



1008122010

## TFIE-1

### IP and SIP Intercom

- ✓ CCoIP/VoIP intercom for industrial environments
- ✓ Dual Ethernet connectivity for redundant networks
- ✓ ONVIF Compatible
- ✓ PoE powered
- ✓ Auxiliary DC power for redundancy
- ✓ DIP functionality for use with AlphaCom audio servers
- ✓ SIP/VoIP functionality for use with 3rd-party systems
- ✓ Dual relay outputs
- ✓ 6 configurable I/Os
- ✓ Dust- and water-protected to IP 66
- ✓ Accessories include Handheld PTT, Headset with ON/OFF and PTT and Handset with PTT
- ✓ Monitoring and self-diagnostics of critical functionality
- ✓ Visible status indicators on front panel

 Industrial Intercom
  UL Certified Intercom
  IP66
  Automatic Volume
  HD Voice
  Automatic Gain Control

 Active Noise Cancelling
  Open Duplex
  Voice Activity Detection

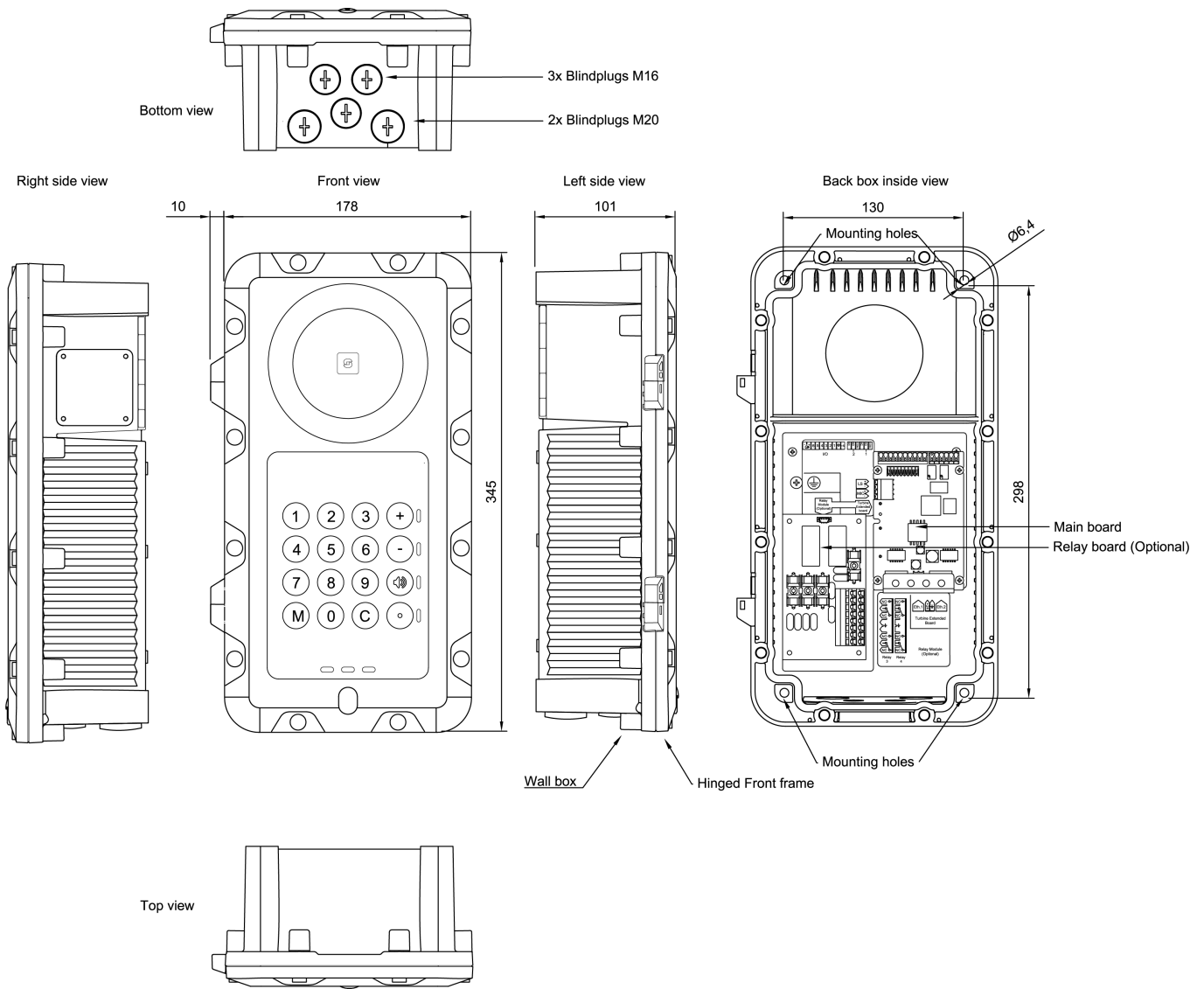
## Description

The TFIE-1 IP industrial intercom station is a rugged device, designed for harsh environments and meets industrial and offshore requirements. The plastic housing is designed to withstand most chemical and environmental hazards found on- or offshore. The TFIE-1 features a full keypad with one programmable button + keys for manual override (PTT) and Cancel.

The intercom station is fully digital and offers crystal clear audio with high output through a 10 W internal amplifier and 78 mm speaker, offering up to 100dB SPL. Active Noise Reduction and Acoustic Echo Cancelling allows for hands-free two-way communication with superior audio quality. Intercom status indicators display the status of the system and are compatible with AlphaCom and Exigo systems as well as SIP functionality for use with 3rd party systems.

See also: [additional documentation on wiki.zenitel.com](http://wiki.zenitel.com)

## Technical Dimensions



# Specifications

## AUDIO

|  |   |
|--|---|
| Noise cancelling - suppression of musical noise          | YES   |
| Noise cancelling - suppression of static noise           | YES   |
| Noise cancelling - suppression of rapidly changing noise | YES   |
| Codecs   | G.711, G.722, G.729   |
| Frequency range, G.722 Codec                             | 200 Hz – 7000 Hz  |
| Audio technology   | Modes: Full open duplex,<br>switched open duplex              |
|  | Adaptive jitter filter  |
|  | Local tone generator  |
|  | Audio mixing - 3 channels                                     |
|  | Sound level detection (scream<br>alarm)                       |
|  | Automatic gain control<br>(microphone)                        |
|  | Automatic volume adjustment                                   |
| Internal speaker amplifier                               | 10 W class D  |
| Automatic Volume Control (AVC)                           | Undistorted and clear audio                                   |
| Acoustic Echo Cancellation (AEC)                         | Prevents audio feedback even at<br>high volumes (95dB)        |
| 10W Speaker  | Matches 10W amp for distortion-<br>free broadcast level sound |

## MECHANICAL

|            |                        |
|------------|------------------------|
| Dimensions | 345 x 178 x 101 mm     |
| Weight     | 1.9 kg                 |
| Mounting   | On-wall box (included) |
| Color      | Yellow + Black         |

| ORDER NUMBER       | ORDER NUMBER DESCRIPTION  |
|--------------------|---|
| 1008122010         | TFIE-1 Full keypad with 1 programmable key                                  |
| 1008122020         | TFIE-2 6 labelled programmable keys   |
| <b>ACCESSORIES</b> |   |
| 1023594100         | 1023594100 EGA-1 Button protection (10x) for TFIE/TFIX/EAPII/EAPFX          |
| 1023533312         | EMMAI-2H Handheld Industrial Microphone, Compact, Waterproof for EAPII/TFIE |
| 1008140100         | TA-10 Connection board with relays for TFIE/EAPII                           |
| 1008140225         | TA-22b 10m cable and plugbox w/PTT for Industrial headset (for TFIE)        |
| 1008140230         | TA-23 Industrial/Marine Handset w/PTT (for TFIE)                            |
| 1008140250         | TA-25 Set of replacement screws (M6) for TFIE/TFIX/EAPII/EAPFX              |
| 1008140260         | TA-26 Set of cable glands for TFIE/EAPII                                    |
| AK5850HS           | A-Kabel TwinCom Headband Headset ATEX                                       |

#### ENVIRONMENTAL

|                       |  |
|-----------------------|--|
| Operating temperature | -40°C to +70°C (-40°F to +158°F)       |
| Storage temperature   | -40°C to +70°C (-40°F to +158°F)       |
| Operating humidity    | 10% to 95% RH (non-condensing)         |
| Storage humidity      | 10% to 95% RH (non-condensing)         |
| Air pressure          | 600 hPa to 1200 hPa                    |
| IP-rating             | IP-66 tested according to IEC/EN 60529 |

## ELECTRICAL

|                           |   |
|---------------------------|---|
| Ethernet connector        | 2 x RJ45  |
| Power options             | PoE or external power supply                              |
| PoE (Power over Ethernet) | IEEE 802.3af standard, Class 0 (0.44W to 12.95 W)         |
| Auxiliary DC power        | 24 VDC nom (16 to 48 VDC)                                 |
| Power consumption         | 2 W (idle) to 12,9 W (max)                                |
| Built-in switch           | Managed, DHCP, Firewall                                   |
| Compatibility             | SIP, ICX-AlphaCom, IC-EDGE, G.711, G.722, G.729, HD Voice |
| Handheld Microphone       | Microphone (bal), PTT                                     |
| Handset                   | Microphone (bal), Speaker (bal), + PTT                    |
| Headset                   | Microphone (bal), Speaker (bal) + PTT                     |
| Digital inputs/outputs    | 6 (configurable input/output/LED-driving)                 |
| Relay outputs             | 2 (250VAC/200VDC, 2A, 60W, 10^8 operations)               |
| Audio                     | Line-in, Line-out   |
| Aux power                 | 1 (tool-free terminals)                                   |

## NETWORKING AND PROTOCOLS

|                                |  |
|--------------------------------|--|
| Ethernet                       | 10BASE-TX, 100BASE-TX , Auto negotiation, Auto MDIX  |
| Protocols                      | IPv4 (with DiffServ), SIP, TCP, UDP, HTTPS, TFTP, RTP, DHCP, SNMP, ONVIF, CCoIP®, NTP                                |
| LAN protocols                  | Power over Ethernet (IEEE 802.3 a-f) Network Access Control (IEEE 802.1x)  |
| Management and operation       | HTTP/HTTPS (Web configuration) DHCP and static IP + IC-EDGE Remote automatic software upgrade Centralized monitoring |
| Advanced supervision functions | E.g. network test, tone test, status reports   |
| SIP support                    | RFC 3261 (SIP base standard)<br>RFC 3515 (SIP refer)<br>RFC 2976 (SIP info)  |
| DTMF support                   | RFC 2833, 2976 (SIP info)  |

## CERTIFICATIONS

|              |   |
|--------------|---|
| Immunity     | EN 60945, EN 50130-4, EN 61000-6-1, EN 61000-6-2, FCC-47 part 15B |
| Emission     | EN 60945, EN 50130-4, EN 61000-6-3, EN 61000-6-4, FCC-47 part 15B |
| Certificates | UL 60950-1, cUL 60950-1, CB to IEC 60950-1                        |

## OTHER SPECIFICATIONS

|          |   |
|----------|---|
| Warranty | 2 Years standard warranty, extendible up to total of 5 years (additional fee) |
|----------|---|

## Accessories



EMMAI-2H

Handheld Compact Industrial Microphone For Exigo/Turbine



TA-23

Industrial Handset for Turbine with PTT



AK5850HS

Ex-approved Headset



AK5850BS Ex TwinCom Helmet Headset w/ear plug connector

Ex-approved Headset with helmet mounting and connector for ear plug



AK5850BHS Ex TwinCom Headband Headset w/ear plug connector

Ex-approved Headset with headband



TA-22B

Industrial Plugbox & Cable for Headset with PTT



TA-10

Relay Module



EGA-1

Button Protection Covers