Automation & Enterprise Mobility

At your side in hazardous Locations

The assurance of world market leadership

The fast acquisition, transmission and processing of process data is crucial, especially in hazardous locations. However, speed and reliability can only be guaranteed if the technical base meets the respective requirements and is optimally designed for use under harsh conditions.
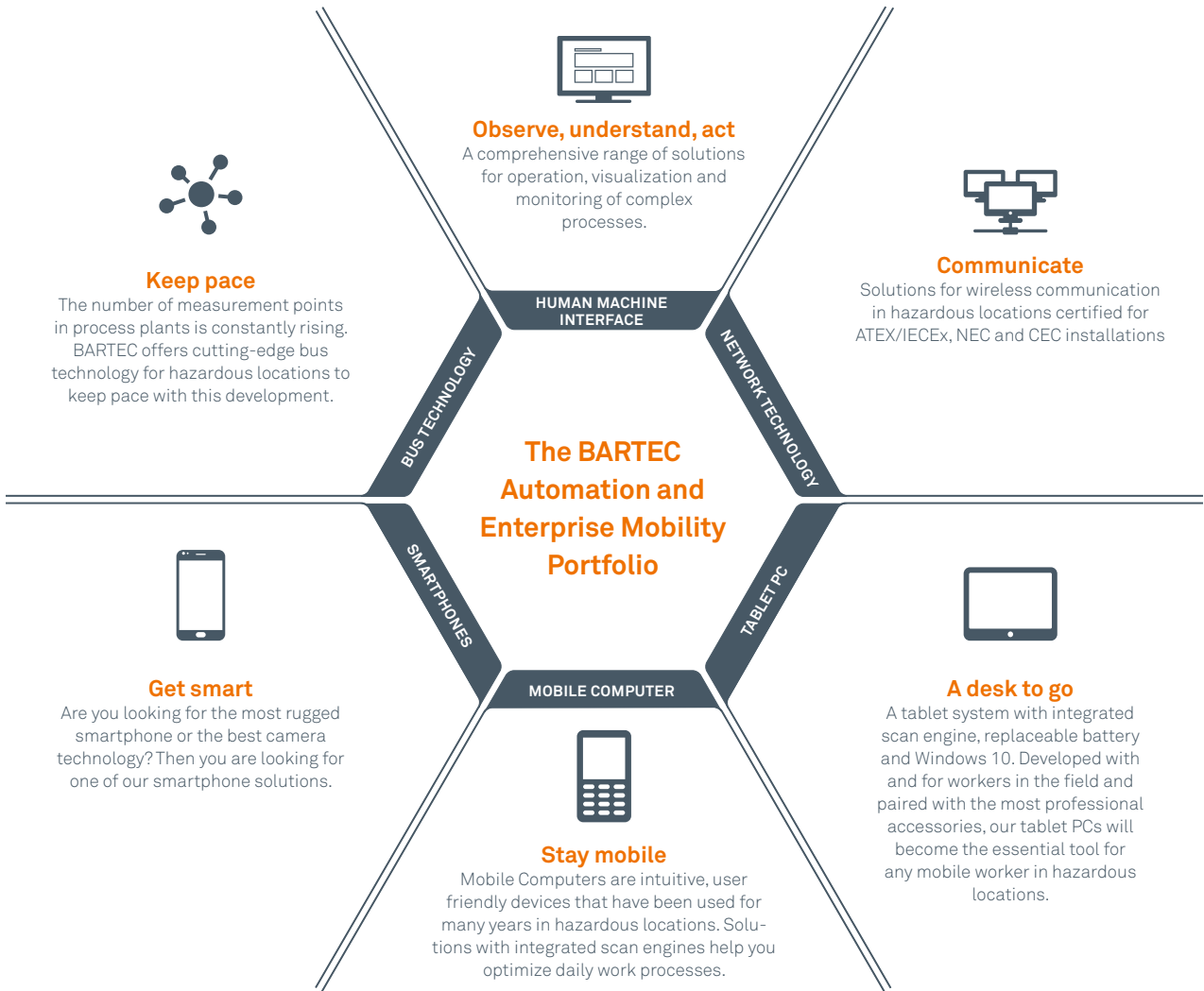
For more than four decades, that is what we really care about. As a world market leader in explosion protection we develop hardware and software solutions for mobile workers in hazardous areas – in order to enhance our customer's efficiency as well as the safety of their facilities and employees. For this purpose we make use of strong partnerships with process and infrastructure specialists.

Our range of products for hazardous locations includes hand scanners, mobile computers, tablet PCs, touch computer and smartphones. The support of both Windows and Android operating systems on mobile devices guarantees, together with the ergonomic design, an intuitive operation. Additionally we offer professional carry systems that enable mobile workers to have hands-free, yet fast access to their equipment.

Our product solutions are certified for international use and developed specifically for the mobile field worker. However, providing innovative devices is just the beginning. Together with global partners we offer support and service extensions in order to keep you up to date.

Automation & Enterprise Mobility

Observe, understand, act
A comprehensive range of solutions for operation, visualization and monitoring of complex processes.

Keep pace
The number of measurement points in process plants is constantly rising. BARTEC offers cutting-edge bus technology for hazardous locations to keep pace with this development.

Communicate
Solutions for wireless communication in hazardous locations certified for ATEX/IECEx, NEC and CEC installations

The BARTEC Automation and Enterprise Mobility Portfolio

HUMAN MACHINE INTERFACE

NETWORK TECHNOLOGY

BUS TECHNOLOGY

SMARTPHONES

TABLET PC

MOBILE COMPUTER

Get smart
Are you looking for the most rugged smartphone or the best camera technology? Then you are looking for one of our smartphone solutions.

Stay mobile
Mobile Computers are intuitive, user friendly devices that have been used for many years in hazardous locations. Solutions with integrated scan engines help you optimize daily work processes.

A desk to go
A tablet system with integrated scan engine, replaceable battery and Windows 10. Developed with and for workers in the field and paired with the most professional accessories, our tablet PCs will become the essential tool for any mobile worker in hazardous locations.

Efficiency on the go

Today, almost two thirds of all employees in hazardous locations use pen and paper to track vital manufacturing steps. 50 percent are still using spreadsheets. This makes tracking "work in progress" highly inefficient and susceptible to human error.

While plant floor managers can use data, stored in spreadsheets, to identify areas for improvement, it is a time-consuming, manual process. Providing plant floor employees with mobile hand held devices, local terminals and a future-proof infrastructure allows them to scan and collect information in real-time. Relevant data becomes more accessible and helps managers make faster decisions.

That's why BARTEC offers a comprehensive, future-proof product portfolio for the monitoring and optimization of production processes in hazardous locations. With our knowledge and our decades of experience, we are constantly redefining the limits of automation technology in hazardous areas and comply with internationl standards and regulations.

The starting point: Understanding your processes

Cross-industry explosion protection

Where we are at home

– Oil & Gas Upstream (Exploration)
– Oil & Gas Midstream (Pipelines)
– Oil & Gas Downstream (Refineries)
– Oil & Gas Distribution
– Chemical Industry
– Mining
– Energy
– Food
– Automotive

Developing devices for hazardous locations is just one portion.

Sometimes it is sufficient just to provide a suitable housing for an existing device. But usually, more is needed. Examples are applications that affect both the development of devices as well as their integration into processes.

We are here to advise and support all our clients, and have helped global acting organizations – both large and small – with different solutions. In many projects, we assist from consultancy in a piloting phase to a full roll out. In some cases, either we or the end client need to bring along partners to assist

in order to deliver a total solution. And support doesn't stop with delivery. As a global enterprise we are always close to our customers. Comprehensive after sales service and service agreements ensure that support is available, wherever and whenever you need us.

However, regardless of the path, our goal always remains the same: Combining the common user experience from the consumer markets with the ruggedness of industrial solutions and the safety needed in hazardous locations.

Why is Mobile Working so important?

There are several reasons why more and more companies are giving such high priority to data-protected mobile work. Increasing international competition is one of them. In order to remain competitive, costs must be reduced. On the other hand, especially in the oil and gas industry, numerous excellently trained specialists will retire over the next few years without having enough qualified junior staff available. The same work will have to be done by fewer employees.

Hence new ways must be found, to do the work. Networking, Internet of Things (IoT), Industry 4.0, Big Data and central data analysis – all these aspects are part of the ongoing revolution.

But you don't have to look to the future. In the event of problems on site or even accidents in hazardous locations, employees benefit directly from networking and the resulting increase in transparency and safety. This way, man down functions can automatically send an emergency call and quickly direct emergency or rescue services to the right place.

BARTEC provides all of the tools, devices and infrastructure for wireless connectivity, even for areas with the strictest safety regulations.

Your benefits

– Improve workforce efficiency
– Reduce non-productive time
– Enhance collaboration quality
– Reduce decision time
– Reduce risk potential
– Reduce travel
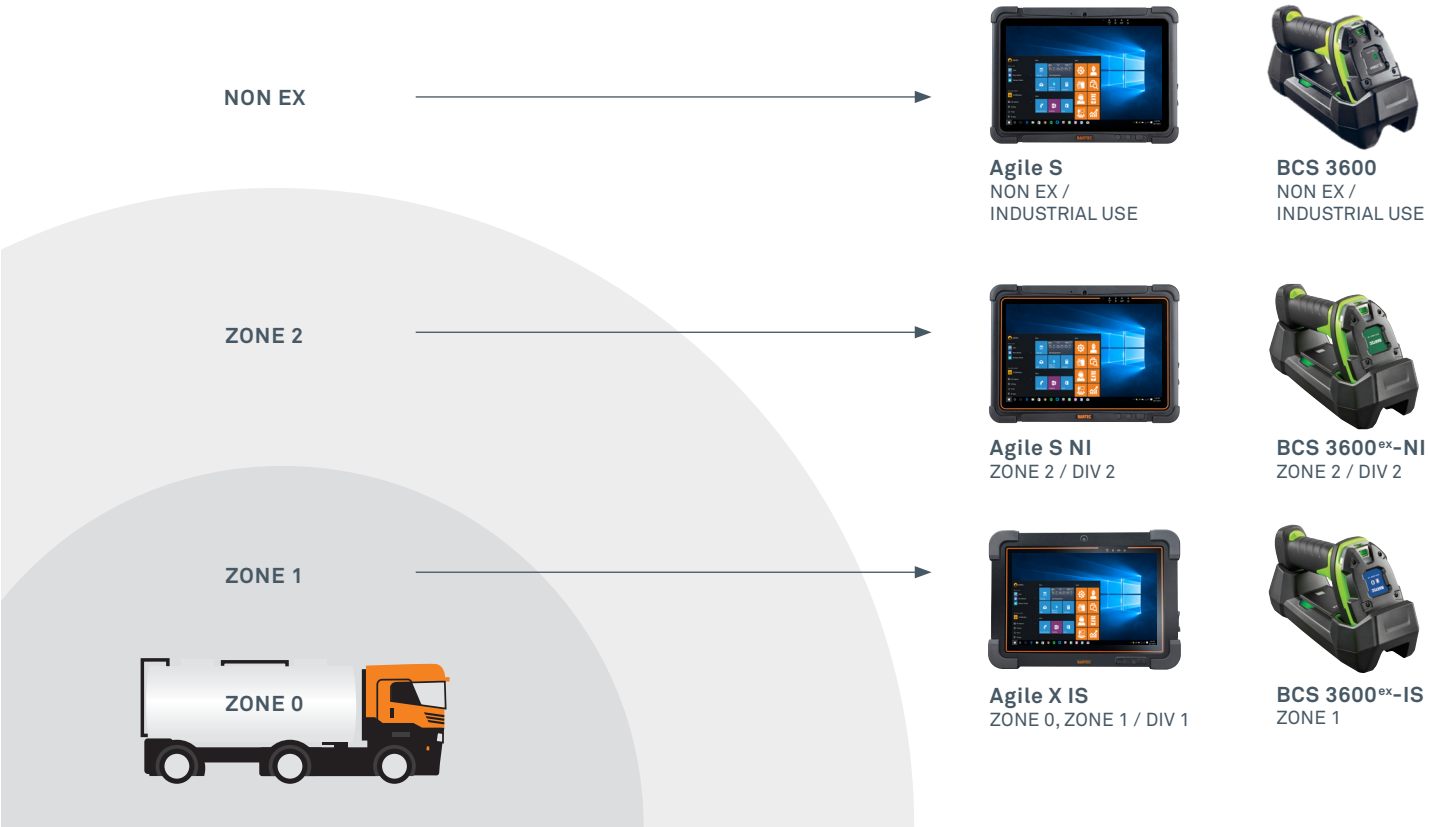– Reduce mechanical failures
– Enhance training experience

One solution for every area

Best fit for each location

Your benefits

– Application available in
  Zone 0, 1 and 2 / Class I
  Division 1 and 2
– No location-related functional
  restrictions
– Reduced training efforts and
  costs due to unified device design
– Greater / flexibility for workers on-site

NON EX

Agile S
NON EX /
INDUSTRIAL USE

BCS 3600
NON EX /
INDUSTRIAL USE

ZONE 2

Agile S NI
ZONE 2 / DIV 2

BCS 3600ex-NI
ZONE 2 / DIV 2

ZONE 1

ZONE 0

Agile X IS
ZONE 0, ZONE 1 / DIV 1

BCS 3600ex-IS
ZONE 1

Extend the reach of your global workforce

All our devices are subjected to strict tests under normal and fault conditions according to regional standards and regulations and have to pass extreme impact, drop, climate and aging tests. We design the devices to provide additional safety features in case of failure, so that our devices will never cause an ignition in a hazardous location.

We attach great importance to the fact that each solution can be used across different global hazardous locations and also across different zones and/or divisions. This means: The device may change, but the operation remains the same. Ultimately, our customers do not just need a device, but a bundle of applications. Its operation depends on the task, not the hazardous classification of the area.

With our Android-based smartphone PIXAVI phone, the connectable barcodescanner BCS3600 and Windows based Tablet PCs of the Agile-series we provide a comprehensive product and solution portfolio that allows mobile workers to bring their office to the field.

Inspections can therefore be easily documented. With online access to all required documents, minor irregularities can be rectified directly on site if necessary. Even field devices can be read out and parameterized when used in Div. 1/ Zone 0, thanks to the HART modem integrated in the Agile series. Since the add-on module is also approved for mixed operation, personnel can switch between hazardous and non hazardous locations and perform different tasks with the same device.

BARTEC

Exchange across all zones / Divisions and hierarchies

Unified platform

The one-stop solution for all hazardous locations

In order to fully exploit a company's wealth of data, access to it must be possible – taking into account the specific challenges of hazardous locations without being restricted by them.

BARTEC creates the necessary infrastructure, offers the appropriate interfaces and devices and – together with its partners – develops applications that transform data into a competitive edge.

Recurring tasks are best automated or solved as efficiently as possible where they occur.

WITH BARTEC THE CHOICE IS YOURS.

DAILY TASKS

KPI'S & STATISTICS
INSTRUCTIONS
MATERIAL AVAILABILITY
STOCKTAKING
TEST RESULTS
OFFERS
AVAILABILITY QUERY
CATCH DAMAGE
TEST REPORTS
ORDER ENTRY
DRAWINGS
PACKING INSTRUCTIONS
MACHINE SETTINGS
MANUFACTURING ORDERS
ORDER STATUS
MANAGE RESOURCES
DAMAGE REPORT
SERVICE ORDER
TIME TRACKING
PRODUCTDATA

OUR PORTFOLIO
from barcode scanners to smartphones, tablet PCs and mobile computers opens up new forms of interaction for mobile workers.

HAZARDOUS LOCATIONS ARE A CHALLENGE BUT NO STOPPER

DO YOUR WORK IN THE WAY THAT SUITS YOU BEST.

USER DEVICES

Your benefits

– A unified platform for every task
– Comprehensive and safe solution from barcode scanners to integrated ERP systems
– Customized to your needs, yet supporting international standards
– Tailor made and scalable solutions through our partner network

STATIONARY FIELD VISUALISATION
for hazardous locations, adjusted specifically to customer applications.

HMI SOLUTIONS

CUSTOMIZABLE PLATFORM CONCEPT
FOR DATA ACQUISITION, TRANSMISSION AND PROCESSING
• Network Infrastructure
• mobile hardware
• application software

CAx
DCS
ERP

SYSTEM INTEGRATION

FOR MAXIMUM FLEXIBILITY
our solutions use standard formats or allow the export to such.

NFC / RFID
BARCODE / 1D / 2D / QR
NETWORK SOLUTIONS
BLUETOOTH

DATA ACQUISITION

MOBILE EX PLATFORM

INFORMATION CHANNELS

BEACONS
AUGMENTED REALITY
MOBILE NETWORKS
BUS SOLUTIONS

EXCHANGE

DATA
INFORMATION

MANAGEMENT
CONTROL
FIELD

OPERATING SYSTEMS

WINDOWS OR ANDROID –
guarantee a simple, intuitive operation and integration in existing IT environments

ENTERPRISE COMMUNICATION LEVEL

REMOTE I/O SOLUTIONS

SIGNAL CONVERSION AND DATA TRANSFER
of sensors and terminals throughout hazardous locations.

EXTENSIONS
E.G. INTEGRATED HART FUNCTIONALITY
enables on-site diagnosis, calibration and communication.

Use Cases

Automation & enterprise mobility is a direct result of the fusion of different IT and communication applications. Even though this is a comparatively young field, we can already look back on a number of very successful implementations.

Inspection documentation

In this simple, but widspread application, clients were looking for a video solution to accompany and document inspection work. The Pixavi Camera, records events that mobile workers can take with them to their office, or directly send to an expert via email or SMS. The benefit: saved user time, shorter response times and consistent, more accurate documentation.

Dynamic Maintenance

Tasks in the field can be completed faster and more successfully when workers and engineers always get the right information at the right place and time. Plant and equipment items can be identified with geo tags, and with a quick scan everybody knows they are working on the correct items. Work orders can be dynamically assigned to available teams. Checklists and step-by-step instructions support new employees, and in complex cases engineers anywhere in the world can support the mobile worker while accessing images or videos from the field.

Spare parts management

Mobile Workers can quickly identify needed parts and check their availability. With a connection to the enterprise ERP system, even the entire ordering process can be accelerated, thus significantly increasing plant availability.

Asset Handling

In chemical plants the equipment has to be checked regularly. Barcode scanners and /or RFID tags simplify this task greatly.

Preventive and condition based maintenance

Regular checking of important values enables the timely replacement of worn parts even before a failure. In combination with a data- base and continuous trend analyses, the service life of individual components can be optimized and consumption costs reduced.
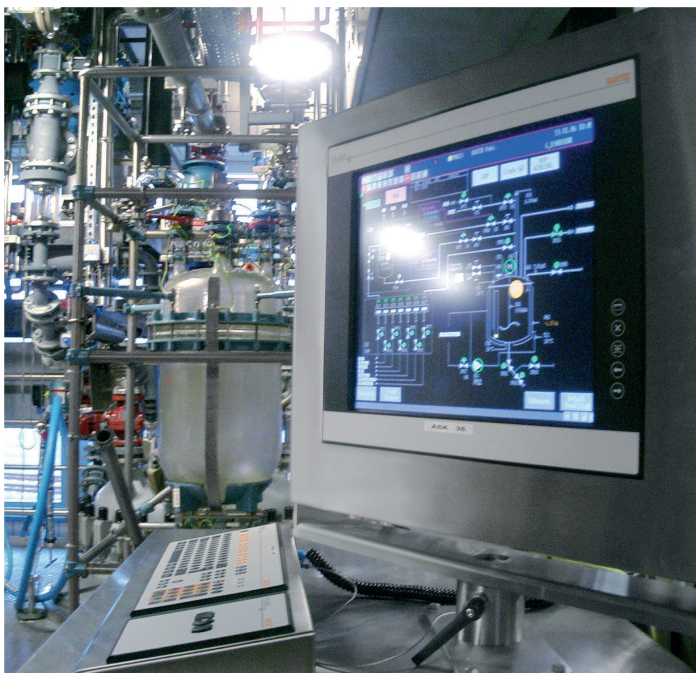
Workside navigation

The combination of camera and display makes it easier to find your way around large industrial areas and identify individual components. The display can accommodate both classic map view and augmented reality mode, highlighting important components. A simple click is all it takes to retrieve current status data – for example from devices that are difficult to access. Inspection routines can thus be carried out much faster.

Remote Support

Unscheduled situations often require a quick evaluation by experts. Thanks to video and voice support on-site, mobile workers can quickly contact experienced specialists in the control room or directly at the manufacturer's premises. Potentially critical conditions can thus be resolved while injury to people and damage to property is averted.

Risk Management

Mobile computers can decisively increase the safety of your installations and workers. Firms can demand safety checks to be carried out before applications can be used. Devices can flag abnormal measurements, while push-to-talk functions ensure that teams are always connected with their colleagues.

Ready to connect everything in all Areas

A connected portfolio

Strong alliances you can rely on

Automation & Enterprise Mobility in hazardous locations is a wide field, so our solutions enable connections between devices that need to be linked. We not only build on more than 40 years of experience in designing and building products for hazardous locations, we also have important strategic partnerships with specialists like Microsoft, Zebra, Cisco and many more. In this way, we combine the best possible explosion protection with maximum functionality, thus creating the basis for greater efficiency and safety even in hazardous locations.

Next you will find a short overview of our most important product families around Automation & Enterprise Mobility.

More detailed information is available on our website. And of course we are always there for a personal consultation. Contact us and let's talk about your individual communication solution needs for hazardous locations.

POLARIS SERIES

Human Machine Interface

POLARIS is a family of LED displays with either touchscreen or keyboard and mouse for intuitive, as well as comfortable operation in hazardous locations. Different screen sizes and display technologies ensure excellent readability and operation, even under difficult lighting conditions.

Network technology & IIoT

BARTEC offers a variety of sensors and enclosures for gateways and WiFi access points for the deployment of permanent or temporary wireless technology in potential hazardous locations. Wireless X is the smallest, lightest and highest performing zone 1 Wi-Fi access point. It allows the use of standard Wi-Fi access points from industry leaders like Cisco and, because of its compact

and smart design, it´s the perfect plug-and-play solution for ex areas. But our WiFi solutions offering does not stop there. We have wide portfolio of enclosures in different sizes, materials and designs that allow the use of different access points (with internal or external antennas) in different Ex area classifications.

Z1
UNIVERSAL ACCESS POINT ENCLOSURE

Z1
EXbox ACCESS

Z1
EXgate

Z2
ACCESS POINT SOLUTION

Z1
SENSORS

Z1
WIRELESS X

Smartphones/Cameras

The Pixavi Phone brings best-in-class technical specifications into the toughest environments. Shock-tested according to US military standards and wrapped in elegant and sleek design, this intrinsically safe smartphone guarantees safety, reliability and top performance.

For those looking to take preventative inspection & maintenance to the next level, we offer Pixavi Thermal - a device that combines high resolution thermal imaging with the real-time reporting & communication capabilities of a fully fledged Android 9 smartphone.

And if you need to take pictures or videos for documentation purposes, then you have the choice of Pixavi Cam, our user friendly point and shoot HD camera.

PIXAVI PHONE*

Z1

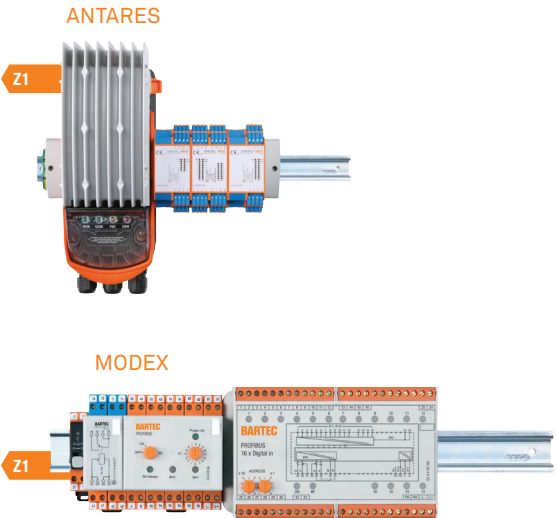PIXAVI CAM

Z1

PIXAVI THERMAL

Z1

Tablet PC

The BARTEC Agile series covers high-performance, rugged and versatile industrial tablet PCs for rough environments and hazardous locations of all kinds. Thanks to its broad range of functions, the Agile is the perfect assistant to service technicians, operating staff, engineers and project managers.

AGILE SERIES

Z2/D2

Non-Ex

Z1/D1

Bus technology

Demand for ever more flexible, reliable and cost effective automation solutions with remote I/O systems continues to grow. ANTARES and MODEX ensure that you can keep up with the pace. ANTARES offers maximum flexibility during installation and operation of large I/O systems, whereas MODEX provides simple and robust applications with fast signal processing for the most challenging enviroments on earth.

ANTARES

Z1

MODEX

Z1

Scanners /Mobile Computers

From maximum ease of use to unbeaten reliability our handheld scanner series BCS 3600^{ex} provides excellent and powerful scanning under toughest conditions. For applications that need additional computing power and flexibility, the MC9X^{ex} is the right choice. Developed in close cooperation with

Zebra, it executes complex applications, simplifies processes and boosts productivity. And if you need even more power in an extreme lightweight device have a look at the TC7X^{ex} NI Touch Computer. With its powerful processors it is best qualified for the most demanding tasks in rough environments.

BCS 3600^{EX} SERIES

Z1

Z2/D2

Non-Ex

MC9X SERIES

Z2/D2

Z1/D1

TC7X^{EX}-NI

Z2/D2