



i-BOX

exception monitoring

*Security, environmental monitoring
& remote site monitoring*

Safeguard equipment and systems

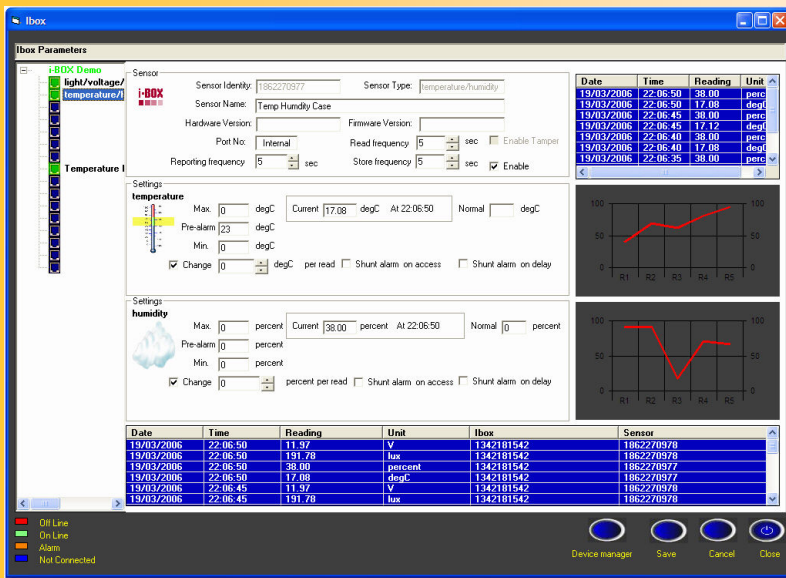
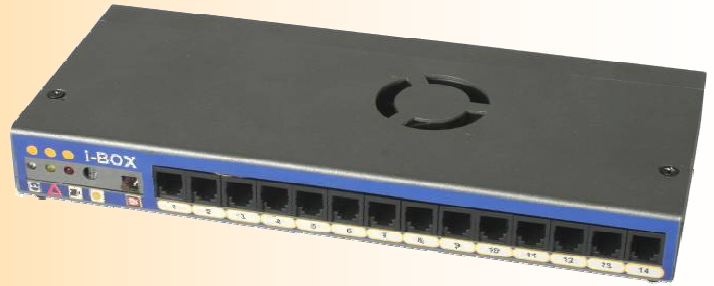


FROM ENTRY-LEVEL
ACCESS CONTROL TO
INTEGRATED SYSTEMS

The i-BOX provides true **RFID access control security, intrusion, environmental monitoring** and **remote-site monitoring** within a single small boxed solution.

Each i-BOX has a built-in temperature, humidity, light level and internal voltage sensor—with 14 ports for plug and play connection of additional smart sensors, together with two access control ports.

Many essential servers, network infra-structures and other business-critical assets are located within cabinets and racks shared with others. The room may have intrusion and access control protection however individual companies have no control of their own assets.



For maximum flexibility, the i-PAL and t-BAR solutions incorporate precision access control. The unique identifier built into the RFID smart card will allow or deny access to each of the doors connected to the system. When connected to an i-BOX, the transaction will be recorded, providing a date and time stamp.

Detailed reports of valid and invalid transactions can be filtered by single or groups of doors, employee name, company or department, individual date or date range. These reports can be printed or exported into a database or spreadsheet for analysis.

If a card is lost, the software has a Replace Wizard which can automatically delete the lost card and replace with a new one—copying the access privileges across.

i-BOX provides extensive environmental monitoring for rooms and cabinet enclosures, the scalability of the system reflects this. Using strategically placed smart sensors, the system administrator has a clear picture of the condition within multiple parts of each enclosure. Temperature measurements can vary significantly, concentration of equipment can produce hot spots—i-BOX can measure the temperature between equipment providing early warning of a potential problem. As the load on servers, switches, and routers varies, so does the heat output. Monitoring suitable conditions within acceptable limits is vitally important—i-BOX monitors temperature, humidity, power, flood, smoke, hot spots and others, preventing environmental conditions exceeding recommended thresholds—this in turn gives un-rivalled protection to sensitive equipment.

Monitoring and Protection from:

- Human Error
- Negligence
- Intrusion
- Sabotage
- Temperature
- Humidity
- Flood
- Loss of Power
- Air Quality

Each cardholder record includes a photo ID which allows the import of an image in .JPG, .BMP, or .GIF format; alternatively a USB camera can be connected to snap a live image of the person directly into the database. This photo image can be displayed each time the card is used on the main transaction screen.

When network cameras are associated the live image on the network camera can be compared with the database photo image.

Administrators may require detailed environmental information and conditions within the rack or cabinet—using the i-BOX gives you a clearer and more up-to-date picture whilst providing alerts and ample warning before conditions become critical or out of control. In addition, i-BOX can be monitored remotely via LAN or WAN.



Plug & Play i-BOX Smart Sensors



check for latest availability of other sensors due to ongoing developments

Door Panel Position Sensor	Detects the position of side panels or doors
Vibration / Shock Sensor	Detects vibrations from intrusion attempts
Temperature Sensor	Standard temperature sensor range -20°C to $+80^{\circ}\text{C}$
Temperature & Humidity Sensor	High accuracy temperature, condensation and humidity sensor
Temperature & Door Contact Sensor	Combined standard temperature and door position sensor
Mains Present Monitoring Sensor	Monitors the availability of mains power
Hot Spot Temperature Sensor	Early warning temperature sensing of equipment
Light Level & Door Contact Sensor	Combined light level and door position sensor
Flood Sensor	Flood sensor with 5 metres of water sensing cable
Smoke & Temperature Detector	Combined optical smoke and temperature detector
Intrusion / Movement PIR	Detection of people for intrusion or presence
Sounder / Beacon Module	Combined sounder and beacon for audio and visual warning
Fan Fail Sensor	Fixed temperature alarm and fan fail sensor
Inputs / Output Module	Two general purpose inputs and 1 relay output module
General Input Module	Two volt-free general purpose input module
Dust Particle Sensor	Monitors the concentration of dust particles in the air flow

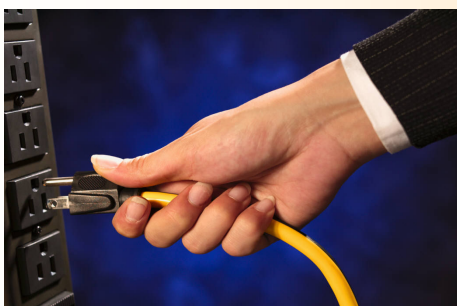
The most common reason for network or automated business process failure is human error; this could be as simple as a network cable being re-patched into the wrong socket or the incorrect removal of a plug. The list of potential problems caused by free access to a cabinet or room is the greatest risk of downtime and the consequential business disruption.

For this reason, core to the i-BOX solution is an enterprise level access control element, external or internal cabinet enclosures are locked using the i-PAL or t-BAR locking handles. The protected doors can only be opened with a valid smart card or by a remote operator and automatically temporarily disables certain alarms eg when opening a rack door, the rapid change in temperature.

I-PAL and t-BAR handles can function as standalone units or online when connected to an i-BOX.

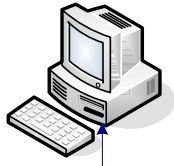
To minimise network traffic, the i-BOX stores all readings locally, exceptions and alarms however are sent immediately to the central server or monitoring station for further action.

Stored data readings can be used for trend analysis when required and all equipment including sensors are permanently monitored.

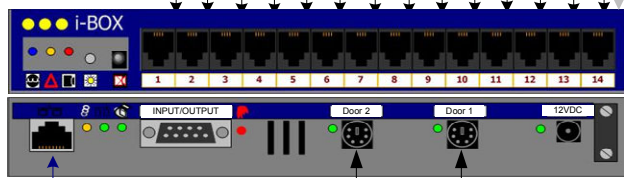
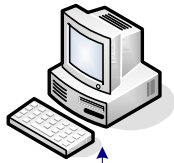


LAN/WAN Ethernet Network

IC-AXGUI
AX software for configuration and support for up to 256 i-BOX units per system



IC-AX500
AX software for configuration and support for up to 4,096 systems



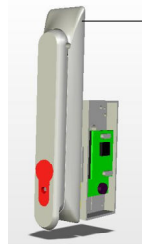
- IC-INT-DC**
Door / panel position sensor
- IC-INT-V**
Vibration / shock sensor
- IC-TS**
Temperature sensor - standard
- IC-HM**
Temperature, humidity & condensation sensor
- IC-TS-DC**
Temperature & door contact sensor
- IC-MI**
Mains present monitoring sensor
- IC-HS**
Hot spot temperature sensor
- IC-LS**
Light level & door contact sensor
- IC-FS**
Flood sensor with 5 metres flood cable
- IC-SD**
Smoke & temperature detector
- IC-INT-P**
Intrusion / movement PIR
- IC-ASB**
Sounder / beacon module
- IC-MFT**
Fan fail sensor
- IC-DPS**
Dust particle sensor
- IC-IO**
Inputs / output module - interface to auxiliary equipment
- IC-PSU**
12v plug top power supply

Mix & Match
Any combination of up to 14 additional sensors per i-BOX to configure your own solution

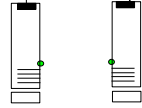
Front Associated Network Camera



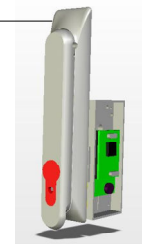
IC-AX25 or UCL10
Front Handle or Cabinet Lock



IC-AX25-DC
Door Position Contacts



IC-AX25 or UCL10
Rear Handle or Cabinet Lock



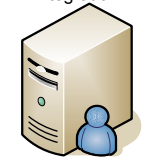
Rear Associated Network Camera



Alarm Triggers
SMS, Email & SNMP Traps



ActiveX SDK for 3rd party integration



Controlsoft Security
First Floor, Elna Building, 4 Commercial Ave
Strijdom Park, Randburg, 2194
South Africa
Tel: +27 (0)11 792 2778
Fax: +27 (0)865 102 744
Email: africasales@controlsoftsecurity.com
Website: www.controlsoftsecurity.com

Controlsoft Security
The Stables Offices, Stones Farm
Sherborne, Cheltenham, GL54 3DH
United Kingdom
Tel: +44 (0)1451 844896
Fax: +44 (0)1451 844090
Email: sales@controlsoftsecurity.com
Website: www.controlsoftsecurity.com

