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# Mobile Communication

ecom - The safe connection

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WATER RESISTANT TEST



DUST TEST



COLD TEST



DROP AND IMPACT TEST

## Trust is good, but testing is better.

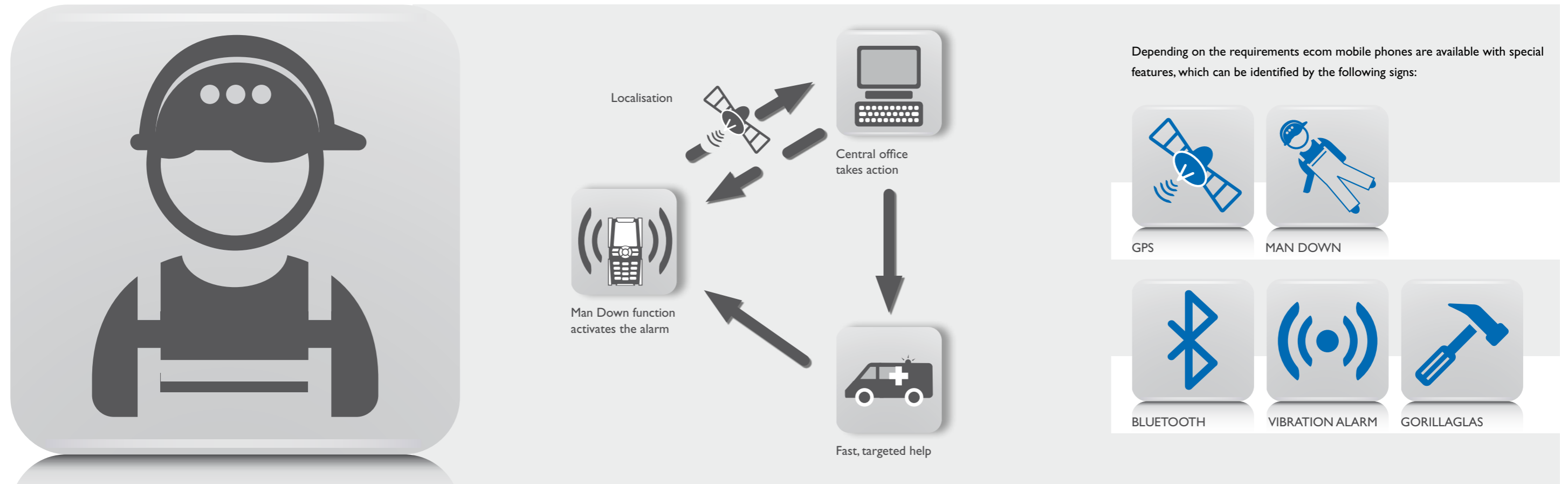
Whether in the chemical and petrochemical industry, as well as in oil and gas production or in mining; in sectors such as these mobile phones are exposed to extreme loads and at the same time are irreplaceable as tools for conveying information and messages. In order to allow safe communication for our customers throughout the world at any time, a team of experts is working in our company

on a special science: the mistreatment of mobile phones. This test program – which would cause normal mobile phones to break within the shortest amount of time – exceeds the legally prescribed test series on severity.

An important component includes the impact tests with specially designed 1kg weights. In addition, there are several drop tests of up to 1.80 meters from the ground. Extreme temperature fluctuations of up to -20 °C as well as dust and water resistant tests under long-term observation are also a must. IP tests normally carried out with new units take place for Ex-certification intentionally after the drop and impact tests. In order to implement these and many other qualification measures our own testing field at the

headquarters in Assamstadt is continuously supplemented by new testing devices and testing material. The results are uncompromisingly safe devices – with all of the relevant permits and certificates for use in your area.

By the way, you can carry out an interesting test yourself, which is also safe: Try, for example, to scratch the display screen of your new Ex-Handy phone 06 with a key. You will be surprised.



## Extreme conditions require special precautionary measures.

### What would happen, if?

In some work areas, much depends on the fact that this question can be answered with certainty.

What would happen if an employee of an oil refinery or a gas supplier loses consciousness out of sight while on an inspection tour and can no longer operate his mobile phone?

For such cases a system must be available in certain security areas for lone worker protection. For example a so-called "PES" (Personal Emergency System), comprised of a PED (Personal Emergency Device) and a RU (Receiving Unit). The lone worker carries the PED with him, which is able to automatically trigger an alarm. This is transmitted to an alarm control centre, which in turn has the

corresponding location software and initiates the necessary emergency measures.

With the X.com 4/5/6xx family, presented on pages 14/15, ecom has a mobile phone that can function as a personal emergency device and can therefore be part of an Accident Prevention and Insurance Association approved PES. For this purpose you have been

equipped by our experts with a position sensor and a GPS chip for location. We also keep the software ready for the alarm control centre.

In order to provide you with the highest degree of security, we do not only think in products, but rather in concepts.

## New: Ex-Handy 06. First choice for Zone 1.





Especially designed for rough Ex-environments the new Ex-Handy 06 raises the bar for efficient and safe communication in Ex-areas up to Zone 1/21 – even under extreme conditions. It combines state-of-the-art technology with maximum robustness.

### Tough shell

Optimally adapted for harsh conditions: With its nearly indestructible genuine glass display made of "gorilla glass" the Ex-Handy 06 can take even the most severe impacts. The "gorilla glass" used in the genuine glass display passes drop tests from heights of 1.8 meters at temperatures of up to -20 °C without a scratch. And it is dust-proof and splash-water resistant to boot. Come what may: you're connected.

## Ex-Handy 06

- ▶ Motorised vibration alarm
- ▶ Explosion Group IIC
- ▶ IP67
- ▶ GSM 900/1800/1900
- ▶ Bluetooth®
- ▶ GPRS
- ▶ WAP 2.0 and Opera browsers
- ▶ Extremely scratch and impact-resistant display
- ▶ Lotus Notes® and Outlook® synchronisation
- ▶  II 2G Ex ib IIC T4
- ▶  II 2D Ex ibD 21 T130 °C



### Intelligent core

Technologically advanced and with a focus on what is really needed, the Ex-Handy 06 offers intelligent functions and features: As a tri-band mobile phone it supports all 900/1800/1900 MHz networks. Which keeps you flexible. Bluetooth, WAP 2.0 and Opera Browser as well as the synchronisation with Lotus Notes and Outlook allow you to work efficiently.

### High operating comfort

With its separated keys the Ex-Handy 06 can even be operated effortlessly with wet hands and while using gloves. The intuitive menu navigation makes working with this new power tool for Zone 1/21 extremely pleasant as well as simple. And thanks to the extremely loud ringtone and motorised vibration alarm approved for the first time for Zone 1/21 you are guaranteed not to miss a message again.

## X.com 200-Ex: A strong partner for Zone 2.




When looking at the X.com200 –Ex, you can't deny its kinship with the new Ex-Handy 06. And the X.com 200 –Ex has the same character with the same principle features: a true outdoor mobile phone, extremely durable and uncomplicated, ideal for use in rough terrain – certified for Zone 2.

### Tough as nails

Robust housing, dust-tight and waterproof, not sensitive to severe temperature fluctuations up to -20°C: X.com 200 -Ex's ability to function outdoors has not only been proven in an extensive series of tests, but also in countless numbers of practical deployments.

## X.com 200-Ex

- ▶ AUTHENTIC vibration alert
- ▶ Push-to-talk (PTT) over GSM
- ▶ Triband mobile phone for GSM 900/1800/1900 networks
- ▶ LCD display with 65,536 colours
- ▶ Bluetooth®
- ▶ Data transmission via GPRS
- ▶ Rechargeable 1180 mAh Li-ion battery
- ▶ Free software for data transfer and synchronization
- ▶ Integrated Office functionality
- ▶ Java™ MIDP 2.0 - platform
- ▶ WAP 2.0
- ▶ Opera Mini Web browser
- ▶  II 3G Ex nA nL IICT4



### A strong performer

As with the youngest member of the family, the Ex-Handy 06, the X.com 200-Ex is also a tri-band mobile phone that supports all GSM 900/1800/1900 networks. Via Bluetooth it connects quickly to the corresponding units - for the transmission of data, contacts, deadlines. WAP and the Opera browser are additional features.

### Comfortable handling

Large keys, extremely bright display, intelligent user guidance – the X.com 200 –Ex makes your work easier in any type of weather and any lighting conditions. And ensures in addition with an extremely loud ringtone as well as a genuine, motorised vibration alarm that you will no longer miss a call due to loud background noise.

## X.com 4/5/6xx line. Including a guardian angel.



### Equipped for every occasion.

Safe communication in ex-risk areas, extremely robust – does a mobile have to do more? “Yes,” said our developer. With the X.com 4/5/6xx series we present to you mobile phones that can be used as part of a personal emergency system for lone worker protection. An integrated position sensor recognises the position of the employee and triggers in the event of an emergency an alarm when the user is no longer able to.

The integrated GPS chip then transmits the position data via SMS to the location station, which then notifies help.

In order to meet the different demands within the industry inside and outside of the ex-area, there are three versions of the X.com 4/5/6xx line with different certifications.

## X.com 6xx

- ▶ Dual band mobile phone for GSM 900/1800 networks
- ▶ LCD display with 65,536 colours
- ▶ Bluetooth®
- ▶ Data transmission via GPRS
- ▶ Java™ MIDP 2.0 - platform
- ▶ Integrated office functionality
- ▶ Synchronisation with MS® Outlook® or Lotus Notes®
- ▶ Rechargeable Li-Ion battery with 2000 mAh
- ▶ Man down sensor (version xx1)
- ▶ II 2G Ex ib IICT4



### Safety above all. Always.

As flagship of the X.com 4/5/6xx series the X.com 60x has certifications for Zone 1 and 21, is dust-tight and splash waterproof corresponding to IP 64. In addition it fulfills, as do all devices of the line, the highest industrial demands with regard to stability and functionality and represents the most current state of the art technology. Special features: Due to the replaceable battery the X.com devices can remain with you around the clock during

shift operation. The extremely loud hands free device is not only practical, but can also save lives in cases of emergency. X.com – the valid standard of mobile phones for extreme requirements. And the epitome of a safe connection.

In the versions 4/5/6x1 with integrated position sensor and GPS for localisation of lone workers and signalling for help.

One thing is for sure: For each deployment there's the right equipment.



Ex-TRA BT - Intrinsicly safe Bluetooth™ ear protection headset

Peltor WS - Industrial Bluetooth™ ear protection headset

Mobile phones by ecom already come in standard as fully functional tools for tough missions. In addition we also keep a number of practical and handy accessories available for you, which depending on the deployment area and requirement can help make your workload easier, to make you more flexible and to ensure even more safety in practice.

For example, the Ex-TRA 300 headsets for ex-hazardous areas. Robust and extremely comfortable to wear, this headset keeps the user's hands free so that he can concentrate on the task at hand. And the user enjoys at the same time an optimum transmission quality. "What was that?" is therefore a thing of the past.



Ex-TRA 300 - Intrinsicly safe headsets

Ear protection headset MT53H7P3EWS2-EC Helmet mounting

Headsets are important, but by far not the only accessory item that we have to offer: Battery packs, spare chargers, Bluetooth Car Kits, desktop chargers, belt clips, data cables, mountings, leather cases, car kits – our product list consists of hundreds of items. Whatever you are planning, whatever you are looking for, simply ask us.

We will find the right accessory or aid for you.

# On your wave-length: Intrinsically safe Two-Way radios

## THR800i Ex

- ▶ Direct Mode Operation
- ▶ High-definition active TFT color display
- ▶ GPS receiver
- ▶ Status and text messages
- ▶ Group communication, up to 2000 talk groups
- ▶ WAP - Browser and Java™
- ▶ Replaceable battery
- ▶ Frequency band  
380 - 400 MHz  
410 - 430 MHz



TETRA handportable radio

It's not only mobile phones regarding a safe and efficient communication in the hazardous area.

For those who prefer to keep on communicating by the well established radio technology,

ecom offers three convincing alternatives

## Ex-PMR 1000

- ▶ 16 channels
- ▶ DCS selective call for transmission and reception
- ▶ Up to 5 km range
- ▶ Scan function
- ▶ Approved for dust-Ex-areas (zone 22)
- ▶ Squelch tail elimination (9 levels)
- ▶ TOT (transmission time limit)
- ▶ Battery save function
- ▶ IP54 protection rating
- ▶ Frequency range:  
446,00625 MHz -  
446,09375 MHz



Analog handportable radio

Would you like to learn more about ecom mobile phones and accessories? Are you interested in one of the other four ecom lines?

Visit our website at [www.ecom-ex.com](http://www.ecom-ex.com).

## Ex-PMR 2000

- ▶ 16 channels
- ▶ Programmable channel spacing
- ▶ CTCSS, DCS, 5-tone signalling
- ▶ Scan mode
- ▶ Adjustable squelch levels
- ▶ Transmission time limitation (TOT)
- ▶ Voice-operated transmission (VOX)
- ▶ Emergency alarm functions
- ▶ Lone worker protection
- ▶ Dead-man's switch with position sensor
- ▶ Frequency range:  
VHF 136-174 MHz,  
UHF 400-470 MHz



Analog handportable radio

Request our complete catalogue with great offers at [info@ecom-ex.com](mailto:info@ecom-ex.com). Or simply call us at: + 49 (0) 6294 / 4224 0 ... we are happy to take your call.

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