In the WTC2 terminals, we use optical fingerprint sensors with large scanning areas and high dpi, providing accurate and fast identification. The durability of the optical sensors has been confirmed upon installation and active daily use.

The terminal, WTC2, is an IP-based device for time attendance and/or access control solutions. It operates as part of the BioSmart system, together with the BioSmart Studio software, keeping a copy of the biometric templates and providing match on device.

The terminal can operate in small systems with just a couple of devices, and in large distributed systems with remote administration and updates. The keypad on the terminal has software-defined function buttons to allow in/out, lunch break, and sick leave registrations.

**Highlights**
- Match on device for fast and reliable identification
- Match on smart cards (Mifare/Desfire, HID iClass, Legic)
- Server identification for large databases
- Customization and OEM solutions
- 3 year warranty

**Features**
- Fingerprint optical sensor
- Identification matches can be performed in less than 970 ms
- TFT Display 3.5"
- Touch keypad with software-defined buttons for extended functionality
- TCP/IP, RS485, USB, and Wiegand communications
- Power over Ethernet
- Support of ZFlex Relay Module
- Supports custom wallpapers
### Technical Specifications

| Authentication types                  | Fingerprints or card  
|                                      | Card + Fingerprints  
|                                      | Fingerprints on smart card  
|                                      | Pin + Fingerprints  
| Users                                 | 5 000 (card only)  
|                                      | 4 500 (fingerprint only, card + fingerprint, PIN + fingerprint)  
| Fingerprint templates                | 4 500  
| Event log capacity                   | 100 000  
| Match time (1:1000) in local mode, by fingerprints | < 970 ms  
| Verification time (1:1)              | < 600 ms  
| FAR (False Acceptance Rate)          | $10^{-8}$ - $10^{-9}$  
| FRR (False Rejection Rate), at FAR = 10^{-5}** | 0.01  
| Sensor technology                    | Optical  
| Image size                           | 272x320  
| Resolution                           | 500 dpi  
| Smart card reader                    | MIFARE Classic®/MIFARE® DESFire® EV1 (13.56 MHz)  
|                                      | HID Prox/iClass/iClass SE (125 kHz / 13.56 MHz)  
|                                      | Legic Advant (13.56 MHz)  
|                                      | EM Marin (125 kHz)  
| Screen type                          | TFT, 3.5”, 320 x 240  
| Keypad                               | Touch, 12 buttons, programmatic function buttons  
| Communication                        | Ethernet (100 BASE-T)  
| ZFlex Relay Module support           | Yes  
| Ethernet interface                   | Yes, IEEE 802.3af  
| WIEGAND I/O                          | Output, 26/32 bit  
| Discrete inputs                      | 1  
| Onboard lock control relay           | 12V, 1A  
| Tamper detection                     | 1 sensor – on case opening  
| Power requirements                   | 12V±15%, 0.4 A  
| PoE (Power over Ethernet)            | None  
| Operating temperature                | 0…+50°C (32…122 °F)  
| Housing type                         | Plastic, wall mount  
| Dimensions (HxWxD)                   | 142 x 123 x 41 mm  
| Weight                               | 320 g (11 oz)  
| Certification                        | CE, RoHS2  
| Warranty                             | 3 years  

* Depends on the number of enrolled palms. Affects recognition speed.  
** Calculated value: depends on quality of users' biometric data.