

# WIRELESS PLANT MONITORING



**T**HE LAE ELECTRONIC WIRELESS COMMUNICATION SYSTEM, COMBINED WITH THE TAB SUPERVISORY SOFTWARE, ALLOWS EQUIPMENT RUN BY LAE CONTROLLERS TO BE MONITORED EASILY WITHOUT THE NEED OF A HARD-WIRED CABLE. THIS SYSTEM WILL BE PARTICULARLY USEFUL IN SUPERMARKETS AND KITCHENS WHERE THE LAYING OF WIRES IS COSTLY AND DIFFICULT, BOTH FOR NEW AND EXISTING UNITS.

THE SWB MODULES DEVELOPED BY LAE ELECTRONICS, ALLOW ALL THE LAE CONTROLLERS FITTED WITH A TTL OR RS485 PORT TO BE INCORPORATED INTO SUCH A SYSTEM.

THE PLANT SUPERVISORY PC, RUNNING THE TAB SOFTWARE, IS CONNECTED VIA AN SWB-C VERSION OF THE MODULE ALLOWING COMMUNICATION TO ALL CONTROLLERS WITHIN THE WIRELESS NETWORK

THE CONTROLLERS USE THE SWB-R MODULE VERSION, SO THAT ONCE CONNECTED THEY WILL AUTOMATICALLY BECOME PART OF THE NETWORK.

## EASY-TO-INSTALL AND POWERFUL

The radio communication protocol used, allows a "mesh" type wireless communication network to be created. This means that the data may reach even the furthest controller via SWB-R modules linked through the intermediate controllers. In this way, the actual creation of a network is greatly simplified. To add a controller to an existing network, you just have to ensure it is within 30-40m of an individual module. If there are no SWB-R modules within communications range, a stand-alone SWB-R can be powered up half way, to boost the signal and bridge the gap. This style of network can easily cover even vast areas with controllers separated by long distances.

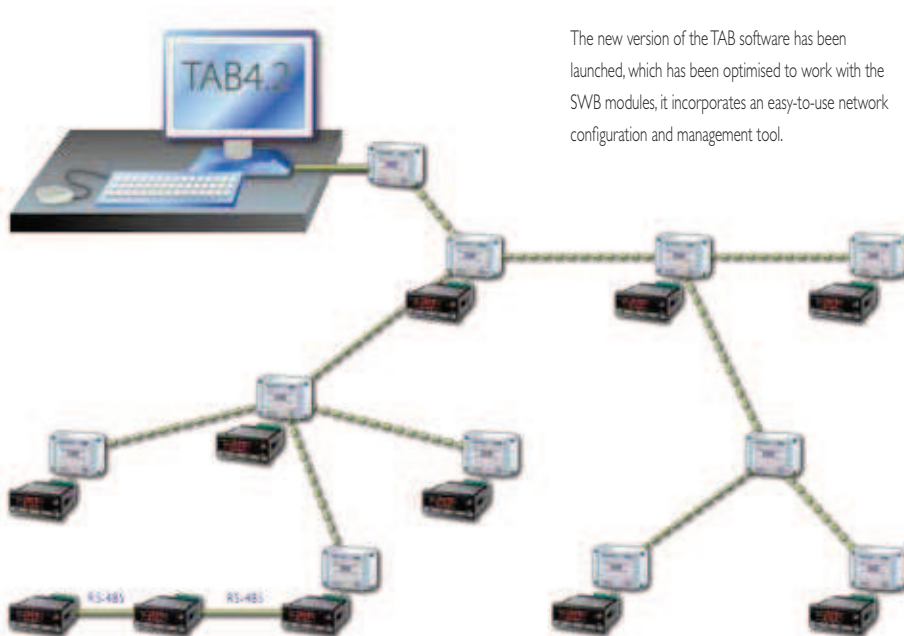
## SAFE AND RELIABLE

Once that the installation procedure has been performed successfully, the network consisting of SWB modules will automatically close the access to any other foreign wireless device which may work on the same radio channel. In this way no interference and intrusions of any type are possible and therefore data reliability and integrity are ensured.

## FLEXIBLE

The SWB modules may be used to create a fully wireless network (a module for each controller); to connect segments of a cabled RS485 line to the wireless network (more controllers with RS485 port connected to an SWB-R module), or to add individual controllers to an existing network without laying additional cables.

## SWB-R MODULE



## TECHNICAL SPECIFICATIONS OF SWB MODULES

- Radio frequency band: ISM 2.4GHz
- Range: up to 40m indoor with obstacles
- Serial port SWB-C: RS232 on DB-9 connector  
SWB-R: selectable TTL/RS485, on Ampmodu II 4-way connector
- Max. number of peripherals on RS485 port: 63
- LED's: power supply / associated to network, serial port transmission, serial port receive
- Power supply: 230Vac/3W
- Dimensions: 110x75x53 mm

## COMPONENTS OF THE SYSTEM TO BE ORDERED

- TAB4.2 software
- SWB-C module, PC side
- SWB-R modules (one for every controller or one for every "x" controllers wired with each other through the RS485 serial line)
- Connection cable from SWB-C module to a PC
- Connection cable from SWB-R module to a controller