



Highlights

- 4x analog inputs (24-bit ADC)
- Designed for use w/ DH1 Wireless Gateway
- Independently selectable inputs for 0-10 Vdc or 4-20 mA mode
- RS485 serial / multi-droppable
- -40 °C to 80 °C
- 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)

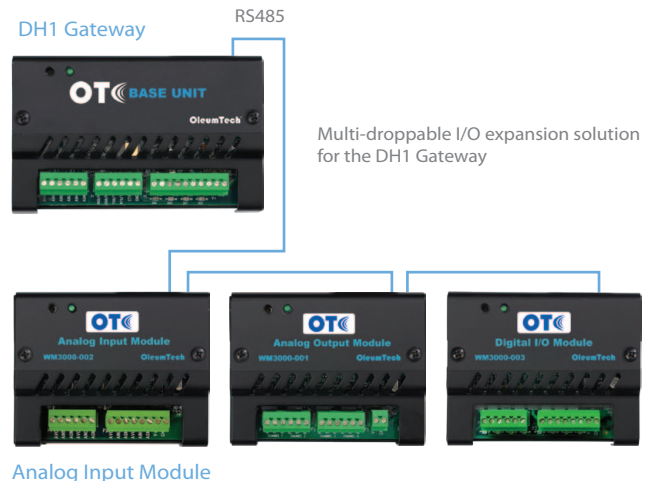
Add Additional Analog Inputs to a DH1 Gateway

4x High Resolution Analog Inputs

The OleumTech® Analog Input Module is designed for conveniently adding four high resolution analog inputs (24-bit ADC) to the DH1 Wireless Gateway over RS485 Serial connectivity. Each input can be independently selected for either 0-10 Vdc or 4-20 mA mode of operation.

Low-Power, Small Footprint

The Analog Input Module is certified for use in Class I, Division 2 (Zone 2) hazardous locations and accepts 9-24 Vdc external power. Its compact, small footprint form factor easily fits inside a NEMA enclosure. The Analog Input Module is equipped with two RS485 Serial ports (RJ-45) for allowing multiple I/O Modules to be daisy-chained to the DH1.



Technical Specifications

HARDWARE FEATURES

Device Functionality	· Analog Input Expansion Module for DH1 Wireless Gateway
Device Interface	· Standard RS232 Serial
I/O Interface	· 4x Analog Inputs
Resolution	· 24-bit ADC
Accuracy	· 0.1 % of Full Scale, 0.2% of Full Scale Over Temperature Range
Sensor/Receiver Voltage	· (2-Wire) 4-20 mA; (3-Wire) 0-5 V or 0-10 V (Jumper Selectable)
Input Impedance	· 250 ohm (4-20 mA), 200K (0-5 V), 133K (0-10 V)
RS485/Serial	· RS485 (2-Wire), 9,600/19,200 Baud, Modbus/RTU Protocol
Multi-Dropped Units	· 247 (Max)
Self-Diagnostics	· Contains Comprehensive Self-Checking Software and Hardware for Continuous Monitoring of Operation

CERTIFICATIONS & COMPLIANCE

Over Voltage Rating	· Transient Voltage Suppressor on Each Port
Short Circuit Protection	· Fuse Protection (375 mA)
Safety	· Class I, Division 2, Groups A, B, C, D T4; Ex nA IIC T4 · Class I, Zone 2 AEx nA IIC T4 / 9-30 Vdc, Ta = -40 to 176 °F (-40 °C to +80 °C) · ATEX: Sira 14ATEX4143X; Ex nA IIC T4 Gc · IECEx: SIR 13.0055X; Ex nA IIC T4 Gc / 9-30 Vdc, Ta = -40 to 176 °F (-40 °C to +80 °C)

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; Gross: 1 lbs / 0.4 kg
Mounting	· DIN Rail Mountable with Height Adjustability

ELECTRICAL SPECIFICATIONS

DC Power Input	· 9-24 Vdc
Power Consumption	· 60 mW @ 12 Vdc
Wiring	· 18- 24 AWG

GENERAL SPECIFICATIONS

Operating Conditions	· Temperature: Class I, Div 2: -40 °F to 176 °F (-40 °C to 80 °C) · ATEX/IECEx: -40 °F to 176 °F (-40 °C to 80 °C) · Humidity: 0 to 99 %, Non-Condensing
Warranty	· 2-Year Parts and Labor
Country of Origin	· USA

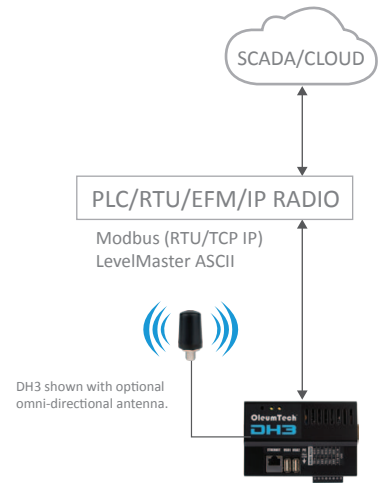
ORDERING INFORMATION

Model Number	· WM3000-002
Connects To	· DH1 Base Unit Wireless Gateway and Expansion Modules
Configuration Cable	· SX1000-CC2, 20-ft All-in-One Configuration Cable



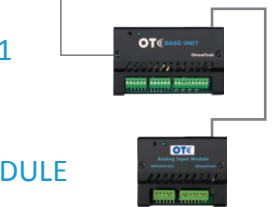
Typical installation of OleumTech expansion modules are mounted adjacent to the DH1 Base Unit on DIN rail in a NEMA 4 enclosure and connected with supplied inter-module connector cable. Expansion modules compatible for use only with DH1 Gateway.

Networking Diagram



OTC GATEWAY

DH1 shown with optional omni-directional antenna.



DH1

I/O MODULE