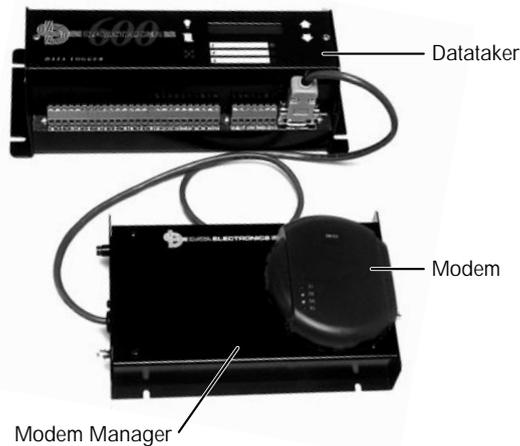


Modem Manager MM-01

AUTOMATIC COMMUNICATIONS MANAGEMENT for REMOTE DATATAKERS



Data Electronics' *Modem Manager* (MM-01) provides advanced communication features to situations where Datataker data loggers are remotely deployed and supervised by modems.

While the Datataker can directly support a modem for dial-in applications, there are many situations where the reliability and integrity of a directly-connected modem can be compromised due to frailties of telephone services and connections.

A Datataker, a Modem Manager and a modem can be used together to form a remote cell on an alarm monitoring network.

The Modem Manager works in conjunction with the Datataker to store alarms and manage automatic dial-out with remote alarm annunciation to a host monitoring system and/or pager.

The Modem Manager provides the following features:

Alarm Management

- Receives alarm messages from the Datataker and stores them in non-volatile memory
- Automatic dial-out and transmission of alarm messages to a central host and/or pager system
- Uses a simple, modified alarm message string from within the Datataker command program to initialise the alarm call-out function
- Existing Datataker command programs easily modified to interface with the Modem Manager

Call-Out to Pager Service

- Tele-pager call-out management for transmission of alphanumeric pager messages via a host tele-pager service provider (for direct communication of alarms to service personnel)
- Automatic re-dial to pager service (until manually reset by service personnel called to attend site)

Call-Out to Host Computer

- Call-outs to a central host computer running special software application to manage a network of Datataker sites
- Host communication protocol fully documented to allow custom host applications to be written to suit customer requirements (sample program to save alarms to a file included as a guide)
- Can be used in manual response mode to communicate with remote Datatakers from a host computer running a terminal program like DeTerminal
- Simple but secure command set provides on-screen prompts for all commands and required responses
- Three configurable automatic dial-out strategies to suit a wide range of remote network applications: options include
 - continuous re-dial (with user-selected inter-dial delay) — dials until acknowledged
 - slow mode — successively re-dials the host and automatically increases the call interval after a specified number of calls
 - stop calling after a specified number of calls.

Modem Supervision

- Supports all types of modems
- Automatic management of modem initialisation and error message handling (sends initialisation strings to modem at regular intervals to ensure that modem is reset and always on-line in auto-answer mode)
- Reset of modem by complete power down if no response is received from regular modem dialog

Datataker Supervision

- Monitors Datataker status and triggers independent alarm dial-out if Datataker does not respond or has been reset
- Maintains Datataker parameters and command switches to optimize performance
- Talk mode from site and host system for transparent direct Datataker communication link

Security

- User-set site identification code uniquely identifies multiple sites for security and alarm recognition
- Password protects configuration access
- User-set inactivity timeout causes termination of communication session for security
- Local alarm output after a preset number of re-dial attempts can trigger a local audible or security alarm (in case of telephone line or service failure)
- Secure acknowledgment protocol ensures that the host receives and stores messages

Hardware

- Large capacity memory stores up to 30,000 characters received from the Datataker
- Auxiliary serial port supports local PC (for local monitoring of all communications and configuration of Datataker and Modem Manager)
- Hardware watchdog timer



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TOTAL QUALITY COMMITMENT

Applications

Any unattended monitoring application, for example:

- supermarket refrigeration alarm systems
- cool and cold storage equipment and product monitoring
- automatic re-ordering of materials from remote storage locations (for example, industrial gases, plastic supplies)
- remote weather stations
- early warning systems for flood and river levels
- road traffic and condition monitoring

Mechanical & Electrical

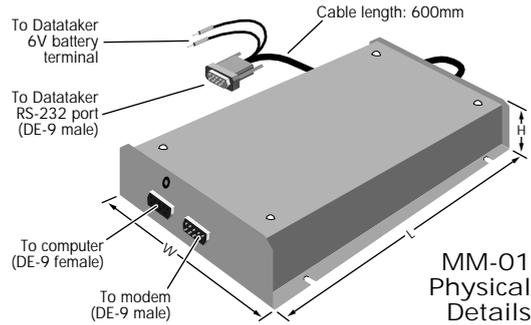
- Dimensions 130mm(W) x 200mm(L) x 35mm(H)
- Weight 0.8kg
- Connectors 9-pin female D-connector for site terminal, 9-pin male D-connector for modem, 9-pin male D-connector for Datataker RS-232
- 200mm flying leads for 6VDC battery
- Provision to mount modem on lid
- Operating temperature -20 to +70°C
- Operating humidity 95% non-condensing

- Cables MM-01 to Datataker comms/power cable, MM-01 to PC comms cable (both included)
- Power supply 6-15VDC
Current drain 60mA normal power (no modem)
Can be powered from DT50/500/600 series loggers
- Local alarm relay 1-pole changeover
- Modem power relay 2-pole changeover

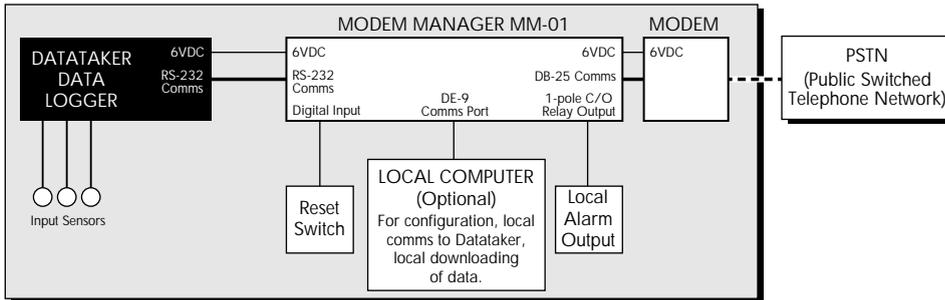
Ordering

Modem Manager

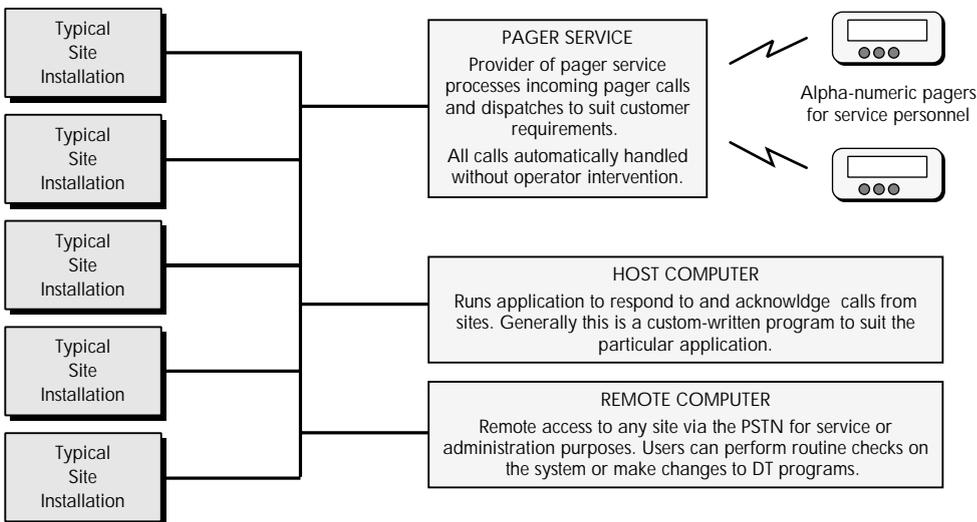
MM-01



Typical Site Installation



Typical Alarm Monitoring Network (with Pager and Host Call-Out)



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