

Ascom a71 Alarm Transceiver

Features

- UHF receiver and transmitter
- Two-way data
- Tone and display messages
- Time-stamped messages (system dependent)
- Stores up to six Info Messages for information that is updated frequently
- Large full graphic LCD display with backlight
- SIM card for identity and personal settings
- Special clip release function
- Vibrator alert
- Intrinsically safe (ATEX/IECEX) (option)

Only for a71:

- Push-button alarm
- Safety Pull-cord alarm
- Man-down and No-movement alarm (option)
- Warning tone before alarm transmission at Man-down and No-movement alarm to avoid unintentional alarm
- Acoustic two-tone location signal (ALS)
- Location function (IR and/or LF)



Technical Specifications

Physical

Dimensions (l × w × d):	104 × 62 × 36 mm incl. clip
Weight:	126 g incl. battery
Material:	PC/ABS, TPE
Colour:	Steel Grey, Ice Blue
Display (w x h):	142 x 80 DOT Matrix LCD (35 x 24 mm active area)
Simultaneously showing rows:	Depending on font: 6 (Small), 5 (Medium), 4 (Big). (Scrolling bar appears automatically for undisplayed rows.)
Max.No. of characters per row	27-32 (Small), 23-28 (Medium), 17-22 (Big).
Clip:	Hinge-type (standard) or swivel-type

Battery

Type:	Li-Ion
Battery operating time:	48 hours (2 days) incl. 4 alarms per 8 hours, Man-down/No-movement alarm and location function or 72 hours (3 days) incl. 4 messages per hour (no alarm or location function).
Charge time:	Approx. 2 hours
Discharge/charge cycles:	≥80% capacity left after 400 full charge/discharge cycles.
Storage temperature: ¹	0°C to +20°C. Cool and dry place. Charged to 40% (3.7V). Even when stored under optimal conditions the battery capacity will decrease over time.

1) Note that storing Li-Ion batteries at high temperature dramatically reduces its capacity. For example storage around +60°C reduces capacity with 20% in less than a month, permanently.

Settings

Languages: 11 (Danish, Dutch, English, Finnish, French, German, Italian, Norwegian, Portuguese, Spanish and Swedish)

Messaging

Message length: Up to 128 characters per message

Storage capacity: 20 messages

Audio

Maximum sound pressure level: Approx. 95 dBA at 10 cm

Radio

Frequency range: 420 - 475 MHz

Modulation: FSK

Channel spacing: 6,25/10/12,5/25 kHz

Deviation: 1.5/3.0 kHz

Antenna: Integral

Sensitivity: 13 µV/m at 3 kHz deviation

Radiated power: 20 mW ERP (10 mW ATEX/IECEx)

IR Receiver

IR detection: Max. sensitivity at 950 nm

Carrier frequency IR: 39.7 kHz

Sensitivity IR: 17 m line of sight from IR locator

LF Receiver

Carrier frequency LF: 39.7 kHz

Sensitivity LF: >3 m in free space when the LF locator is set to max. range

Environmental

Operating temperature: -10°C to +55°C (+40°C ATEX/IECEx)

Storage temperature:¹ -20°C to +55°C

Enclosure protection: IP64, IEC EN600529

Immunity to electromagnetic fields: 3V/m EN61000-4-3


Immunity to ESD: 8 kV contact discharge and 16 kV air discharge (EN61000-4-2)

Free fall test, standard: IEC 60068-2-32, procedure 1, dropped 12 times from 1 metre, specification extended to 1.5 metre.

Free fall test, ATEX/IECEx: 26.4.3 in IEC 60079-0, dropped 4 times from 1 metre, specification extended to 1.0 metre.

Options

Intrinsically safe classification

 EX II 2G, II 3D
EX ib IIC T4
EX ibD 22 IP64 T50°C

CE 0470
IECEx SIR 07.0033X
SIRA 07 ATEX 2108X

When charging an intrinsically safe ATEX/IECEx transceiver in a PCR Charging Rack, the rack must be version 2A or higher.

Location function (IR and LF). The intrinsically safe (ATEX/IECEx) version only with LF.

Man-down and No-movement alarm

Two-way data for p71

1) Note that storing Li-Ion batteries at high temperature dramatically reduces its capacity. For example storage around maximum temperature reduces capacity with 20% in less than a month, permanently.

Specifications are subject to change without notice.

Accessories

- Leather case
- Swivel type clip
- Name label kit
- Single Charger
- Charging Rack: PCR-M (Master), PCR-E (Extension)

Compliance to European regulations and standards

EU directives:	73/23/EEC(LVD), 89/336/EEC(EMC) and 1999/5/EC (R&TTE)
Product marking:	CE (i) Ex
Radio:	EN300220-1/-3, EN300296-1/-2, EN300224-1/-2 and EN300330-1/-2 (only LF receiver spurious)
Safety:	EN60950-1
EMC:	EN301489-1/-2 and EN301489-3
ATEX:	EN 60079-0:2004, EN 60079-11:2007, IEC 61241-0:2004, IEC 61241-11:2005

EC Type Examination Certificate, IECEx Certificate of Conformity, EC Declaration of Conformity and following supplements can be found at http://www.ascom.com/ws/products_ws.htm and www.IECEx.com

Compliance to US and Canadian regulations and standards

Product marking:	FCC ID: BXZCHAT, IC:3724B-CHAT
EMC/Radio:	FCC CFR 47 Part 15 and Part 90 (Class B), RSS-119
Safety:	IEC 60950-1

Compliance to other regulations and standards

IECEx:	IEC 60079-0:2004, IEC 60079-11:2006, IEC 61241-0:2004, IEC 61241-11:2005
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Functions	a71 Basic	a71 Advanced	p71 Basic	p71 Advanced
SIM card	Yes	Yes	Yes	Yes
Vibrator function	Yes	Yes	Yes	Yes
Messaging	Yes	Yes	Yes	Yes
Acknowledge	Yes	Yes	-	Yes
Group messaging	Yes	Yes	Yes	Yes
Data Send	Yes	Yes	-	Yes
Data with prefix	Yes	Yes	-	Yes
Availability information/Absence	Yes	Yes	Yes	Yes
Push-button alarm	Yes	Yes	-	-
Man-down & No-movement alarm	-	Yes	-	-
Pull-cord alarm	Yes	Yes	-	-
Acoustic Location Signal (ALS)	Yes	Yes	-	-
Location function*	-	Yes	-	-
Intrinsically safe (ATEX/IECEx)	-	Option	Option	-
* System dependent feature				



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