Virtec

Virtec Instruments Inc.

MBus Master

Model No.:VIR-MBUS-250-IN

The M-Bus Data collector is called as Mbus Master or as Router an automatic data collection device designed for M-Bus meters such as BTU meter. The MASTER r and the M-Bus meter communicate by the industry standard M-Bus interface.

comes with three variations:

(1) : This is a transparent M-Bus Data Collector . It provides M-Bus power to M-Bus meters, and passes the M-Bus protocol to upper layer device. Sometimes it is called M-Bus convertor.
The interface to the upper layer device could be M-Bus or RS232 .

(2) : This is an intelligent M-Bus Data collector with large storage for scheduled meter reading. It provides M-Bus power to M-Bus meters, automatically reads data from those M-Bus meters, stores those data, and transmits those data to upper layer upon request. The interface to the upper layer device could be M-Bus

(3) : This is a transparent M-Bus to BACnet converter. It provides M-Bus interface on one side, and BACnet on the other side.
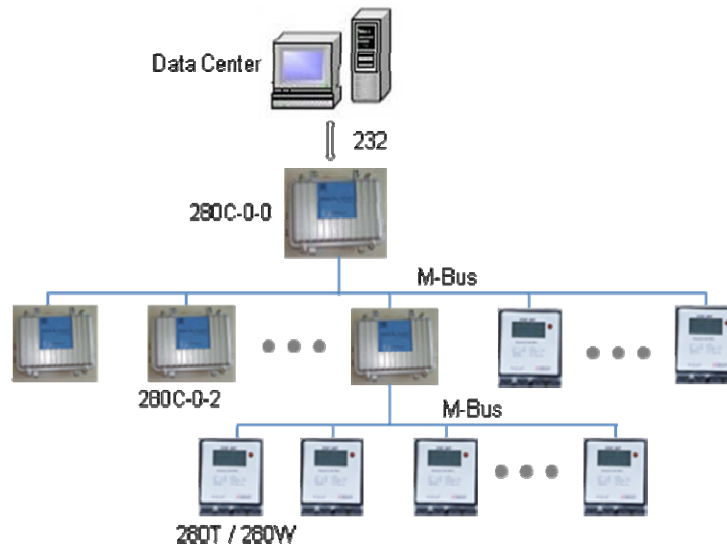
Each collector is able to support up to 300 M-Bus meters. It can be cascaded to form a hierarchical topology, where a large number of meters can be networked. The figure below illustrates a simple hierarchical system. The collector on the top is , which connects to a computer on one side, and connects to several type sub layer concentrators.
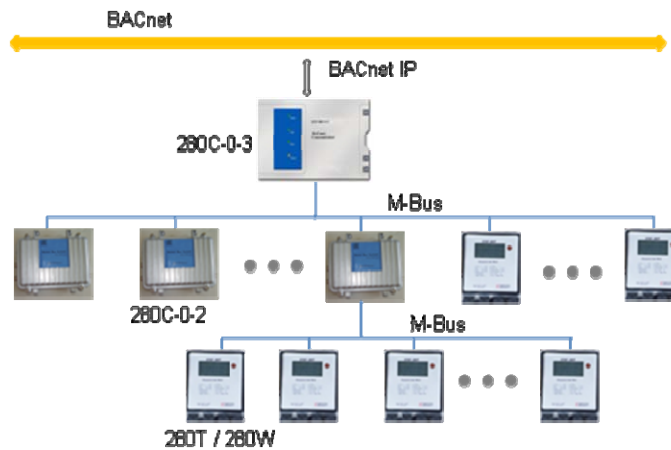
The topology of using BACnet Concentrator is illustrated on the second figure below.

Hierarchical topology of an AMR system using M-bus MASTER

Hierarchical topology of an AMR system using a BACnet concentrator.

Technical Data

M-Bus Concentrator (280-0 / 280C-1)

Features:

- Transmit data upward, transfer command downward
- Large non-volatile flash memory for data storage (280C-1 only)
- Powerful communication capabilities
- Self-diagnosis and self-protection when short-circuit occurs
- Automatic meter reading (280C-1 only)
  Operator only needs to set up a schedule on the time and the clients the meter value are to be taken.   The concentrator collects and reports the data automatically, reliably and efficiently.

Interface - Downward: M-bus. Default to 2400Bps. Support up to 300 devices
Interface - Upward: For 280C-x-0 concentrator:

M-Bus, default to 2400Bps

Protocol: M-Bus

For 280C-x-1 concentrator:

RS232 (optional RS485-toRS232 adapter or USB-to-RS232 adapter), default to 2400Bps

Protocol: proprietary

LEDs:	Indicators for communication status, overload alarm and power
Power:	110VAC or 240VAC, 20Watts
Enclosure:	Aluminum, IP54
Dimension:	240 x 200 x 80 mm3
Weight:	2.3kg

Features:

- Transmit data upward, transfer command downward
- Support BACnet /IP. Easy to connect to the Internet
- Support BACnet services including Who-is, I-am, read, write, create, delete, etc.
- Standard Ethernet communication
- Support BACnet AI, AO, BI, BO, PG, File and Device
- Large non-volatile flash memory for data storage
- Self-protection over power shutdown

Interface - Downward:	M-bus. Default to 2400Bps. Support up to 300 devices
Interface - Upward:	BACnet /IP. Ethernet: full duplex, 10M / 100M, self-adaption
LEDs:	Indicators for DATA, NET, RUN, FAULT and Power
Power:	24VDC or 110VAC or 220VAC, 10Watts
Operation Temp:	0 ~ 45°C
Storage Temp:	-20 ~ 70°C
Enclosure:	IP30
Dimension:	168 x 110 x 34 mm3
Weight:	0.6kg