AWIN GW100 WirelessHART Gateway
Making Field Wireless Easy

Connects field instruments and aggregates information for process monitoring
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Introduction

ABB AWIN GW100 WirelessHART Gateway

AWIN GW100:

- Specifically designed for:
  - Process monitoring applications (non-critical)
  - Process industries (e.g., oil, gas and chemicals)
  - Operations in hazardous areas: ATEX Zone 2
  - Installations inside field junction boxes
- Creates and manages a secure WirelessHART network
- Connects both native WirelessHART instruments and wired instruments with WirelessHART adapters to host systems
- Host systems include: Totalflow RTUs, System 800xA and ABB Ability™ platform

1 For ABB Ability™ connectivity additional components are required

Built-in intelligence enables quick and effortless WirelessHART device connection
Product Features

AWIN GW100:
- Works with traditional control systems, as well as ABB Ability™
- Supports connectivity to standard WirelessHART devices
- Protects WirelessHART data with 128-bit AES encryption
- Supports up to 25 WirelessHART devices
- Integrates easily with Totalflow RTUs and System 800xA
- Can be powered by traditional 12/24 VDC or solar powered battery
- Suitable for hazardous area installation (ATEX Zone 2)
- Available as an option with ABB’s Select I/O for extending coverage using wireless input signals
- Uses a built-in feature to track WirelessHART network performance and provides early warnings and alerts
- Converts WirelessHART data to ModbusTCP data for easy integration into almost any control system
Typical Applications

**Process monitoring**
- Wireless temperature monitoring
- Wireless pressure monitoring
- Wireless level monitoring

**Asset monitoring**
- Wireless corrosion monitoring (e.g. on pipeline)

**Gas monitoring**
- Wireless toxic gas monitoring
- Wireless combustible gas monitoring

**Wired to wireless signals**
- Wired instruments can go wireless using wireless adapters
Typical Use Cases

Connecting Native WirelessHART Instruments

Such as:
- Wireless temperature instrument
- Wireless pressure instrument

Well-suited for non-critical applications

Wireless temperature transmitter
Wireless temperature transmitter with harvester
Wireless pressure transmitter
Typical Use Cases

Connecting Wired HART Instruments Wirelessly
- Using wireless adapters to process input signals

Well-suited for non-critical applications

Line powered WirelessHART adapter

Battery powered WirelessHART adapter

Extend with a variety of HART devices by enabling wireless communication.
Wireless Coverage
Practical issue: How to extend Wireless Range?

Use of WirelessHART repeaters

– Reliability is of utmost importance to the process industry. However, a wall (brick or concrete), metal structures or trees may have an impact on possible communication links. This is where the advantage of mesh networking comes into play.

– In a well-designed WirelessHART network, every device should have multiple neighbors within its effective range. These can be regular WirelessHART instruments or dedicated repeaters.

– A WirelessHART network can only operate as a strong mesh network if redundant paths are available.

Improve reliability by creating a strong mesh network using WirelessHART nodes as repeater. ABB’s TTF300-W is well suited for this purpose.
Customer Benefit

Why Go Wireless?

- Less cost per input signal
- Quick installation
- Easy accommodations of alterations to product scope
- Reduced documentation
- Reduced footprint compared to wired alternative

go wireless ....
Customer Benefit

Where are the savings?

1. Project cost savings
   Built-in intelligence significantly reduces the cost of engineering wireless input signals – both in the gateway and System 800xA.

2. Project time savings
   Automated engineering reduces manual work to a minimum.

3. Training cost saving
   Simple and intuitive design eliminates the need for specialist training, and setup requires no special tools.

4. Documentation savings
   Using single-click, as-built functionality simplifies documentation.

5. Maintenance savings
   Built-in features track network performance and simplify troubleshooting.

All these savings without compromising the process measurements
All product documentation is available at abb.com

Includes:
- Data sheet
- Brochures
- User manuals
- Certificates
- Success stories
- etc.
Value summary
Operations can go wireless quickly and easily with AWIN GW100

- Simple and intuitive setup
- No need for special training
- Easy configuration of WirelessHART networks
- As-built, self-documentation functionality
- Network performance tracking, logging and reporting
- ABB WirelessHART devices easily connect to ABB AWIN Gateway
- Simple connectivity to Totalflow RTUs and System 800xA
Contact information

For technical support & questions

Contact your local ABB representative.

Contact center details can be found here.