

PMD 3100 SERIES MASTER MARQUEE DISPLAY

FEATURES:

- 1 to 8 Lines (see table, p. 61)
- 5 to 80 Red LED Characters per Line (see table below)
- 2 to 8" (50.8 to 203.2 mm) High Characters
- Eight International Character Sets
- 16K to 128K Memory
- 4 Variable Data Sets
- NEMA 12 or NEMA 4 enclosure
- Free Message Programming Software
- Data Logging



The PMD 3100 Series is a large master marquee display available in 11.5", 16.3", and 25.9" (292.1, 414, and 657.9 mm) heights and 40", 76", and 150" (1016, 1930.4, and 3810 mm) widths in a total of eight different sizes (maximum height and maximum width model is not available).

The PMD 3100 Series uses attention-getting Red LED colors in 2", 4", 6" or 8" (50.8, 101.6, 152.4, or 203.2 mm) character heights to indicate equipment status instantly.

These versatile displays also let you adjust character and line heights, add blinking, scrolling, and unveiling effects, and feature multiple messages simultaneously.

The PMD 3100 Series offers suspended mounting using either the eyebolts on top or mounting kits that allow adjustable angled viewing. Two knockouts are provided in the PMD 3100's steel case for the routing of wires. Fuses,

connectors, and switches are accessed by removing the back panel.

A scratch-resistant lens/filter on the front panel covers the LED field and protects the inside of the unit.

Master Marquee Display Options

PMD 3100 Series		CHARACTERS					VIEWING AREA	
MODEL	DISPLAY	2"	4"	6"	8"	8" N	HEIGHT	WIDTH
1W2H	LINES	2	1	—	—	—	5.3" (134.5 mm)	36.5" (927.1 mm)
	CHARACTERS PER LINE	20	10	—	—	—		
1W4H	LINES	4	2	1	1	1	10.1" (256.5 mm)	36.5" (927.1 mm)
	CHARACTERS PER LINE	20	10	6	5	10		
1W8H	LINES	8	4	2	2	2	19.7" (500.4 mm)	36.5" (927.1 mm)
	CHARACTERS PER LINE	20	10	6	5	10		
2W2H	LINES	2	1	—	—	—	5.3" (134.5 mm)	72.5" (927.1 mm)
	CHARACTERS PER LINE	40	20	—	—	—		
2W4H	LINES	4	2	1	1	1	10.1" (256.5 mm)	72.5" (927.1 mm)
	CHARACTERS PER LINE	40	20	13	10	20		
2W8H	LINES	8	4	2	2	2	19.7" (500.4 mm)	72.5" (927.1 mm)
	CHARACTERS PER LINE	40	20	13	10	20		
4W2H	LINES	2	1	—	—	—	5.3" (134.5 mm)	144.5" (3670.3 mm)
	CHARACTERS PER LINE	80	40	—	—	—		
4W4H	LINES	4	2	1	1	1	10.1" (256.5 mm)	144.5" (3670.3 mm)
	CHARACTERS PER LINE	80	40	26	20	40		

Several versions of the PMD 3100 Series are available. They differ in the way they can communicate with external devices and/or PLCs.

PMD 3100 Messages are triggered via the 16-bit parallel port.

Note: In the following models, the PMD 3100 parallel port, the associated Message Control Terminals, and the Power In/Power Out Terminals have been removed and replaced by the PLC interface connector located on the interface board. Please be advised that all of the direct PLC interface units require you to punch a hole to accommodate the wiring. Please be careful of metal filings.

PMD 3150 is essentially a PMD 3100 which directly interfaces to an Allen-Bradley PLC2, PLC3, or PLC5 through Remote I/O Block Transfer or Data Highway/Plus. Each of these modes operates independently from the other and the PMD 3150 can be configured to communicate using any one of them. PMD 3150 has all of the PMD 3100 features, but receives communication through twinaxial cable ("blue hose").

PMD 3160 is very similar to the PMD3100 and contains an interface to Siemens/TI Series 545 CPU (and the 560 and 565 CPUs used in conjunction with the Siemens/TI RCC module) which have the RS-485 remote I/O module. The PMD 3160 will appear as a Remote Base Controller (RBC) to the Siemens/TI PLC. PMD 3160 can also listen to an existing RBC and use the information from it.

PMD 3180 has all of the PMD 3100 capabilities but contains support for a Genius Network Adapter (GENA) board which allows the PMD 3180 to be configured as a node on the Genius I/O system. The PMD 3180 can be configured as an I/O block on a Genius I/O system and will receive data from a bus interface module. A bus interface module is typically a PLC with a Genius bus controller module or a PCIM card installed in a personal computer. The PMD 3180 will exist on the Genius I/O network as an I/O block broadcasting its inputs to the bus and reading the outputs sent to it by the bus controller.

SPECIFICATIONS

DISPLAY

Number of Lines:

1-8 (see table on page 87)

Characters per Line:

5-80 (see table on page 87)

Size of Characters:

2", 4", 6", 8", and 8" Narrow
(50.8, 101.6, 152.4 and 203.2 mm)

Character Form:

2" (50.8 mm) = 5 x 7 dot matrix
4" (101.6 mm) = 10 x 14 dot matrix
6" (152.4 mm) = 15 x 21 dot matrix
8" (203.2 mm) = 20 x 28 dot matrix
8" (203.2 mm) Narrow = 10 x 28
dot matrix

Viewing Distance:

2" (50.8 mm) = 100 ft (30.48 m)
4" (101.6 mm) = 200 ft (60.96 m)
6" (152.4 mm) = 300 ft (91.44 m)
8" (203.2 mm) = 400 ft (121.92 m)

Character Sets:

All standard ASCII upper/lower case
and symbols

Eight, including: U.S., Cyrillic,
Danish, German, English, French,
Swedish, and Japanese Kana

ELECTRICAL

Power Source:

AC Units (jumper selectable): 115
VAC (102-132) 47-63 Hz or 230
VAC (194-250) 47-63 Hz

Current Draw:

1W2H-75 VA
1W4H/2W2H-135 VA
1W8H/2W4H/4W2H-255 VA
2W8H/4W4H-495 VA

Built-In Supply (PMD 3100-only):

12 VDC, 350 mA max.

Interference:

NEMA ICS 2-230 Showering Arc Test

Tolerance:

ANSI C37.90a-1974 (SWC)
Surge Withstand Capability Test

Relay Contacts:

Form C Relay, 3 A @ 230 VAC
or 30 VDC, max.

ENVIRONMENTAL

Temperature (Ambient):

Operating:
32 to 140 °F (0 to 60 °C)

Storage:
-40 to +203 °F (-40 to +95 °C)

Humidity:

10 to 95% RH Noncondensing

NEMA Ratings:

NEMA 12
(NEMA 4 and NEMA 4X optional)

CLOCK

Data Log/Real-Time Clock Battery:

1/2AA Lithium, 3.6 V

Battery Life:

Typically 5 years (minimum, 1-1/2
years) OFF continuously

Clock Accuracy:

1 minute per month error (maximum)

MEMORY

Memory Message Type:

EEPROM (16, 32, 64, or 128 K)

EEPROM Life:

Minimum 10,000 changes to a
given location

Memory Usage:

Approximately 175 80-character
messages per 16 Kbytes of EEPROM
memory

MECHANICAL

Mounting:

Suspended mounting using either the
eyebolts on top or optional mounting
kits that allow adjustable-angle viewing.

Housing:

14 ga steel (Type 304 stainless
steel-optional)

CONNECTIVITY

Power Input Terminal Block:

Wire-clamp screws for 12-18 AWG

Serial Ports, Relay, and Control Terminal Blocks:

Wire-clamp screws for 18-22 AWG

3150 A-B PLC Connector:

Terminal Block

3160 Siemens/TI PLC Connector:

Terminal Block

3180 GE Genius I/O:

Terminal Block

PORTS

Programming Port:

Baud Rate*:

300, 600, 1200, 2400, 4800, 9600

Parity: None, Odd, Even

Stop Bits: 1, 2

Data Bits: 8

Printer Port:

Baud Rate*:

300, 600, 1200, 2400, 4800, 9600

Parity: None, Odd, Even

Stop Bits: 1, 2

Data Bits: 8

Tape Port:

Baud Rate*:

300, 600, 1200, 2400, 4800, 9600

Parity: None

Stop Bits: 1

Data Bits: 8

** Note: the same connector is used for Programming, Printer, and Tape Port.*

Computer Interface Port:

Baud Rate:

300, 600, 1200, 2400, 4800, 9600

Parity: None, Odd, Even

Stop Bits: 1, 2

Data Bits: 8

Checksum: None, CRC, EOR

Protocol: UTICOR, ASCII

Slave Port:

Baud Rate: 9600

Parity: None

Stop Bits: 1

Data Bits: 8

Protocol: UTICOR

Parallel Port:

(PMD 3100 only)

Screw Terminals: 18-22 AWG

Inputs: 20 (16 data, 4 control)

Input voltage:

5-30 VDC, 75 mA @ 10 VDC,

200 mA @ 30 VDC

(All 20 inputs on)

Source Inputs (Factory Set):

Sink inputs (internal jumper)

BCD or Binary Inputs (software selected)

Inverted or noninverted inputs (software selected)

Input debounce time: 0-99 ms (software selected)

Input scan time: 0-99 ms (software selected)

HOUSING WEIGHT

Version	W/Hanging Kit
1W2H	47 lb (21.3 kg)
1W4H	65 lb (29.5 kg)
1W8H	101 lb (45.8 kg)
2W2H	81 lb (36.7 kg)
2W4H	112 lb (50.8 kg)
2W8H	178 lb (80.7 kg)
4W2H	189 lb (85.7 kg)
4W4H	250 lb (113.4 kg)