antenna connection	FME

INTERFACE

Universal inputs	4 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Modbus	-
Serial interface	-
Outputs	1 x switchable sensor supply: 15...19,5 V DC, max. 66 mA
	1 x potential-free switch contact

ACCESSORIES (OPTIONAL)

DIN rail mounting set
Universal holder
Pipe mounting set
Disposable battery 26 Ah
Rechargeable battery 2,5 Ah
Rechargeable battery 13,6 Ah
Battery charger

ORDER NUMBER

17022

DATAEAGLE 7023
Technical data

GENERAL	
Supply	Disposable or rechargeable battery
Charging voltage	7 V... 30 V DC (Type. 170 mA, 12 V)
Protection class	IP66
Temperature range	-20...+60 °C
Conformity	CE
Weight (without rechargeable battery)	400 g
Width	86 mm
Height	165 mm
Depth	64 mm
Colour	Blue
RADIO TECHNOLOGY	
Frequency	GSM/GPRS Quad band
SIM	Integrated SIM chip
Antenna connection	FME
INTERFACE	
Universal inputs	4 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Modbus	-
Serial interface	-
Outputs	1 x swichtable sensor supply: 24 V DC, max. 41 mA
	1 x potential-fres switch contact
ACCESSORIES (OPTIONAL)	DIN rail mounting set
	Universal holder
	Pipe-mounting set
	Disposable battery 26 Ah
	Rechargeable battery 2,5 Ah
	Rechargeable battery 13,6 Ah
	Battery charger
ORDER NUMBER	17023

DATAEAGLE 7024
Technical data

GENERAL	
Supply	Disposable or rechargeable battery
Charging voltage	7 V...30 V DC (Type. 170 mA, 12 V)
Protection class	IP66
Temperature range	-20°C ...+60 °C
Conformity	CE
Weight (without rechargeable battery)	400 g
Width	86 mm
Height	165 mm
Depth	64 mm
Colour	Blue
RADIO TECHNOLOGY	
Frequency	GSM/GPRS Quad band
SIM	integrated SIM chip
Antenna connection	FME
INTERFACE	
Universal inputs	4 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Modbus	
Serial interface	1 x RS485 / RS232 (depending on order option)
Outputs	1 x switchable sensor supply: 15 V - 19,5 V DC, max. 66 mA
	1 x potential-fres switch contact
ACCESSORIES (OPTIONAL)	DIN rail mounting set
	Universal holder
	Pipe-mounting set
	Disposable battery 26 Ah
	Rechargeable battery 2,5 Ah
	Rechargeable battery 13,6 Ah
	Battery charger
ORDER NUMBER	17024

DATAEAGLE 7030ER Series
Description

The DATAEAGLE 7030 is one of the most mobile data detection devices of its kind and is excellently suitable for measuring and transmitting digital and analog values. Apart from internal measurements such as GSM signal strength and battery voltage the DATAEAGLE 7030 provides a variety of external measuring functions. This makes measuring temperature, pressure, voltage and power as well as pulse counting a child's play. You just have to connect your application-specific external sensor and can start measuring.

Batteries may run up to five years.

APPLICATION EXAMPLES
Versatile

- Alarm dialer
- Direct signal detection of sensors
- Pump monitoring
- Flow measurement
- Temperature monitoring
- Probe value measurement transmission
- Remote meter reading system

DATAEAGLE 7030
Technical data

GENERAL	
Supply	Disposable battery
Protection class	IP68
Temperature range	-10... +50 °C
Conformity	CE
Weight	510 g
Width	86 mm
Height	165 mm
Depth	64 mm
Colour	Blue
RADIO TECHNOLOGY	
Frequency	GSM/GPRS Quad band
SIM	Integrated SIM-Chip
Antenna connection	TNC-F
INTERFACE	
Universal inputs	5 x analog or digital
	0... 20 mA, 4... 20 mA
	0... 2 V, 0... 10 V
	PWM
	Frequency
	Digital
	Day / interval counter
Outputs	1 x switchable sensor supply: 3 V DC, max. 290 mA
Sensor Connection	15-pin socket
ACCESSORIES (OPTIONAL)	DIN rail mounting set
	Universal holder
	Pipe-mounting set
	Cable connector 15-pin
	Cable set 15-pin.
	Pressure compensation clamping tube with
	1 x 4... 20 mA, 24 V DC
ORDER NUMBER	17030

ALARM DIALER

Functional description

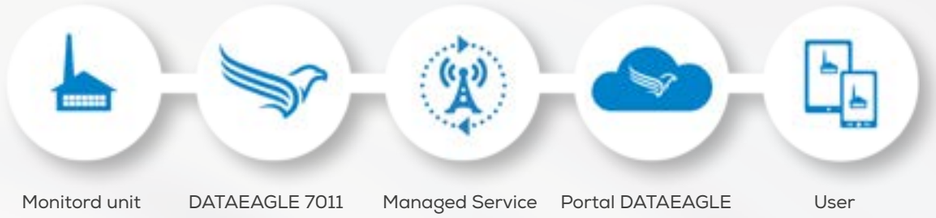
The application Alarm Dialer provides a complete solution for providers and system integrations for efficiently collecting and transmitting alarms. The field device detects data of sensors and signal transmitters. Local program sequences enable complex arithmetical and control tasks. Communication with adjacent machines or control units is enabled via machine interfaces. Wireless data transmission to the server is a fixed component of Schildknecht AG Managed Services. The server processes comprehensive alarm chains and provides for fast alerting of unsers by E-Mail, SMS or voice call. Portal DATAEAGLE enables to easily create comprehensive alarm call plans.

CONDITION MONITORING

Functional description

Wireless data acquisition technology of Schildknecht AG provides an efficient solution for system integrators and operators for monitoring machine parameters. The DATAEAGLE 7010 and DATAEAGLE 7011 series enable to easily monitor most different machine generations by applying a consistent concept.

The device acquires machine data at regular intervals and automatically transmits it to the central server, where the data is stored, represented and made available for further analysis. Data transmission is a component part of Schildknecht AG Managed Services. Interfaces enable connection to your business processes.



REMOTE METERING

Functional description

The wireless data collection technology of Schildknecht AG provides an efficient solution for system integrators and operators for remote monitoring. DATAEAGLE enables extension of water, gas and energy meters on-site. The field device collects sensor values at regular intervals and automatically transmits them to the central server on which the data is stored and represented.

Data transmission is a fixed component of Schildknecht AG Managed Services. Interfaces enable connection to your business processes.

Monitored unit — DATAEAGLE — Managed Service — Portal DATAEAGLE — User

TEMPERATURE

Functional description

Monitoring temperature is realized by the wireless end-to-end-solution of Schildknecht AG. The DATAEAGLE 7022 or DATAEAGLE 7023 data logger records temperature at regular intervals. In the event of exceeding or falling below the temperature limit, the maintenance staff is immediately notified by E-Mail, SMS or voice call.

Amongst others, Schildknecht AG Managed Services includes data transmission to the DATAEAGLE Server. Temperature measurements are stored on the central web server and evaluated in reports and statistics. Data and reports collected are easily integrated into your business processes.

Monitord unit — DATAEAGLE 7022 DATAEAGLE 7023 — Managed Service — Portal DATAEAGLE — User

PUMP CONTROL

Functional description

Pumps are frequently located at places difficult to access. Moreover, a variety of decentral pumps often must be monitored. The technology of Schildknecht AG enables to remote monitor and remote control pumps. Data of the individual stations is centrally processed and represented on a server interface in real-time. In the event of failure or damage the maintenance staff is automatically alerted. This enables to recognize damages early and to remedy quickly.

Apart from fault monitoring, pump systems may be monitored with regard to any measured parameter. So long-term performance monitoring may be applied for optimizing the pump dimensioning. An optimized pump system saves cots and increases lifetime of the pumps. The field devices of Schildknecht AG, collecting data and transmitting it to the server via mobile radio network, are especially designed for being applied in rough environments.

Monitored unit | DATAEAGLE 7010 DATAEAGLE 7011 | Managed Service | Portal DATAEAGLE | User

LEVEL MANAGEMENT

Functional description

The equipment of level sensors with M2M technology enables to analyze and document changes of the groundwater and rivers in the short and in the long term. This makes data acquisition and collection of measuring points frequently difficult to access considerably easier and more efficient.

Data acquisition is automated and data transmission is wireless to a central server, from where data is always available for being accessed and processed. Data transmission is a fixed component of Schildknecht AG Managed Services. Interfaces enable connection to your business processes.

Monitord unit | DATAEAGLE 7022 DATAEAGLE 7023 | Managed Service | Portal DATAEAGLE | User

TANK LEVEL MEASUREMENT

Functional description

For measuring and monitoring filling levels and tank levels, Schildknecht AG provides an extension for efficient, safe and wireless data acquisition and transmission.

The two-step alerting provides for immediate notification in the event of exceeding a threshold. Permanent access via the central web server does no longer require the employee to visit measuring stations for reading out data. A fixed component of the Schildknecht AG Managed Service is wireless data transmission from the field device to the web server. By creating reports and existing interfaces at the central web server data is integrated into your business process.

Monitored unit | DATAEAGLE 7022 DATAEAGLE 7023 | Managed Service | Portal DATAEAGLE | User

FLOW MEASUREMENT

Functional description

The efficient and wireless data transmission technology of Schildknecht AG provides an easy possibility for monitoring and visualizing flow. The field device acquires flow data and transmits it wireless to the central web server. Data transmission is a fixed component part of the Schildknecht AG Managed Service.

Continuous measurements and permanent access to the data via the web interface make reading out data at the measuring point on-site obsolete. Using existing interfaces enables data being directly integrated into your GIS or ERP system and in your business processes.

Monitord unit | DATAEAGLE 7040 DATAEAGLE 7022 DATAEAGLE 7023 | Managed Service | Portal DATAEAGLE | User

PRESSURE MEASUREMENT

Functional description

With its wireless data acquisition technology, Schildknecht AG provides an efficient extension for pressure measurements.

The field device comprises pressure values of connected sensors. In the event of a pressure drop or excessive pressure, an alerting is immediately forwarded to the maintenance staff by e-mail, SMS or voice call. Data transmission is wireless and a fixed component part of the Schildknecht AG Managed Service. Based on the historical data, statistics and reports are created at the central web server, which are sent fully automatically by e-mail. Via various interfacs at the web server data can be integrated into your business processes.

Monitored unit | DATAEAGLE 7022 DATAEAGLE 7023 | Managed Service | Portal DATAEAGLE | User

THE DEVELOPMENT CENTER

Always at the pulse of time

No company may exist in competition today and in the future without research and development. Therefore, the development center of Schildknecht AG is your first choice because all the potential and knowledge of our engineers is shared for accompanying you for economic success with a customized solution.

Since its foundation, Schildknecht AG has been playing a central role in the innovation process for radio technologies with the development of future-relevant key technologies for the benefit of economy and industry. Constant developments and the establishment of own product families are considered to be the standard for the demands of our development. The enormous flexibility of the team benefits a wide range of industries. From the planning phase up to testing under production conditions Schildknecht AG creates customized special solutions and software applications in close cooperation with our customers. So during the past years, hundreds of customer-specific solutions have been developed and built which ideally meet the requirements of the customer. In this way, products with an excellent market position are developed. The result of the common cooperation with our customers are products and services characterized by optimum matching to industry-specific requirements.

Our objective is to develop an ideal product for our customers which provides our partners an advantage. The majority of our customers are dealing in the medium-sized business. For this purpose, Schildknecht AG provides a wide and solid range of radio technologies which can be modified for your individual application. For more complex solutions, our experienced development team is of assistance for you as a partner for new projects.Pioneering products require hardware and software being developed together. Based on the application and knowledge of state-of-the-art technologies in the field of software and hardware, Schildknecht AG is well prepared.

RESEARCH IN THE FOCUS

Products with potential

What has been distinguishing for the development work of Schildknecht AG is the very close contact to its customers for many years. Information gained thereof can be included already in the early development phase and harmonized with the ideas as well as technical practicability.

Design thinking as an impulse for new developments is not an empty phrase for Schildknecht AG, but has been lived reality for years.

Our flat in-house hierarchy with close contact to the management, sales and production provide the developer the required feedback which can be used for developing a product with high market maturity and for improving it continuously. Expenditure of time and cost needed for this is surely high, but a great number of satisfied customers shows that we are on the right track.

Our longstanding experience in hard- and software provides the basis for being able to meet new requirements in a fast and flexible way. Applying latest technology enables the development of innovative products in whose quality we trust.

Give us a try.

SERVICE AND CONSULTING

We stick by our products

Since 1981, Schildknecht AG has been developing system solutions and advise customers in detail and with competence regarding all questions around the subject radio data transmission in all areas.

Our guiding principle: Solution-oriented thinking leads faster to the desired result. Schildknecht AG develops and produces the DATAEAGLE systems by itself. However, the systems are independent of the radio technology. The best radio technologies available in the world of specialists in the respective areas are applied, such as e.g. OEM modules with WLAN, Bluetooth, DECT, Zigbee, 868MHz and propritary radio technologies. Therefore, Schildknecht AG can consult you independently and with competence regarding the most different radio technologies. Based on this know-how Schildknecht AG also offers product development and consulting services. Consulting and service interlock from the first customer contact up to aftercare because win-win situations can only develop based on “together”.

Great importance to personal customer contact is attached. Within an individual and customer-specific system support, the problem is analysed in detail and a customized solution designed.

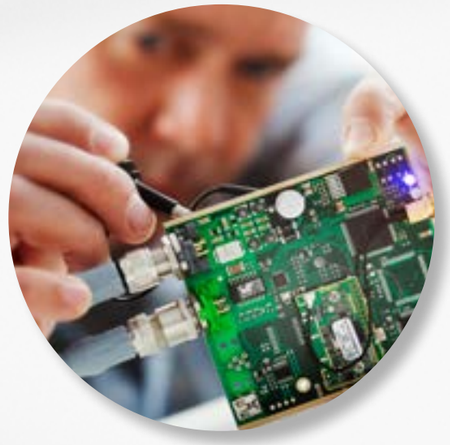
Our objective:
The customer’s entire satisfaction.

QUALIFIED EMPLOYEES

100%

SERVICE

Our qualified service employees are available to you at any time.



BRILLIANT RESEARCHERS

100%

INNOVATION

Our employees of the development center can answer all your questions regarding the subject radio technology, software update and development.

JUST LIKE A CABLE

100%

SAFETY

Safety in the plant and stability of the radio path are of top priority.

VERSATILE USE

EXTRACT OF CUSTOMERS
Everything is possible

- Airbus, Hamburg
- Bayer AG, Leverkusen
- Bentley Greve, UK
- BOSCH GMBH, Plochingen
- Continental AG, Korbach
- Daimler AG, Stuttgart / Hamburg
- Demag Cranes Wetter
- Doppelmayr, Österreich
- Heidelberg Cement, Hannover
- John Deere, Mannheim
- Paulaner Brauerei, München
- Salzgitter AG
- Scheffer Krantechnik, Sassenberg
- Südwestdeutsche Salz AG, Heilbronn
- ThyssenKrupp, Duisburg
- Vattenfall, Jänschwalde
- Vetter Pharma, Ravensburg
- Wella AG, Kassel

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