ecom

A PEPPERL+FUCHS BRAND

ATEX, IECEx NEC & KC

ZONE 1/21. DIV 1

ZONE 2/22. DIV 2

ZONE 1/21. DIV 1

ZONE 2/22. DIV 2

MINING

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

DELIVERING MOBILITY

IN HAZARDOUS AREAS

Enterprise Mobility

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 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 incl. dust Ex-areas.

ZONE 1 / 21, ZONE 2 / 22
DIV 1 / DIV 2

Most rugged Smartphone / Featurephone
QUALITY CONTROL CONDUCTED IN GERMANY, BASED ON 30 YEARS EXPERIENCE

RANGE OF FUNCTIONS

- SIM lock free
- 4G / LTE cellular network connectivity
- Bluetooth® 4.0 incl. BLE (Bluetooth Low Energy) BLE (30 times faster, 1/100th of power)
- WiFi 802.11 a/b/g/n
- Android™ 4.4.4 - operating system
- 4.0″ capacitive multi-touch screen made of extreme shock and scratch resistant Gorilla Glass® 2
- Glove Touch Screen
- High Visibility Display in Direct Sunlight
- Camera (see page 10)
- Quality Pictures in bad light condition

- 3600 mAh Li-Ion battery pack (Smart-Ex 01) 4800 mAh Li-Ion battery pack (Smart-Ex 201) (up to 40 hours talk time)
- Magnetic and waterproof USB 2.0 High Speed connector
- IP68 - Dust proof, water proof
- Push-to-talk (App solution)
- Lone Worker Protection (App solution)
- Dedicated / programmable hardware buttons
- NFC functionality (only Smart-Ex® 01 / 201)
- Optional Service Level Agreement (SLA) 3 years
- MDM + Google Play Store certified
- FOTA (Firmware over the air)

LEARN ABOUT
THE KEY BENEFITS

Smart-Ex® 01 / 01M / 201

Ex-Handy 09 / 209

ZONE 2/22, DIV 2

ZONE 1/21, DIV 1

ZONE 2/22, DIV 2

ZONE 1/21, DIV 1

ANDROID™ –
THE MOST POPULAR OPERATING SYSTEM

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

ecom app-library

www.ecom-ex.com/apps
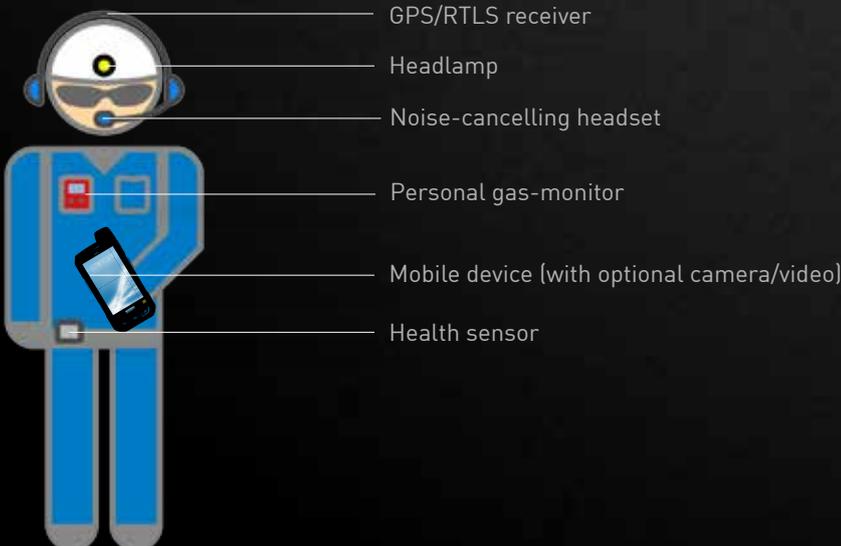
Enterprise Mobility

Bluetooth®

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.
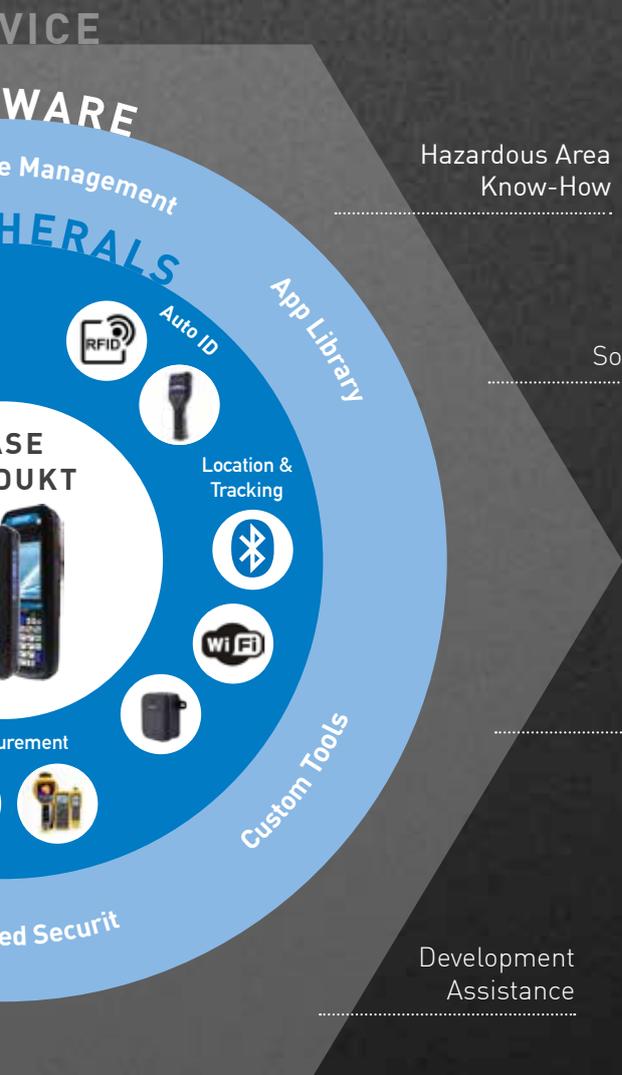
Central to ecom´s Mobile Worker concept, up-to-date Bluetooth standards are also supported by Tab-Ex® 01, allowing real-time connectivity to both Bluetooth SmartReady Low Energy 4.0 (BLE) devices as well as older legacy Bluetooth devices. This allows the mobile worker to benefit from expanded Tab-Ex® 01 capabilities such as data collection and measuring/monitoring devices, headsets, AutoID, and Bluetooth Beacons for localization.

MOBILE WORKER

- GPS/RTLS receiver
- Headlamp
- Noise-cancelling headset
- Personal gas-monitor
- Mobile device (with optional camera/video)
- Health sensor

Training

Consultancy

Emergency Swapout

Service Level Agreement

SER

SOFT

Mobile Device

PERIPH

Driver Development

Collaboration

Health & Protection

Kiosk Mode

BA PROD

Measu

Enhanc

ECOM´S MOBILE WORKER CONCEPT

ecom
A PEPPERL+FUCHS BRAND

mobile worker®

RVICE

WARE

e Management

HERALS

RFID

Auto ID

App Library

Location & Tracking
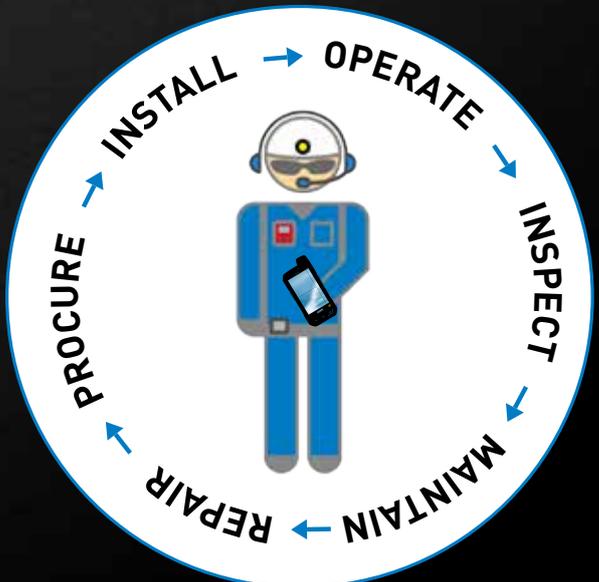
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urement

Custom Tools
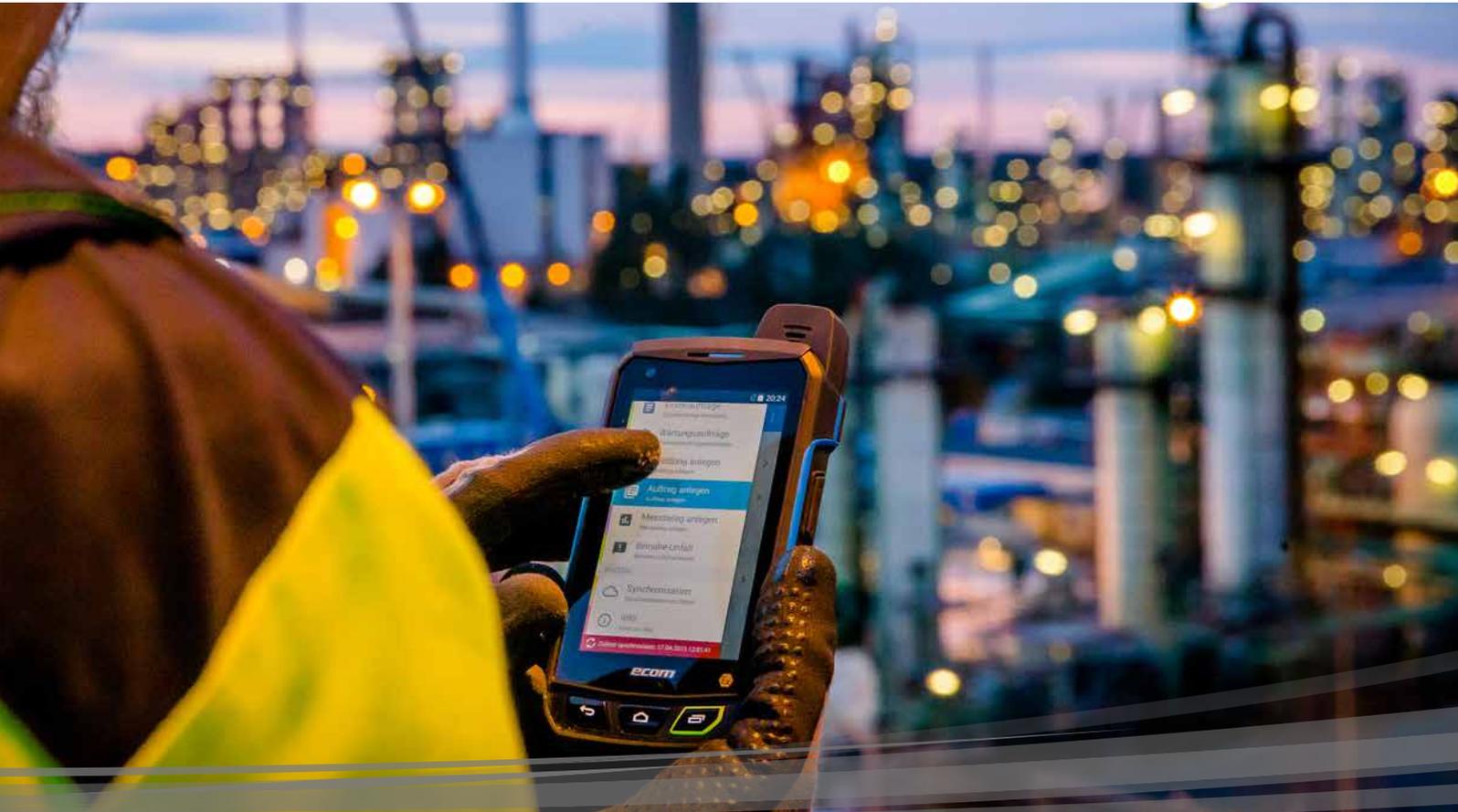
ed Securit

Hazardous Area Know-How

Custom Software Load

Rental/ HaaS

Development Assistance

- Ensuring and maximizing mobile worker´s efficiency & productivity
- Ensuring accurate data capture, real-time information and decision making
- Minimizing costs
- Improve ease of use & customer experience

PROCURE → INSTALL → OPERATE → INSPECT → MAINTAIN → REPAIR →

Smart-Ex ®

WHY USE ZONE 1 / 21 & DIV 1 DEVICES?
DO NOT COMPROMISE ON SAFETY

Safety (employees, assets and environments) is priority number one when carrying any electronic device into environments with potentially explosive atmospheres.

Since even Zone 2 equipment is "only required to be safe under normal operating conditions", any fault could potentially cause an explosion in the presence of an explosive atmosphere. Even turning a device "Off" does not make it safe.

Essentially, only equipment certified for use in Zone 1 / Division 1 areas employ additional safety circuits or factors of safety in the event of potential failure and pass extreme impact and drop tests, climate tests, ageing tests.

Even if considered safe to use in hazardous areas, it does not mean it is intrinsically safe / explosion proof unless:

1. The device has the correct rating:
   "Ex ia", "Ex ib" or UL913, FM3610, CSA157 and

2. The required certification marking is on the device

Evaluate the risk and check if your mobile devices are intrinsically – you may be surprised and even more your company's safety or insurance maybe compromised.

Also take into consideration that Division 2 and even Zone 2 certified devices should be replaced earlier than Division 1 / Zone 1 devices.
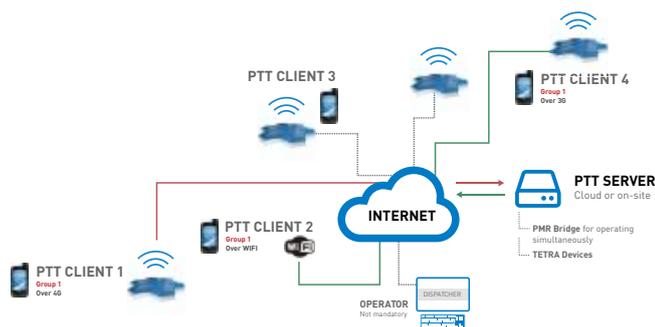
MAKE ALL
THE DIFFERENCE

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.

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 / 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

MOBILE DEVICE MANAGEMENT

Mobile device management (MDM) is an industry term relating to the administration of multiple devices which helps in dealing with deploying, securing, monitoring and integrating mobile devices

Features
The main aim for deploying MDM on devices is to optimize the functionality and security of mobile devices within an organisation, while simultaneously protecting the corporate network. Key features for a robust and secure MDM include:

- Enroll, provision, configure and manage devices, individually or by a group over-the air (OTA)
- Restrict users to approved applications only.
- Containering; a secured area for business apps

- 9th generation of I.S. reliable mobile phones (more than 150,000 ecom devices in worldwide usage)
- Quality control conducted in Germany, based on 30 years experience in the Ex-market
- Significant software development team ensures Carrier network compatibility
- Tested with common MDM systems
- Google Play Store certified
- Lower TCO (Total Cost of Ownership)
- Higher ROI (Return On Investment)

7

Smart-Ex®

SOFTWARE BARCODE SCANNER

The ecom CamScan is a "keyboard wedge" software utility based on Honeywell´s **SWIFTDECODER Mobile™** a professional offline barcode decoder software, which uses the integrated front / rear camera to scan barcodes, automatically converting them to human readable text. Triggering the scan is easy - simply press the Scan button added to the on-screen keyboard. Audible and vibration feedback is given when the barcode has been decoded and the decoded barcode data will automatically appear in the data field where you need it.

Choose software scanning for a low to medium frequency scanning, where low light and high motion are not an issue.

CamScan Keyboard
for Tab-Ex® 01 & Smart-Ex® Series / Ex-Handy 209

ADVANTAGES CAMSCAN SOFTWARE

- Uses integrated front / rear cameras - no additional hardware needed
- Fast & accurate decoding of a wide variety of 1D and 2D barcodes (even offline)
- Decodes most dirty/damaged barcodes
- Good performance in both sunlight and poor light conditions

BENEFITS

- Improves accuracy & reduces manual typing
- Eliminates the need to copy & paste data
- Hardware & software cost savings
- Easy integration with existing software

PREMIUM
DATA CAPTURING

connectivity without limits

Supports i.roc® Ci70 -Ex head modules

SCAN ENGINE

If data capture is proving a challenge and you need a powerful and professional solution, you should turn to the **Ident-Ex®.**

IDENT-EX®
SCAN HANDLE

Using a unique modular design, Ident-Ex® 01 can be specifically configured to the customer's requirements by selecting different head modules. Even if requirements change, the head module on the unit can be replaced by one of the ecom-approved Service Centers.

ADVANTAGES OF
IDENT-EX®

- Ultra-rugged

- Easy to use, with one hand

- 10.000+ scans with one battery charge

- RFID = up to 1,5 m Barcode = 15 cm to 15 m

- Combi-Headmodules available with 2 separate buttons on the handle

Connectivity via Bluetooth

	SMART-EX® 01	SMART-EX® 201	EX-HANDY 09	EX-HANDY 209
Operating System	Android 5.1.1 or Android 4.4.4		Android 4.4.4	
Chipset	MSM8926 1.2 GHz Quad core			
Band	Cellular frequency bands EU variant: 4G LTE: B1, B3, B7, B8, B20, B38 3G UMTS: 850 / 900 / 1900 / 2100 MHz 2G GSM: 850 / 900 / 1800 / 1900 MHz Cellular frequency bands US variant: 4G LTE: B1, B2, B3, B4, B5, B8, B12 3G UMTS: 850 / 900 / 1900 / 2100 MHz 2G GSM: 850 / 900 / 1800 / 1900 MHz			
Antenna	MIMO antenna for LTE			
WiFi	802.11 a / b / g / n dual-band, WiFi Direct, WiFiHotspot			
Memory	16 GB Internal Storage / 1GB RAM		8 GB Internal Storage / 1GB RAM	
User memory	12 GB		4 GB	
Applications	Google Play Store certified			
CONNECTIVITY				
Bluetooth **SMS, MMS** **(text, image, audio, video)**	BT4.0 / BLE (Low Energy) Support SMS and MMS			
GPS, NFC	GPS, GLONASS, NFC		GPS, GLONASS	
Email Client	EAS, Gmail, POP3, IMAP			
Capacity (mAh)	3600 mAh	4800 mAh	3600 mAh	4800 mAh
Battery Life	Up to 1000 hours Stand by, up to 40 hours talk time			
PHYSICAL CHARACTERISTICS				
Ambient temperature	-20 °C.....+55 °C / 0 °C.....+50 °C (Smart-Ex® 01M)			
Protection class	IP68			
Size	137 x 72,1 x 26,9 mm (5.39" x 2.84" x 1.06")	137 x 72,1 x 20,8 mm (5.39" x 2.84" x 0.82")	137 x 64,5 x 26,6 mm (5.39" x 2.54" x 1.05")	137 x 64,5 x 20,5 mm (5.39" x 2.54" x 0.80")
Weight	approx. 370 g	approx. 290 g	approx. 330 g	approx. 270 g
Dedicated Keys	PTT key / Alarm key / Power key			
Ports	3.5 mm audio connector			
DISPLAY				
Size	4.0 inch		2.6 inch	
Type	Corning Gorilla® Glass 2 with Glove Touch, Blanview Display			
Audio				
Microphone	Dual Mic Solution with Noise cancellation			
Speaker	19 mm Loud Speaker with Gore® Protective Vents, Output up to 103 dB			
MULTIMEDIA				
Camera	8 MP auto focus rear, 1MP fixed focus front		-	5 MP auto focus rear
Video streaming	Support AV I, MP4, 3GPP		Support AV I, MP4, 3GPP	
LED torch light	Yes			

CERTIFICATION

	SMART-EX® 01	SMART-EX® 201	EX-HANDY 09	EX-HANDY 209
ATEX	Ⓔ II 2G Ex ib IIC T4 Gb IP64 Ⓔ II 2D Ex ib IIIC T135 °C Db IP64 **Mining (Smart-Ex® 01M)** I M1 Ex ia I Ma IP64	Ⓔ II 3G Ex ic IIC T4 Gc IP64 Ⓔ II 3D Ex ic IIIB T135 °C Dc IP64	Ⓔ II 2G Ex ib IIC T4 Gb IP64 Ⓔ II 2D Ex ib IIIC T135 °C Db IP64	Ⓔ II 3G Ex ic IIC T4 Gc IP64 Ⓔ II 3D Ex ic IIIB T135 °C Dc IP64
IECEx	Ex ib IIC T4 Gb IP64 Ex ib IIIC T135 °C Db IP64 **Mining (Smart-Ex® 01M)** Ex ia I Ma IP64	Ex ic IIC T4 Gc IP64 Ex ic IIIB T135 °C Dc IP64	Ex ib IIC T4 Gb IP64 Ex ib IIIC T135 °C Db IP64	Ex ic IIC T4 Gc IP64 Ex ic IIIB T135 °C Dc IP64
NEC & CEC	Class I, Division 1, Groups A-D T4 Class II & III, Division 1, Groups E-G T4	Class I, Division 2, Groups A, B, C, D, T4	Class I, II, III Division 1 Groups A-G T4	Class I, Division 2, Groups A,B,C,D, T4
KC - Korean Certification	Ex ib IIC T4 Ex ib IIIC T135°C	-	Ex ib IIC T4 Ex ib IIIC T135°C	-

SCOPE OF DELIVERY SMART-EX® / EX-HANDY

- Smart-Ex® 01 / Smart-Ex® 201 / Ex-Handy 09 / 209

- Li-Ion battery 3600mAh (Zone 1, built-in)
  Li-Ion battery 4800mAh (Zone 2, built-in)

- Charger TC S01
  with EU, UK, US & AU plugs

- Safety Box SB S01 (Zone 1)
  USB data cable PC S201 (Zone 2)

- Belt Clip BC S01 / S201 / H09 / H209

- Needle (for opening SIM Slot)

- Documentation

Find more on
www.ecom-ex.com

ACCESSORIES SMART-EX® & EX-HANDY

BELT CLIP	LEATHER CASE	LEATHER HOLSTER	4-BAY DESKTOP CHARGER	DOCKING STATION

COMPATIBLE WITH

3M™ PELTOR™ WS™ ProTac XP Ex	EX-RSM AURELIS BT SPEAKERMIC	SMART MUFF	COM COM EX	SERENITY SPC

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