LWT300 series (Modbus) Quick Start Guide

Unpacking

If you are reading this document, you have already opened the box containing your instrument. While following the basic safety instructions provided below, proceed with unpacking the content of this box.

Basic safety

Personnel

**WARNING**

*Only properly certified and authorized personnel* should be charged with instrument installation, electrical connection, commissioning, operation and maintenance.

*Depressurize the vessel* before opening the instrument connection. Any process media released may cause severe injuries.

Carefully *plan* any installation, modification or repair before actually proceeding.

Electrical

**WARNING**

*Do not* make electrical connections unless the electrical code designation stamped on the instrument data plate matches the classification of the area in which you want to install the instrument. Failure to comply with this warning can result in fire or explosion.

Use *only* tools compliant with national insulation standards, e.g., DIN EN 60900.

Use *only* non sparking tools when installing the instrument in hazardous areas.

Improper use

It is prohibited to use the instrument for any of the following, including but not limited to:

- A climbing aid, e.g., for mounting purposes.
- A support for external loads, e.g., as a support for pipes.
- By adding material, e.g., by painting over the name plate, or welding/soldering on parts.
- By removing material, e.g., by drilling the housing.
What’s in the box

- LWT series instrument head¹
- Instrument coupler
- Probe (not shown in Figure 1)
- Quick Start Guide (this document)
- USB key (with user guide, safety guide, datasheet, customer data package [optional])

Should any part of the package be damaged upon reception, contact ABB customer service as indicated on the back cover of your user guide.

¹ The instrument head and coupler are delivered already assembled unless the remote head option was ordered.
Basic physical installation

Below is a list of basic steps necessary to properly install LWT series instruments, as recommended by ABB. All installations should be performed by certified and authorized personnel in accordance with all applicable local security codes (electrical, engineering, etc.).

Here are the basic installation steps:

1. Access and properly secure the installation site (vessel depressurization and cool down, mains power down, etc.).
2. Attach the probe to the head/coupler assembly.
3. Slide the probe in the vessel and attach the probe/coupler assembly on the flange.
4. Connect the mains to the head unit.
5. Power up and configure the instrument.

The steps indicated above are explained in more details in the LWT series user’s guide.

Simple connection diagram

Here is a simple power connection diagram for LWT series instruments installed in a non-explosive location.

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Initial software setup

Initial setup of the instrument is performed via the Easy Setup menu. Below you will find menu items, factory-set values (in bold) and lists of all available values when you click Select from the Easy Setup screen.
<table>
<thead>
<tr>
<th>Submenu</th>
<th>Default value</th>
<th>Available values</th>
</tr>
</thead>
</table>
| **Application Category**        | Water-Based (DC>10) | Water-Based (DC>10)  
Liquid mix. (3<DC<10)  
Oil Based (DC<3)  
Solid (organic)  
Solid(Others)  
Interface |
| **Set PV**                      | Level         | Level  
Distance  
Ullage  
Interface¹  
Thickness¹  
Interface Distance¹ |
| **PV Unit**                     | m (meter)     | m (meter)  
cm (centimeter)  
mm (millimeter)  
ft (feet)  
in (inch) |
| **↓ Empty/Zero**                | Factory-set based on full span of probe length | Customizable |
| **↑ Full/Span**                 | Factory-set based on full span of probe length | Customizable |
| **Max Level Rate**              | Medium: <25cm/min | No Filter  
Very Slow: <1cm/min  
Slow: <5cm/min  
Medium: <25cm/min  
Fast: 1m/min  
Very Fast: <5m/min |
| **Display Line1 View1**         | Level         | Level  
Ullage  
PV Percent  
External Temperature  
Empty  
Distance  
Span  
Probe Length  
Media Level |

All menus available in your LWT instrument are explained in more details in the accompanying user’s guide.

¹ When Interface application category is selected