



Probe Specifications

Version 3.0

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This document provides the specifications for 3rd party probes that are compatible with LDSBus and Modbus Devices.

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1 pH Sensor

Item	Model/PN	Connector	Measurement Range	Operating Temperature	Resolution	Accuracy	Application
pH Sensor Probe	DX-100	BNC	0-14 pH	0 ~ 80 °C	-	-	Water Treatment Swimming Pool Sewage Wastewater Aquaculture
pH Sensor Probe	E-1325M	BNC	0-14 pH	0 ~ 50 °C	0.01 pH	±0.01 pH	Water treatment Pool and Spa water

DX-100



E-1325M



LDSBus pH Sensor Adapter



Modbus pH Sensor Adapter



LDSBus / Modbus pH Sensor Adapter

The following specifications are recommended for selecting pH sensor adapter Probe -

pH Range	:	0~14pH
Connector Interface	:	BNC
Zero Point	:	Max. 7±0.5pH
Theoretical slope %	:	≥90% and ≤105%
Internal Resistance	:	≤250MΩ

2 Electrical Conductivity (EC) Sensor

Item	Model/PN	Connector	Cell Constant	Measurement Range	Resolution	Accuracy	Application
EC Sensor Probe	DJS-0.1	BNC	0.1	(1 – 1500 uS/cm)	-	-	Fresh water
EC Sensor Probe	DJS-1	BNC	1.0	(1 – 15 mS/cm)	-	-	Fresh water
EC Sensor Probe	DJS-10	BNC	10	(1 – 150 mS/cm)	-	-	Fresh water

DJS-0.1



DJS-1



DJS-10



LDSBus EC Sensor Adapter



Modbus EC Sensor Adapter



LDSBus / Modbus EC Sensor Adapter

The following specifications are recommended for selecting EC sensor adapter Probe -

Detection Range	:	0.001mS/cm to 1.5mS/cm
Cell Constant	:	K=0.1
Detection Range	:	0.05mS/cm to 15mS/cm
Cell Constant	:	K=1.0
Detection Range	:	0.5mS/cm to 150mS/cm
Cell Constant	:	K=10
Connector	:	BNC

3 Oxidation-Reduction Potential (ORP) Sensor

Item	Model/PN	Connector	Measurement Range	Operating Temperature	Resolution	Accuracy	Application
ORP Sensor Probe	ORP-1/ORTK-777	BNC	-1999 ~ 1999 mV	-	1 mV	±0.1% FS	Fresh water
ORP Sensor Probe	ENV-40-ORP	BNC*	-2000 ~ 2000 mV	1 ~ 99 °C	1 mV	± 1 mV	Fresh water / Salt water

*Needs SMA to BNC Adapter

Note: In the Accuracy specification, FS refers to Full Scale

ORP-1/ORTK-777



ENV-40-ORP



LDSBus ORP Sensor Adapter



Modbus ORP Sensor Adapter



LDSBus / Modbus ORP Sensor Adapter

The following specifications are recommended for selecting ORP sensor adapter Probe –

- Detection Range : -2000mV to +2000mV
- Connector : BNC

4 Dissolved Oxygen (DO) Sensor

Item	Model/PN	Connector	Measurement Range	Operating Temperature	Resolution	Accuracy	Application
DO Sensor Probe	ENV-40-DOX	BNC*	0 - 100 mg/L	1 ~ 60 °C	-	±0.05 mg/L	Fresh water / Salt water
DO Sensor Probe	DO1200 (PTFE)	BNC	0 - 20 mg/L	0 ~ 50 °C	-	+ 2% when measuring temp equal cal temp	Fresh water / Salt water

*Needs SMA to BNC Adapter

ENV-40-DOX



DO1200(PTFE)



LDSBus DO Sensor Adapter



Modbus DO Sensor Adapter



LDSBus / Modbus DO Sensor Adapter

The following specifications are recommended for selecting Dissolved Oxygen sensor adapter Probe

- Type : Galvanic Probe
- Detection Range : 0-50mg/L
- Connector : BNC

5 Thermocouple Sensor

Item	Model/ PN	Connector	Measurement Range	Operating Temperature	Resolution	Accuracy	Application
Thermo couple	TS0005C STMZD	Type K	-40 ~ 4800 °C	-	-	±0.05 mg/L	Fresh water / Salt water

TS0005CSTMZD



LDSBus Thermocouple Sensor Adapter



Modbus Thermocouple Sensor Adapter



LDSBus / Modbus Thermocouple Sensor Adapter

Type K Plugs to terminate Type K thermocouple probes for connection to LDSBus Thermocouple Sensor Adapter

'+' Contact	'-' Contact	IEC Miniature		ANSI Miniature		JIS Miniature	
		Colour	Green	Colour	Yellow	Colour	Blue
Nickel Chromium	Nickel Alloy						

6 Water Level Transmitter

Item	Model/ PN	Connector	Measurement Range	Output Signal (mA)	Power Supply	Accuracy	Application	Remarks
Water Level Transmitter	ALS-MPM-2F	Two Wires	0 – 5 metres, 0 – 10 metres 0 – 20 metres	4-20 mA	12-24 (Volts DC)	0.5% FS	Sensing of Liquid Levels	This probe is available in 5m, 10m and 20m depth versions. Choose at point of order.

Note 1: The Water Level Transmitter connects to the LDSBus Isolated IO Controller

Note 2: In the Accuracy specification, FS refers to Full Scale

<u>ALS-MPM-2F</u>	<u>LDSBus Isolated IO Controller</u>	<u>Modbus Isolated IO Controller</u>
		

7 Contact Information

Refer to <https://brtsys.com/contact-us/> for contact information.

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Appendix A – Revision History

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Product Page: <https://brtsys.com/resources/documentation/brtsys-adapters/>

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Revision	Changes	Date
Version 1.0	Initial Release	15-02-2022
Version 2.0	Updated release	18-05-2023
Version 3.0	Updated the existing Probe Specifications document to make it common for both LDSBus & Modbus devices	08-01-2026