



# HIRSCHMANN

A **BELDEN** BRAND

## New Product Bulletin

NP 1016HE

### Hirschmann™ WLAN Controller

By launching its new BAT WLC Controller, Belden® is extending its proven Hirschmann™ BAT program to include a new class of device for WLAN data transmission in an industrial environment. This enables even large-scale wireless networks with up to a hundred access points to be configured and managed from a central location.



### The new Hirschmann™ BAT-Controller WLC Can be Used for Centralized Management of Large WLAN Networks

More and more WLAN applications are being used in the field of automation. The new IEEE 802.11n standard enables data rates of up to 300 Mbit/s while simultaneously extending the range and stability of wireless transmissions. Centralized management guarantees secure operation in an industrial network and provides the necessary overview. The new Hirschmann™ BAT-Controller WLC was especially developed for this purpose. There is no need to replace existing Hirschmann™ access points from the BAT range with new devices designed to use controllers – these access points can be operated either with or without controllers. This means that your WLAN can be extended step by step and – when it becomes necessary – supplemented by a Hirschmann™ BAT-Controller WLC.

Hirschmann™ BAT-Controller WLC are available in three versions:

- Hirschmann™ BAT-Controller WLC25, which can manage up to 25 access points
- Hirschmann™ BAT-Controller WLC50 and Hirschmann™ BAT-Controller WLC100, which can manage up to 50 and 100 access points respectively.

### Product Features

- Automatic configuration and central management of all the access points in the WLAN
- Compatible with all Hirschmann™ access points in the BAT families BAT-rail and F
- Full throughput of payload data as per IEEE 802.11n for each access point
- Integrated IP router with firewall
- User authentication compliant with IEEE 802.1x, RADIUS and LEPS
- Roaming possible across a number of subnetworks (in preparation)
- Automatic frequency management in the 2.4 and 5 GHz waveband
- High availability achieved through redundancy and backup mechanisms
- A number of WLAN networks can be linked using the VPN gateway function
- 19" unit for use in control rooms



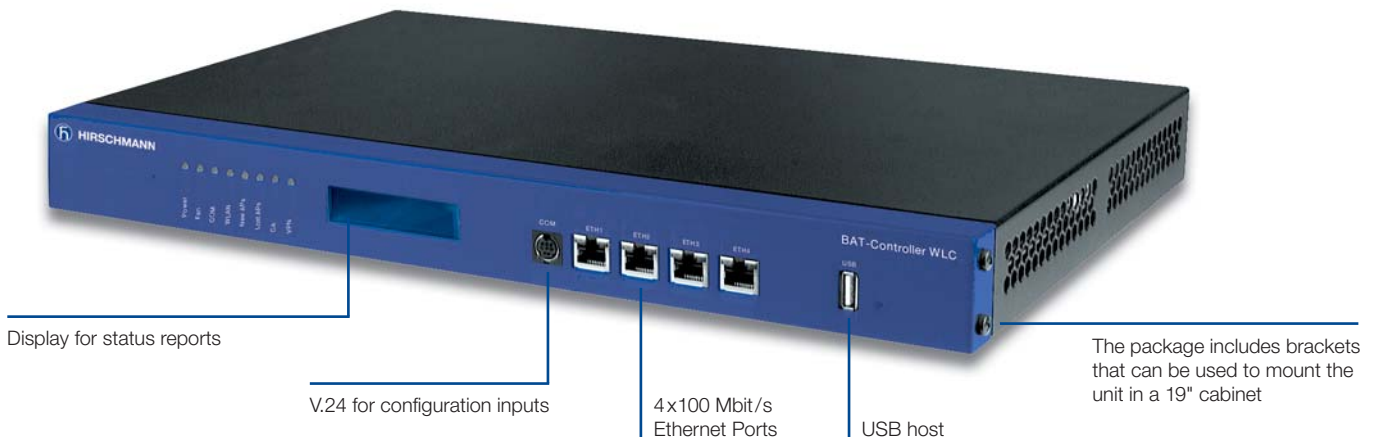
The Hirschmann™  
BAT-Controller WLC  
guarantees high  
availability for your  
WLAN.

## The Hirschmann™ BAT-Controller WLC




Even while the network is still being set up, the Hirschmann™ BAT-Controller WLC will locate all its existing access points, check that they have the correct firmware and configure them as appropriate for the current application. This saves the administrator a great deal of work from the very start. While the network is then in operation, the Hirschmann™ BAT-Controller WLC makes all the necessary network information available. In the event that one access point fails, the controller immediately recognizes which device should take over, and links that unit into the network. There is no longer any need for the management software to interrogate data from each individual access point. This approach reduces the load on the network and makes the information available more quickly.

You can use the Hirschmann™ BAT-Controller WLC to implement other functions that would not be possible without a complete overview of the WLAN. For example, the network can be set up to minimize overlaps and interference between individual access points. The WLAN Controller can also operate as a centralized firewall and security instance between the cabled part of the network and the wireless part. And the Hirschmann™ BAT-Controller WLC can also be used as a VPN gateway to link a number of WLAN networks together, even over very great distances. This is particularly valuable for companies who operate at a number of different locations.





## Technical Data

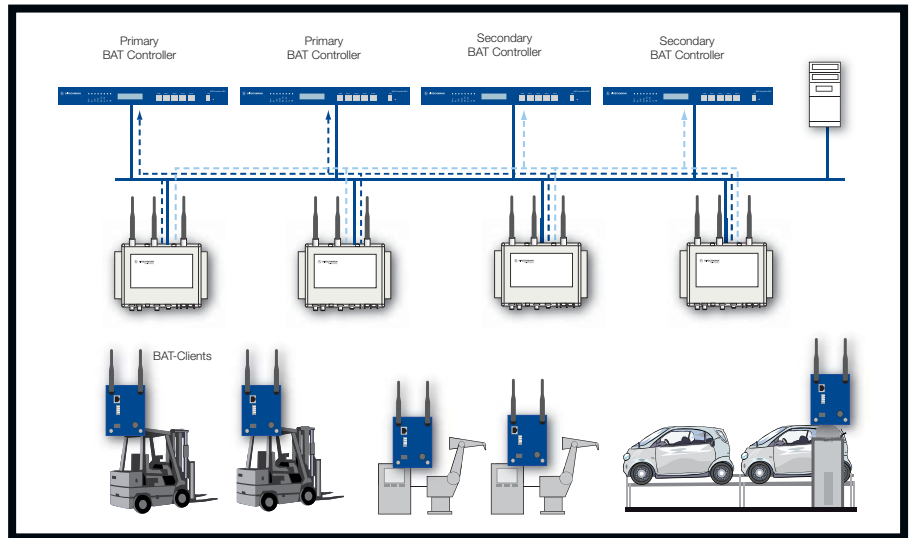
Port-Type and Number			
			
<b>Type</b>	BAT-Controller WLC25	BAT-Controller WLC50	BAT-Controller WLC100
<b>Order Number</b>	942 034-001	942 034-002	942 034-003
<b>Smart Controller Technology</b>	The WLAN Controller uses wireless cell or SSID to support a number of ways of transmitting user data: <ul style="list-style-type: none"> <li>• Bridged directly to the LAN (maximum performance e.g. for 802.11n-based access points)</li> <li>• Strictly separated from the LAN via VLAN (e.g. for WLAN guest access)</li> <li>• Tunneled centrally to the controller* (layer 3 tunneling across IP networks)</li> </ul>		
<b>Supported Access Points</b>	All BAT54 and BAT300 access points		
<b>Interfaces</b>	4 individual ports, 10/100/1000 Mbit/s Ethernet		
<b>USB 2.0 Host Port</b>	USB 2.0 high-speed host port for connecting USB printers (USB print server) or serial devices (COM port server) Bidirectional data exchange is also possible (max. 480 Mbit/s)		
<b>Serial Interface</b>	Serial configuration interface/COM port (8 pole mini-DIN): 9,600–115,000 Baud, can be used to connect an analog /GPRS modem		
<b>Management Software Included</b>	<ul style="list-style-type: none"> <li>LANconfig               <ul style="list-style-type: none"> <li>• Configuration program for Microsoft Windows, including a convenient Setup Wizard. Possibilities for group configuration, simultaneous remote configuration and management of several devices via an IP connection (HTTPS, HTTP, TFTP). Project-related, user-related or global default settings for the configuration program. Automatic storage of the current configuration prior to every firmware update. Exchange of configuration files between similar devices, e.g. for migrating old configurations to new BAT products.</li> </ul> </li> <li>LANmonitor               <ul style="list-style-type: none"> <li>• Monitoring application for Microsoft Windows for (remote) monitoring and logging of equipment and connection status of BAT devices, including PING diagnostics and TRACE with filters and provision for storing the results in a file. Search and comparison functions for TRACE output. Wizards for standard diagnostics. Export of diagnostic files for support purposes (contain bootlog, system info and device configuration without passwords). Graphical representation of parameters (indicated by appropriate symbols in the LANmonitor view) plus chronological sequence and tabular comparison of minimum, maximum, maximum and average values in a separate window, e.g. for transmission and receiving speeds, CPU load, available memory.</li> </ul> </li> <li>WLANmonitor               <ul style="list-style-type: none"> <li>• Monitoring application for Microsoft Windows for visualizing and monitoring BAT WLAN installations, including Rogue AP and Rogue Client visualizations</li> </ul> </li> </ul>		

\* Feature currently in preparation



## High-availability WLAN Network

Hirschmann™ access points and clients in the BAT series are connected redundantly to the WLAN network via the Hirschmann™ BAT-Controller WLC. The BAT Controllers themselves are also connected together redundantly, with the secondary controllers functioning as backup for the primaries. In the event that one controller fails, the other automatically takes over its access points and clients, which can also continue to operate without being connected to a controller for a period of time that is arbitrarily configurable. This is possible because only control data is exchanged between controllers and access points or clients; their payload data is passed directly for example to a server.



## Always the Right Solution

Belden is one of the world's leading suppliers of signal transmission solutions including cable, connectivity and active components for mission-critical applications ranging from industrial automation to broadcast studios and alternative power generation. Belden offers an extensive and highly specialized product portfolio of signal

transmission solutions for information, control and field levels, which the company produces and markets under its proprietary Belden®, Hirschmann™ and Lumberg Automation™ brands. We would welcome the opportunity to tell you more about our extensive industry portfolio and Belden worldwide service.

Further information and technical data are available online at [www.beldensolutions.com](http://www.beldensolutions.com). You can also contact our sales team directly by dialing +49 (0) 7127/14-1809.