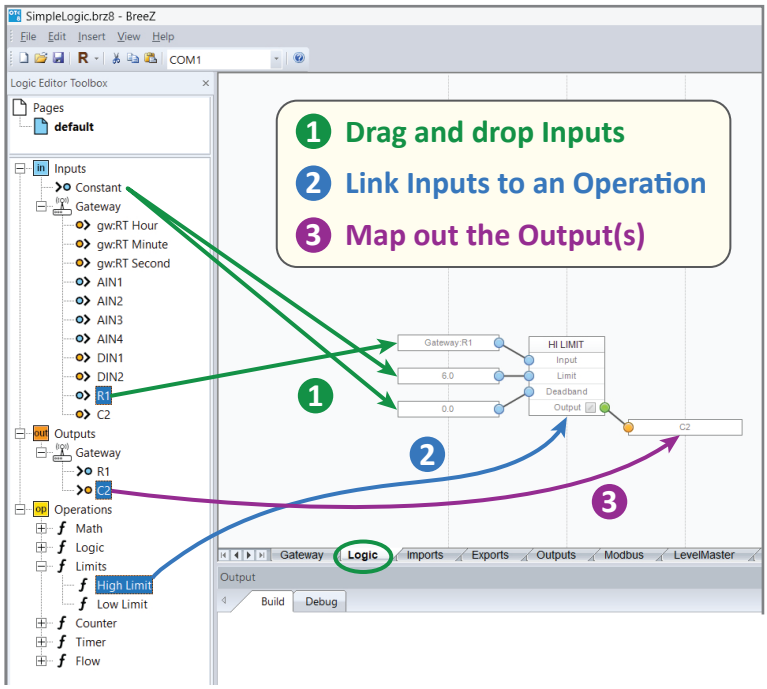
DATASHEET

SIMPLE LOGIC by OleumTech®

OTC

Highlights



- Every OTC Wireless Sensor & I/O Network can enable SIMPLE LOGIC control capabilities
- User-friendly drag & drop logic editor integrated into BreeZ® 8 Configuration Software for managing OTC Network and devices
- SIMPLE LOGIC allows users to customize control executions both locally and wirelessly throughout the OTC Wireless Network with ease
- Available functions: math, logic, limits, counter, timer, and flow
- Enable edge logic for faster decision making and safer operations
- Easily automate remote assets with confidence
- Greatly reduces the need for complex PLC programming
- Video and tutorials available for rapid on-ramping
- All Wireless Gateways support SIMPLE LOGIC*

Powerful Drag & Drop Logic Solution For Every OTC Network

Distributed I/O Control System

Utilizing BreeZ® Software Version 8.0 or later for managing OleumTech OTC Wireless Sensor and I/O Networks, users can take advantage of the new powerful logic control capabilities using any OleumTech Wireless Gateway within the network. Any available system Import can be incorporated into one or more logic functions that execute locally, thereby providing for the immediate control of critical assets at the nearest point. These Imports can reside in the local gateway or may be distributed across the entire RF Network.

The available Wireless Gateways with logic functionality include the OleumTech DH1, DH2, DH2-W, and DH3. When using already deployed Gateways, a firmware upgrade may be required.

Key Applications for SIMPLE LOGIC

ESD / Emergency Shutdown
Tank High / High-High
Wellhead High / Low Pressure Shutdown
Pump Control / Pump Protection
Separator Level Control
Chemical Injection Control
Compressor Start / Stop & Interlocks
Pluger Lift Control
SWD / Produced Water Automation
Advanced I/O Mapping
Remote Valve Control with Fail-Safe

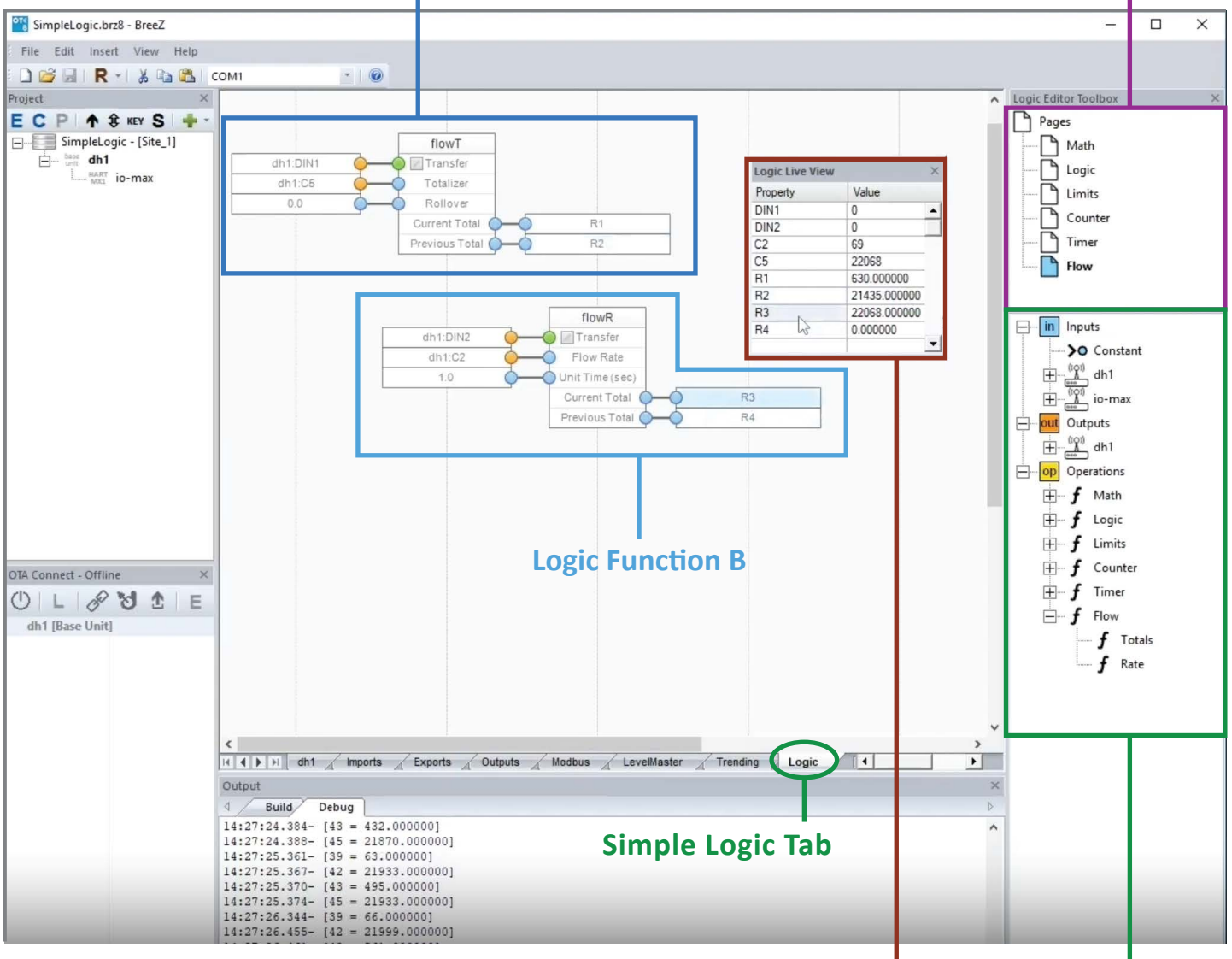
Remote/Wireless Logic Control

Since OTC Wireless Gateways in the same network can share any of their Import Points wirelessly with each other, users can implement logic controls with maximum flexibility and ease. Users can access remote data without having to run wire and conduit between assets with the help of strong, reliable OleumTech wireless connections. Once the programmed logic is executed, the gateway can also share the logic state with other gateways in the network.

System Integration

The entire OTC Wireless Sensor Network and its distributed I/O points are accessible via third-party devices. All OTC Gateways support Modbus and LevelMaster ASCII, while the DH3 also supports MQTT/Sparkplug B protocols over an Ethernet connection.

OleumTech® BreeZ® 8 Software SIMPLE LOGIC User Interface



OTC Wireless Networking Diagram

SIMPLE LOGIC by OleumTech

Built Into Every OTC Network

DH1 Gateway
Onboard I/O (4 AI + 2 DI + 2 DO)
I/O Expandable
Modbus Master/Slave

DH2-W Gateway
Direct, Modular I/O Connectivity
Modbus Master/Slave

Peer-to-Peer
Wireless Communication
(Gateway-to-Gateway, Alway On)

Import points can be shared across Gateways to execute logic operations and perform additional monitoring and control tasks.

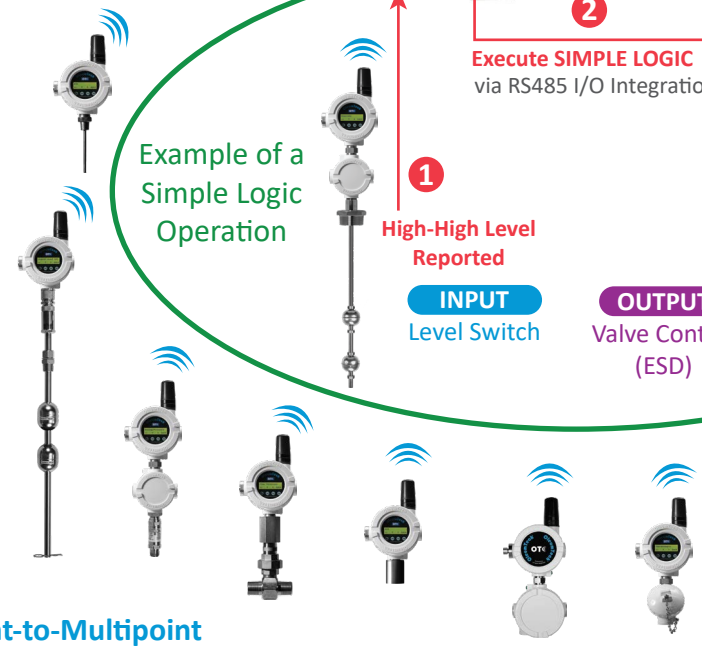
DH2 Gateway
Modbus Master/Slave
I/O Expandable

SCADA/CLOUD/
MQTT

DH3 Gateway

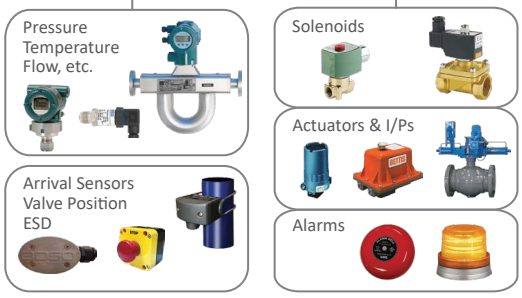
Ethernet / 2 Serial / Data Logging / Web Server
I/O Expandable / Modbus Master/Slave

Example of a Simple Logic Operation



1. High-High Level Reported
   - **INPUT** Level Switch
2. Execute SIMPLE LOGIC via RS485 I/O Integration
3. DO De-Energized
   - **OUTPUT** Valve Control (ESD)
   - Valve Solenoid
   - Valve Closed

I/O Devices



Point-to-Multipoint
Wireless Communication
(Gateway-to-Transmitters)

Self-contained Wireless Transmitters are designated to a single Gateway for reporting data on a predefined transmit interval or based on exceptions to maximize battery life.

Powerful Distributed I/O System + Logic

By combining a highly flexible distributed I/O system with embedded SIMPLE LOGIC solution, OleumTech provides unprecedented freedom, flexibility, and simplicity to monitor, control, and automate critical processes locally and wirelessly and at a fraction of the cost of traditional control systems.

Wireless Gateways

DH1

2 Serial
Modbus Master/Slave
4 Analog Inputs + 2 DI + 2 DO
I/O Expandable via RS485

DH2

1 Serial
Modbus Master/Slave
I/O Expandable via RS485
(Shown with RS485 I/O Expansion)

DH2-W

1 Serial
Modbus Master/Slave
I/O Expandable via RS485
(Shown with I/O Modules)

DH3

Ethernet, 2 Serial, MQTT
Modbus Master/Slave
Data Logging, Web Server
Remote Configuration
I/O Expandable via RS485

Wireless I/O Modules

Wireless Analog Input

4 0-10 V or 4-20 mA Inputs

Wireless Digital I/O

6 Programmable Digital I/O Channels

Wireless Multi-I/O

4 0-10 V or 4-20 mA Inputs
4 Programmable Digital I/O Channels
Modbus Master

RS485 I/O Expansion System

RS485 Power Module

Mounts onto 35 mm DIN Rail
(Shown with I/O Modules)

Analog 0-10 V I/O

2 Isolated Inputs
2 Isolated Outputs

Analog 4-20 mA I/O

2 Isolated Inputs
2 Isolated Outputs

Digital I/O

4 Isolated Discrete Inputs
4 Isolated Discrete Outputs

I/O Modules For the DH1

Analog Input

4 0-10 V or 4-20 mA Inputs

Analog Output

4 1-5 V or 4-20 mA Outputs

Digital I/O

6 Programmable Digital I/O Channels

BreeZ® Software & Gateway Firmware Requirements for SIMPLE LOGIC

Software Version Requirement
BreeZ Configuration Software Version 8.0 or Later
Gateway Firmware Version Requirements
DH3 F/W Version 3.1.2.0 / DH3 F/W Version 2.2.1.0
DH1/DH2/DH2-W F/W Version 4.0.0.7 / DH1/DH2/DH2-W F/W Version 3.1.1.0

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*SIMPLE LOGIC feature requires the use of BreeZ® Software version 8 and latest firmware upgrade for Wireless Gateways as of September, 2026.

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