

**Increasing productivity.  
Improving data quality.  
Reducing costs.**

Smartphone and Featurephone  
for use in hazardous areas



Your automation, our passion.



## Use Synergies. For Mobility Beyond Company Boundaries.

Industry 4.0 and IIoT create unique opportunities and challenges. ecom from Pepperl+Fuchs offers mobile solutions to help users master the requirements of networked operating and production processes.

The whole is more than the sum of its parts. Processes can only run smoothly when the individual elements of a digitized solution are coordinated and users can exploit their full potential.

<p><b>ecom — Experts in Mobile Computing and Communication</b></p> <p>As a global market leader for mobile industrial equipment in potentially explosive areas, ecom has been firmly established in numerous markets for decades. Solutions for mobile security and communication ensure customer applications can be digitized easily and quickly.</p> <p>This opens up completely new possibilities and significantly enhances the safety, efficiency, and transparency of operational procedures. Conventional applications are catered for perfectly, while the ideal foundation is also laid for Industry 4.0/IIoT applications.</p> <p><a href="http://www.ecom-ex.com">www.ecom-ex.com</a></p>	<p><b>Pepperl+Fuchs — A Partner to the Automation Industry</b></p> <p>Pepperl+Fuchs is one of the world's leading companies for industrial sensors and explosion protection. Since 1945, we have been developing components and solutions that are not only individually tailored to the requirements of the automation industry, but also provide optimum support for customer processes and applications.</p> <p>This applies in particular to the future-oriented topic of Industry 4.0: Pepperl+Fuchs reinterprets tried-and-tested technologies and develops innovations that pave the way for Industry 4.0 applications.</p> <p><a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a></p>
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### ecom from Pepperl+Fuchs — Synergies for Unique Solutions in Explosion Protection

The name Pepperl+Fuchs has been synonymous with high-quality products, services, and solutions for process systems in potentially explosive atmospheres and harsh industrial environments for over 70 years. As a firmly established partner to the process industry, the umbrella brand of Pepperl+Fuchs incorporates a wide range of industrial sensors and Ex equipment, which ideally complements ecom's mobile solutions at an infrastructure level.

These synergies open up completely new, innovative applications and harmonious overall solutions, which provide our customers with an essential competitive edge when it comes to Industry 4.0.

#### Exploring Mobility

Companies are aware of the capability of mobility solutions and the impact they can have on operations, reducing cost and improving efficiency. Game changing new devices are enabling break-throughs in workforce productivity, data quality and the speed and accuracy of decision making.

The world's first and most used Intrinsically Safe 4G / LTE Smartphone, the Smart-Ex® 01 / Ex-Handy 09 is based on an Android operating system. These devices are unlocked and SIM free, offering a reliable connection to any network worldwide. The 9th generation of the Intrinsically Safe cell phones from ecom certified and approved for use in Zone 1 & DIV 1 as well as minning incl. dust Ex-areas.

#### Android™ – das beliebteste Betriebssystem

ANDROID™ enables this intrinsically safe device to be used in hazardous areas without any compromises, especially when compared to conventional smartphones, for these applications and many more.

With the online integration and the use of a variety of applications, the Smart - Ex® 01 & 201 / Ex-Handy 09 & 209 allows an efficiency potential and access to productivity and safety applications

- Collaborative Working
- Audits & Inspection
- Operator Rounds

- Asset Tracking
- Condition Monitoring
- Process Automation
- Indoor / Outdoor Tracking & Navigation
- Safety / Security Management
- Man Down - Lone Worker Protection
- Push to talk function
- Camera / Video



#### Accessories



**BC S01**  
Belt Clip



**LC H09 / LC S01**  
Leather Case



**LH H09 / LH S01**  
Leather Holster



**DC-M S01**  
4-bay Desktop  
charger

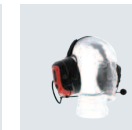


**DC S01**  
Desktop Charger

#### Compatible with



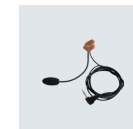
**Ex-RSM Aurelis BT**  
Bluetooth Speaker  
Microphone



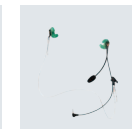
**Smart Muff**  
Wireless Headset



**3m™ Peltor™ WS™  
ProTac XP Ex**  
BT hearing  
protection headset



**Com Com Ex**  
In-Ear Headset



**Serenity SPC**  
In-Ear Headset



## Intrinsically safe Smartphone Smart-Ex® 01 and Featurephone Ex-Handy 09

Companies are aware of the capability of mobility solutions and the impact they can have on operations, reducing cost and improving efficiency. Game changing new devices are enabling break-throughs in workforce productivity, data quality and the speed and accuracy of decision making.



**8 MP camera with auto focus (Smart-Ex® 01, 201, Mining)**  
**5 MP camera with auto focus (Ex-Handy 209)**

- Quality Pictures in bad light condition
- Torchlight function

**1 MP Front camera (Smart-Ex® 01, 201, Mining)**

**NFC (Smart-Ex® 01, 201, Mining)**

**Connectivity**

- Bluetooth® 4,0 incl. BLE (Bluetooth Low Energy)
- WiFi 802.11 a / b / g / n
- GPS, GLONASS

**MIMO-antenna**

- 4G / LTE cellular network connectivity

**Capacitive multi-touch screen**  
4,0" (Smart-Ex® 01, 201, Mining)  
2,6" (Ex-Handy 09, 209)

- made of extreme shock and scratch resistant Gorilla Glass® 2
- Glove Touch Screen
- High Visibility Display in Direct Sunlight

**Programmable hardware buttons**

- Lone Worker Protection-Funktion (App solution)
- Push-to-Talk (App solution)

**Android™ – Operating system**

- Android 5.1.1 (Smart-Ex® 01, 201, Mining)
- Android 4.4.4 (Ex-Handy 09, 209)

All details about Ex-Handy 09 and Smart-Ex® 01 series can be found at [www.ecom-ex.com](http://www.ecom-ex.com)



## Connectivity – fast and flexible

As private 4G / LTE wireless connectivity is increasingly adopted within hazardous areas, Tab-Ex® 01 ensures access is fast and seamless – enabling users to quickly access the information needed to perform the task at hand. And, for sites with WiFi access or no wireless access, Tab-Ex® 01 provides the flexibility to meet your needs - preventing costly infrastructure updates.

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### ecom's Mobile Worker Concept

Central to ecom's Mobile Worker concept, up-to-date Bluetooth standards are also supported by Tab-Ex® 01, allowing real-time connectivity to both Bluetooth SmartReady Low Energy 4.0 (BLE) devices as well as older legacy Bluetooth devices.

This allows the mobile worker to benefit from expanded Tab-Ex® 01 capabilities such as data collection and measuring/monitoring devices, headsets, AutoID, and Bluetooth Beacons for localization.



For an overview of application possibilities, visit:  
<https://www.ecom-ex.com/apps/>

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### Lone Worker Protection (LWP)

#### LWP ready for Mobile Worker 4.0

- Easy to integrate in many partner server systems
- Location based services are available
- Interactions with different Applications at the same time run smoothly
- OTA upgrades running well - not only for LWP
- Data interaction between control center and end-user is possible

#### Smart-Ex® 01/01 M/201 & Ex-Handy 09/209

- The LWP Application is running beside the operating system
- The use of Android Apps reduces costs
- Quad core processor divides all services
- In case of a processor malfunction, 3 backup processors ensure that all services are available instantly



3

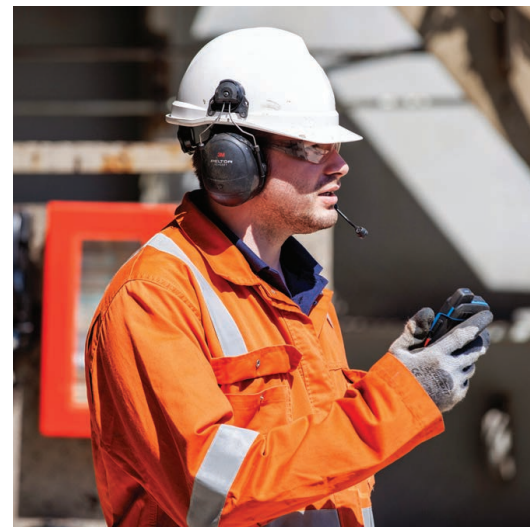
### Push-to-Talk (PTT)

PTT over IP is a service providing group communication like Two-Way Radio communication systems (TETRA, DMR and the classic analogue PMR).

Existing systems can be easily substituted, including DECT systems

#### Benefits

- Individual Call
- Group Call
- Messages
- GPS Tracking
- Calls History Including Voice Recording
- Order Management System with NFC, QR Code
- Status Messages
- Data Transfer.



# Your automation, our passion.

## Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex<sup>®</sup> Fieldbus
- Remote I/O Systems
- Electrical Ex Equipment
- Purge and Pressurization
- Industrial HMI
- Mobile Computing and Communications
- HART Interface Solutions
- Surge Protection
- Wireless Solutions
- Level Measurement

## Industrial Sensors

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Fieldbus Modules
- AS-Interface
- Identification Systems
- Displays and Signal Processing
- Connectivity

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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