# Ex-Telephone FernTel 3 IP Z2

## VoIP desk/wall telephone for applications in potentially explosive atmospheres in zone 2 and 22

## Overview

The FernTel 3 Telephone is designed for applications in potentially explosive areas of zone 2 and 22.
The telephone housing is made of impact-resistant thermoplastic and is certified according to ATEX.
In the field of the chemical and petrochemical industry potentially explosive atmospheres occur during production procedures caused by e.g. gases, vapours or mist. Its striking signal colors ensure that the Fern IP Z2 cannot be missed whenever a telephone is urgently needed.
The use of an impact-resistant thermoplastic housing and stainless steel screws, gives even more advantages to the FernTel IP Z2.

This telephone may be converted from a wall mounted device to a desk telephone and vice versa simply. The FernTel IP allows for effective working with well-designed ergonomics and the illuminated keypad and display make operation simple. The Ethernet connectivity with the internal 2-port switch allows the user to connect a laptop in an outdoor area.

## Features

- Protection class IP 65 according to IEC60529
- Ambient temperature -20°C to +60°C
- call tone ≥ 95 dB(A) in 1 m distance
- Protection class
  II 3G Ex nA ic IIC T5 Gc
  II 3D Ex tc ic IIIC T80°C Dc
- Pixel-based, illuminated LCD display
- Illuminated keypad
- Intelligent and user-friendly menu structure
- Standard protocols H.323, SIP, TSIP, SIPS and H.450
- Power supply Power over Ethernet
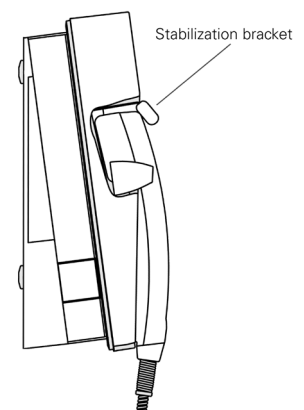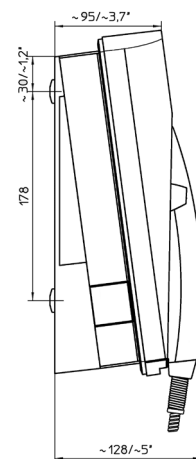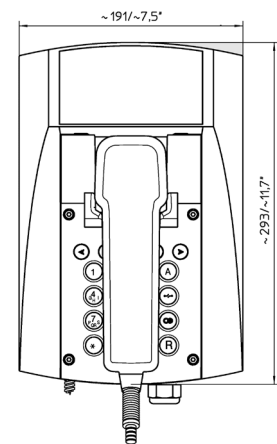- Connection to single RJ45 Port 10/100 BASE-T Ethernet LAN

**ATEX** *IECEx*

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## Certifications

| | |
|---|---|
| Protection type | I 3G Ex nA ic IIC T5 Gc<br>II 3D Ex tc ic IIIC T80°C Dc |

## Technical data

| | |
|---|---|
| Power supply | Power over Ethernet according to IEEE 802.3af |
| Connection | RJ45 Port 10/100-BASE-T Ethernet LAN |
| Ringing volume | ca. 95 dB(A) in 1 m distance |
| Housing | |
|   Material | Polycarbonat |
|   Height x width x depth | 293 mm x 191 mm x 128 mm |
|   Weight | ca. 2.4 kg |
|   Operating position | Desk or vertical wall mounting |
| Keypad | Plastic with stainless steel plate |
| Display | 128 x 64 pixel |
| Operating temperature | -20 °C to +60 °C |
| Protocols Protection | IP65 according to IEC60529 |
| Protocols | H.323, SIP, TSIP, SIPS and H.450 |
| General | H.323 version 4 including H. 225, H.235, H.245 and RAS Gatekeeper routed signalling, H.450 Session Intiation Protocol (SIP) RTP, SRTP real time protocol – for voice data transfer |
| RTCP | Real time control protocol – first level of "Quality of Service" |
| RAS protocol | Support for external Gatekeeper |
| DTMF | H.245 "Alphanumeric" or "Signal Type" |
| Additional VoIP features | H.245 fast connect Enblock dialing Overlapped sending |
| Security | Encoded password authorization according to H.235 |
| Quality of Service | Prioritization of IP packkages over TOS and DiffServ VLAN priority according to IEEE 802.1p/802.1q |
| Voice encoding | G.711 A-law/μ-law (64 kbps), G.723.1 (5.3 kbps), G.729A (16 kbps) |
| Echo Compensation | G.168 |
| Access | Via HTML Web Browser Passwor-protected with secure authentication |
| Troubleshooting | Log and trace files, status displays of interfaces a connections ping connection test for internet protocol, sending of SNMP traps |
| Updates | Configuration recording/reading Boot code and firmware update via HTML upload Automatic update via update server |
| DSL access | PPPoE protocol |
| VPN | Tunneling with PPTP encoding via MPPE |
| NAT | Network Address Translation – for translation of oficial IP addresses into non-official addresses and vice versa |
| DHCP | Dynamic Host Configuration Protocol – IP Interfaces settings |
| ICMP | Internet Control Message Protocol – for ping tests |
| Call Tone Generation | Automatic call tone generation according to European and US standard |
| Call Transfer | Call Transfer, in all usual variants: with/without consultation call,before/after answer etc. |
| Call Diversion | Call diversion/redirection |
| Call Hold | Call hold/retrieve |
| Call Waiting | Call Waiting, with respective indication to calling subscriber |
| Message Waiting | Message display on telephone |
| Name Display | To determine the displayed name |
| Three-party Conference | With 3 subscribers, also external subscribers |
| Caller ID | For separate indication of call numbers or groups |
| Multiple Registration | Up to 6 registrations |
| Telephone Book | Automatic availability of all registrations in central telephone book, Integration of external data bases via LDAP |
| Time | Exact time information via time server access |

General arrangement (all dimensions in mm)



~ 191/~7.5"
~293/~11.7"
~ 95/~3,7"
~30/~1.2"
178
~128/~5"
Stabilization bracket

# Ordering requirements

* The full article number for ATEX and IECEx variants is made up by appending the colour code to the article numbers given below.

| Type | Designation | Model | Art.-No. |
|---|---|---|---|
| FernTel IP Z2 | Desk/Wall Telephone | with spiral cord | FHF 112 411 2* |
| FernTel IP Z2 | Desk/Wall Telephone | With armoured cord | FHF 112 431 2* |
| Accessories | | | |
| | Stabilization bracket | | FHF 112 390 00 |

| | |
|---|---|
| yellow | 1 |
| red | 2 |
| grey | 7 |
| black | 0 |