PROGRAMMABLE MESSAGE DISPLAYS

AVG UTICOR Programmable Message Displays (PMDs), are found in numerous applications throughout all industries. PMDs are extremely versatile products, enabling your PLC or control system to display vital production status or alarm messages to plant-floor personnel in real time.

AVG UTICOR now offers several lines of human-machine interfaces:

1. VFD (Vacuum Fluorescent Display), Character-based Master Message Displays

2. VFD Character-based Slave Message Displays

3. Message Controllers (no display)

4. LED-based Marquees (description starts on page 62)

Character-Based Master Message Displays store several (memory dependent) messages. These messages and their characteristics (such as blinking, centering, scrolling, etc.) are programmed using a programming software that runs on a PC (available *free* from AVG UTICOR). A Master Message Display continuously polls the connected PLC for a message number and several control parameters. Based on the control parameters, the Master Message Display can display the message, send the message to one or a group of Slave Message Displays or Marquee Displays (described below). A PC can also control the Master Message Display.

AVG UTICOR offers the following Master Message Displays :

- PMD 150 Series
- PMD 180
- PCI 185
- PMD 200
- PMD 300 Series
- PMD 400 Series

A **Message Controller** is functionally the same product as the corresponding Master Message Display, *except it has no display of its own.* Thus, a Message Controller, like a Master Message Display, stores messages and sends these messages to Slave Message Displays or Marquees (to one, group, or broadcast), based on PLC and/or PC command.

AVG UTICOR offers the following Message Controller:
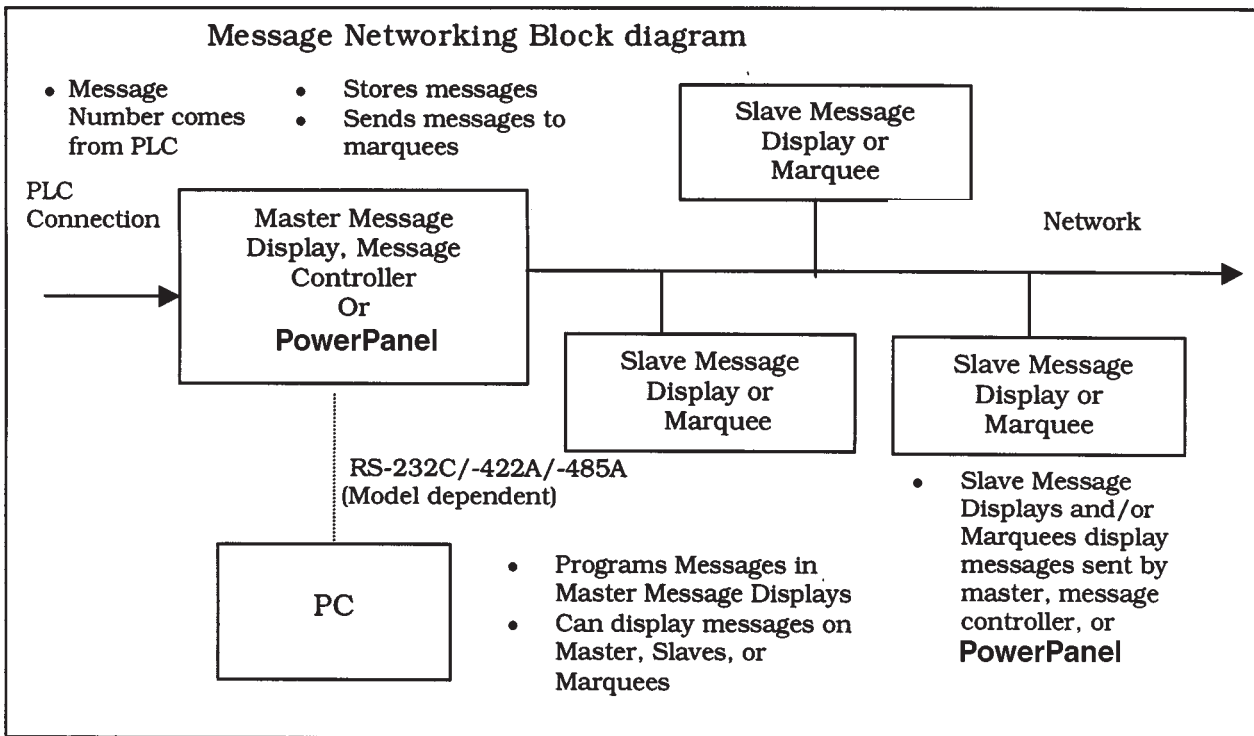
- PMD 180MC
- PMD 300MC

Slave Message Displays do not store messages. They are typically used with a Master Message Display, Message Controller, or a PowerPanel. Any of these units can drive a network of several Slave Displays. Each Slave Display used on a network has a unique address. This addressing scheme allows a message to be sent to one, several, or all slaves on the network.

AVG UTICOR offers the following Slave Message Displays:

- PMD 150S
- PMD 180S
- PMD 200S
- PMD 300S

Programmable Message Displays by AVG UTICOR

Message Networking Block diagram

- Message Number comes from PLC
- Stores messages
- Sends messages to marquees

PLC Connection

Master Message Display, Message Controller Or PowerPanel

Slave Message Display or Marquee

Network

Slave Message Display or Marquee

Slave Message Display or Marquee

RS-232C/-422A/-485A (Model dependent)

PC

- Programs Messages in Master Message Displays
- Can display messages on Master, Slaves, or Marquees

- Slave Message Displays and/or Marquees display messages sent by master, message controller, or **PowerPanel**

SELECTING THE RIGHT MODEL

The PMD Master Message Display or Message Controller receives message inputs from a PLC or control system and outputs messages to one or more units installed at strategic locations throughout the user's plant. A PC can be connected for programming purposes.

AVG UTICOR offers a variety of PMD models to meet different application needs. A user will select a PMD based on following criteria:

- ■ Number of lines on display
- ■ Characters per line
- ■ Size of characters (visibility distance)
- ■ PLC Connectivity drivers (available for over 30 models)

PMDs offers a wide variety of features. A list of features follows. Please refer to data sheets of each model for more information on a model.

PMD FEATURES

Master Message Displays offer many features that enhance your ability to display pertinent information. Here's a brief listing of some of the more common features and what they are (Every model may not support all of the following features):

Blinking
A character, word, or message flashes on and off at a user-programmable rate; used to attract attention to a message of high priority.

Chained Message
Links up to 115 individual messages together and displays at a user-defined rate.

Circular Message Queue
A list of messages displayed in the order that they are triggered according to their message display time. The list wraps around from the last message back to the first message and continues to cycle through the queue until the user makes a change.

Data Log
An area of memory set aside for a time- and date-stamped historical record of events in the unit.

Invisible Messages
Messages sent to a printer or Marquee, but not to the Master Message Display's own display.

Off-line Programming
Message programs are developed with the supplied programming software and stored to disk. The message file can then be uploaded to the Master Message Display unit. The computer does not need to be connected to the unit for this programming process.

On-line Programming
Master Message Display unit is programmed directly from the computer. The unit must be connected to the programming computer. With on-line programming, the user can develop screens while the display unit is running. This allows modification of the screens without having to take the unit off line.

Real-Time Clock
A clock that indicates the passage of actual time.

Scrolling Message
A message that contains up to 235 characters and moves from the bottom of the display to the top, or from the right of the display to the left.