

Cylon M-Bus Gateway

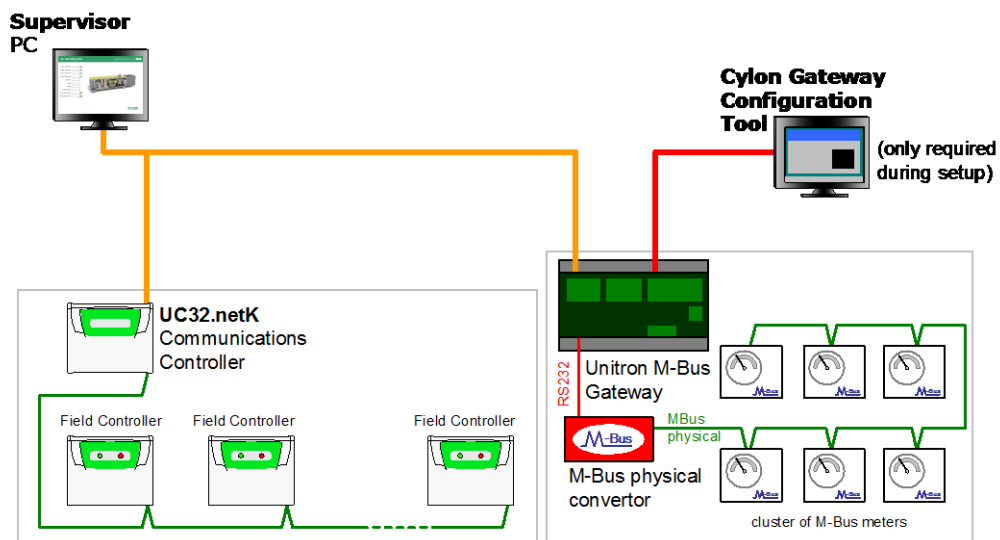
The Cylon M-Bus Gateway provides an interface between Unitron BMS networks and M-Bus meters, allowing Unitron to read and write M-Bus data. Conforms to EN1434/3.



Unitron - M-BUS integration Solution

The Cylon M-BUS Gateway enables communication between Unitron Sites and other M-BUS systems for the following types of data:

- ReadOuts (transfers of point information from Cylon to M-Bus)
- WriteOuts (transfers of point information from M-Bus to Cylon)
- Datalogs
- Alarms



Standard mounting

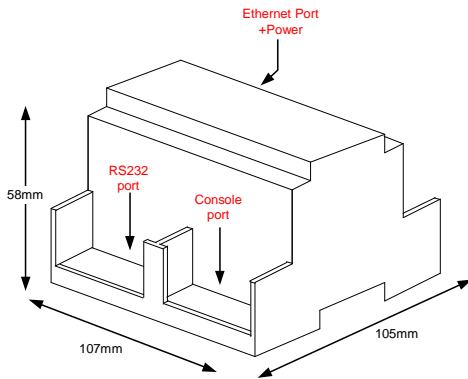
DIN Rail Mountable
Powered by 24VAC

Simple configuration

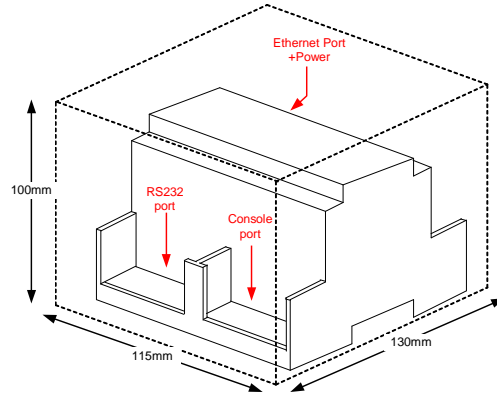
Easily configured using **Cylon Gateway Configuration Tool** software
Designed to interface directly with UC32.netK Communications Controllers.



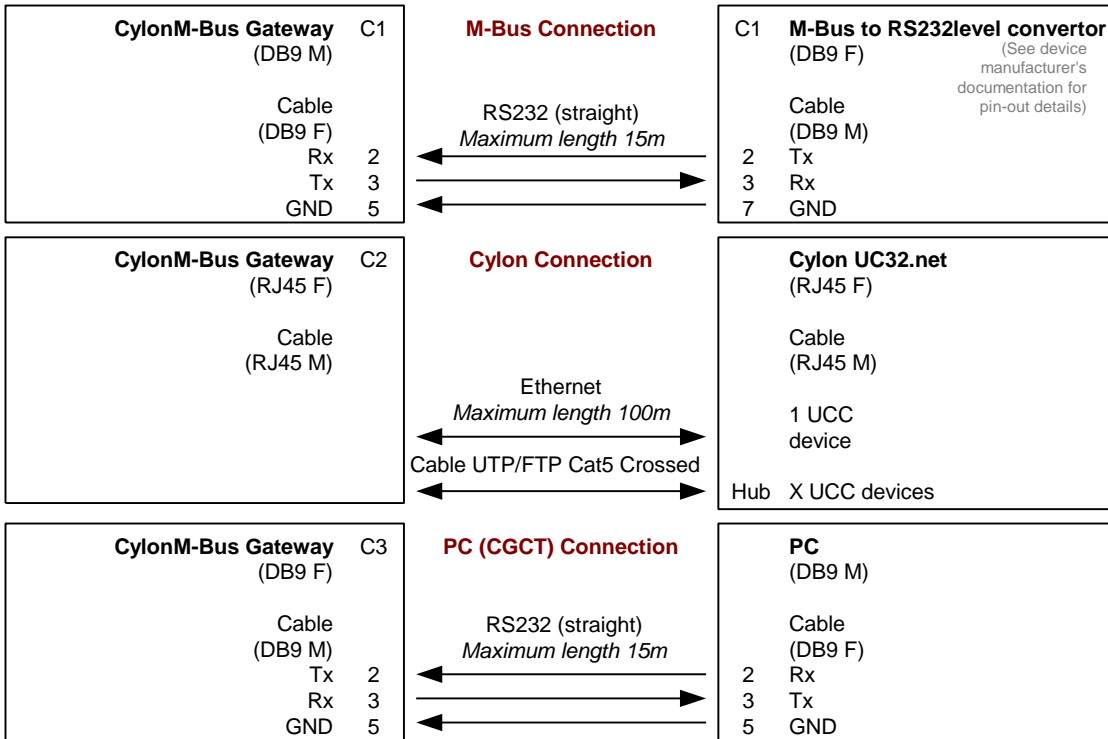
Dimensions



Free space recommended to install the device into a cabinet (wall or DIN rail mounting), with space enough for external connections:



Connections

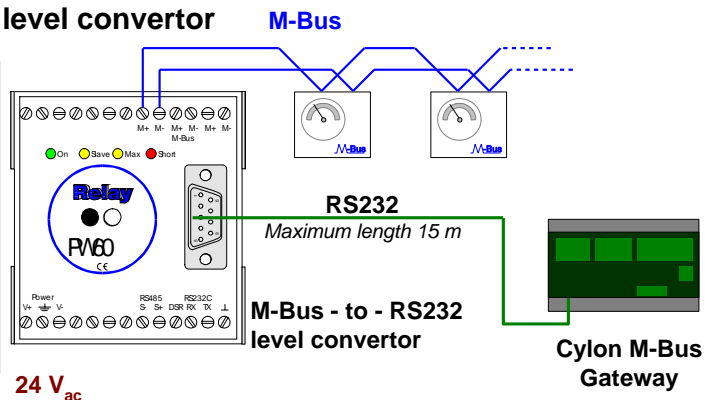


Connections to M-Bus - RS232 level converter

Recommended Cable Lengths

Bus Type	Maximum Cable Length	Conductor Cross-section	Number of Terminal Devices	Baud Rate
Building Installation	350 m	0.5 sq mm*	250	9600
Small Wide Area Installation	1 km	0.5 sq mm*	60	2400
Standard	2 km	0.8 sq mm	60	2400
Large Wide Area Installation	3 km	1.5 sq mm	60	2400
Provider Network Installation	5 km	1.5 sqmm	16	300
Maximum Length (for linear topology)	10 km	1.5 mm	1	300

*For Example JY(ST)Y 2x2x0.8 mm



Specifications:

Mechanical & electrical characteristics

Enclosure	Plastic, type PC (UL 94 V-0). Dimensions: 107mm x 105mm x 58mm.
Colour	Light Grey. RAL 7035.
Power	9 to 30VDC +/- 10% 1 W. 15 to 24VAC +/- 10% 1,2VA. Plug-in terminal bloc for power connection (2 poles). Earth terminal.
Internal back-up battery	Lithium 3v, CR2032 type, interchangeable. ¹
Mounting	Surface. Wall. DIN rail EN60715 TH35 (Also possible to mount in TH15 and G32 rail using additional accessory).
Cylon port	1 x Ethernet 10BT RJ45
M-Bus port	RS232. DB9 male connector (DTE).
LED indicators	1 x Power. 2 x M-Bus port activity (Tx, Rx). 2 x Ethernet port link and activity (LNK, ACT).
Console port	RS232. DB9 female connector (DCE).
Configuration	Via console port. ²
Firmware	Allows upgrades via console port.
Operational temperature	-40°C to +70°C
Operational humidity	5% to 95%, non condensing
Protection	IP20 (IEC60529).
RoHS conformity	Compliant with RoHS directive (2002/95/CE).

¹ The battery is installed into a socket (easily interchangeable). The battery life is approx. **1.6 years** in stock conditions (device not powered). In normal use conditions (device powered during at least 90% of the time since factory battery installation) the battery life will be the maximum in this kind of batteries, 10 years approx.

² Standard cable DB9male-DB9female 1.8 meters long is supplied with the device for connection to a PC COM port for configuring and monitoring the device. The configuration software, compatible with Windows® operating systems, is also supplied.

Configuration

Software	Cylon Gateway Configuration Tool (downloadable from : http://www.cylon.com/support/UnitronUC32/software/software.php)
Cable	In order to connect the PC to the M-Bus gateway for configuration purposes, an RS232 cable similar to order no. CC09/CAB is required.

Functional characteristics

Element	Max.* Basic version	Notes
Number of M-Bus devices	60	Number of M-Bus meters (connected to the bus) that can be read from the Cylon M-Bus gateway.
Number of M-Bus signals	600	Number of M-Bus signals (registers of the meters) that can be read from the Cylon M-Bus gateway.
Number of Cylon UCs	60	Maximum number of virtual Field Controllers that can be defined in the Cylon M-Bus gateway.
Alarms	121	Maximum number of UnitronUC32 Alarms that can be defined in the Cylon M-Bus gateway. To be associated with digital points, allowing for example a communications error with a meter to generate and transmit an alarm message to the UnitronUC32 system.
DataLogs	100	Maximum number of UnitronUC32 datalogs that can be defined in the virtual UnitronUC32 Fieldbus inside the Cylon M-Bus gateway (formats available: 1 sec, 1 min, 5 min, 10 min, 15 min, 20 min, 30 min, 1 hour, 6 hour, 1 day). Size of datalogs: up to 500 registers each. These datalogs can be freely associated with meters readouts.
Read Outs	62	Maximum number of Read Outs that can be defined in the Cylon M-Bus gateway. Read-outs should be associated with analog and digital points in Cylon, allowing a change in a real UnitronUC32 point value to manage a digital signal into the Cylon M-Bus gateway, for example the signal to force a polling of all meters (using a Cylon schedule, you can perform a daily polling of the meters for example).
Write Outs	660	Maximum number of Write Outs that can be defined in the Cylon M-Bus gateway. Write Outs should be associated with analog points, allowing a meter reading or status signal to be transmitted to the Cylon system.

*These maximum values can be extended on demand

ABOUT UNITRONUC32

Cylon M-Bus Gateway is part of the UnitronUC32 range of products, which offers the following benefits:

Unique Flexibility with UniPut™ I/O

The UnitronUC32 range uniquely presents UniPut I/O, a revolutionary answer to flexible point configuration, offering maximized utilisation of controller capacity along with flexibility in strategy changes. Built on a modern, web-based architecture, the UnitronUC32 range has a wide application scope with the flexibility of being stand-alone or network enabled. Easily customisable, the UnitronUC32 range has optional internal or external keypads for a powerful yet user-friendly interface, matched by extensive monitoring and logging capabilities.

The right integration at the right level

The Unitron UC32 solution provides a wide choice of integration options including BACnet, Modbus, M-Bus, KNX, and OPC. Cylon's philosophy is to provide an open system that is truly future proof. With Modbus, M-Bus and KNX, Cylon offers high performance Fieldbus integration. BACnet is the international standard that provides peer to peer integration over TCP/IP. OPC Server extends UnitronUC32 integration beyond building services.