



ZITG – 02 – Intrinsically Safe Autligiphone



Certificate: ATEX



Use:

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Description:

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It has a case made of high strength plastic compound ensuring the protection grade of IP 65 which predetermines it for being used in industrial conditions, open air environment and environments with explosion hazard.

On the case there is a membrane keyboard, microphone, two loudspeakers and a fork for hanging the receiver. The microphone is attached to the case by conductors protected by a metal flexible wrapped hose. The device can be connected to a telephone exchange.

Technical Parameters:

| | |
|--|--|
| Models | I M1 Exia I, II 2GExia IIB T4 |
| nf levels at telephone operation | Approximately 0 dBm |
| nf levels at ligophone operation | Approximately 0 dBm / 90 db signalling, conversation |
| Control, loops, touch screen | DTMF |
| Number selection | DTMF |
| Maximum distance and resistance of the loop created by all connecting conductors from the telephone exchange to the telephone ligophone device | 10 km / 700 Ω for I model |
| Maximum period of a loud conversation at fully charged battery | 2 hours |
| End amplifier output | 2 x 0.5 W |
| Loud signals | 90dB / 1 m |
| Ambient temperature | -40°C - +40°C |
| Humidity | Max. 90% w/o cond. |
| Protection | IP 65 |
| Dimensions | 310 x 175 x 105 mm |
| Weight | 3.5 kg |

To ensure conditions of intrinsic safety between a classical telephone line and the device, a ZSB module of galvanic separation is inserted to the telephone line. An intrinsically safe batter with the nominal voltage of 12 V/DC charged from a telephone line serves as a supply for devices in the loud mode. The device is controlled via membrane dust-proof pushbuttons.

All functions of the device and cooperation with cards are controlled by DTMF tones and line polarity. The device is sensitive to the line polarity. If connected with an opposite polarity, its correct function will not be ensured.

During a correct call a red LED is lit on the device which is also on during ringing. If "ALARM" pushbutton is pushed, a green LED is lit on.

The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.



TIG – Intrinsically Safe Telephone



Certificate: ATEX



Use:

A TIG-type intrinsically safe telephone is intended for communication in heavy industrial environments with high air humidity, noise, dustiness and steam and gas explosion hazard included in explosiveness classes I and II. They can operate in the underground of gassy mines, coal treatment plants, industrial halls, warehouses and petrol stations, technical gas productions and other objects endangered by methane and other gas explosion hazard included in explosiveness group of IIC in the premises included in ZONYO, 1, 2.

Description:

TIG telephones are manufactured in the following type versions:

TIG – basic version

TIG-S – a version with optical ringing signalisation TIG-D – a version with an additional receiver

TIG-SD - a version with an additional receiver and optical ringing signalisation

A high loudness of ringing and very well visible optical signalisation enables connection even in the premises with a high noise level. These telephone devices can cooperate with any automatic telephone exchange with modules of the telephone line intrinsically safe separation. According to customer's requirements the device can operate in the mode of PM impulse or DTMF tone selection.

Telephones are designed in cases made of plastic compounds. The case consists of two parts – a case and a cover connected to the case by a hinge. On the cover there is a membrane keyboard with numeric and alphabetic symbols. The cover is connected to the case by four metal Allen screws.

Technical Parameters:

| | |
|---------------------------------|---|
| Models | IM1 Ex ia I, II 1G Ex ia IIC T5 |
| Nominal signal level | 0 dBm |
| Optical ringing signal | Visible from big distance |
| Selection signal loudness level | At least 90 dB from the distance of 1 m |
| Number selection | PM/DTMF |
| Ambient temperature | -40°C - +40°C |
| Protection | IP 65 |
| Dimensions | 275 x 140 x 90 mm |
| Weight | Approximately 2.5 kg |

Input parameters on terminals La, Lb:

For group I, category M1:

| | |
|----------------|---------------------------------|
| U_{in} max | 60 V |
| I_{in} max | 75 mA |
| P_{in} max | 1.5 W |
| C_{in} max | 0 μ F |
| L_{in} max | 77 mH |
| L/R_{in} max | 11x10 ⁻⁵ H/ Ω |

For group IIC, category 1T5:

| | |
|----------------|---------------------------------|
| U_{in} max | 33.6 V |
| I_{in} max | 35 mA |
| P_{in} max | 1.2 W |
| C_{in} max | 0 μ F |
| L_{in} max | 77 mH |
| L/R_{in} max | 11x10 ⁻⁵ H/ Ω |

A printed circuit board is situated in the case. A receiver with a microphone, an additional receiver and a telephone line enter the case. A signalling LED is placed in the upper part of the case for signalling ringing.

Functions of the telephone:

- Establishing a conversation in automatic operation by means of a telephone exchange
- Calling an operator by pushing "AWIZO" pushbutton
- Immediate connection with a dispatching officer in emergency operation by pushing yellow "DISP" pushbutton
- Immediate connection with a dispatching officer in normal operation by pushing red "DISP" pushbutton, programming any 10 numbers (with 16 digits) selected by means of "M" pushbutton and numbers 0 - 9
- Repetition of the latest selected number by "R/P" pushbutton
- Generating the line interruption (Flash)
- Use of additional services offered by the telephone exchange using *, # pushbuttons

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