

# Handy and flexibly configurable

# **Application Report**

The appropriate intrinsically safe mobile phone for all applications

The use of electronic equipment - including mobile phones - can be critical in exareas. That's why it's usually not permitted to take mobile phones into hazardous areas as sparks could be created causing damage to property and even injuring people. But that's no longer the case because many modern mobile phones possessing not only lots of features but also approval for use in ex-areas have already been on the market for a long time. Such phones can - where functionality is concerned even compete with their contemporaries that are not intrinsically safe. The new handsets may also be flexibly configured to suit individual requirements. So there's actually nothing to prevent safe communication in highly demanding environments - for example, in refineries, the chemicals industry or other hazardous areas.

The new intrinsically safe Ex-Handy 07 mobile phone by ecom instruments allows phone calls to be made safely in Ex-Zones 1 and 21 while also even permitting SMS and MMS messages to be sent and received. In contrast to its predecessors, it offers a comprehensive spectrum of new features, including, for example, extended temperature ranges, A-GPS, optional camera with LED flash and light, email client (POP3/ SMTP, IMAP4), Bluetooth® 2.1 and automatic phone-book synchronization. The new phone also comes with integrated Office functions and allows contact data and calendars to be synchronized with MS Outlook®. Users may configure the phone flexibly to suit



Safe mobile communications even in ex-areas with the Ex-Handy 07 – be it by speech, SMS, MMS or email

their needs: with or without camera and lone-worker protection, with battery capacities of 4.5 or seven hours talk time (in the energy-consuming D-Netz) and 250 or 400 hours standby; the phones are also available in a variety of different colours. With protective type IP68 and permissible ambient temperatures ranging between -20°C and +55°C, this line of mobile phones is able to withstand the demands made on it in harsh industrial environments.

#### For worldwide use

There are no technical or legal barriers to using the Ex-Handy 07 internationally. The different options support Triband GSM 900 /1800 /1900 MHz or 850/1800/1900 MHz networks. At the same time, these mobile phones possess ATEX, NEC and IECEx approval and are identified accordingly depending on the country of use. The latter

certification makes it easier to procure ex-approval in countries where special requirements need to be fulfilled, for example, in Russia and China. A corresponding language pack allows the mobile phone to be used in different lan-



No legal or technical barriers to international utilization of the Ex-Handy-07. All frequency bands (a) European frequencies and (b) US frequencies are supported); ATEX, NEC, IECEx approvals along with many other approvals mean that legal requirements are fulfilled.



guages. The charging and data cable has been equipped with safety elements to prevent electric charges escaping to the intrinsically safe system in the handset thus permitting the latest ex-requirements to be satisfied.

Thought-through functions clearly demonstrate that the experts for ex-safety at ecom instruments have consciously equipped the phone with features that permit use in harsh industrial environments. These features include long operating times, a vibration alarm with strong motor, enhanced volume, highresolution and brilliant display, larger internal memory and a MicroSD card slot. The "lone worker protection" function may – depending on the place of use – be configured as a man-down, impact, panic or time alarm with many other configurations also being possible. The Ex-Handy 07 also convinces not least with its compact and lightweight design as well as fast data transmission thanks to GPRS and EDGE (Class 12).



#### Ex-data:

ATEX-designation: ☑ II 2G Ex ib IICT4 Gb IP54 ☑ II 2D Ex ib IIIBT130°C Db IP5X

IECEx-designation: Ex ib IICT4 Gb IP54 Ex ib IIIBT130°C Db IP5X



NEC500-designation: IS Class I, Division 1, Groups A-DT4 IS Class II & III, Division 1, Groups F-GT4 NEC505/6-Zulassung: Class I, Zone 1, AEx ib IICT4 Zone 21 AEx ibDT130°C

### Your safety is our business! -The experts for ex-safety

Devices for use in areas at risk of explosion must fulfil specific requirements. ecom instruments GmbH has been involved in this field for 25 years and has acquired extensive expertise in providing protection against explosions for everyday industrial use in potentially explosive atmospheres. This knowledge is incorporated into the production of equipment designed to be used in a variety of sectors, including oil and gas, chemicals, petrochemicals, mining, pharmaceuticals, energy and the environment.

EU-frequency devices		Camera		LWP		Battery pack		Arabic keypad		Color	
Article no.	Article description	Yes	No	Yes	No	SC	НС	Yes	No	Blk	Ylw
AS000710	Ex-Handy 07 .0 –E SC, black		×		×	X			×	X	
AS000730	Ex-Handy 07 .0 –E SC, yellow		×		×	X			×		X
AS000711	Ex-Handy 07 .0 –E SC, black, arabic keypad		X		X	X		X		X	
AS000712	Ex-Handy 07 .0 –E HC, black		×		×		×		×	X	
AS000732	Ex-Handy 07 .0 –E HC, yellow		X		X		X		X		X
AS000713	Ex-Handy 07 .0 –E HC, black, arabic keypad		X		X		X	X		X	
AS000714	Ex-Handy 07 .1 –E SC, grey		×	X		X			×		
AS000715	Ex-Handy 07 .1 –E HC, grey		X	X			X		X		
AS000716	Ex-Handy 07 .2 –E SC, black	X			X	X			X	X	
AS000736	Ex-Handy 07 .2 –E SC, yellow	X			X	Χ			X		X
AS000717	Ex-Handy 07 .2 –E SC, black, arabic keypad	×			×	X		×		X	
AS000718	Ex-Handy 07 .2 –E HC, black	×			×		×		×	X	
AS000738	Ex-Handy 07 .2 –E HC, yellow	X			X		X		X		X
AS000719	Ex-Handy 07 .2 –E HC, black, arabic keypad	X			X		X	X		X	
AS000720	Ex-Handy 07 .3 –E SC, grey	X		X		X			X		
AS000721	Ex-Handy 07 .3 –E HC, grey	×		X			×		×		

Users may flexibly configure the Ex-Handy 07 to suit their needs: with or without camera and lone-worker protection as well as a variety of colours and different battery capacities.

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