



INTRODUCTION

Synapsys Solutions provide a range of innovative interface products available for various applications and protocols. They have been developed to help reduce engineering time and cost, and to meet the demand for more information and better energy control.

These products, used in conjunction with a Trend BMS, can help ensure a building complies with latest Part L2 Building regulations.

APPLICATION

This SIP Serial (RS232/RS485) Slice product has been developed to increase the number of ModBus networks that can be connected to our SIP+/EMT(EMT-IF) product. Each slice supports an additional ModBus RS232/RS485 network of third party ModBus slave devices (e.g. Air Handling Unit, CRAC unit, Meters or Electricity meters or Pulse Counters).



Features

Compatible with Synapsys Solutions SIP+/EMT(EMT-IF) products

Small footprint

SIP+/EMT(EMT-IF) connectivity

- Inc. DIN Rail and RS485 connector, and RS232 cable

Hardware

- LEDs - Power, Bus activity, Bus activity and Comms activity
- 1 x RS485 connection
- 1 x RS232 connection

Software

- Requires one ModBus Master Driver instance per slice address

DESIGN AND FUNCTION

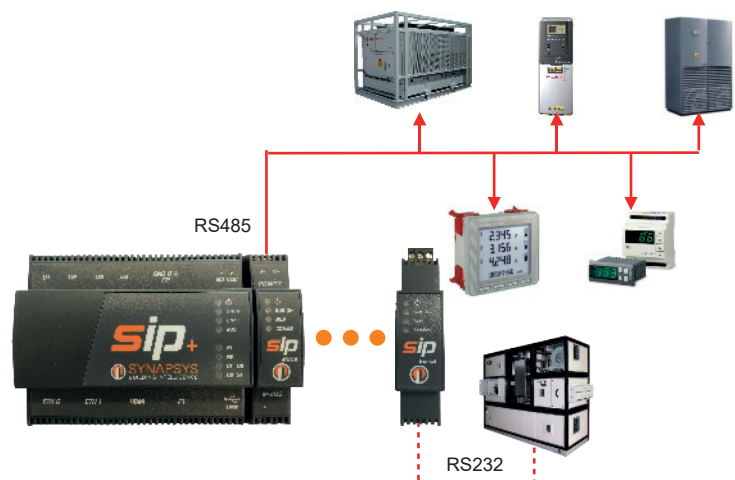
The SIP Serial Slice has been designed for receiving and transmitting data via a ModBus Serial network.

Each slice supports an additional ModBus RS232 or RS485 network of third party ModBus slave devices (e.g. Air Handling Unit, CRAC unit, Meters or Electricity meters or Pulse Counters) according to the constraints of the ModBus wiring in use.

A SIP+/EMT(EMT-IF) can be connected up to 16 SIP Serial Slices via the DIN Rail connectors supplied. The SIP+/EMT(EMT-IF) requires a single ModBus driver instance per slice.

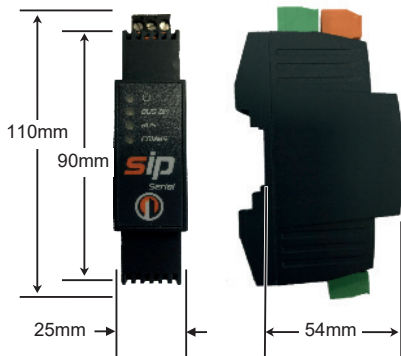
Tip! Compatible with SIP+/EMT(EMT-IF) only.

SYSTEM OVERVIEW



Caution

Ensure the correct PSU is requested according to the expected number of M-Bus and/or Serial slices.



SPECIFICATION

Dimensions

25W x 90H (110 with connectors) x 54D mm
 100g (2.5lbs)

Power Input

Input Voltage Range: 24VDC
 Power Consumption: 0.08A

Environmental

Operating Temp: 0 to 70°C (32 to 158°F), 0 to 90% RH
 Storage Temp: -25 to 85°C (-13 to 185°F), 0 to 90% RH

Connections

Serial

1 x RS485 port
 1 x RS232 port

INSTALLATION

DIN rail mounting (TS35) using DIN rail clips.

Use the 3-Pin terminal (top) for RS485 (Rx (centre) and Tx (right)).

Use the RJ45 (beneath) port for RS232 (Rx, Tx and earth) communications, cable supplied.

Note Contact the ModBus device manufacturer for termination and cable recommendations.

CONFIGURATION

Each Serial slice supports

DESCRIPTION	RS232	RS485
Max addresses	1	32
Operation mode	Half Duplex	Half Duplex
Network topology	Point to Point	Multipoint
Max cable length	15m	1200m
Input resistance	3 - 7kΩ	12kΩ
Max output voltage	±25V	-7V - 12V
Max output voltage (inc Load)	±5V	±1.5V

Note For greater network distances, ensure the ModBus driver instance in the SIP+/EMT(EMT-IF) is set to RS485 communications.

PRODUCT CODES

PART NO.	DESCRIPTION
SYN+/SER	Supports RS232 or RS485 ModBus networks
SIP+/EMT(EMT-IF)	See SIP+ product range
PSU/24VDC/nA	24V nA DC Power Supply

REGULATIONS

TBC

With a comprehensive range of interface products for BACnet, M-Bus, ModBus, SNMP and Trend protocols we can help you easily link meter, sub-meters and plant to Trend or BACnet BeMS systems with energy management and monitoring functionality, and virtual metering.

Download brochures and datasheets from our website. Alternatively, contact us for more information or to request a quote.