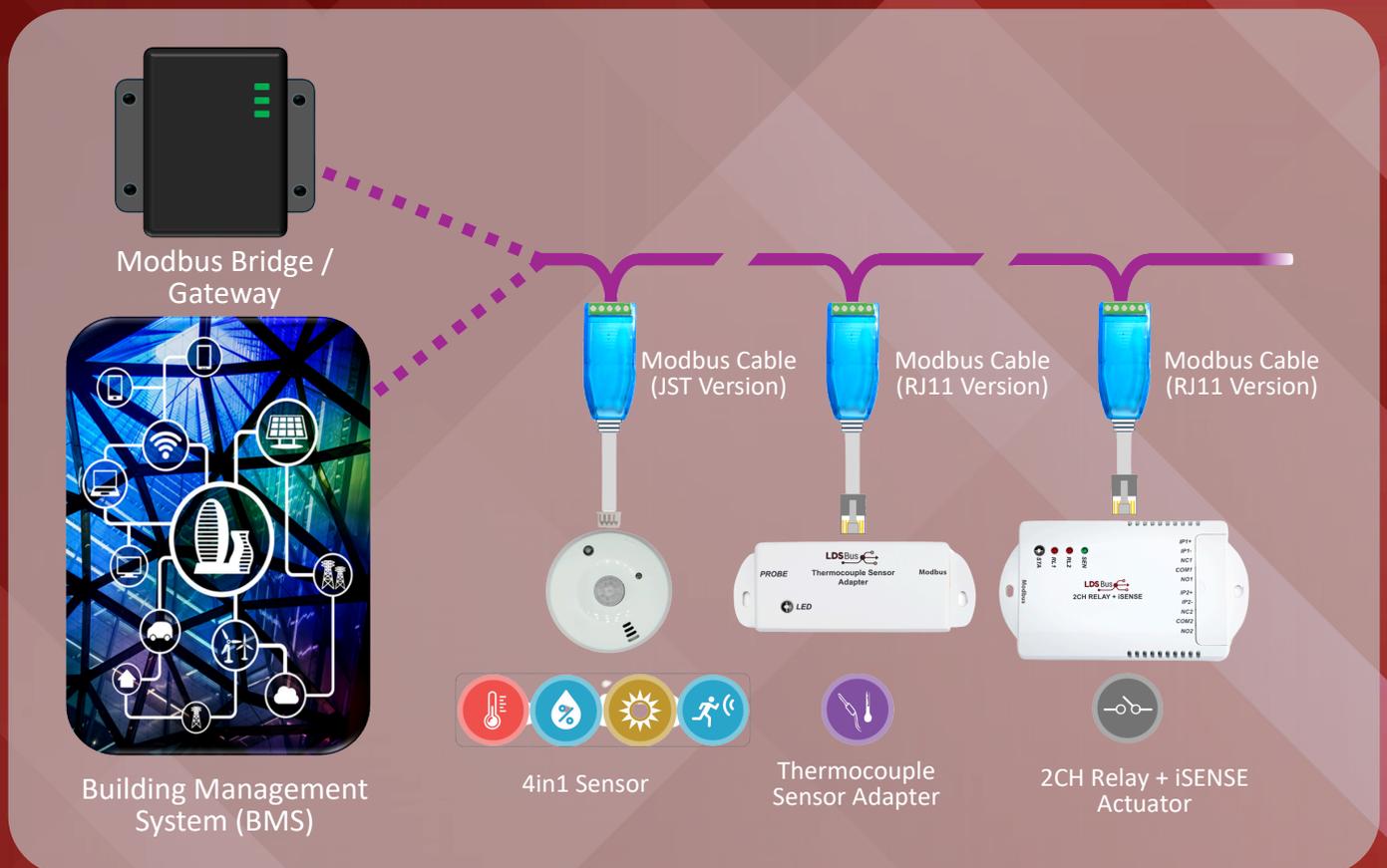# Modbus Products

Modbus is a popular communications protocol used in building management, industrial/automation, agriculture/aquaculture and a whole host of other industries. Connect up to 32 sensors and actuators per bus (up to 247 with repeaters), via a 2-wire RS485-based network in a daisy-chained arrangement at distances up to 1200m (approximate depending on cabling).

Enhance your smart building by connecting our range of Modbus sensor and actuator devices to the existing Building Management System (BMS) or Modbus gateway.

Modbus Bridge / Gateway

Modbus Cable (JST Version)

Modbus Cable (RJ11 Version)

Modbus Cable (RJ11 Version)

Building Management System (BMS)

4in1 Sensor

Thermocouple Sensor Adapter

2CH Relay + iSENSE Actuator

BRT Systems have now extended our range of sensors, sensor adapters and actuators to include Modbus versions, meaning you can connect them directly to your existing Modbus networks via our Modbus cable adapter.

Modbus Sensors

Modbus 4in1 sensor monitors
- Temperature
- Humidity
- Motion
- Ambient Light

Modbus CO2 Multi-Sensor monitors
- Temperature
- Humidity
- Ambient Light
- CO2

Modbus Gas and TrueVOC sensor monitors
- Total Volatile Organic Compound (TVOC) levels
- Index Air Quality (IAQ)

Modbus Sensor Adapters

Modbus Dissolved Oxygen (DO) sensor adapter measures:
- Concentration of oxygen dissolved in a liquid.

Modbus Electrical Conductivity (EC) sensor adapter measures:
- Concentration of dissolved ions (e.g. salts, minerals, etc)

Modbus Oxidation Reduction Potential (ORP) sensor adapter monitors:
- Chemical reactivity
- Water quality

Modbus pH sensor adapter measures:
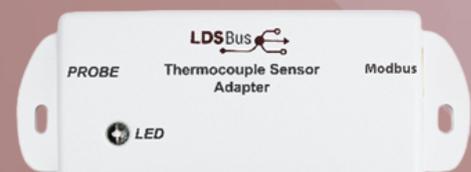- pH levels of fluids
- Chemical reactivity

Modbus Salinity sensor adapter monitors:
- Concentration of dissolved salts in liquid

Modbus Thermocouple Sensor Adapter measures:
- Temperature via K-type probe

Note : BRTSys sensor adapters work with external probe to form a complete sensor
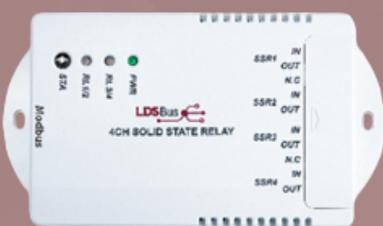
Modbus Actuators

Modbus 2CH Relay / 2CH NL Relay

2 channels for controlling AC and DC devices via Modbus. Available in Latching* and Non-Latching (NL) versions.

*Latching versions retain their state across power interruption.

Modbus 2CH Relay+iSENSE** / 2CH NL Relay+iSENSE**

2 channels for controlling AC and DC devices via Modbus. iSENSE load sensing feature monitors current on each channel individually. Available in Latching* and Non-Latching (NL) versions.

*Latching versions retain their state across power interruption.
**iSENSE - real-time current sensing.

Modbus 4CH Solid State Relay

4 channels of solid-state switching for controlling devices and machines via Modbus. Zero-cross detection feature for efficient switching with minimal noise and electrical stress.

Modbus Isolated IO Controller

Provides isolated inputs and outputs which can be monitored and controlled via Modbus. Features 2 analogue inputs, 2 analogue outputs, 2 digital inputs and 2 digital outputs.

Modbus Trailing Edge Light Dimmer

Designed for dimmable LED lamps and other AC lighting systems.

Applications

Building Management / Commercial

Keep track of things like temperature, humidity, lighting, and air quality in your space. Automatically adjust heating, cooling, and lights to stay comfortable and save energy. Spot problems early—like leaks—and fix them before they get worse.

Data Center / Server Room

Manage data center environments and significantly reduce energy consumption by connecting sensors and actuators that not only monitor, but control temperature and lighting.

Industrial

Reduce system and infrastructure costs, use energy and materials more efficiently, monitoring to ensure regulatory compliance in factories, refineries and plants.

Transport

Use smart systems to collect better data and make the most of things like parking spots, trains, and delivery routes—helping cities and businesses run more smoothly.

Urban Agriculture

Keep an eye on key conditions like water, light, and temperature in urban farms, and automatically adjust valves, pumps, and lights to save resources and grow healthy crops consistently.

Modbus Configuration Utility

Fast and Easy Configuration
The Modbus Configuration Utility provides fast and easy configuration of your Modbus devices, setting parameters such as address, baud rate and termination.

Updates / Calibration / Control Support
It provides Firmware updates and Sensor Calibration (where applicable)

Manual readings and control
Supports reading/writing of device registers to verify that the sensor/actuator is functional. The utility can take manual sensor readings and manual control of actuators.

ModbusConfigurationUtility - 1.1.0.0

Devices:
MS10010101042200036

Device Setting
Baudrate: 9600
Parity: Even
Address: 126
Termination: Off
LED Status: On

Save

Device Info
UUID: MS10010101042200036
Name: DO Sensor
Address: 126
Device ID: 0x800C
Firmware Rev: 3.1

Parameter Setting
Temperature :   25   0~40

Save

Back   Next

ModbusConfigurationUtility - 1.1.0.0

DO Sensor Calibration

Temperature	25.00 °C
Wet the probe in pure water	☑
Shake off excess water drops	☑
Expose the probe to the air Maintain proper air flow	☑
Calibration Result	499.02 mV

Cancel   Update

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