Series EF 031/EB 330

Powerful cell management for prisons and detention centres

OpenDuplex® technology

Vandal resistant

Modular construction

Audio + functionality

Active protection for custodial staff

An optimal communication via cell terminal keeps things safe for both custodians and inmates. The Intercom station's DSP technology is protected by an extremely rugged housing featuring a 3 mm stainless steel front panel.

The powerful functionality allows direct communication without opening doors in correctional facilities, forensic clinics as well as police and court holding wards and prison cells.

Features and highlights

- Digital 2-wire technology
- Crystal clear 7 kHz speech quality for optimum intelligibility
- Cell call, sanitary call and custodian emergency call
- Visual signalling of calls, emergency calls, custodian presence, cell door status etc.
- Custodian emergency call by time monitoring, audio monitoring and surface sensor technology
- Piezo buttons with integrated LEDs
- Cell phone detection module (optional)
- Supports DSP functionalities, OpenDuplex®, function monitoring (incl. microphone and speaker) etc.
- Line monitoring
- Protection against vandalism and sabotage by triggering an alarm
- Integrated or remote electronics
- Registration of custodian presence in the cell
- Radio and music transmission
- Corrective measures such as deprivation of light, music, electric power and/or TV
- Modular system for future-proof investment

The design and/or specifications of products may be subject to change for improvement without prior notice. Errors excepted.

Product details

EF 031x (picture: EF 031-2MR Rev. AF)

Cell terminal with piezo button for calls/emergency calls, microphone and loudspeaker. The piezo buttons are equipped with an integrated LED. Front panel made of 3 mm (0.12 in) stainless steel, with poke protection and special screws for protection against vandalism. The Intercom station is suited for flush mounting with the flush mount box UP 030 (with integrated sabotage contacts). Protected against intrusion of spray water, poking objects etc. The flush mount box (UP 030) as well as the terminal electronics (EB 330x) must be ordered separately due to previous installation.

UP 030

Flush mount box for installation of the front panel EF 031x and the cell electronics EB 330 with two diagonally positioned sabotage contacts (open contacts), 5 cable openings (diameter 20 mm/0.8 in) on top and bottom as well as one on each side.

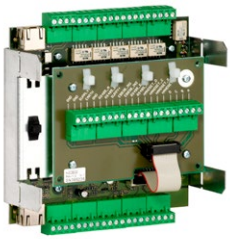
EB 330/EB 330S

EB 330 internal cell electronics module for integrated mounting with terminal connection to an EF 031x front panel. EB 330S cell electronics module with additional surface sensing functionality.

EB 330A/B 330AS

EB 330A external cell electronics module for remote electronics installation (e.g. riser shaft) with terminal connection to an EF 031x front panel. The module is mounted in a wall mount housing with IP54 rating. EB 330AS external cell electronics module with additional surface sensing functionality.

EB 330AH/EB 330AHS



EB 330AH external cell electronics module for remote electronics installation (e.g. riser shaft) with terminal connection to an EF 031x front panel. The module is mounted on a fitting panel suitable for top-hat rail mounting. The other technical characteristics are the same as those of EB 330A. EB 330AHS external cell electronics module with additional surface sensing functionality.

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Series EF 031/EB 330
Technical specifications

Technical data

IP rating:	EB 330A(S): IP54 (acc. EN 60529) EF 031-1/EF 031-2/EF 031-2R min. Rev. AI, EF 031-2MR min. Rev. AH: IP54 (acc. EN 60529) [1]
Mechanical impact resistance:	EF 031-1/EF 031-2/EF 031-2R min. Rev. AI, EF 031-2MR min. Rev. AH: IK10 (acc. EN 62262) [2]
Microphone:	electret condenser microphone
Loudspeaker:	8 Ω
Amplifier:	integrated class-D amplifier with 2.5 W output power: 1.5 W with 8 Ω loudspeaker
Power consumption:	in idle state: 3.5 W max: 8.5 W (at 24 VAC)
Emergency power consumption:	350 mAh
Inputs:	10 inputs for floating contacts max. 1 kΩ
Outputs:	6 relay outputs (3 x normally closed contact, 3 x switch-over contact) 60 VDC/VAC, 1 A; 30 VDC/VAC, 2 A
Buttons:	red piezo button with integrated LED: call yellow piezo button with integrated LED: light music button(s): TCT technology (sensor)
Conversation indication:	red LED
Frequency range:	200 Hz to 7 kHz
Operating temperature range:	0 °C to + 50 °C (32 °F to 122 °F)
Storage temperature range:	–20 °C to +70 °C (–4 °F to 158 °F)
Relative humidity:	up to 95%
Connection:	connection trey with screw terminals cable cross-section max. 2.5 mm²
Cabling:	star feed, 2 wires, twisted pair + power supply
Power supply:	external, floating supply: 24 VAC, 8.5 VA or 24 – 35 VDC, 8.5 W power consumption at 24 VAC: max. 350 mA
Signalling:	2B + D (2 x 64 kBit/s speech, 16 kBit/s data)
Dimensions (H x W x D):	EF 031x: 279 x 179 x 29.5 mm (10.98 x 7.05 x 1.2 in) EB 330: 162 x 147 x 58 mm (6.38 x 5.8 x 2.3 in) EB 330A: 296 x 160 x 90 mm (11.66 x 6.3 x 3.55 in) EB 330AH: 162 x 150 x 69.5 mm (6.38 x 5.91 x 2.7 in) UP 030: 283.5 x 223.5 x 63.5 mm (11.16 x 8.8 x 2.5 in)
Weight incl. packaging:	EB 330: approx. 360 g (0.8 lbs) EB 330A: approx. 1,680 g (3.7 lbs) EB 330AH: approx. 800 g (1.8 lbs)

[1] Applies only if a flush mount box UP 030 Rev. AB or higher is used.
[2] Does not apply to integrated buttons.

Extent of supply

EF 031x
- Front panel with Intercom station electronics
- Short reference

EB 330
- Cell electronics module
- Short reference

EB 330A
- Cell electronics module
- Wall mount housing with IP54 rating
- 2 x connection PCB
- Short reference

EB 330AH
- Cell electronics module
- Top-hat rail mounting kit, mounting panel
- 2 x connection PCB
- Short reference

UP 030
- Metal flush mount box incl. plaster lid
- Short reference

Line length in LAN

Cable type	ø 0.6 mm AWG: 22	ø 0.8 mm AWG: 20
F-YAY (PVC installation cable) 100 nF/km (30.5 nF/1,000 ft)	2,000 m 6,562 ft	2,000 m 6,562 ft
J-02YS(St)Y (Cat.-5-cable, foamed polyethylene), 45 nF/km (13.7 nF/1,000 ft)	3,000 m 9,843 ft	3,000 m 9,843 ft

System requirements

- VirtuoSIS/S3/S6 or
- GE 800 (min. PRO 800 1.0) with G8-GED or
- GE 300 (min. PRO 800 1.0) with G3-GED or
- GE 200 (min. Pro 05.7) with G2-GED-4 or
- GE 700 (min. Pro 05.7 with G7-GED-4 (min. software V02.2)
- Configuration software min. CCT 800 5.7

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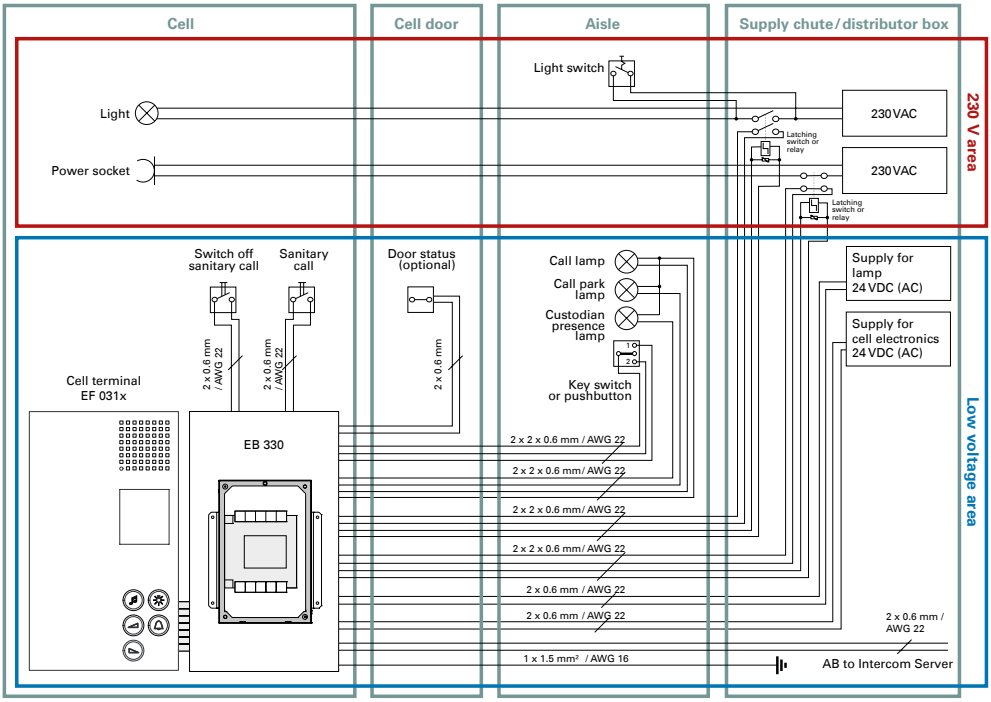
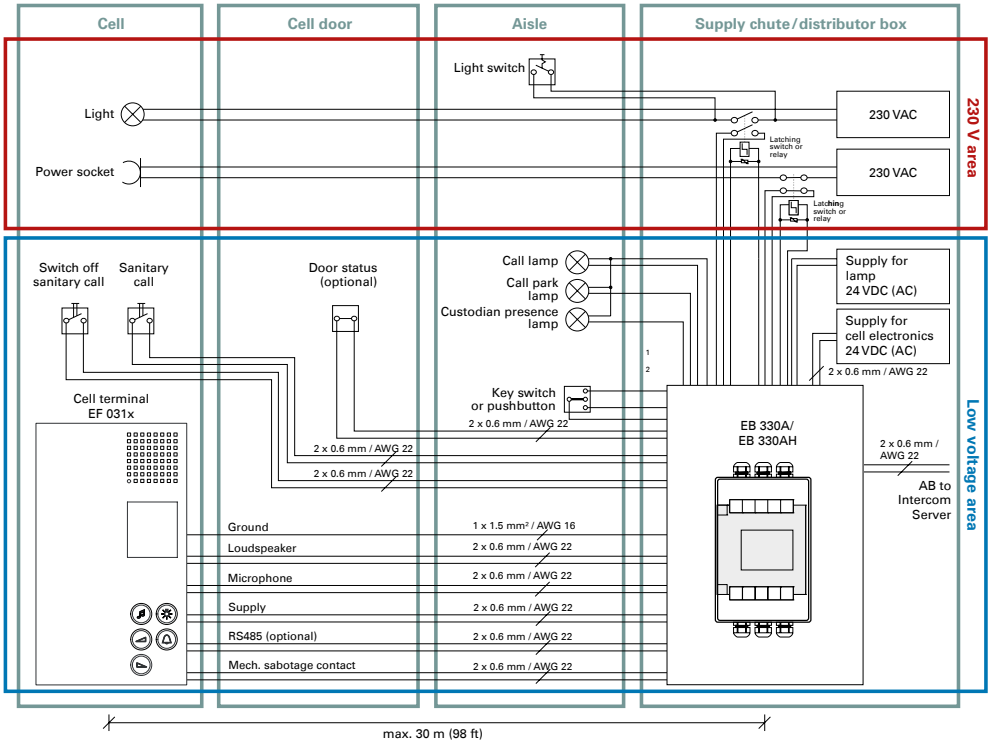
Series EF 031/EB 330
Installation instructions

Connection diagram integrated electronics



Connection diagram remote electronics



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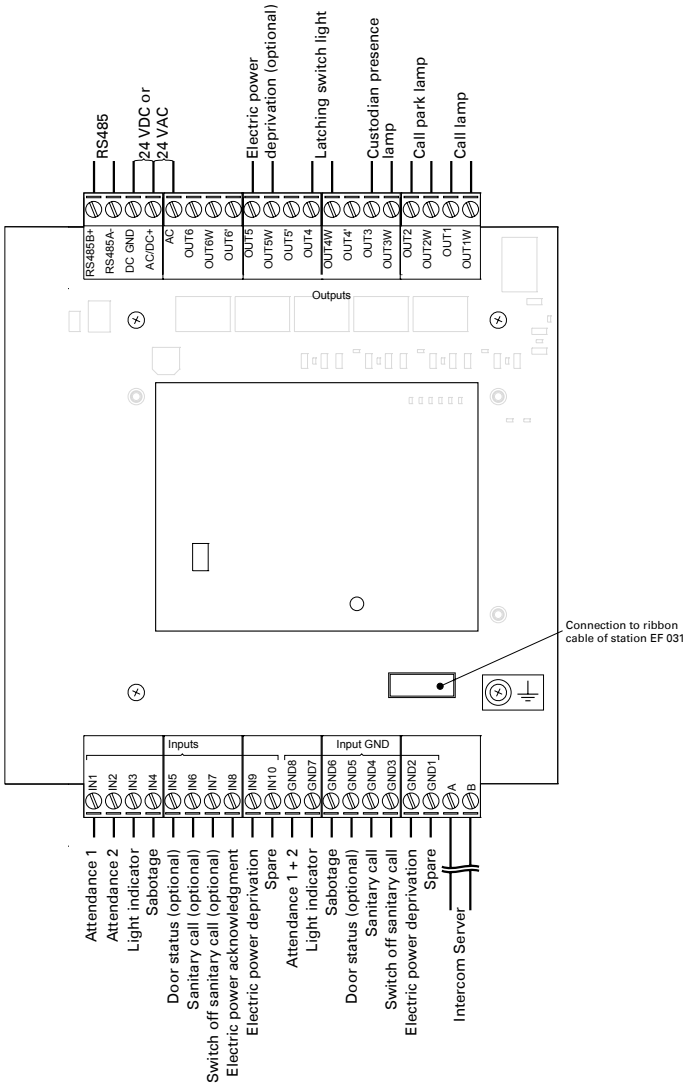
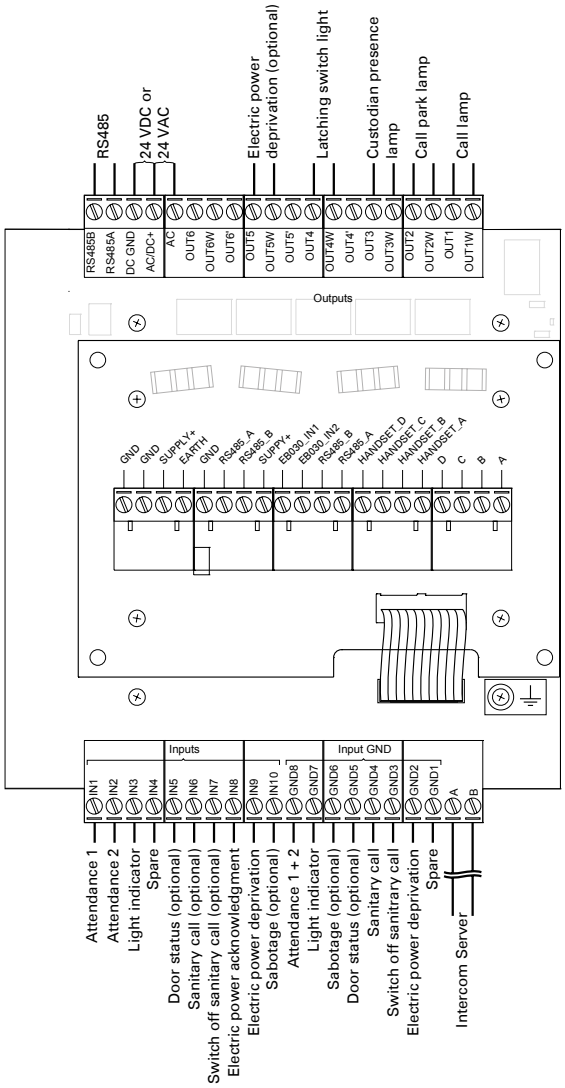
Connection example – integrated electronics EB 330



Connection example – remote electronics EB 330A/EB 330AH



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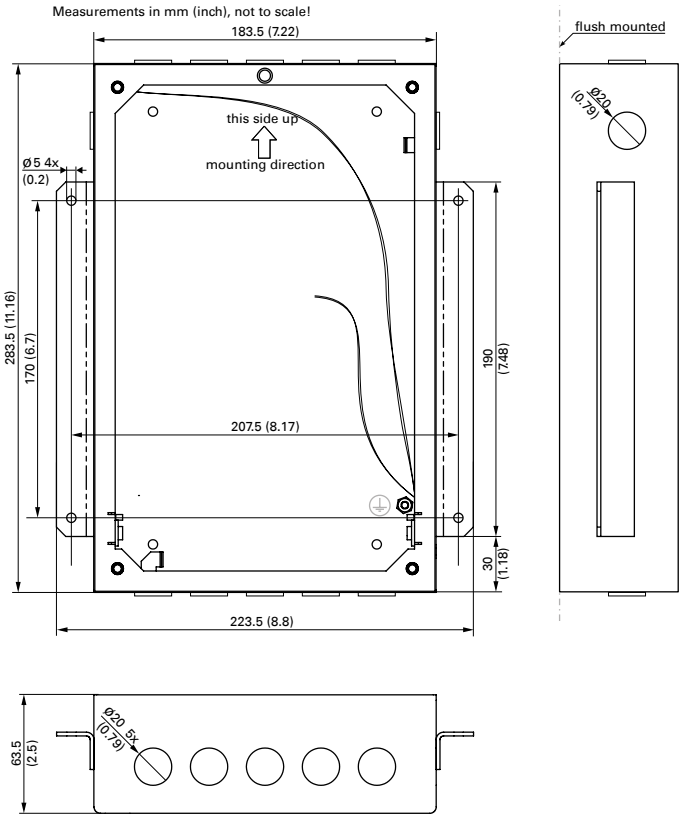
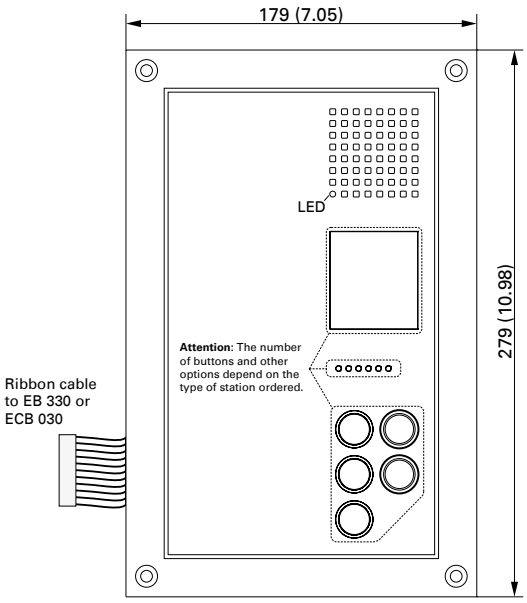
Dimensions flush mount box UP 030

Measuring units in mm (in), not to scale!



Dimensions cell front panel EF 031x

Measuring units in mm (in), not to scale!



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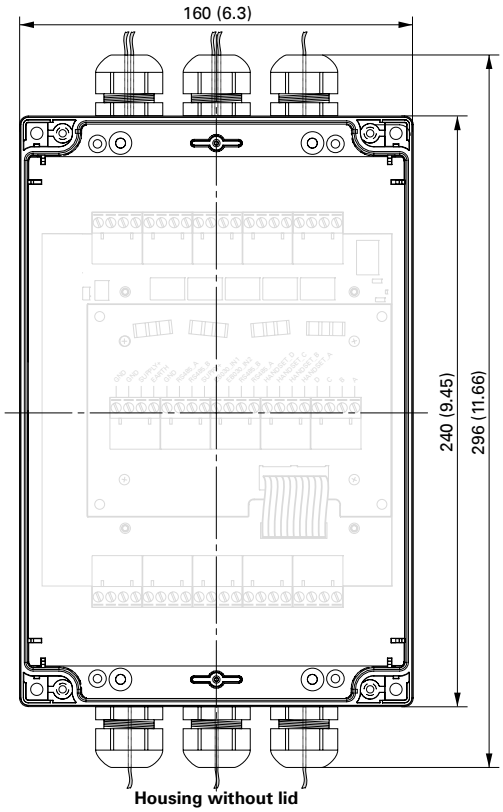
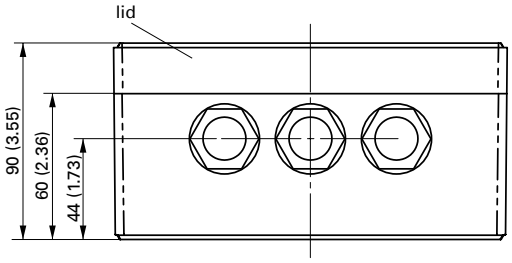
Dimensions EB 330A plastic surface mount housing

Measuring units in mm (in), not to scale!



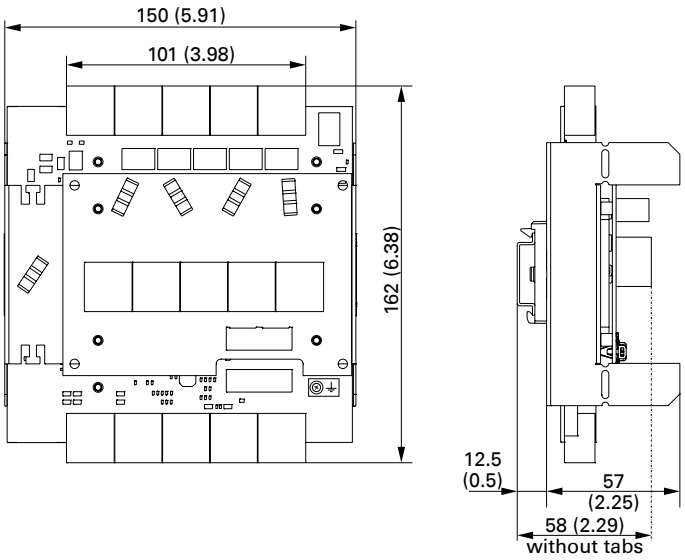
Housing without lid



Housing with lid

Dimensions EB 330AH with top-hat rail mount kit

Measuring units in mm (in), not to scale!



Quality tested. Reliable. Smart.

COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2015**.

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