



Measurement & Analytics | Measurement made easy

Go Wireless

Instruments and integration solutions for temperature, pressure, level, flow and density measurement

Power and productivity
for a better world™



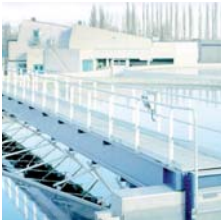
Measurement made easy

Serving your industry

Whether in oil and gas, chemical, power, water and wastewater or any other industry, increased plant efficiency often starts with reliable measurements of process parameters like temperature and pressure.

With ABB's measurement products you are more than one step ahead.

1 Water and waste water | 2 Power and industrial steam | 3 Chemical and petrochemical | 4 Oil and gas | 5 Pulp and paper | 6 Minerals | 7 Metals | 8 Food and beverage | 9 Marine



Wireless measurement products

Enabling the future

ABB is a pioneer in the Internet of Things, Services, and People. Our innovative measurement and analytical technology is constantly developed to bring increasing levels of connectivity in a secure way.

The ABB wireless platform enables users to access important process and plant data wirelessly and securely leveraging the latest available technologies.

The result includes WirelessHART as a standard:

- Temperature sensor TSP300-W
- Temperature transmitter TTF300-W
- Pressure transmitter 266



Lasting batteries

Reliable networks

ABB's wireless devices are extremely efficient due to their unique energy management based on an ultra low power design. The significantly extended battery life increases the reliability of your network. Much faster update rates are possible. The battery replacement intervals can be tremendously reduced.

- Ten-year battery life at up to 32 second update rate in reference conditions
- Non proprietary D size Lithium cells can be procured locally
- Battery residual life configurable as dynamic burst variable through DTM
- ABB battery replacement in Class I Div 2 (intrinsically safe) areas can be accomplished

Wireless instrumentation network deployment made easy

- Common HMI platform for easier network access, device parameterization and troubleshooting
- ABB WirelessHART devices can be configured with common HART Handheld terminals
- ABB delivers pre-configured wireless devices for your network, for a quick, reliable and cost-effective deployment



Wireless solutions

From small to large projects

Basic



With the ABB Wireless 'Basic' solution for the deployment of your wireless network, you receive remote support consisting of:

- Device commissioning training
- Virtual site survey
- Network deployment feasibility report and proposal
- Factory pre-configured wireless modules

**Measurement made easy:
the ready-to-go solution**

Full



With the ABB Wireless 'Full' solution for the deployment of your wireless network, you receive on-site engineering support for trouble-free WirelessHART network deployment:

- Device commissioning training
- Site survey
- Network deployment feasibility report and proposal
- The wireless modules are pre-configured at the factory
- Wireless network on site deployment and commissioning
- Optional DCS connectivity

**Measurement made easy:
the ready-to-go turn-key solution**

Pro



With the ABB Wireless 'Pro' solution you receive customized deliverables according to the large scale project scope, from engineering to start up.

**Measurement made easy:
the individual turn-key solution**

Measurement made easy

Enjoy new independence

ABB's measurement products enable:

- Reduced installation costs by 30% compared to wired HART*
- Faster implementation time: up to 75% faster, no trenching and backfill
- Complete remote access to device diagnostics
- Smaller installation footprint: no junction boxes and cabling infrastructure
- Scalability: easy installation of additional measurement instruments
- Measurement and communication with installations that were not feasible with wiring e.g. mobile assets
- Energy Harvester equipped devices allow you to boost the potential of the mesh network infrastructure for maximum network reliability

* based on approx. 50 transmitters.

Your process measurements are now easier to implement in more locations with greater flexibility, increasing plant performance and efficiency.



Energy Harvester

A fundamental innovation

ABB has more than 130 years of experience in measurement products.

This sound knowledge has built the strong basis for achieving a fundamental technological innovation:

Welcome to the world of truly autonomous measurement enabled by energy harvesting.

The world's first self-powered wireless measurement devices requiring no wiring, no external power supply and ideally no battery replacement.



Truly autonomous measurement

A new freedom is born

How ABB makes measurement easy for you

The Energy Harvester is powered by an on-board micro-thermoelectric generator (micro-TEG), which is driven by the temperature difference between the process and the surrounding environment.

The micro-TEG (Thermal Energy Generator) provides a robust, flexible to install and compact solution for energy harvesting from either hot or cold processes. With many industrial processes having an abundance of heat which is normally lost, the power generated by the TEG is sufficient to operate wireless devices in a variety of locations enabling faster update rates or enabling longer battery replacement intervals.

The TEG allows you to install a wireless device with fast update rates down to one time per second. This enables you to improve uptimes while reducing maintenance expenses.

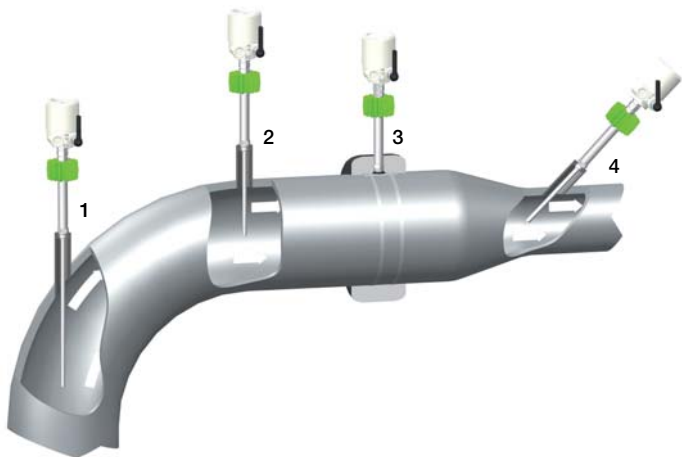
Temperature transmitters powered by temperature – Measurement made easy!



Flexibility to add anywhere Installation options

Making commissioning trouble free.
ABB's Energy Harvester is used in
various applications and industries.

Several installation options are possible to integrate the WirelessHART temperature sensor TSP300-W with Energy Harvester into your process

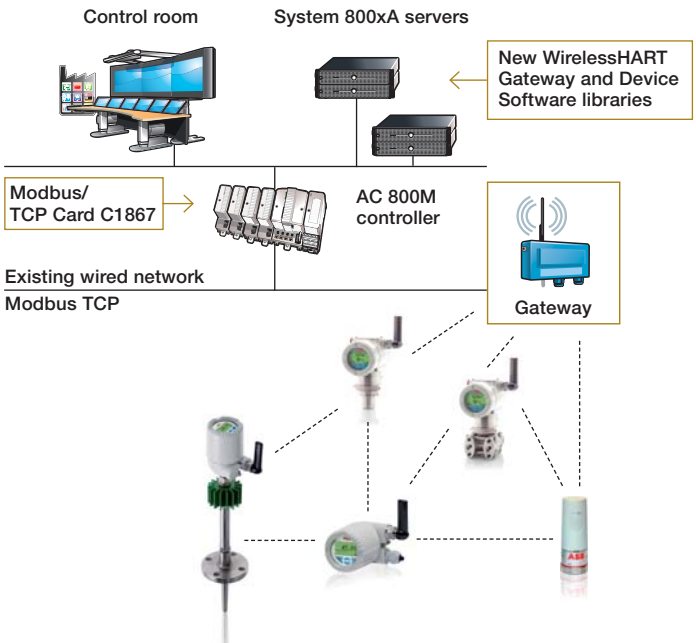


1 Straight insertion inside an elbow pipe | 2 Straight insertion into straight pipe section | 3 Installation on the pipe via surface mount option | 4 Insertion into pipe at a certain angle

The Integrated WirelessHART Solution from ABB

ABB's 800xA WirelessHART solution enables our customers to:

- Significantly reduce training costs – Continue to use 800xA with WirelessHART devices in the same way as wired HART devices
- Reduce installation time – easily and quickly use variables with new function libraries
- Efficiently manage wireless assets from a single access platform – Gateway and device specific DTM's that fully exploit the capabilities of WirelessHART and are all accessible from 800xA



Increased plant performance

Safety, efficiency and flexibility

The challenge: Monitor process temperature without wiring for control system connectivity nearby.

The solution with Energy Harvester: The temperature sensors were installed and visible on the plant control network within one hour.

“The EnergyHarvester is an out-of-the-box that can be installed and commissioned in a very short time. At present, this type of product is only available from ABB.”

(A leading chemical company)

“I am very glad to be able to efficiently use the heat from the process to power our devices and dramatically extend the reliability of the measurement.”

(A leading oil and gas company)

A wireless world of instruments and integration solutions for the reliable measurement of temperature, pressure, level, flow and density.

Measurement made easy!



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Note:

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