



Highlights

- Provides 8 programmable digital channels
- Supports any mix of inputs and outputs
- Designed for use with a DH1 Wireless Gateway
- Normally open/closed, counts, pulsed modes
- 10 ms to 2000 ms debounce filter
- 1 Amp sink current for open-drain outputs
- RS485 Serial connectivity
- -40 °C to 80 °C (-40 °F to 176 °F)
- Class I, Division 2 (Zone 2) certified



US Patent #6967589



OTC Transmitters

OTC Gateway

Local
Controller
RTU/EFM/PLC/
DCS/HMI/
Long-haul Radio



Network Infrastructure



Cloud (Analytics)

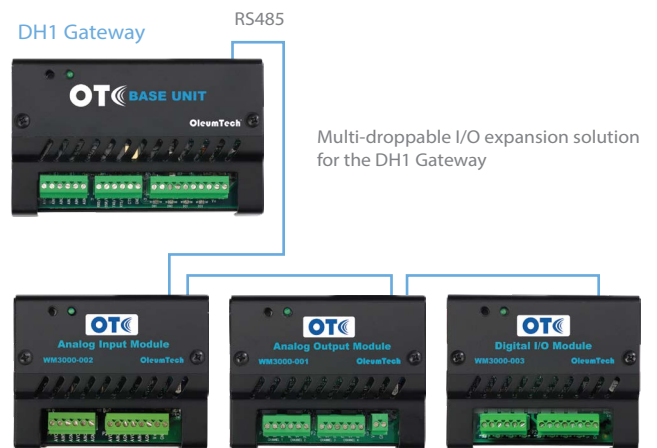
Add Additional Digital I/O to a DH1 Gateway

8 Programmable Digital I/O Channels

The OleumTech® Digital I/O Module is designed exclusively for use with a DH1 Wireless Gateway for expanding 8 additional programmable discrete I/O points. Each channel can be independently controlled as input, counter, output, or pulsed output in any mix of inputs and outputs. The Slave ID and device parameters are also programmed using the OleumTech BreeZ® Configuration Software.

Low-Power, Reliable

The Digital I/O Module is certified for use in Class I, Division 2 (Zone 2) hazardous locations and accepts 9-24 Vdc external power. Its compact footprint easily fits inside a NEMA enclosure. The Digital I/O Module is equipped with two RS485 Serial ports (RJ-45) for supporting multi-drop applications.

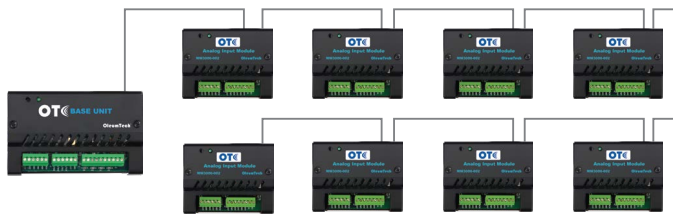
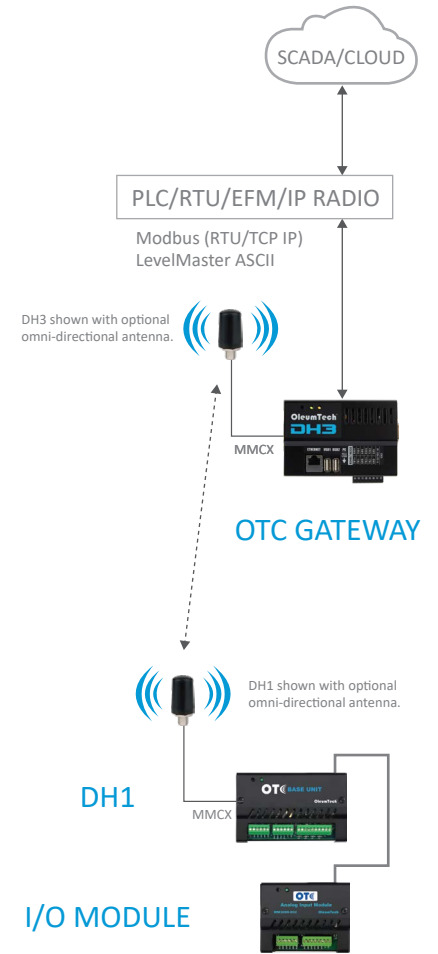


Digital I/O Module

Technical Specifications

HARDWARE FEATURES	
Device Functionality	· Digital Input/Output Expansion Module for DH1 Wireless Gateway
I/O Interfaces	· 8 Programmable Channels for Digital Inputs and Outputs · Dry Contact - Internal 120 K Pull-Up Resistor on Each Port · Discrete Input Voltage: 24 Vdc (Max); ViH = 1.8 V; ViL = 0.5 V · Discrete Input Current: Less than 1 mA · Debounce: Software Configurable 10 to 2000 ms
Outputs	· Open-Drain with 1 A Sink Current
Interface	· Terminal Block for I/O & External Power Input · RS485 (RJ-45 2-Wire), Modbus / RTU Protocol
CERTIFICATIONS & COMPLIANCE	
Over Voltage Rating	· Transient Voltage Suppressor on Each Port
Safety	· Class I, Division 2, Groups A, B, C, D T4; Ex nA IIC T4 · Class I, Zone 2 AEx nA IIC T4 · ATEX: Sira 14ATEX4143X; Ex nA IIC T4 Gc · IECEx: SIR 13.0055X; Ex nA IIC T4 Gc
MECHANICAL SPECIFICATIONS	
Dimensions	· 3.8" (W) x 3" (H) x 1.4" (D) / 96.5 mm (W) x 76.2 mm (H) x 35.6 mm (D)
Package Dimensions	· 8" (W) x 6" (H) x 2.5" (D) / 203 mm (W) x 152 mm (H) x 63 mm (D)
Weight	· Net: 0.75 lbs / 0.3 kg; Packaging: 1 lbs / 0.4 kg
Mounting	· DIN Rail Mountable with Height Adjustability
ELECTRICAL SPECIFICATIONS	
DC Power Input	· 9-24 Vdc
Power Consumption	· 300 mW @ 12 V (Max)
LED Indicators	· 8 LEDs Indicating On / Off State of Open-Drain Outputs or Low / High State of Input Signals
Wiring	· 18- 24 AWG
GENERAL SPECIFICATIONS	
Operating Conditions	· Temperature: -40 °F to 176 °F (-40 °C to 80 °C) · ATEX/IECEx: -20 °F to 176 °F (-4 °C to 80 °C) · Humidity: 0 to 99 %, Non-Condensing
Warranty	· 2-Year Parts and Labor
Country of Origin	· USA
ORDERING INFORMATION	
Model Number	· WM3000-003
Connects To	· DH1 Wireless Gateway and Expansion Modules
Configuration Cable	· SX1000-CC2, 20-ft All-in-One Configuration Cable

Networking Diagram



Typical installation of OleumTech expansion modules are mounted adjacent to the DH1 Base Unit on DIN rail in a NEMA 4 enclosure and connected with supplied inter-module connector cable. The I/O Expansion Modules are only compatible with the DH1 Gateway.