Product Information

FHF Bergbautechnik GmbH & Co. KG

Intrinsically safe telephone iVT3**

Ordering Data

Designation	Type	Item no.
Intrinsically safe telephone with battery	iVT3	112 503 01 AX
Intrinsically safe telephone without battery	iVT3	112 503 11 AX
Intrinsically safe telephone with rechargeable battery	iVT3	112 503 02 AX
Intrinsically safe telephone without rechargeable battery	iVT3	112 503 12 AX
Intrinsically safe telephone with rechargeable battery for local battery exchange iST	iVT3	112 503 03 AX
Intrinsically safe telephone without rechargeable battery for local battery exchange iST	iVT3	112 503 13 AX
Optional extra		
Battery module, alkaline-manganese mono cells 9V/15Ah	9704U6	118 895 01 AX
Rechargeable battery module NiCd 7.2 V / 0.5 Ah	9704U8	118 896 01 AX
Fastening set		112 941 01
System optional extras		
Telephone coupler with alarm	iKT1-A2	118 807 09 AX
Intrinsically safe telephone coupler	iKT2	118 810 01 AX
Intrinsically safe local battery exchange	iST	118 810 05 AX
Rack for iKT1-…	7933	118 807 05
Telephone coupler link e / i	KT1	118 809 01 AX
Telephone coupler	sG2148	333 006 01 AX
Telephone coupler	sB2248	333 003 49 AX
Converter module	2313	118 306 01 AX
Intrinsically safe blink lamp	iBL1	118 811 01 AX
Ringing - Loudspeaker (200 Ω)	5801K	123 720 03 AX
Loudspeaker (16 Ω)	iLA3/16	123 620 03 AX
Emergency call button	iBS*	xx AX
Spare parts		
Electronic insert	9704U002A000-BT	112 503 91 AX
Electronic insert local battery telephone		112 503 91 01 AX
Electronic insert export		112 503 91 11 AX
Handset with armoured cord	9700U003A011-BT	112 503 92 AX
Handset with spiral cord	9700U003A100-BT	112 503 92 01 AX
Cover with keypad	904U007A000	112 503 93 AX
Display and wiring plate		112 503 94 AX
Loudspeaker ringing sound / hands-free	9704U015A000	112 503 95 AX

- **Intrinsically safe analogue telephone with dual-tone multifrequency**
- **Category / Type of protection I M1 EEx ia I**
- **Variable energy supply through:**
  - Battery module (15 Ah)
  - Local supply with buffering through NiCd rechargeable battery module (0.5 Ah)
- **Display for operating support and simple setting by the operator of all important parameters (German/English)**
- **Access/locks through PIN**
- **5 menu function keys in the display**
- **Calling from telephone book**
- **Last number redial**
- **Loudspeaker key**
  - Make a phone call without lifting the handset – handsfree
  - Listening-in when the handset is off the hook – open listening
  - Terminal function
- **Disconnect key (clearing key)**
  - Begin a new call without putting back the handset
- **R key (flash) for call forwarding**
- **Two independent, potential-free opto-couplers – contact outputs for actuation of additional, acoustic or optical signalling devices (call (ringing) / alarm call)**
- **Output for ringing indicator (blink lamp iBL1)**
- **In combination with the telephone couplers this results in a completely intrinsically safe feature, alarm and emergency call telephone, as well as a shaft (local battery) telephone**

External connections:

- **Loudspeaker for loud distribution of the ringing signal and alarm announcements**
- **Loudspeaker for loud distribution of the ringing signal and alarm announcements**
- **Varieties of the telephone for the function:**
  - Alarm-emergency call telephone
  - Shaft (local battery) telephone

Description

The intrinsically safe telephone iVT3** is designed in the I M1 EEx ia I category / type of protection and may be used unconditionally in intrinsically safe telephone systems of Type 5210/3 or alarm telephone systems of Type TA1 (approved telephone systems from FHF Bergbautechnik) in explosive atmospheres in the mining industry.
The associated converter (Type 2313, sG2148, sB2248, iKT1-A2, KT1) separates the intrinsically safe part of the telephone system securely from the non-intrinsically safe telephone network.
The intrinsically safe telephone iVT3 only works with the above-mentioned converters and is not fit for direct connection to private branches or public telephone networks!**

The designated power supply is primary batteries as local battery (battery module Type 9704U6) or the use of NiCd rechargeable batteries (rechargeable battery module Type 9704U8) with a local supply.

When locally feeding the NiCd rechargeable batteries through an intrinsically safe power supply unit Type NG3-12ib, the supply voltage is buffered through a NiCd rechargeable battery (rechargeable battery module Type 9704U8) inserted in the iVT3**. This enables safe telephone calls and alarms even without cyclic battery changes and even if the mains supply has been switched off.

A loudspeaker can be connected to the telephone for loud distribution of the ringing signal tone in noisy areas.

As a feature telephone, the iVT3** offers the following performance features:

- Handset mode
- Handsfree listening
- Handsfree speaking
- Normal dialling
- Last number redial
- Dialling from telephone book
- Disconnect key
- R key (Flash)
- Volume control for handset (listening and speaking) and loudspeaker.

Design

The housing material of telephone iVT3** consists of unvarnished, electrostatically conductive plastic cast-moulding. The housing consists of a rectangular lower part and a desk-shaped cover (1) with a stainless steel keypad (material V4A). A dual spacing of 20 mm between the function keys and 22 mm between the dialling keys warrant secure operation, even with gloves. The keypad front plate contains a display sealed by a viewing window.

The housing is corrosion proof, robust and offers protection against dust and humidity according to IP54 and IP66, respectively.

The lid is swivel-mounted on two hinges on the lower part of the housing. A surrounding seal is placed between the lid and the lower part of the housing, which are pressed together by four screws (2).

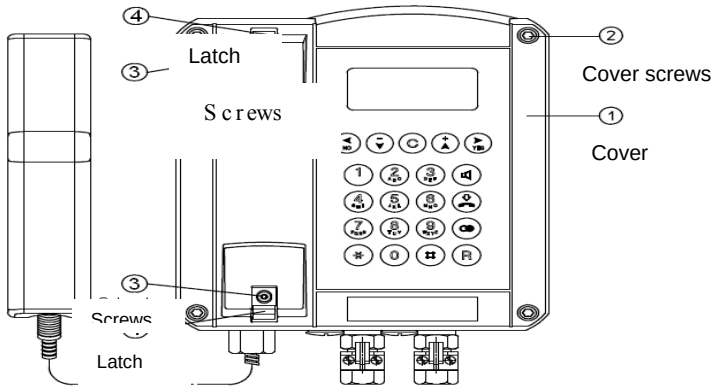
Bores for five cable entries are available on the bottom of the housing. Unused entries are closed by blind plugs. The cable entries serve, among other things, to insert the telephone network line (subscriber line) and the handset line, call indicator or loudspeaker. The standard version of the telephone is equipped with two factory-installed cable entries that are at the user's disposal.

The electronic insert, which is completely embedded in a block of protective compound, is situated on the left-hand side of the main room of the lower part of the housing. The terminals protrude from the compound. Also embedded, on the right-hand side, there is either a battery module or a rechargeable battery module for buffering the local supply.

Robustly designed, the handset is protected against damage and the intrusion of dust and moisture. An internal protective foil provides effective protection of the mouthpiece (microphone) and earpiece. The handset is held by two latches in an accommodation on the upper side of the device. The force required to hold the handset may be steplessly adjusted. After loosening the screws (3), the latches (4) can be shifted. Pushing the latches together, increases the holding force, pulling them apart, reduces it. Tightening the screws (3) fixes the setting.

The „hook switch" has been realised as a reed switch inside the housing, and is actuated by removing/replacing the handset (using the magnetic stray field of the earpiece).

Device overview



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