

Flameproof version of the
weatherproof telephone FernTel IP

FernTel IP Z2 / Z22



Operating instructions



The FernTel IP Z2/Z22 telephone is a flameproof version of the weatherproof FernTel IP telephone with all its features. The operating instructions are still valid, with the addition of the following items.

Operation

The FernTel IP Z2 / Z22 telephone is used as a stationary device in areas potentially endangered by an explosive gas or dust atmosphere.

Designed for Device Group II and Categories 3G and 3D, it may be operated within zones 2 and 22.

The FernTel IP Z2 / Z22 telephone must be connected to a LAN (Local Area Network) connection equipped with PoE (Power over Ethernet).

Commissioning

For operation and commissioning, the application of standard IEEE 802.3af is compulsory.

Contrary to the normal FernTel IP, the FernTel IP Z2 / Z22 has no LAN cable plug bush. Also, there is no second LAN receptacle on the right-hand side of the telephone. Thus the LAN plug for the LAN cable is no longer part of the delivery.

Remove the keypad plate (item 6) of the FernTel IP Z2 / Z22, and guide the LAN cable through the cable gland (item 4) on the lower side of the telephone, and secure the cable using the cable gland.

The FernTel IP Z2 / Z22 delivery includes a bag with a connector socket with a cut-and-clamp device for connecting the LAN cable with the short, 8 pin cable piece within the telephone.

Follow the instructions on the bag for shortening and placing the individual conductors, and secure the LAN cable to the connector. Please pay attention to the coloured markings for the wiring standards T568A (A series) and T568B (B series). Then insert the plug of the short piece of cable (item 5) into this connector, until it clicks into place.

Plug the connector of the ribbon cable onto the pin contact strip (item 7) on the keypad, replace the keypad plate onto the telephone housing and tighten the four screws (item 8) firmly.

Connecting and adjusting

Connect the device using an RJ45 plug in the VoIP telephone with the following normative PoE allocation:

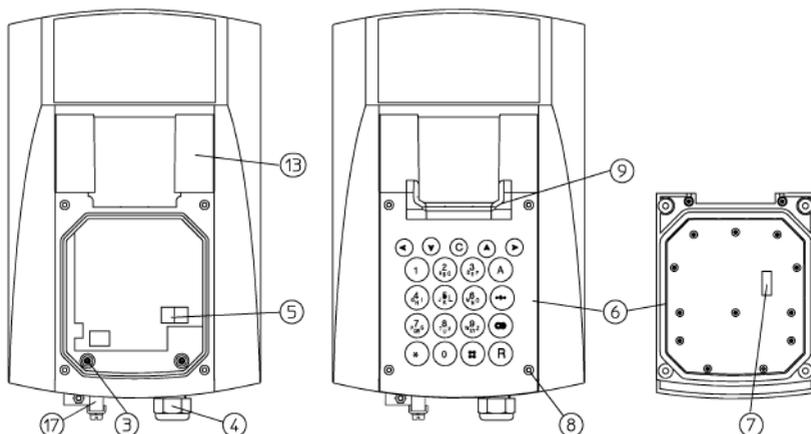
RJ45 plug	PIN	Spare-Pair supply	Phantom supply	
			Midi-x	Midi
	1	RX+	Rx+ / V-	Rx+ / V+
	2	RX-	Rx- / V-	Rx- / V+
	3	TX+	Tx+ / V+	Tx / V-
	4	V+	-	-
	5	V+	-	-
	6	TX+	Tx- / V+	Tx / V-
	7	V-	-	-
	8	V-	-	-

Upon connecting the cable, please make sure the exposed conductors are placed in the plug connector and are securely fastened.

The outer terminal of the electrostatic potential compensation (17) must be connected to the potential compensation at the place of installation, in order to avoid a dangerous electrostatic build-up in case of any electrostatic occurrence.

Marking on connection

X101



The configuration of the FernTel IP Z2 / Z22 follows as described in the operating instructions of the normal FernTel IP.

Operating position

The telephone may be mounted on a wall or used as a desk telephone.

Service

The telephone contains no serviceable parts.

Care and maintenance

The telephone is maintenance-free. Still, if the operating area is highly contaminated by dust, fat, oil etc., the device should be cleaned from time to time.

The device may only be cleaned using a damp cloth in order to avoid electrostatic charging.

Never use sharp objects for cleaning.

During maintenance, check accessible seals for function, e.g. regarding possible damage or positioning. If the seals are damaged, operating the telephone is not allowed. Damaged seals must be replaced.

Disposal

The complete device should be disposed of as electronic waste. When the device is disassembled, plastics, metals and electronics components are to be disposed of separately. In every single case the national requirements and regulations for waste disposal must be observed.

Technical Specifications

Connection data at X101

Power supply	Power over Ethernet according to IEEE 802.3af	
Voltage POE	48 VDC (min. 44 V, max. 61 V)	
Power consumption	3.5 W	
Display	128 x 64 pixels	
Ringling sound pressure level	max. approx. 95 dB (A) at 1 m	
Housing (height x width x depth)	293 x 191 x 128	
Weight	approx. 2,300 g	
Operating position	Table or vertical wall mounting	
Receiver	Microphone	Electret-foil microphone
	Receiver inset	Dynamic receiver inset with magnetic field generator
Connection X101	(10/100 Mbit/s) LAN cable with 8 conductors AWG 22 to 24 for solid conductors, or AWG 24 for multi-wired conductors	

Dimensions Connecting cable / Cable entry

Cable glands	M20 x 1,5 In case of factory fitted cable glands the attached operating instructions have to be considered.
Blind plugs	M20 x 1,5 / M12 x 1,5
Connection potential compensation	1,5 – 4 mm ²

Ambient temperature range

Operating ambient temperature range	-20°C ≤ Ta ≤ +55°C
Storage and transport temperature	-25°C ≤ Ta ≤ +70°C
Housing degree of protection	IP65

Labelling

Firma	FHF Funke+Huster Fernsig GmbH
Type	FernTel IP Z2
DEKRA	BVS 08 ATEX E 022
CE 0158 	II 3G Ex nA ic IIC T5 Gc II 3D Ex tc ic IIIC T80°C Dc -20°C ≤ Ta ≤ +55°C IP65 U _m = 61 VDC; U _n = 48 VDC
IECEX	Ex nA ic IIC T5 Gc Ex tc ic IIIC T80°C Dc IECEX BVS 08.0009

Warnings and security information

This device is a flameproof, weatherproof telephone especially designed for use in rough industrial environments.

Please note the following warnings and security information:

- The installation and adjustment of the device must be carried out by qualified personnel in accordance with the prescribed installation regulations taking the specified types of protection into account.
- This apparatus is a Protective Class II device and may only be connected to and operated at the voltage it was designed for.
- Make sure the connections are in perfect order.
- Make sure the telephone housing, the connecting cable and the receiver cord are not damaged. If the device is damaged, it may not be operated.
- While operating the device in commercial facilities, the accident prevention regulations of the Employers' Liability Insurance Association regarding the use of electrical systems and devices must be observed.
- The device may be operated solely under the stated ambient conditions. Unfavourable ambient conditions can lead to damage of the device and thus present a potential danger for the user.
- Regarding the assembly and installation please observe the respectively applicable installations regulations.

Unfavourable ambient conditions include:

- Humidity of air too high (>75% rel., condensing)
 - Moisture and dust (pay attention to the degree of protection)
 - Flammable gases, vapours and solvents not covered by the type of protection for the device
 - Too high ambient temperatures (> +55°C)
 - Too low ambient temperatures (< -20°C)
- During operation of the device the temperature must not exceed nor fall below the prescribed range of ambient temperatures. It is not allowed to operate the device with an additional cover.
 - Make sure the wiring is voltage-free upon connecting or disconnecting the wires in the terminal room.
 - If electrical connections must be carried through in the hazardous area, the enclosure must be opened and closed as follows:
 - Remove voltage from the device.
 - Loosen the fastening screws from the keypad insert
 - Remove the keypad insert and unfasten the keypad cable
 - Make the connections while the device is open

- When the work is done, plug the keypad back on, and place the keypad insert back on the lower part of the device.

Make sure the seal is correctly positioned and in perfect working order. Then tighten the fastening screws in a diagonal pattern.

- Only blind plugs and cable glands as prescribed by the manufacturer may be used.

Should these points not be observed, the explosion protection of the device cannot be guaranteed. The device then poses a potential threat to the user's life and can cause the ignition of an explosive atmosphere.

CE symbol

We hereby declare this product is in compliance with the Essential Health and Safety Requirements of

ATEX Directive 2014/34/EU,
EMC Directive 2014/30/EU,
Low Voltage Directive 2014/35/EU and
RoHS Directive 2011/65/EU.

The appropriate standards, technical regulations und specifications you can take from the attached conformity declaration and the conformity declarations on our Website.

Subject to alterations
or errors



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