	<b>WATER TANK 4.1 BATTERY LIMITS</b>		<b>WTM41-BLI-INT01</b>	
			Revision: 00	Status: IFP
	Discipline: PRO	Rev Date: 14/07/2025		Page 1 of 7




**Enapter**

## WATER TANK 4.1 BATTERY LIMITS


**DOCUMENT N°: WTM41-BLI-INT01**

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	<b>WATER TANK 4.1 BATTERY LIMITS</b>		<b>WTM41-BLI-INT01</b>	
			Revision: 00	Status: IFP
	Discipline: PRO	Rev Date: 14/07/2025	Page 2 of 7	

# INDEX

<b>INDEX .....</b>	<b>2</b>
<b>1 PURPOSE.....</b>	<b>3</b>
<b>2 FIELD OF APPLICATION .....</b>	<b>3</b>
<b>3 DEFINITIONS AND ABBREVIATIONS.....</b>	<b>3</b>
<b>4 REFERENCE DOCUMENTS .....</b>	<b>3</b>
<b>5 RESPONSIBILITIES .....</b>	<b>3</b>
<b>6 WATER TANK 4.1 INTERFACES.....</b>	<b>4</b>
<b>7 INTERFACE SPECIFICATIONS.....</b>	<b>5</b>
<b>7.1 H<sub>2</sub>O OUT .....</b>	<b>5</b>
<b>7.2 H<sub>2</sub>O IN.....</b>	<b>5</b>
<b>7.3 OVERFILL.....</b>	<b>6</b>
<b>7.4 MAINTENANCE &amp; AUTOFLUSHING .....</b>	<b>6</b>
<b>7.5 DRAIN .....</b>	<b>6</b>
<b>7.6 DEPRESSURIZE.....</b>	<b>7</b>
<b>7.7 POWER .....</b>	<b>7</b>
<b>7.8 Ethernet connector.....</b>	<b>7</b>

	<b>WATER TANK 4.1 BATTERY LIMITS</b>		<b>WTM41-BLI-INT01</b>	
			Revision: 00	Status: IFP
	Discipline: PRO	Rev Date: 14/07/2025	Page 3 of 7	

## 1 PURPOSE

The scope of this document is to define and describe the battery limits of the Water Tank 4.1. It illustrates the physical interface ports of the machine, to allow its users to integrate it with the other equipment that composes their system.

## 2 FIELD OF APPLICATION

Product codes: WTM41A5S, WTM41A5E

## 3 DEFINITIONS AND ABBREVIATIONS


<b>WT41</b>	Water Tank 4.1
<b>P&amp;ID</b>	Piping and Instrumentation Diagram
<b>User</b>	The integrator of the WT41 in a larger system

## 4 REFERENCE DOCUMENTS

<b>Code</b>	<b>Name</b>
WTM41-PID-00001	Water Tank 4.1 P&ID
WTM41-MAN-00001	Water Tank 4.1 User Manual

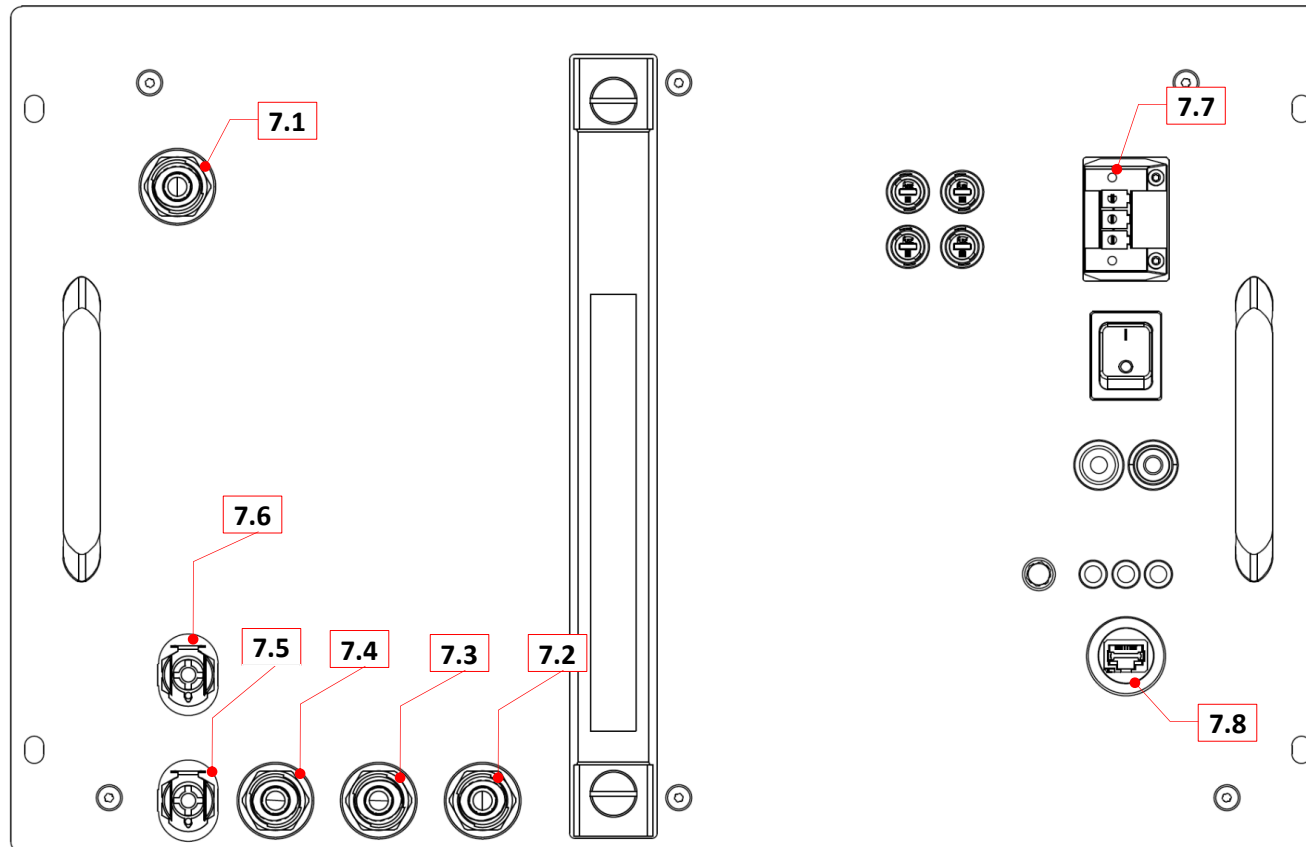
## 5 RESPONSIBILITIES


**User:** It is the user's responsibility to adhere to the ranges and constraints set henceforth. Failure to do so may cause the system to behave in an unpredictable/unsafe behaviour and render void the product warranty.

	<b>WATER TANK 4.1 BATTERY LIMITS</b>		<b>WTM41-BLI-INT01</b>	
			Revision: 00	Status: IFP
	Discipline: PRO	Rev Date: 14/07/2025	Page 4 of 7	

## 6 WATER TANK 4.1 INTERFACES

The following figure shows the positions of the WT 4.1 physical interfaces. All interfaces are located on the front panel.



	<b>WATER TANK 4.1 BATTERY LIMITS</b>		<b>WTM41-BLI-INT01</b>	
			Revision: 00	Status: IFP
	Discipline: PRO	Rev Date: 14/07/2025		Page 5 of 7

## 7 INTERFACE SPECIFICATIONS

The values set in the following tables are operative values to be considered in the user system interface with WT41.

### 7.1 H<sub>2</sub>O OUT

This port is the outlet for the water to go refilling the electrolyser. At the back of this port is a demanding pump that starts operation when lowering of pressure is detected.

<b>Name</b>	H <sub>2</sub> O OUT
<b>Fitting Type</b>	10 mm DM Fit Push-In tube fitting
<b>Fitting Material</b>	POM
<b>Fluid</b>	Deionized H <sub>2</sub> O
<b>Flowrate</b>	3.8 L/min
<b>Pressure</b>	0-2.75 barg
<b>Temperature</b>	Ambient temperature


- The user should connect piping with compatible material.

### 7.2 H<sub>2</sub>O IN

From this inlet port, the Deionized water comes. It is internally checked on its quality by a conductivity sensor to eliminate the electrolyser's possibility of deterioration.

<b>Name</b>	H <sub>2</sub> IN
<b>Fitting Type</b>	10 mm DM Fit Push-In tube fitting
<b>Fitting Material</b>	POM
<b>Fluid</b>	Deionized H <sub>2</sub> O
<b>Flowrate</b>	Upstream equipment flowrate
<b>Pressure</b>	Upstream equipment pressure: 0-6 barg
<b>Temperature</b>	Ambient temperature

- Care should be taken not to attach any pressurised system with a pressure higher than 6 barg.
- The user's upstream equipment regulates the inlet pressure. Operative pressure range should stay between 0 and 4 barg.
- The user should connect piping with compatible material.
- A minimum water flow is required: 0.28 L/min.

	<b>WATER TANK 4.1 BATTERY LIMITS</b>		<b>WTM41-BLI-INT01</b>	
			Revision: 00	Status: IFP
	Discipline: PRO	Rev Date: 14/07/2025	Page 6 of 7	

### 7.3 OVERFILL

Through this outlet port the overfilling water comes out.

<b>Name</b>	OVERFILL
<b>Fitting Type</b>	10 mm DM Fit Push-In tube fitting
<b>Fitting Material</b>	10 mm DM Fit Push-In tube fitting
<b>Fluid</b>	Deionized H <sub>2</sub> O
<b>Flowrate</b>	Upstream equipment flowrate
<b>Pressure</b>	Atmosphere pressure
<b>Temperature</b>	Ambient temperature

- Care should be taken to check and maintain the overfilling line regularly and keep it free of ice or obstructions.
- The user should connect piping with compatible material.
- The user should direct piping to water collector bin to avoid flooding

### 7.4 MAINTENANCE & AUTOFLUSHING

This port is used only for Maintenance action when it is necessary to wash the "H<sub>2</sub>O IN" line and, therefore, the conductivity sensor.


<b>Name</b>	MAINTENANCE & AUTOFLUSHING
<b>Fitting Type</b>	10 mm DM Fit Push-In tube fitting
<b>Fitting Material</b>	POM
<b>Fluid</b>	Deionized H <sub>2</sub> O
<b>Flowrate</b>	Upstream equipment flowrate
<b>Pressure</b>	0 barg - Max Water inlet pressure rate (transient)
<b>Temperature</b>	Ambient temperature

- The user's upstream equipment regulates the outlet pressure.
- The user should connect piping with compatible material.
- The user should direct piping to water collector bin to avoid flooding

### 7.5 DRAIN

This port is used only before maintenance of the water tank.

<b>Name</b>	DRAIN
<b>Fitting Type</b>	CPC 10mm female connector
<b>Fitting Material</b>	POM
<b>Fluid</b>	H <sub>2</sub> O
<b>Pressure</b>	Atmosphere pressure
<b>Temperature</b>	Ambient temperature

	<b>WATER TANK 4.1 BATTERY LIMITS</b>		<b>WTM41-BLI-INT01</b>	
			Revision: 00	Status: IFP
	Discipline: PRO	Rev Date: 14/07/2025	Page 7 of 7	

## 7.6 DEPRESSURIZE

This port is used only before maintenance of the water tank. **Never depressurize the device during operation!**

<b>Name</b>	DEPR.
<b>Fitting Type</b>	CPC 10mm female connector
<b>Fitting Material</b>	POM
<b>Fluid</b>	H <sub>2</sub> O
<b>Flowrate</b>	--
<b>Pressure</b>	0-2.75 bar (transient)
<b>Temperature</b>	Ambient temperature

## 7.7 POWER

This inlet port is needed to provide power to the WT 4.1. The connector needed to plug into this interface is provided by Enapter.

<b>Name</b>	POWER
<b>Fitting Type</b>	PCB 3-pin 7,62 mm pitch female connector
<b>Fitting Material</b>	PA (polyamide)
<b>Current</b>	0-0.5 A
<b>Voltage</b>	110-240 V <sub>AC</sub>
<b>Frequency</b>	50/60 Hz

- Enapter provides the male coupling to connect to this port.

## 7.8 Ethernet connector

This port is needed to provide Ethernet connection to the WT 4.1.

<b>Name</b>	Ethernet connector
<b>Fitting Type</b>	RJ45 – Jack to Jack
<b>Shielding</b>	Fully shielded, 360° shielding contact
<b>Fitting Material</b>	PA (polyamide)