# ascom

**Product:** **Ascom d81**

Shock proof and IP65 classified

Several alarm and location possibilities

Centralized management

Intrinsically safe for potentially explosive environments

Security certified by DECT forum

Adjustable "Low Power" setting

## ASCOM d81 – A RELIABLE PARTNER IN DEMANDING SITUATIONS

The Ascom d81 handset is a unique combination of robustness and sophistication. A tough design coupled with an outstanding level of functionality and operating safety make it the natural choice for users demanding operational excellence in the most challenging settings, such as industrial plants and secure establishments.

**Designed to be challenged**

The d81 can be relied on in the toughest working environments, where the handset is handled roughly and is exposed to the elements. Not only does it resist rain, humidity and dust, but the strong rubber casing protects the handset if dropped. It is tested for twice the standard level of static electricity and it endures both cold and heat. Adjustable low power setting to reduce risk of radio emissions interfering with sensitive equipment. There is also an intrinsically safe variant for operation in hazardous locations.

**Individuality meets functionality**

Based on a proven IP-DECT operating platform with high volume and voice quality, the functionality of the d81 can be matched to the specific needs of your organization and the individuals in it. The advanced messaging functionality of the d81 means smooth interaction with colleagues or machinery. For example, information from production processes can be sent directly to the handset. Thanks to centralized management, the handsets in the system can be automatically configured, upgraded and updated. Furthermore, the functionality of the d81 can be complimented through the application of a number of additional licenses.

**Confidence through a high level of safety**

The advanced alarm functions include a manual alarm and an automatic man-down and no-movement alarm. Dual functionality lets the user make a call and send an alarm at the same time. The person sending the alarm can be pinpointed with high accuracy and the messages can be automatically sent to the handsets in closest proximity to any reported event. In short, the d81 can make a major contribution to minimizing safety risks.

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## Ascom d81 features at a glance

- IP65, including headset and charging connector
- Shock proof
- Temperature range -10°C to +55°C, Ex -10°C to +40°C
- ATEX and IECEx approved, CSA listed
- Intrinsically safe (Ex) for both gas and dust environments
- Alarms: push-button, man-down, no-movement and pull-cord

- Location technologies: base-station, DECT location and LF
- Location functions: poll location and special location
- Bluetooth bar code reader license
- Support for graphical messaging
- User and system profiles
- Upgrade license from Messenger to Protector

- Centralized management
- Color coded messages
- Message priority
- Enhanced ESD protection
- Pre-programmed messages
- Display messages upside down
- Adjustable low power setting.
- Up to 5 Emergency numbers.

## d81 variant feature comparison

|  | d81 Messenger | d81 Messenger LF | d81 Messenger Ex | d81 Protector | d81 Protector LF | d81 Protector Ex |
|---|---|---|---|---|---|---|
| Advanced messaging | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Location | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Bluetooth | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Push-button alarm |  |  |  | ✓ | ✓ | ✓ |
| Man-down, no-movement and pull-cord alarm |  |  |  | ✓ | ✓ | ✓ |

## d81 technical specifications

**Dimensions** 142x56x25mm.
**Weight** (incl. battery & clip) 170g.
**Display** (CSTN) 28x35mm.

**Compliance**
Compliance to EU, US, Canadian, Australian and Russian standards – please see the data sheet.

**Battery**
Type: Li-Ion.
Speech time: up to 18 hrs, 12 hrs (with blue-tooth headset).
Stand-by time: up to 120 hrs[1].
Charge time: 3 hrs.
Discharge/charge cycles: >=80% capacity left after 400 full charge/discharge cycles.

**Audio**
Ring signal: Adjustable in 8 steps.
Earpiece: Adjustable in 8 steps of 3dB each.
Max. sound ring signal level: 100 dBspl (90 dBspl for Ex) @ 10 cm.
Loudspeaker: DSP assisted duplex loudspeaker. Not for intrinsically safe version.

**Radio**
DECT protocol detection: Automatic detection and configuration for US DECT and EU DECT at initial registration.
Frequency range: EU (1880-1900 MHz), US (1920-1930 MHz), L A (1910-1930 MHz), BR (1910-1920 MHz), Other (1900-1920 MHz).
Antenna: Integral.
Radiated power: EU/L A/BR (250 mW), US (100 mW)

**Low Power Setting**
Adjustable: Normal 250mW, Low 100mW, & Very Low 50mW

**Languages**
18: Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Polish, Portuguese (Brazilian), Russian, Slovakian, Spanish, Swedish, Turkish, + 1 downloadable.

**Phonebook**
Central phonebook: Unlimited no. of entries.
Company phonebook: 1000 entries.
Local phonebook: 250 entries.

**Intrinsically Safe** (Ex classification)[3,4]
(Ex) ATEX approved and IECEx approved.
(SP us) CSA listed for North America.

**Telephony**
Indication: 15 pre-set ring signals + 10 custom-izable, flashing LED, vibration.
Answer call: Button press or auto answer.
Call list storage capacity: 25 received, dialed and missed calls, with time stamp.

**Location**
Basestation location as standard, LF location as factory option and DECT location as license.

**Licenses**
Add on license: Shared phone, Bluetooth data and DECT location
Upgrade license: Messenger version, Protector version and pull-cord

**Bluetooth**
Supports handsfree and headset profiles. See data sheet for tested headsets. License for barcode scanners.

**Accessories**
See Accessories sheet

**Connectors**
Multi-purpose, IP65 classified connector for headset, battery charging, software download and configuration.

**Security and encryption**
Full support of the DECT Security EN300 444 feature N35, as specified by the DECT forum.

**User interface**
High resolution backlit color display.
Indicator: LED indicates incoming call/message.
Vibration: Incoming call/message.
Buttons & Keys: 3 Soft keys, off-hook key, on-hook and power on/off on the same key, 4 way navigation key, numerical keys, volume up/down and alarm button.

**Messaging**
Storage capacity: Up to 20,000 characters, 30 received/sent messages. Messages from handset to handset 160 characters. Beep depending on urgency and customizable beeps. Pre-programmed messages (pre-set or personal).

**Environmental**
Operating temperature: -10°C to +55°C (-10°C to +40°C for Ex).
Storage temperature[2]: -20°C to +60°C.
Enclosure protection: IP65, IEC EN60529.
Immunity to ESD: 8 kV contact discharge, 16 kV air discharge (EN61000-4-2).
Free fall test, standard product: IEC 60068-2-32, procedure 1, dropped 12 times, specification extended to 2 meters.
IEC 68-2-32, procedure 2, dropped 1,000 times from 0.5 meter. Accelerated life test (see data sheet)

[1] Stand-by time is without activated screensaver. [2] Storing L i-Ion batteries at high temperatures can dramatically and permanently reduce capacity.

[3] Disclaimer: Explosive atmosphere; The approvals are valid exclusively for surface industry. Ascom explosion protected d81 handset shall therefore not be used in mining (underground) location. Ascom Sweden AB does not support or take responsibility for any change in the product or its designation.

[4] In EX classified areas; it is NOT permitted to charge the battery while it is in the intrinsically safe ATEX/IECEx telephone, remove the battery, or charge it separately.