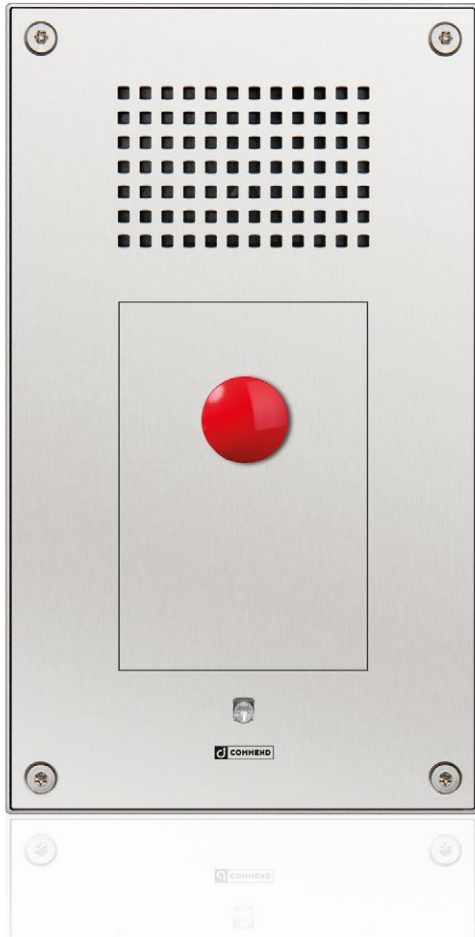


WS 211V I M

IP emergency call station for highest requirements on safety



Vandal
resistant
IK10

Weather-
proof
IP66

Big
mushroom
button

16kHz
eHD Voice

Instant help in emergency situations

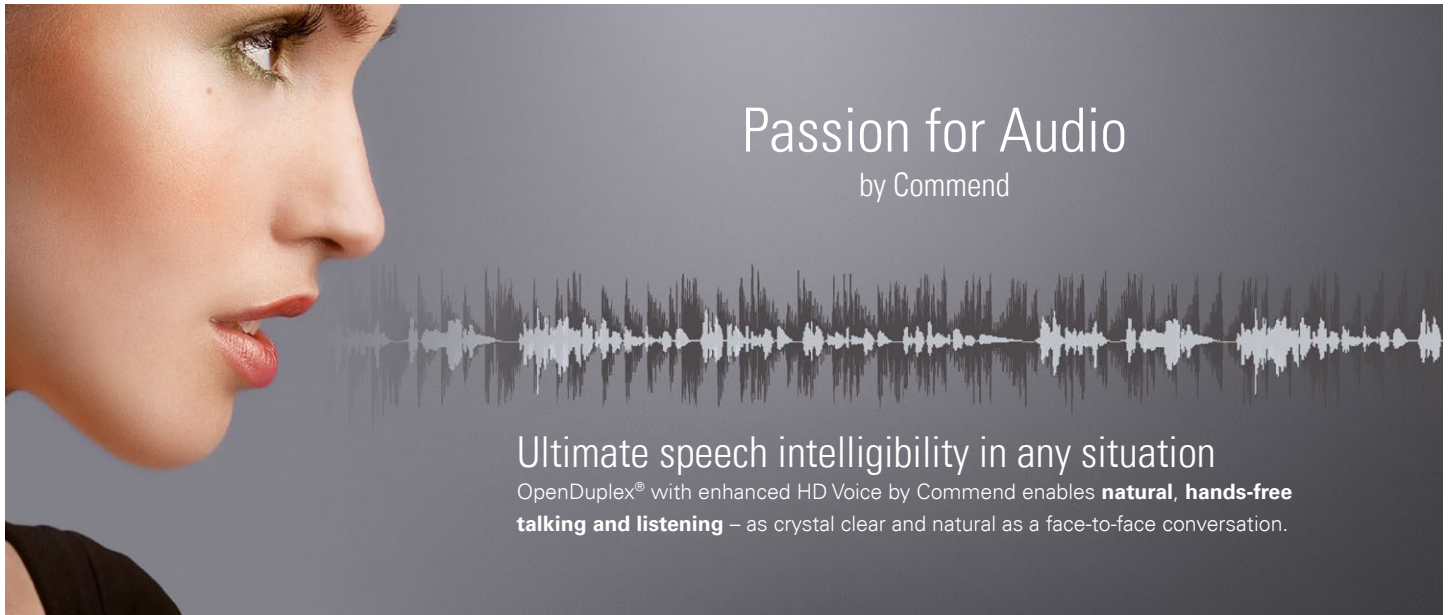
The vandal-resistant emergency station WS 211V I M is designed for areas with high requirements on safety. The technology allows excellent speech quality and comprehensibility independent of background noise.

Permanent function monitoring ensures in-service status and the 3 mm stainless steel front panel with poke protection and special screws protects against vandalism.

No water spray, dirt or dust can penetrate the compact construction – protection class IP66. The red emergency call mushroom button is easily visible from a considerable distance and can be activated quickly in emergency situations.

Features and highlights

- Extremely robust, weatherproof and vandal-resistant construction enables use in outdoor locations and public areas (IK10 is the highest impact protection rating)
- Optimised mushroom button for emergency calls, featuring self-check (NC contact) and frost-protected design
- Cyclical connectivity and function checks ensure permanent availability of all functions and low manual maintenance requirements
- Special audio functions ensure superior speech quality in any situation
- The high-sensitivity microphone supports speaking distances of up to 7 m from the microphone, making the device ideally suited, e.g. for wheelchair users
- Sound output or playback of pre-recorded messages can be used to provide information and reassurance to callers
- Various functions can be added via extension modules (e.g. camera or direct dialling button modules)
- Support of different installation options (flush-mounting or surface-mounting) ensure maximum flexibility; special enclosures available with “SOS” and “HELP” imprint



Natural communication

enhanced HD Voice

High volume

IVC

Intelligent Volume Control

Loudspeaker / microphone surveillance

Audio // Basics

eHD Voice	Enhanced HD Voice by Commend transfers the audio signal at a bandwidth of 16 kHz , thus capturing the entire frequency spectrum of the human voice.
STI	Speech Transmission Index 0.96 – measured under acoustic laboratory conditions (STI is a standard measure for speech intelligibility; it has a possible maximum value of 1.00, which corresponds to perfect intelligibility)
Sound pressure level	High volume up to 99 dB
Amplifier	High efficient class-D amplifier with 2.5 W
Microphone	Omnidirectional electret condenser microphone for max. 7 m (23 ft) speaking distance
Loudspeaker	2 x 8 Ω loudspeaker with humidity-resistant special membrane type for optimum sound quality

Learn more audio.commend.com

Audio // Functions

- Loudspeaker/microphone surveillance** – ensures the availability of the Intercom station while reducing the need for manual verification of its functionality
- Audio monitoring** – fully automated emergency calls triggered by defined noise levels for more security
- Peer2Peer audio** – reduces network and server load to ensure efficient use of resources
- Audio recording** and lip synchronous audio/video recording of conversations for documentation and evidence keeping purposes
- Conference call function** for simultaneous talking with multiple conversation partners
- Speech activity detection** senses when calls are finished (no microphone signal) and terminates the connection automatically
- Simplex mode** for applications requiring controlled communication – e.g. for security solutions based on the “push-to-talk/release-to-listen” method
- OpenDuplex®** for natural, hands-free communication
- IVC** (Intelligent Volume Control) automatically adjusts the device’s volume setting to the ambient noise level
- Public address functions**

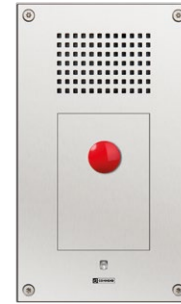
WS 211V I M

Technical Specifications

Technical data

IP rating acc. EN 60529:	IP66
Mechanical impact resistance acc. EN 62262:	IK10
Front panel:	1.4301/AISI 304, 3 mm (0.12 in)
Microphone:	electret condenser microphone polar pattern: omnidirectional speaking distance: max. 7 m (23 ft)
Loudspeaker:	special membrane type for optimal sound quality, sound pressure: 85 dB/1 W/1 m (3.28 ft), 2 x 8 Ω
Amplifier:	integrated class-D amplifier with 2.5 W
Sound pressure level:	max. 99 dB
Handset, headset:	EM sensitivity: 14 mV _{eff} EM impedance: 3.3 kΩ / EM supply: 2.5 V EP level: 850 mV _{eff} at 0 dBm0 / EP impedance: 200 Ω
Input:	3 inputs for floating contacts (detection of 5 input states)
Output:	2 relay outputs (switch-over contacts) max. 60 VDC, 2 A, 60 W ¹⁾ expected life: min. 5 x 10 ⁴ (2 A), 10 ⁵ (1 A)
Line output:	for connection loudspeaker module
Call indication:	multifunction LED (colours: red, green, blue)
Call button:	large red emergency call mushroom button (NCC)
Transmission bandwidth:	16 kHz
Operating temperature range:	-20 °C to +70 °C (-4 °F to +158 °F)
Storage temperature range:	-20 °C to +70 °C (-4 °F to +158 °F)
Relative humidity:	up to 95%, not condensing
Connection:	pluggable screw terminals expansion plug for e.g. EB2E2A IP Uplink: shielded RJ 45 modular jacks
Power supply:	PoE or external supply 12–24 VAC or 15–35 VDC power consumption: max. 4 W
Cabling:	min. Cat. 5
PoE (Power over Ethernet):	IEEE 802.3af Power consumption of the terminal device: Class 0 (0.44 W to 12.95 W)
Protocol:	IoIP-Protocol based on UDP/IP
Data rate:	10/100 MBit/s (Full/Half Duplex)
Mounting:	flush mount kit WSFB 50V surface mount kit WSSH 50V
Dimensions (W x H x D):	with flush mount kit: 164 x 279 x 14 mm (6.46 x 10.98 x 0.55 in) with surface mount kit: 164 x 279 x 50 mm (6.46 x 10.98 x 1.97 in)
Weight incl. package:	approx. 1,500 g (3.3 lbs)

¹⁾ The relay output may only be connected to a SELV circuit! A SELV circuit as per IEC/EN 60950-1 must be separated safely from a dangerous electrical circuit (e.g. 230 V or 110 V mains power), e.g. by means of double insulation. The SELV circuit must not exceed 60 VDC or 42.4 VAC_{peak} (30 VAC_{eff})!



Line length in LAN

The maximum line length of Cat. 5 cabling in a LAN is 100 m (328 ft) – e.g. from switch to Intercom station.

Extent of supply

- Intercom station
- Screws for mounting
- Short reference

System requirements

- GE 800 (min. PRO 800 3.1) with G8-IP (min. G3-8-IP 4.0B01) or
- GE 300 (min. PRO 800 3.1) with G3-IP (min. G3-8-IP 4.0B01) or
- VirtuoSIS/S3/S6
- Configuration software min. CCT 800 3.1
- Configuration software IP Station Config (included in setup of CCT 800 3.1)

Network requirements

IP addresses and ports

- For the WS 211V I M the DHCP functionality is available. If DHCP is not used, the WS 211V I M must have a fixed IP-address.
- In case of a changing public IP-address, dynamic registration of a WS 211V I M is possible.
- Communication from the program IP Station Config is done via Port 16399 (can not be configured).
- Communication from the WS 211V I M to the Intercom Server (UDP protocol) is done via port 16400 (configurable).

QoS requirements

- One-way delay max. 100 ms
- Delay-Jitter max. 50 ms
- 0% packet loss for perfect audio quality

Bandwidth

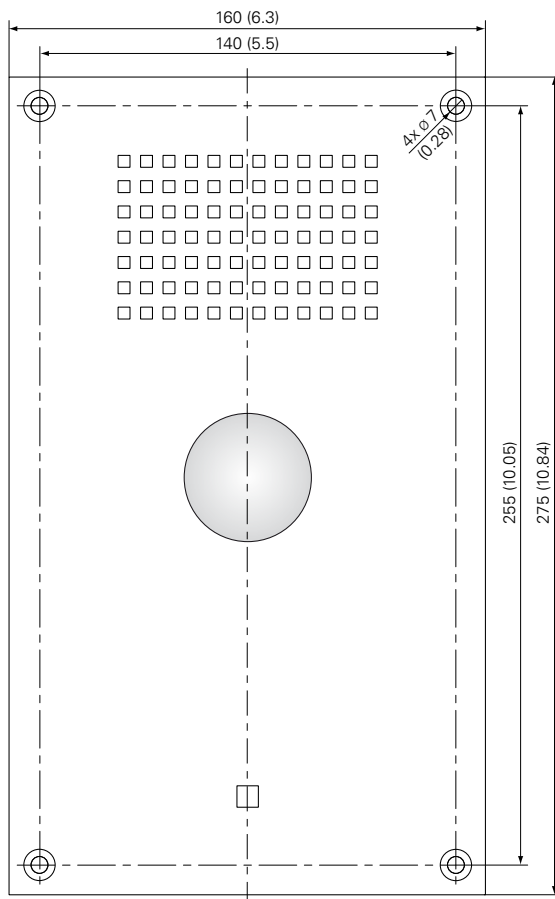
- Required bandwidth incl. protocol overhead per WS 211V I M, for upload/download each: speech and data 96 kBit/s
- Speech is compressed according to G.722 standard

WS 211V I M

Installation Instructions

Dimensions front panel

Front panel thickness: 3 mm (0.12")
Measuring units in mm (inch), not to scale!

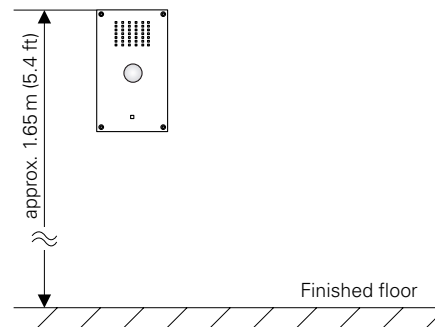


Mounting instructions

- Do not expose the station to extreme temperature (see "Technical data").
- For flush mounting a flush mount kit WFSB 50V (available separately) is required.
- For surface mounting a surface mount kit WSSH 50V (available separately) is required.
- Optionally a mounting with a rain protection roof (WSRR 50V) is possible.
- When opening the stations ESD precautions must be observed.
- The stations may only be opened by authorised service engineers.

Recommended mounting height

The upper edge of the station approx. 1.65 m (5.4 feet) from the finished floor.
Please adapt the mounting height to the individual needs.

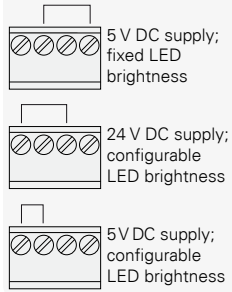


Connection

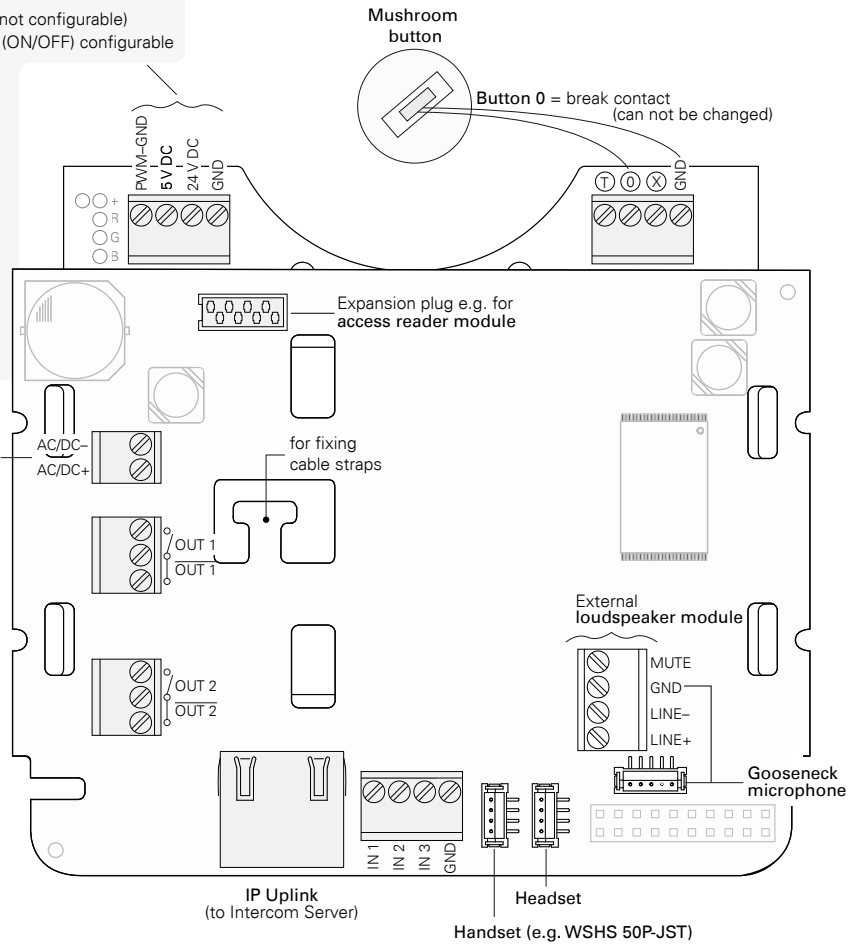
Power Supply for LED ring:

- optionally 5 V DC or 24 V DC
- optionally GND or PWM-GND

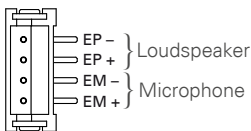
GND: fixed LED brightness (not configurable)
PWM-GND: LED brightness (ON/OFF) configurable
 Examples:



External power supply
 15 V DC – 35 V DC or
 12 V AC – 24 V AC



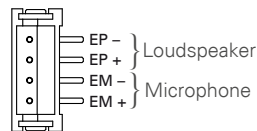
Connection headset:



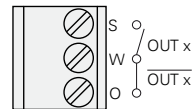
Note:

The headset jack has to be activated via an ICX message (see below).

Connection headset:



Connection OUT 1/OUT 2:



S = NO (normally open)
 W = C (common)
 O = NC (normally closed)

ICX message for connection of headset

Microphone / loudspeaker	Task	Type	Data (variable length)	Server-SW
Switchover microphone / loudspeaker (subscriber)	40	92	TTTT 050Z	Pro 800 2.1

Variable TTTT → 4-digit call number of the subscriber

Variable Z → 0 = deactivate; 1 = activate; 2 = toggle

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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