

**Digitalizing hazardous areas.  
Enabling connectivity.  
Enhancing mobility.**

Smart-Ex® 02 Smartphone Series  
for Industrial Hazardous Areas  
up to Zone 1/21 and Div. 1

**ecom**  
A PEPPERL+FUCHS BRAND



Your automation, our passion.

**f** PEPPERL+FUCHS

# Smart-Ex® 02:

## The Next Generation of Rugged, Intrinsically Safe Smartphones for Hazardous Areas

A large 5" display, an ergonomic design, 21 LTE frequency bands, global certifications, and a powerful operating system—these are the key features of the new intrinsically safe smartphone Smart-Ex® 02. Whether used as a smartphone, PDA, scanner, or camera, the Smart-Ex® 02 enables mobile employees to perform their daily tasks anytime and anywhere. It will be the first ATEX/IECEX certified Zone 1 smartphone to meet the Android Enterprise Recommended standard.



### Total Reliability, Global Use

The Smart-Ex® 02 has a high-resolution **5" multitouch display** made from extremely durable, scratch-resistant Gorilla® Glass. The touchscreen can be operated **with gloves** and offers optimal readability even in direct sunlight. In addition, the device meets all of the requirements for worldwide use, since it **supports 21 LTE frequency bands** and is **SIM lock-free**. The Smart-Ex® 02 has been certified for **Zone 1/21 and Div. 1**, and offers all of the important international certifications.



### More Flexibility and Higher Productivity

Its **ergonomic design** and intuitive user interface provide an optimal user experience. **Keys for push-to-talk, volume control, and camera shutter** release are well-positioned to ensure that the Smart-Ex® 02 is easy to use. User-programmable keys can be configured for **customer-specific** requirements. Equipped with the most **powerful replaceable battery** on the market, the device can handle unexpectedly long shifts and runtimes of up to 24 hours.



### Safety for Daily Use

The Smart-Ex® 02 sets new standards in terms of safety: with the latest **Android™ 9 operating system**, the smartphone operates quickly, safely, and efficiently. The Smart-Ex® 02 will be the **first Zone 1/21 and Div. 1 certified device to meet the exacting standards required for Android Enterprise Recommended (AER) validation by Google**. AER validation guarantees consistent, simple provision and management of mobile solutions via hardware support, OS support, and regular security patches.



### Operating System

- Android™ 9 AER

### Connectivity

- WiFi Standard 802.11 a/b/g/n/ac/e/k/r/h
- WiFi 2.4 GHz and 5 GHz support
- Bluetooth® 4.2 incl. BLE
- GPS/A-GPS/Glonass/Beidou/Galileo/NFC

### Band

- Supports 21 LTE frequency bands
- Dual SIM allows flexible integration in business environments

### Ports

- Waterproof magnetic USB 2.0 connection

### 2 Cameras (Front and Rear)

- 12 MP camera with autofocus and LED flash + 5 MP camera

### Dedicated Keys

- User programmable buttons for special functions, e.g. push-to-talk, camera, alarms

### Memory

- 3 GB RAM, 32 GB ROM
- Up to 128 GB additional memory with microSD

### Power

- Powerful replaceable battery, for a full working day (4400 mAh)

### Extended Temperature Range

- -20 °C ... +60 °C

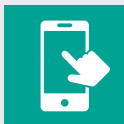
### Highlights



Will be the first Android Enterprise Recommended smartphone with ATEX/IECEx Zone 1/21, Div.1



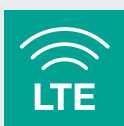
Latest Android 9 operating system: quick, safe, and efficient



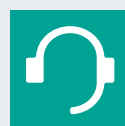
Ultra-rugged, 5" multi-touch display can be operated with gloves



Ergonomic design and an intuitive user interface: dedicated keys like push-to-talk and volume control can be configured individually



21 LTE frequency bands, no SIM-lock, and SIM-free for flexible use around the world



Individualized service and support around the globe with faster response times



For more information, visit:  
[www.pepperl-fuchs.com/smart-ex-02](http://www.pepperl-fuchs.com/smart-ex-02)

# Mobile Worker Concept: Innovative Solutions from a Single Source

Pepperl+Fuchs offers a range of coordinated peripherals, accessories, and software solutions as an ideal complement to the Smart-Ex® 02 intrinsically safe smartphone.

## Exploring Mobility

Organizations are starting to realize how mobility solutions can benefit their business. Today, the focus is on technologies that reduce costs and improve efficiency. Game-changing breakthroughs in mobile computing and communication technologies are enabling industries to improve workforce

productivity, data quality, and the speed and accuracy of decision-making. The Internet of Things (IoT) has become increasingly important in the industry and will change the way companies deploy labor to use resources more effectively.



## Digital Products and Services

Digital Products and Services is a solution that combines automated staging, mobile device management, and device analytics. It can also be used as a full-fledged enterprise mobility management system if desired.

At the customer's request, ecom's mobile devices can ship from the factory with predefined custom configurations such as security settings, applications, and wireless setup. This allows devices to be used anywhere in the world immediately upon delivery.

The devices can be managed via the ecom online platform and updated remotely at any time during operation without having to be sent to local IT staff or the head office.

Cloud servers hosted in Germany meet the highest data protection standards and guarantee high data availability and security.

One-time staging and enrolling can also be done internally via ecom's production servers. If desired, device diagnostics and analytics can collect real-time operational data and fault analyses to continuously monitor device status and fix malfunctions preventively or immediately.

Additionally, the platform analyzes historical data to detect critical software events, installations, and other safety-critical processes. A statistical accumulation of events can be used to establish correlations and causalities between software errors, geographical data, and Wi-Fi coverage, for example.

Digital Products and Services is a ready-to-use service that ensures quality and security for all devices. This saves time and valuable resources.

Find out more:

[www.pepperl-fuchs.com/smart-ex-02](http://www.pepperl-fuchs.com/smart-ex-02)



## Digital Products and Services

### Staging and Enrolling

eCSL—Custom Service Load

- Custom device preconfiguration
- Delivered ready-to-use

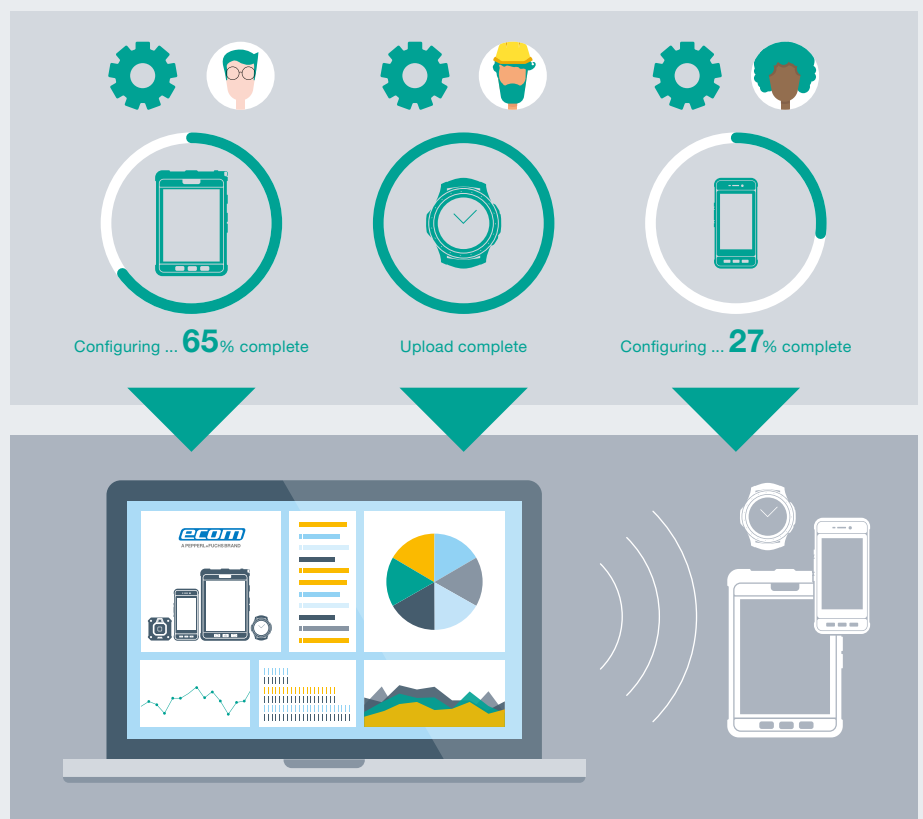
### Configuring and Management

eMDM—Mobile Device Management

- Update devices around the world simultaneously

### Device Diagnostics

- Analytics help avoid problems and correct errors



## Accessories and Peripherals

Components such as desktop charger, remote speaker microphone (RSM), and headsets expand the range of applications for the new Smart-Ex® 02 and are perfectly suited for future IIoT solutions.

Need a keypad with your touchscreen smartphone?



Find out more:  
[www.pepperl-fuchs.com/ex-handy-10](http://www.pepperl-fuchs.com/ex-handy-10)

## Accessories

- Travel charger TC S02
- Desktop charger DC S02
- Multi charger DC-M S02
- USB data cable PC S02

Additional accessories  
can be found at  
[www.ecom-ex.com](http://www.ecom-ex.com)

### Smart-Ex® Watch 01

Smartwatch



### Ident-Ex® 01

Barcode Scanner/  
RFID Reader



### CUBE 800

Ex-Camera



### RSM-Ex 01

Remote Speaker  
Microphone



## Optimal Service, Global Support

The Smart-Ex® 02 was developed completely in-house by Pepperl+Fuchs with ecom engineers. The smartphone, which offers absolute safety and a huge range of applications, is based on 30 years of experience and a high level of application expertise.

Pepperl+Fuchs' extensive sales and service network provides support around the globe. Specialized technicians are available close to you. Further support with software integration is available via our engineering and development teams.

To protect your investment, we offer a three-year service level agreement so your mobile assets are covered for your operational needs.



# Digitalizing hazardous areas. Enabling connectivity. Enhancing mobility.



The Pepperl+Fuchs brand ecom is a leading manufacturer of comprehensive solutions for intrinsically safe mobile computing and industrial communication in hazardous areas.

Since 1986, ecom has played a key role in pioneering explosion protection for mobile devices. The company has demonstrated its technological expertise with a number of innovations and tried-and-tested mobile solutions—from intrinsically safe smartphones, cell phones, and tablets to accessories like wireless headsets and barcode scanners. ecom's new Digital Products and Services platform completes the portfolio, offering automated staging during device production, mobile device management, and device analytics; the platform can also be used as a full-fledged enterprise mobility management system.

Each of ecom's solutions combines uncompromised security with the highest level of functionality, and includes all necessary approvals and certificates for global use. A global sales and support network with service centers in Germany, the US, Singapore, and the United Arab Emirates completes the range of products.

Customers around the world know the Pepperl+Fuchs Group as a pioneer and innovator in electrical explosion protection and sensor technology. Building on decades of experience and technical leadership, the company develops components and solutions tailored to the needs of its customers. Solutions for mobile safety and communication from the Pepperl+Fuchs brand ecom enable customer applications to be digitalized quickly and easily. This opens up completely new possibilities and increases the safety, efficiency, and transparency of operations in both conventional and Industry 4.0 applications.

For more information about ecom, visit:  
[www.ecom-ex.com](http://www.ecom-ex.com) and [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

# Your automation, our passion.

## Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex® 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

### Pepperl+Fuchs Quality

Download our latest policy here:

[www.pepperl-fuchs.com/quality](http://www.pepperl-fuchs.com/quality)

