ECLYPSE™ Communication Modules

Overview

Communication modules enable ECLYPSE Connected Controllers to communicate with a variety of devices.

An ECY-RS485 communication module adds two extra RS-485 trunks to support more BACnet MS/TP and Modbus RTU devices.

An ECY-MBUS communication module adds one M-Bus port to support and power up to 60 M-Bus meters.

An ECY-nLight communication module adds three nLight ports to support up to 300 nLight devices.

Applications

- Seamless integration with third-party HVAC equipment through Modbus or BACnet MS/TP
- Data collection from various types of meters
- Unified building solution with integrated lighting control and building management systems

Features & Benefits

Scalable and Modular

When equipped on the ECY-S1000 the communication modules use its recurrent power supply concept, which can be used when more power is required to power a series of I/O modules. A 100 to 240VAC power supply module eliminates the need for a line voltage to 24VAC power transformer to save installation costs and time. A 24 VAC / VDC power supply module is equally available.

A connecting cable is used to connect successive rows of modules within a controls' cabinet to provide power and communication.

ECY-RS485 communication module

An ECY-RS485 communication module adds two extra RS-485 trunks to support more BACnet MS/TP and Modbus RTU devices.

ECY-MBUS communication module

An ECY-MBUS communication module has one M-Bus port to support up to sixty meters and power the M-Bus bus.

ECY-nLight communication module

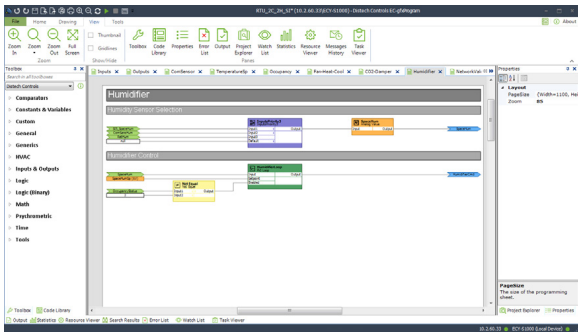
An ECY-nLight communication module has three nLight ports to support up to 300 nLight devices.

Multi-Protocol Support

Multiple communication protocols, like BACnet/IP and Modbus, make it easier to integrate into existing building automation systems and add functionality for edge applications such as metering.

Programmability

Supports Distech Controls' EC-*gfx*Program, which makes Building Automation System (BAS) programming effortless, by allowing you to visually assemble building blocks to create a custom control sequence for any HVAC , lighting, or building automation application.



ECLYPSE Web Configuration Interface Compatibility

Easier communication module setup through the same web interface as the ECY-S1000.

Ease of Installation

The communications modules are plug & play devices. They are equipped with HD-15 connectors that transmits power and communications to the next module for fast and easy assembly.

Status LEDs

The status LEDs on the communications modules allows the user to confirm the status of the inputs/outputs and facilitate commissioning and troubleshooting.

Model Selection

ECY-RS-485 Model Selection

Communication Module	Description
ECY-RS485	ECLYPSE Communication module with two RS-485 ports for Modbus RTU or BACnet MS/TP with an ECY-CSC module.

ECY-MBUS Model Selection

Communication Module	Description
ECY-MBUS	ECLYPSE Communication module with one M-Bus port, supporting up to 60 M-Bus meters when connected to an ECY-CSC, or up to 3 meters when connected via USB to an ECY-VAV, ECY-303, or ECY-TU/PTU.

ECY-nLight Model Selection

Communication Module	Description
ECY-nLight[1]	ECLYPSE Communication module with three nLight ports, supporting up to 300 devices with an ECY-nLight-enabled ECY-CSC[1].

1. The ECY-nLight communication module is only available with the ECY-S1000E-48-NL connectivity server model. See the ECLYPSE nLight Solution datasheet for more information.

Product Specifications

Supported Quantity — 1 x ECY-RS485 **or** 1 x ECY-MBUS per ECY-CSC
— 1 x ECY-MBUS per ECY-VAV, ECY-303 or ECY-TU/PTU
— 1 x ECY-nLight per ECY-S1000-48-NL connectivity server

RS485 Communication Module (ECY-RS485)

Supported Quantity — 1 × ECY-RS485 per ECY-CSC

Power Supply Input

Voltage — 18VDC; Class 2

Power Consumption — 1.5 W

Communications

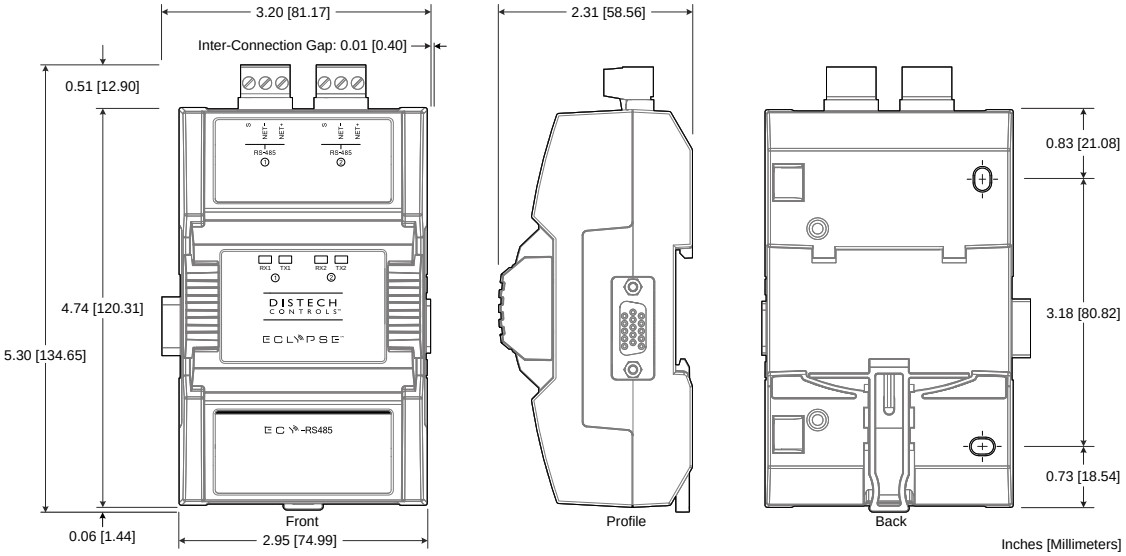
Supported BACnet MS/TP or Modbus RTU Connectivity:

- ☐ BACnet MS/TP or Modbus RTU — 2 × RS-485 serial communication ports
  Each RS-485 port supports one communication protocol at a time
- ☐ RS-485 Wiring — 1-pair + Common/shield
- ☐ Connection Type — Screw terminals
- ☐ RS-485 EOL Resistor — Built-in
- ☐ RS-485 Baud Rates — 9600, 19 200, 38 400, or 76 800 bps
- ☐ RS-485 Addressing — Controller's Web Configuration Interface

Status Indicators — Green LED: TX
Orange LED: RX

Mechanical

Dimensions (H × W × D) — 4.74 × 3.16 × 2.31" (120.31 × 80.19 × 58.56mm)



Shipping weight — 0.55lbs (0.25 kg)

Mounting — DIN rail or screw mounting

Enclosure Material — FR/ABS

Enclosure Rating[1] — Plastic housing, UL94-V0 flammability rating

1. All materials and manufacturing processes comply with the RoHS directive and are marked according to the Waste Electrical and Electronic Equipment (WEEE) directive

Environmental

Operating Temperature — 32 to 122°F (0 to 50°C)

Storage Temperature — -22 to 158°F (-30 to 70°C)

Relative Humidity — 0 to 90% non-condensing

Ingress Protection Rating — IP20 in accordance with IEC 60537

Nema Rating — 1

Standards and Regulations

CE:

- Emission — EN61000-6-3: 2007; A1:2011; Generic standards for residential, commercial and light-industrial environments
- Immunity — EN61000-6-1: 2007; Generic standards for residential, commercial and light-industrial environments

FCC — This device complies with FCC rules part 15, subpart B, class B

UL Listed (CDN & US) — UL916 Energy management equipment

M-Bus Communication Interface Module (ECY-MBUS)

Supported Quantity — 1 × ECY-MBUS per ECY-CSC, ECY-VAV, ECY-303 or ECY-TU/PTU

Power Supply Input

Power Source — ECY-PS24 or ECY-PS-100-240 power supply module, or USB port

Voltage — 18V; Class 2 (when equipped)
5V; Class 2 (when connected via USB)

Power Consumption — 10W over 18V power supply
2.5W over USB

Communications

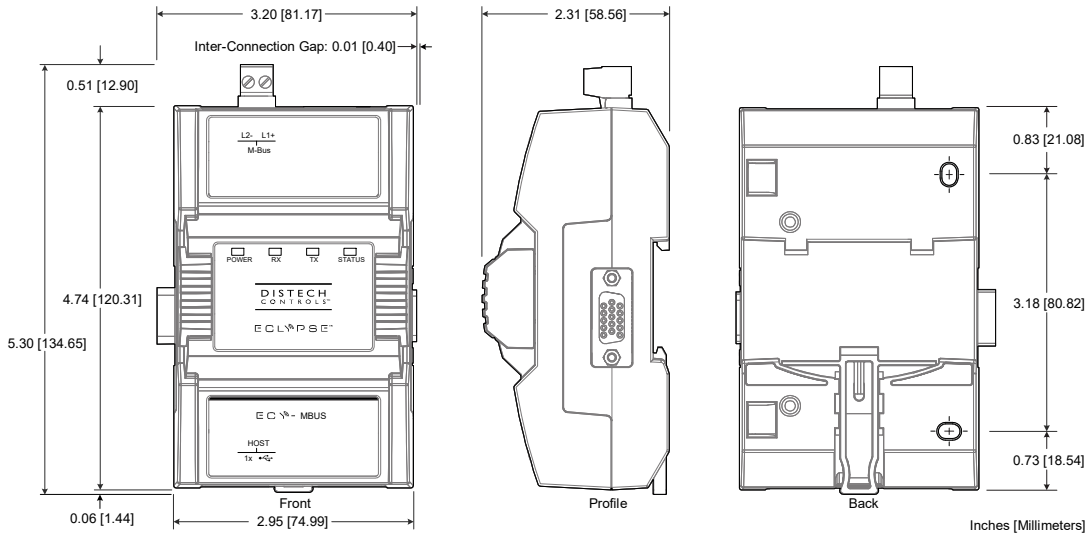
Supported M-Bus connectivity:

- M-Bus Ports — 1x M-Bus serial communication port
- Supported M-Bus Meters — 3 (USB), or 60 (ECY-MBUS60)
- M-Bus Wiring Terminals — 2
- M-Bus baud rates — 300, 600, 900, 1200, 2400, 4800, and 9600
- M-Bus Meter Addressing — Configured in EC-*gfx*Program

Status Indicators — Green LED: TX
Orange LED: RX
Green LED: POWER
Red LED: MBUS Fault

Mechanical

Dimensions — 4.74 × 3.20 × 2.31" (120.31 × 81.17 × 58.56mm)



Shipping Weight — 0.69lbs (0.31 kg)

Mounting — DIN rail or screw mounting

Enclosure Material — FR/ABS

Enclosure Rating[1] — Plastic housing, UL94-V0 flammability rating

1. All materials and manufacturing processes comply with the RoHS directive and are marked according to the Waste Electrical and Electronic Equipment (WEEE) directive

Environmental

Operating Temperature — 32 to 122°F (0 to 50°C)

Storage Temperature — -22 to 158°F (-30 to 70°C)

Relative Humidity — 0 to 90% non-condensing

Ingress Protection Rating — IP20 in accordance with IEC 60537

Nema Rating — 1

Standards and Regulations

CE:

- ☐ Emission — EN61000-6-3: 2007; A1:2011; Generic standards for residential, commercial and light-industrial environments
- ☐ Immunity — EN61000-6-1: 2007; Generic standards for residential, commercial and light-industrial environments

FCC — This device complies with FCC rules part 15, subpart B, class B

UL Listed (CDN & US) — UL916 Energy management equipment

nLight Communication Interface Module (ECY-nLight)

Supported Quantity — 1 × ECY-nLight per ECY-S1000-NL

Voltage — 18VDC

Power Consumption — 2 W

Communications

Ports — 3 × nLight RJ-45 bus ports

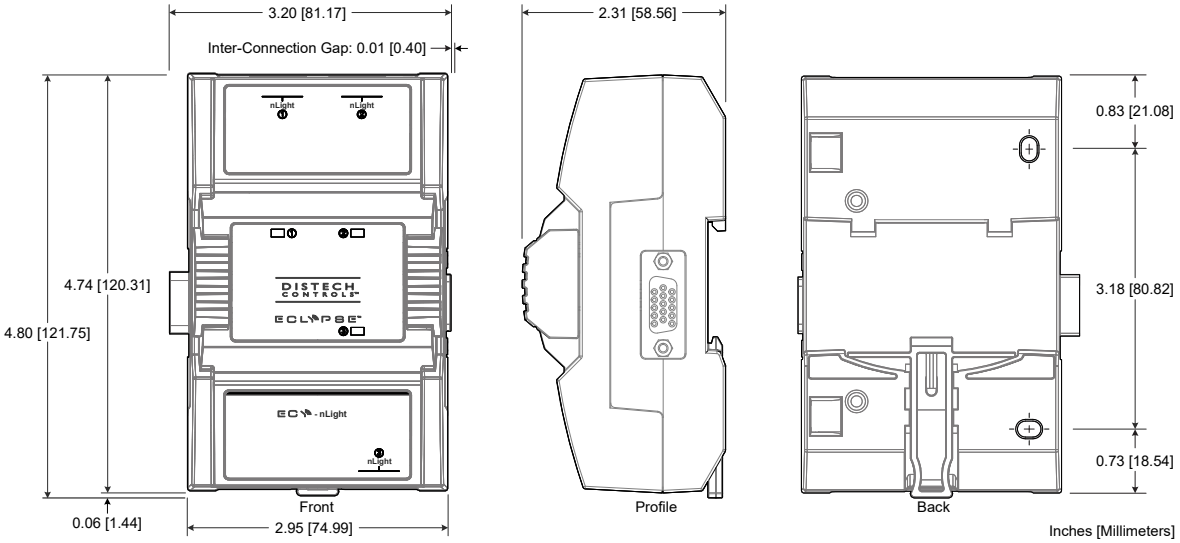
Status Indicators — Green LED: TX
Orange LED: RX

Hardware

Connection — Always the first module connected to the right side of the server

Mechanical

Dimensions (H × W × D) — 4.80 × 3.20 × 2.31” (121.75 × 81.17 × 58.56mm)



Shipping weight — 0.55lbs (0.25kg)

Mounting — DIN rail or screw mounting

Enclosure Material — FR/ABS

Enclosure Rating[1] — Plastic housing, UL94-V0 flammability rating
Plenum rating per UL1995

1. All materials and manufacturing processes comply with the RoHS directive and are marked according to the Waste Electrical and Electronic Equipment (WEEE) directive

Environmental

Operating Temperature — 32 to 122°F (0 to 50°C)

Storage Temperature — -22 to 158°F (-30 to 70°C)

Relative Humidity — 0 to 90% non-condensing

Ingress Protection Rating — IP20 in accordance with IEC 60537

Nema Rating — 1

Standards and Regulations

CE:

- Emission — EN61000-6-3: 2007; A1:2011; Generic standards for residential, commercial and light-industrial environments
- Immunity — EN61000-6-1: 2007; Generic standards for residential, commercial and light-industrial environments

FCC — This device complies with FCC rules part 15, subpart B, class B

UL Listed (CDN & US) — UL916 Energy management equipment

Global Head Office - 4205 place de Java, Brossard, QC, Canada, J4Y 0C4 - EU Head Office - ZAC de Sacuny, 558 avenue Marcel Mérieux, 69530 Brignais, France