GEC 880

Digital counter intercom

Full duplex technology

Excellent audio quality

Stand-alone solution

Easy and quick installation

Professional counter Intercom solution

Digital counter Intercom systems fulfil the widest variety of requirements – from security solutions in banks and ski-lift stations to ticket counters and isolation wards in hospitals.

The modular construction of the system allows any number of counter Intercom systems to be combined into one system. The basic unit is a digital Intercom station, which is available in two different versions (with and without gooseneck microphone). It is therefore very simple to select the optimum station for every counter requirement.

Features and highlights

- Excellent speech clarity, even under the most difficult acoustic conditions
- OpenDuplex®: Simultaneous speaking and listening in both directions
- Keypad with easily understandable, non-verbal pictograms
- Exceptionally high volume in the public area, additional loudspeakers can be connected
- Suitable for communication hatches of any size
- Continuous adaptation to the acoustics of the room
- Any number of digital Intercom stations can be operated side-by-side (GEC 882 only)
- Easy and quick installation

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Product details

GEC 881

Digital counter Intercom with plastic-reinforced silicone keypad and internal microphone (polar pattern: omnidirectional) for unrestricted speaking. Keypad with 15 buttons, printed with easily understood pictograms.

GEC 882

Digital counter Intercom with plastic-reinforced silicone keypad, antitilt device and gooseneck microphone (polar pattern: cardioid). Keypad with 15 buttons, printed with easily understood pictograms.

Accessories

MIC Q400

Miniature, cardioid-type extension microphone. Housing made from impact-resistant and distortion-free plastic, can be bonded to a flat surface. Improved acoustics.

MIC 480

Waterproof, omnidirectional built-in electret microphone for use with up to 10 mm (0.4 in) thick glass panes or aluminium panels.

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Accessories

AL 10-16

Compact, high-efficiency column speaker. Weatherproof polyamide housing for indoor and outdoor use. Can be rotated and tilted. Mounting bracket included.

PA30W15V

30 W high-efficiency power supply unit. The power supply unit and the country-specific power cable must be ordered separately (see "Technical data power cable").

KABJTAG3

Cable for firmware update of the stations GEC 881/GEC 882 via PC.
Connection via parallel port of the PC.
DB-25 parallel port plug to 6-way header plug.

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GEC 880
Technical specifications

Technical data GEC 881/GEC 882

IP rating:	IP30 (acc. EN 60529)
MTBF:	1.37 mio. h
Loudspeakers:	internal: 8 Ω external: connection for client-side loudspeaker(s) 4 – 16 Ω
Internal microphone:	GEC 881: electret condenser microphone polar pattern: omnidirectional GEC 882: electret condenser microphone with gooseneck polar pattern: cardioid both with adjustable speaking zone
Amplifier:	external: built-in amplifier with 10/15 W internal: built-in amplifier with 0.6/0.8 W
Power supply:	12 – 18 VDC, 1.2 A
Cabling:	10 wires (8 signal + 2 power supply)
Connection:	RJ10 jack (for headset/handset) RJ45 jack (client-side microphone, client-side loudspeaker, proximity switch or call button, AUX-output)
Frequency range:	500 Hz to 15 kHz
Operating temperature range:	0 °C to +50 °C (32 °F to +122 °F)
Storage temperature range:	–20 °C to +60 °C (–4 °F to +140 °F)
Relative humidity:	20 % to 80 %
Dimensions (W x H x D):	GEC 881: 66 x 55 x 230 mm (2.6 x 2.2 x 9.1 in) GEC 882: 179 x 280 x 230 mm (7.1 x 11 x 9.1 in) length of gooseneck: 422 mm (16.6 in)
Weight incl. package:	GEC 881: 280 g (0.6 lbs) GEC 882: 440 g (1lb)

Extent of supply

Digital counter Intercom system including:
– Inside station GEC 881 or GEC 882
– Wall mount box for surface mounting
– Cat. 6 connection cable (3 m/9.8 ft) from inside station to wall mount box
– 8-way modular socket for connection of the client station
– Short reference and user manual

Power supply and further accessories must be ordered separately.

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Technical data MIC Q400

Polar pattern:	cardioid
Sensitivity:	15 mV/Pa
Frequency range:	100 Hz to 8 kHz
Temperature range:	–25 °C to +70 °C (–13 °F to +158 °F)
Cable length:	2.8 m (9.2 ft), shielded
Dimensions (W x H x D):	24 x 43 x 14 mm (0.94 x 1.69 x 0.55 in)
Colour:	black

Technical data AL 10-16

Load rating/music power:	12/15 W
Impedance:	16 Ω
Sound pressure level:	94 dB/W/m
Max. sound pressure level:	110 dB (1 m)
Transmission range (-3 dB):	220 to 16 000 Hz
Transmission angle (-6 dB):	horizontal (3 m): 1/4/8 kHz: 220°/60°/60° vertical (3 m): 1/4/8 kHz: 140°/100°/30°
Material:	housing: plastic grille: aluminium
Net weight:	1,600 g (3.5 lbs)
Connection:	2-core cable 50 cm (20 in)
Accessories (included):	U-type mounting bracket
Dimensions incl. brackets (W x H x D):	100 x 300 x 98 mm (3.9 x 11.8 x 3.9 in)
Colours:	black (AL 10-16S) white (AL 10-16W)

Technical data power cable

Types:	KAB-C13-AU (Australia) KAB-C13-EU (Europe) KAB-C13-UK (Great Britain) KAB-C13-US (USA)
Cable length:	1.5 m (4.9 ft)

Technical data MIC 480

Type:	built-in electret condenser microphone
Polar pattern:	omnidirectional
Sensitivity:	7.1 mV/Pa
Frequency range:	20 Hz to 16 kHz
IP rating:	IP53 (acc. EN 60529 only if installed correctly)
Temperature range:	–20 °C to +60 °C (–4 °F to +140 °F)
Colour:	black
Dimensions (ø x D):	14 x 20 mm (0.55 x 0.79 in)
Types:	MIC 480: 4 m (13.1 ft), shielded MIC 480S-08: 0.8 m (2.6 ft), shielded MIC 480S-12: 1.2 m (3.9 ft), shielded

Technical data PA30W15V

Primary:	90 – 264 VAC (47 – 63 Hz)
Secondary:	15 VDC ± 3%, 30 W
Efficiency:	87%
Temperature range:	0 °C to +40 °C (32 °F to +104 °F)
Dimensions (W x H x D):	54 x 120 x 38 mm (2.12 x 4.72 x 1.49 in)
Weight:	approx. 220 g (0.5 lbs)
Colour:	black
Cable length:	1.5 m (4.9 ft)

Technical data KABJTAG3

Weight:	approx. 73 g (0.2 lbs)
Cable length:	1.5 m (4.9 ft)

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GEC 880
Installation instructions

Client-side mounting

The client-side loudspeaker should be mounted at least 1 m (40 in) away from the client-side microphone and, if possible, should not face the microphone directly because this leads to an echo of the operator´s voice on the client side. It is recommended to choose one of the following mounting versions:

1a loudspeaker at the top (best for acoustic separation of multiple queues)

1b loudspeaker on the side at ear level (best for single-queue situations)

If possible, the microphone should be mounted on axis, facing the client and horizontally aligned in the centre of the glass pane. If this is not possible, the microphone has to be mounted on the side facing the client. The closer the microphone is mounted to the client´s mouth, the lower the volume required at the counter Intercom station. It is recommended to choose one of the following mounting versions:

2a microphone mounted in the centre of the glass pane

2b microphone on the side

Client-side microphone

Surface mount microphone MIC Q400
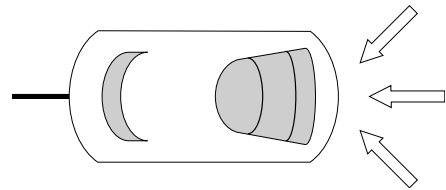
This microphone has a special polar pattern, as shown in the illustration. It should be mounted in such a way that the client's voice enters the microphone in the direction of the arrows. The microphone can also be used for outdoor mounting, but must be protected against rain and moisture.

### Built-in microphone MIC 480
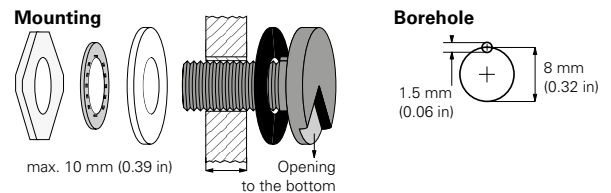
The built-in microphone is designed to fit glass panes or aluminium panels of up to 10 mm (0.39 in) in thickness.

Precautions and installation instructions

– This device must be installed or replaced by trained and qualified personnel only.
– Before using the device, make sure all cables are connected correctly and are undamaged.
– Disconnect all power supplies before performing any maintenance work on the device.
– All connected circuits must meet the safety requirements for ES1 (cf. SELV acc. IEC/EN 60950-1) and PS2 (limited power source) acc. to IEC/EN 62368-1.
– Install the device at an easily accessible mains socket.
– The GEC 880 should be protected against mains transient overvoltage (cf. IEC/EN 62368-1).
– In the event of interference, speech can be incomprehensible.
– EU conformity is only valid with the power supply PA30W15V.
– MIC 480: To fulfil IP53 classification, the opening of the microphone must face the bottom.
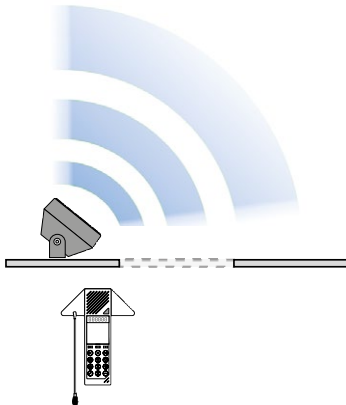
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Connection diagram

Example: Cabling of the components of a counter Intercom station GEC 882, outside loudspeaker AL 10-16, outside microphone MIC Q400, power supply PA30W15V and an optional headset.
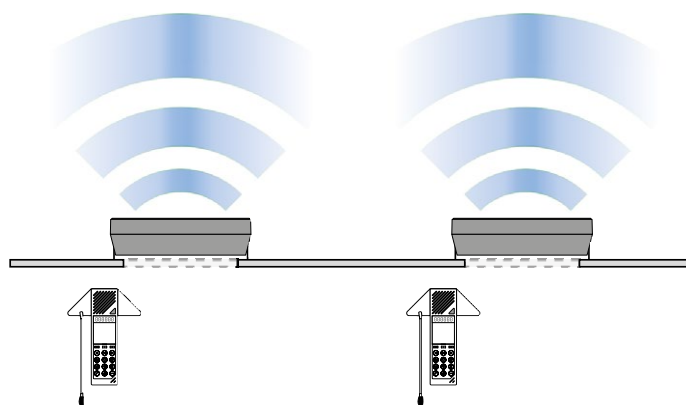

Dimensions wall mount box:
88 x 88 x 30 mm (3.5 x 3.5 x 1.2 in)
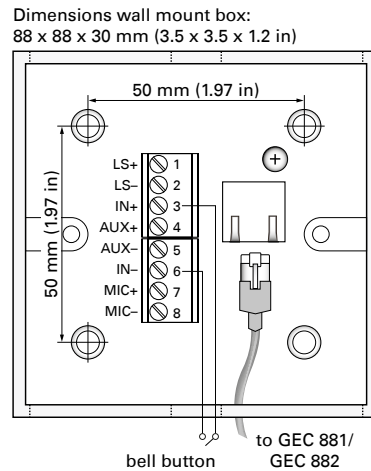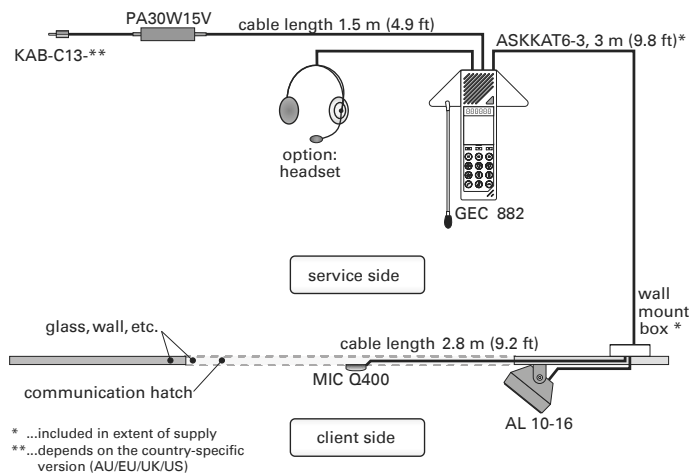
Positioning the outside loudspeaker

Example of a single counter:

In this setup, the voice of the operator is audible in the entire area in front of the counter.

Example of multiple counters:

Example of how to use the directivity of a loudspeaker line array (e.g. AL 10-16) for addressing individual queues separately via horizontal mounting above the counter.

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**.

A strong worldwide network

COMMEND is represented all over the world by local Commend Partners and helps to improve security and communication with tailored Intercom solutions.

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