A1700
Communications

The Power to Change...

Module Types

RS232
- 25-way D-type connector
- Multi-drop terminals
- 10 Volt modem supply
- Connection for up to 10 meters
- 12 metres transmission distance
- Standard RS232 pin connections
- Class II isolation from meter

RS485
- 2 RJ45 sockets for RS485 multi-drop
- 25-way connector for standard RS232 communications
- 10V modem supply via RS232 connector
- Connection for up to 32 meters
- 1.2km transmission distance
- Class II isolation from meter

Applications
- Direct connection
- PSTN modem
- GSM modem
- Ethernet converters
- PAKNET™

The A1700 meter supports a range of modules that plug into the module slot. The slot is accessed by simply removing the meter terminal cover. The modules can be inserted into the meter without removing the power or affecting the meter certification.

Modules can be supplied for RS232 or RS485 applications. To reduce communications costs, both types of module have connectors for multi-drop installations, allowing several meters to be accessed from a single modem. For multi-drop connection a module must be fitted to each meter in the chain.

The RS232 and RS485 modules provide a 10V power supply that allows a modem to be powered directly from the module. The modem plugs directly into the module under the meter terminal cover. If the meter is multi-dropped and power to the host meter is removed, the modem will continue to operate by utilising the supply from any other meter in the chain.

Communications media that can be utilised include a range of V22/23/32 PSTN and GSM modems, Ethernet converters and PAKNET™. The communications speed can be up to 9600 baud.

ELSTER

GSM   **Multi-drop**

RS232 Module

The RS232 module allows direct connection to any RS232 communications device through a standard 25-way D-type connector.

The module has a 10V 80mA supply to power a modem. The power is provided via the 25-way connector allowing the modem to plug directly into the module beneath the terminal cover.
A row of terminals allows up to 10 meters to be connected in multi-drop mode, therefore reducing communications costs. The multi-drop connection can be over a distance of up to 12 metres.

RS485 Module

The RS485 module is supplied with two RJ45 multi-drop sockets. A modem, powered by a 10V 80mA supply, can be connected via the 25-way, RS232 D-Type connector. The module converts RS232 to RS485. For RS485 connection, external equipment is connected directly via the RJ45 sockets.

Up to 32 meters can be multi-dropped over a distance of 1.2km. Transmit/receive LED's provide an indication that communications are operating correctly. The module allows ease of installation using standard plug-in RJ45 connectors to link from one meter to the next. There are no other connections to make.

Isolation Levels

Isolation to protective Class II (all modules).

Applications

Dir ect Connection

The module is used as a standard RS232/RS485 port that interfaces directly to a PC or Hand Held Unit.

PSTN Modem

A standard V22/V23/V32 modem can be connected to the module for use on a telephone line, or via a terminal adaptor for use on an ISDN line.

PAKNET^{TM}

The module can be used with the PAKNET^{TM} Radio System. This allows radio communications to take place with a meter in remote areas.

GSM Modem

The A1700 can be used with a range of GSM modems, allowing full utilisation of the mobile telephone network.

The Elster GSM modem is simple to install and connects directly to an RS232/485 module D-type connector under the meter terminal cover.
This gives the benefit of higher security from fraud or tampering.

The modem draws its power from the module.

The communications speed can be set to 1200, 2400 or 9600 baud. The modem parameters are programmed prior to installation using Windows Terminal or Hyper-terminal.

The modem supports a range of antennas that can be chosen to best suit the installation.
The modem can be used with the service provider of your choice.

EMS/A1700COMS/2.2004