

SIP-WS 800F

Resistant wallmount stations



Open-Duplex®

High Volume

HD Voice
7 kHz Audio

ONVIF
VMS
integration

Weather-proof
IP66

The solution for industry and clean rooms

The OpenDuplex® capable stations of the series SIP-WS 800F have been developed and designed for areas with high requirements on safety.

The stations are connected directly to the Ethernet (LAN/WAN) and in this manner are connected to a compatible SIP server via the IP network. The built-in switch with downlink function allows direct connection of an additional IP device (e.g. an IP camera).

Besides high volume, the stations provide numerous further features: Pre-recorded audio can be applied in a multi-purpose manner, e.g. as acoustic indication at line fault or as waiting information at call initiation. The configurable background noise suppression provides crystal clear communication in challenging situations.

Furthermore, the stations are perfectly suited for use as door stations at entrances and gateways, due to integrated relay outputs.

The robust construction provides full protection against water, dirt and dust – IP rating IP66. The special foil on the front panel has a dirt-repellent effect and can be cleaned quickly and easily using regular cleaning agents and disinfectants. Large foil-type buttons make operation with protective gloves easy.

Features and highlights



Optimum speech intelligibility

A loud, clear and beautifully crisp voice signal ensures natural, face-to-face style communication with visitors and customers – even in challenging situations.

- Suppression of interfering background sounds
- Easy to hear, thanks to higher volume capacity than standard stations
- OpenDuplex® for simultaneous speaking and listening at high volume levels
- Switched Duplex for situations with extreme ambient noise
- HD Voice speech quality with 7 kHz audio bandwidth



Automated voice messages

Pressing the call button at an entrance or emergency call station triggers the playback of a customised voice message, reassuring the caller that someone will be available shortly to assist them.



Always at your service, thanks to redundancy

- Stations can be logged in at up to three servers simultaneously
- Calls are transmitted via the active server
- In case none of the servers can be reached, the system can try to establish a serverless connection if necessary – e.g. by calling all stations on the network



Electricity costs as low as € 2.60 a year

When it comes to low power consumption, Commend's stations are second to none.

- Approx. 1.5 watts in standby mode, and only 2 watts in call mode, depending on the volume level
- Power can be supplied via PoE or an external power adapter



Relays enable powerful control functions

Stations come with the ability to remote-control relays.

- Doors, shutters, gates and barriers open effortlessly at the touch of a button (desktop or mobile telephone) or by remote control via a third-party system (HTTP request)
- Easy control of signal lamps and other subsections

Attendant contacts for additional indication of operating states such as error, ringing, active call, etc. (e.g. automatic activation of flashing light signal to indicate incoming calls).



Quickly assign calls and reduce waiting times

In serverless communication scenarios the next free query point is found by calling each one using an action sequence. Server integration, on the other hand, allows for incoming calls to be allocated instantly and automatically to the next available operator (e.g. at a call centre). This way, waiting times for callers are reduced to an absolute minimum.



Location identification messages

An optional location identification message (e.g. "Emergency Call Station at Subway Station West Park") can be defined for each station individually. The identification message is played back automatically when the operator at the control desk or query point takes the call. This way, the operator knows immediately where the call is coming from without having to ask. This is particularly important if there is no visualisation system installed at the control desk or query point, or if the call is relayed to a mobile phone.



Loudspeaker/microphone monitoring

This feature causes the station to emit an unnoticeable audio test signal through the loudspeaker, which is picked up and analysed by the microphone. If the test signal does not arrive in the required quality (e.g. due to chewing gum blocking the microphone), the station will notify the receiving station accordingly. This ensures constant availability without the need for regular manual inspections, which goes a long way towards saving costs.



Configuration made easy

The stations are specifically designed for easy, convenient configuration over the special web interface. A few clicks is all it takes to perform an update and even set up complex action sequences. For large-scale installations, the provisioning function helps to deploy configuration settings automatically and conveniently to thousands of connected stations at once.



Simply compatible

The stations integrate seamlessly into existing Commend security and communication systems as needed. This allows adding features such as announcements, audio recording, interfacing with external systems (e.g. visualisation), and many more.



Wide range of functions

- Telephone directory and web call
- Connection ports for external amplifier and loudspeakers
- Connection ports for add-on modules (loudspeaker, direct dialling buttons, handset)
- SNMP for station monitoring
- HTTP support for network-based control of stations

Station versions

Series SIP-WS 800F

This series includes the following station versions:



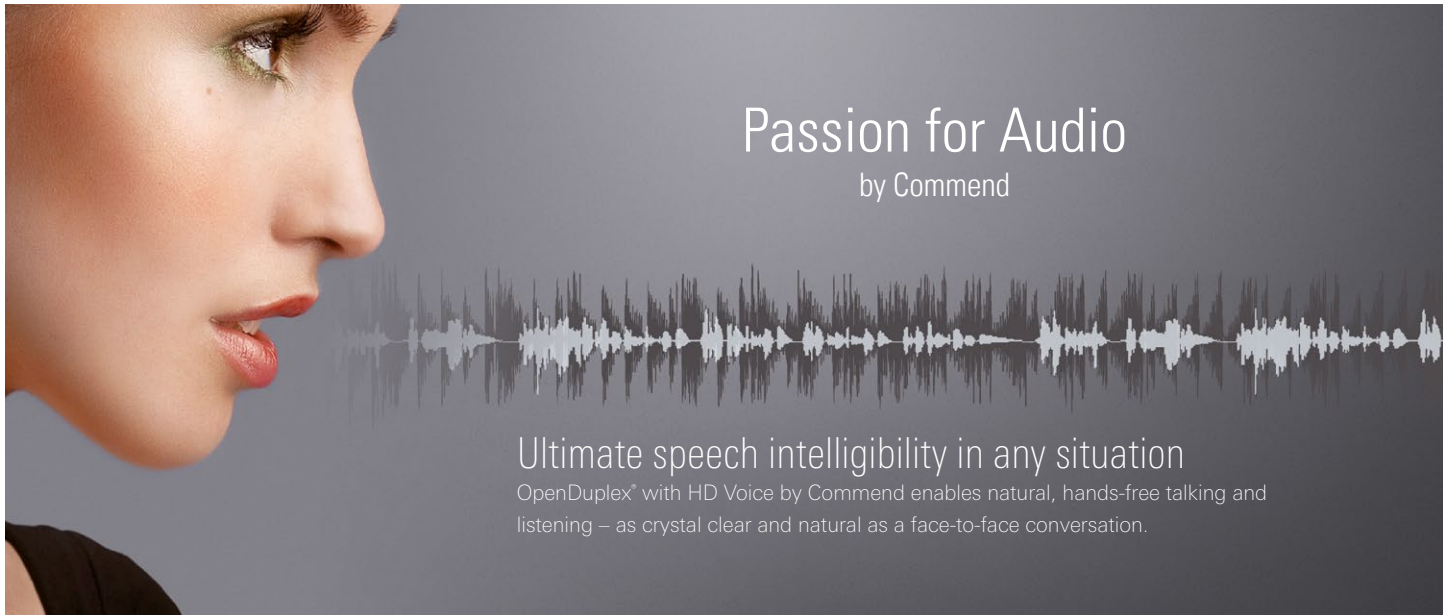
SIP-WS 800F

Station with back-lit alphanumeric full keypad and monochrome LCD display with white backlight



SIP-WS 800F MD

Station like SIP-WS 800F, but additionally with anti-bacterial foil surface and screwable lock for the front panel

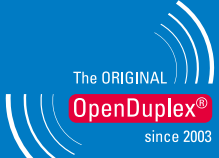






Passion for Audio

by Commend

Ultimate speech intelligibility in any situation

OpenDuplex® with HD Voice by Commend enables natural, hands-free talking and listening – as crystal clear and natural as a face-to-face conversation.

 <p>Natural communication</p>	 <p>Crystal clear audio</p>	 <p>High volume</p>	 <p>Background noise suppression</p>	 <p>Loudspeaker/microphone surveillance</p>
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Audio // Basics

HD Voice	HD Voice by Commend transfers the audio signal at a bandwidth of 7 kHz
Sound pressure level	High volume up to 97 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

- Dynamic **background noise suppression** virtually eliminates all ambient noise
- Loudspeaker/microphone surveillance** – ensures the availability of the Intercom station while reducing the need for manual verification of its functionality
- Peer-to-peer audio** – reduces network and server load to ensure efficient use of resources
- Conference call function** for simultaneous talking with multiple conversation partners
- OpenDuplex®** for natural, hands-free communication
- Switched Duplex** for situations with extreme ambient noise

SIP-WS 800F

Technical Specifications



IP rating acc. EN 60529:	IP66
Front panel:	polycarbonate with protective foil SIP-WS 800F MD only: polycarbonate with anti-bacterial foil surface
Operating temperature range:	-20 °C to +60 °C (-4 °F to +140 °F)
Storage temperature range:	-20 °C to +60 °C (-4 °F to +140 °F)
Relative humidity:	up to 95%, not condensing
Keypad:	alphanumeric full keypad, white backlight activation force: 3 N, 1 x 10 ⁶ cycles
Display:	monochrome LCD display, 128 x 64 pixels, white backlight
Microphone:	electret condenser microphone, polar pattern: omnidirectional, speaking distance: max. 7 m (23 ft)
Loudspeaker:	special membrane type for optimal sound quality, sound pressure level: 85 dB/1 W/1 m (3.28 ft), 2 x 8 Ω
Amplifier:	built-in class-D amplifier with 2.5 W
Sound pressure level:	max. 97 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
Status indication:	multifunction LED (colours: red, green, blue)
Line output:	for connection of loudspeaker module
Outputs:	2 relay outputs (switch-over contacts) max. 60 VDC/30 VAC, 2 A, 60 W ¹⁾ expected life: min. 5 x 10 ⁴ (2 A), 10 ⁵ (1 A)
Inputs:	3 inputs for floating contacts
Protocols:	IPv4, IPv6, TCP, UDP, HTTP (RFC 2617, RFC 3310), RTP (RFC 3550), RTCP, DHCP, DHCPv6, SDP (RFC 2327), SIP (RFC 3261), SNMPv2, STUN, TFTP, URI (RFC 2396), DTMF Decoding (RFC 2976, RFC 2833), SIP User Agent (UDP RFC 3261), SIP Refer Method (RFC 3515), IGMP (RFC 2236)
Transmission bandwidth:	7 kHz
Connection:	pluggable screw terminals expansion jack for e.g. EB2E2AHE IP uplink/downlink: shielded RJ45 modular jacks
Cabling:	min. Cat. 5
Audio features:	OpenDuplex [®] , Switched Duplex background noise suppression, pre-recorded audio
Power supply:	24 VDC ± 2 V, 500 mA or PoE power consumption: 1.6 W idle approx. 2 W at conversation (depending on volume)
PoE (Power over Ethernet):	following IEEE 802.3af power consumption of the terminal device: class 0 (0.44 W to 12.95 W)
Codecs:	G.722, G.711 a-Law, G.711 μ-Law
ONVIF specification:	ONVIF Profile S for unidirectional audio
System boot time:	within seconds
Ethernet:	2 x 10/100 MBit/s (Full/Half Duplex)
Additional mounting material:	flush mount kit WSFB 50P surface mount kit WSSH 50P
Dimensions (W x H x D):	with flush mount kit: 165 x 280 x 13 mm (6.5 x 11 x 0.51 in) with surface mount kit: 165 x 280 x 51 mm (6.5 x 11 x 2 in)
Weight incl. package:	approx. 750 g (1.65 lbs)

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 the station.

Extent of supply

- Station
- Open source compliance information
- SIP-WS 800F MD only: Locking block with screw
- Device identification document
- Short reference

System requirements

- VirtuoSIS (min. version 5.0) or
- S3/S6 (min. version 7.1) or
- Compatible SIP server (see compatibility list “**Interoperability SIP**”) or
- Serverless operation

Configuration software

- Set-UP min. version 1.2

Speech intelligibility requirements

- For good speech intelligibility, it is essential the sound pressure level of the station is at least 10 dB above the sound pressure level of the ambient noise that may be present.
- For good speech intelligibility at a remote station, it is essential speakers speak considerably louder (also at least 10 dB) than the ambient noise is that may be present.
- In practice, a speaking distance of up to 1 m ensures the best speech intelligibility for most applications.
- The max. speaking distance of 7 m can be reached with ambient noise < 40 dB_(SPL) only.
- With ambient noise > 80 dB_(SPL), speech intelligibility is reduced considerably and possible restrictions have to be weighed up.

¹⁾ The relay output may only be connected to an ES1 or a SELV circuit! An ES1 circuit as per IEC/EN/UL 62368-1 or 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 ES1 or SELV circuit must not exceed 60 VDC or 42.4 VAC_{peak} (30 VAC_{eff})!

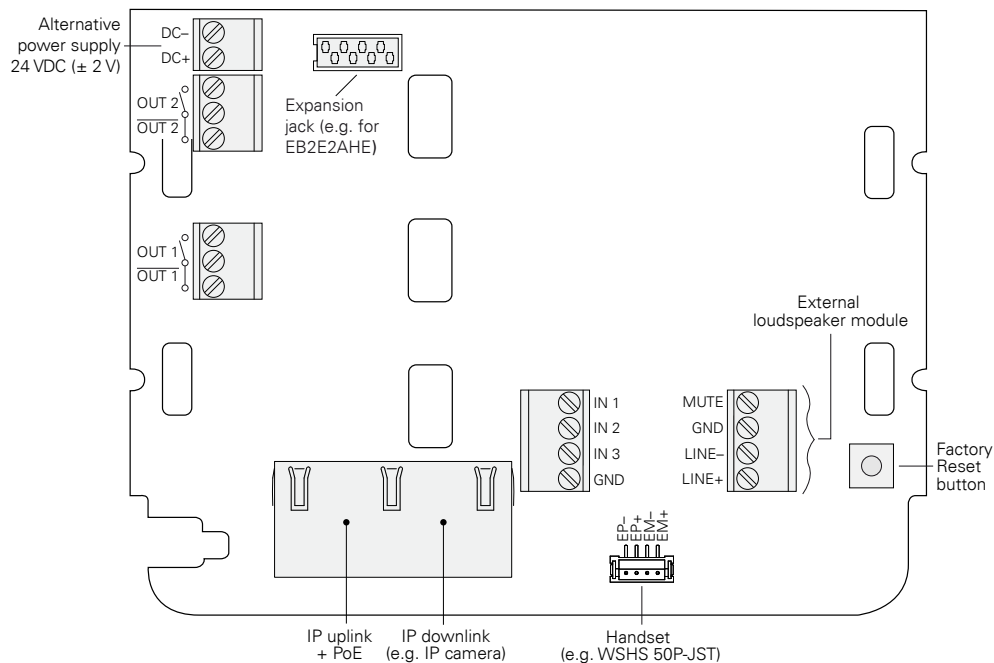
SIP-WS 800F

Installation Instructions

Precautions

- When opening the stations, ESD precautions must be observed.
- The stations may only be opened by authorised service engineers.

Connection



Attention:

- It is mandatory to ensure a correct power supply of the station: min. 22 VDC, max. 26 VDC.
- PoE has to be connected to the RJ45 jack "IP uplink" (see above).
- Further IP devices can be connected to the RJ45 jack "IP downlink" (see above), like an IP camera. But it is also possible to link up to 20 stations in series via this Ethernet interface.
- Use of PoE: If multiple stations are connected in series, then only the first device can be supplied with Power over Ethernet. All other devices (connected in series) must be supplied separately by an external power supply unit.

Configuration via web interface

Via the integrated web interface, it is possible to configure optional direct dialling numbers for the buttons of the station.

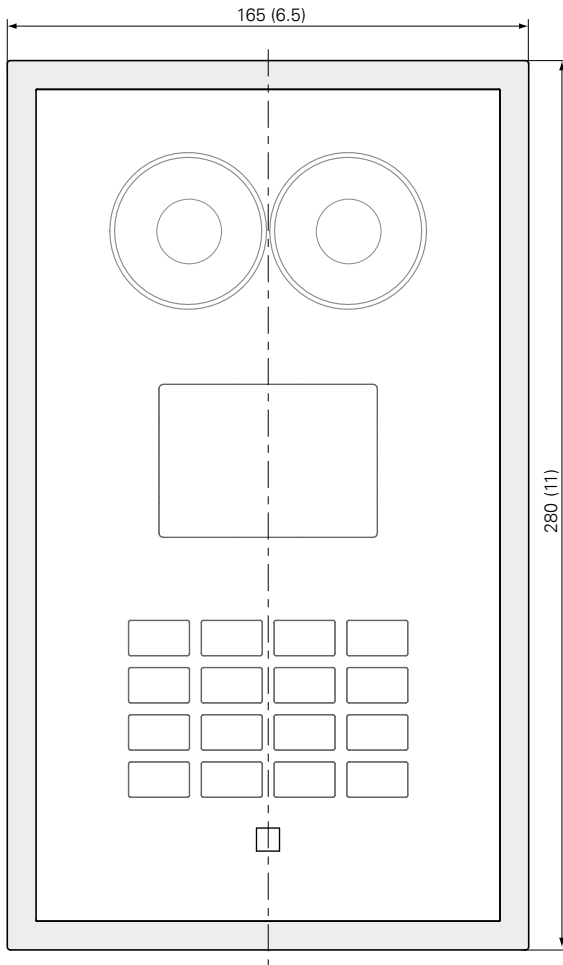
Mounting instructions

- Do not expose the station to extreme temperature (see "Technical Specifications" on TE | 1).
- For flush mounting a flush mount kit WSFB 50P (available separately) is required.
- For surface mounting a surface mount kit WSSH 50P (available separately) is required.

Dimensions front panel

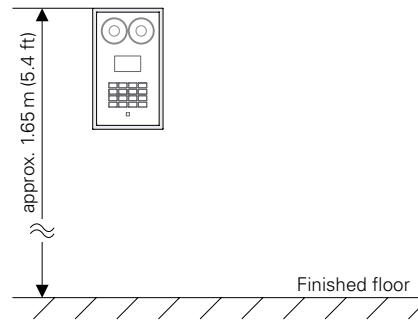
Measuring units in mm (inch), not to scale!

Depth: 13 (0.51)
cavity wall mounting: 15 (0.59) (⇒ shadow gap between front panel & wall)



Recommended mounting height

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



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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