

DIGITAL REMOTE DISPLAYS



**PANEL MOUNT
DISPLAYS**



**SCOREBOARD
DISPLAYS**



DIGITAL REMOTE DISPLAYS

Micro Series

Features:

- ◆ Six Digits (999999) w/ Selectable Decimal
- ◆ Choice of digit size, .56", 1", 4" & 5"
- ◆ RS232 or RS485 Serial Input
- ◆ Panel-Mount & Wall-Mount Enclosures
- ◆ World-Wide Power
- ◆ Output Options:
 - Analog 4/20mA or 10Vdc
 - Dual Setpoints w/ Relay Outputs
- ◆ Two-Year Warranty

All models accept serial data to display numeric information sent from a computer or other data generating device.



Indoor Model:
Micro-C
.56" Red or Green LED's



Indoor Model:
Mighty-1C,
1" Red LED's



Indoor Model:
Mighty-4C,
4" Red LED's

SCOREBOARD DISPLAYS



Outdoor Model:
MIGHTY-5C,
"Daylight-Bright" LED Digits

ELECTRO-NUMERICS, INC.

ELECTRICAL SPECIFICATIONS

MICRO-C, MIGHTY-1C & MIGHTY-4C, MIGHTY-5C

Display:

Micro-C DPM Remote Display

Digits 6 LED digits, 7 segment, 14.2mm (.56") high digits
Digit Color Red or Green
Enclosure Black, high-impact plastic, panel mount (DPM)
Display range -999,999 to 999,999
Decimal point Programmable 9.99999, 99.9999, 999.999, 9999.99, 99999.9 or 999999

Mighty-1C DPM Remote Display

Digits 6 LED digits, 7 segment, 25.4mm (1.0") high digits
Color Red
Enclosure Black aluminum, panel mount (DPM)
Display range -999,999 to 999,999
Decimal point Programmable 9.99999, 99.9999, 999.999, 9999.99, 99999.9 or 999999

Mighty-4C "Scoreboard" Display

Digits 6 LED digits, 7 segment, 101.6mm (4.0") high digits
Color Red
Enclosure Black, high-impact plastic, panel or wall mount
Display range -999,999 to 999,999
Decimal point Programmable 9.99999, 99.9999, 999.999, 9999.99, 99999.9 or 999999

Mighty-5C "Scoreboard" Display

Digits 6 LED digits, 7 segment, 127mm (5.0") high digits
Color Red, super-bright, outdoor readable
Enclosure Blue, aluminum NEMA-4X, wall or bracket mount
Display range -999,999 to 999,999
Decimal point Programmable 9.99999, 99.9999, 999.999, 9999.99, 99999.9 or 999999

General:

Reading rate 50 Rdg./sec w/ 50Hz power, 60 Rdg/sec w/ 60Hz power
Operating power (Micro-C, Mighty-1C & Mighty-4C):
 High range (MPS1 power supply) 85 to 264Vac, 47-400Hz & 90 to 370Vdc
 Low range (MPS2 power supply) 8 to 28Vac, 47-400Hz & 9 to 37Vdc
Operating power (Mighty-5C) 85 to 264Vac, 47-400Hz & 90 to 370Vdc

Excitation power supplies:

Outputs (+/-5%) 5Vdc @ 100mA max., 10Vdc @ 120mA max. or 24Vdc@50mA max.
Isolation (power ground) Safety-rated to 250Vac, 4.2kVp per high voltage test

Environmental:

Operating temperature 0°C to 55°C
Storage temperature -40°C to 85°C
Relative humidity 95% at 40°C, non-condensing

SPECIFICATIONS (cont.)

Data input:

Data update Continuous or on-command
Connection:
RS232 Full duplex (separate TX and RX lines)
RS485 Full duplex (separate TX and RX lines) or half duplex
Baud rate Selectable 300 to 19,200
Format +9999.99<cr>; no parity, 8 data bit word length and 1 stop bit
Data connection telephone extension cord (RJ11)

With an RS485 digital interface card installed, up to 31 displays may be connected on the same buss and addressed separately

ORDERING GUIDE

One entry required per block. For example, model MCR0JHHRD is a Micro-C remote display with red 0.56" Led display, high range power supply and 0-10 Vdc analog output. Add -SC option if required.

Display Color & Digit Size

MCR MICRO-C, Basic Counter, Red 0.56" Led's
MCG MICRO-C, Basic Counter, Green 0.56" Led's
M1CR MIGHTY-1C, Basic Counter, Red 1" Led's
M4CR MIGHTY-4C, Basic Counter, Red 4" Led's

Mighty-5C (Red, 5" outdoor Led's):

M5CP Plastic Case (indoor use)
M5CW Wall Mount, NEMA-4X case
M5CB Bracket Mount, NEMA-4X case

Display Power (except Mighty-5C)

0 85 to 264 Vac, 90 to 370 Vdc
1 8 to 28 Vac, 9 to 37 Vdc
Mighty-5C requires no entry, "0" is standard.

Analog Output (optional)

H None
J 0 to 10 Vdc
K 0 to 20 (4/20) mAdc

Setpoint Output (optional)

H None
R Dual 10 A relay output
C Open collector output

Digital Interface (required, select one)

H None
2 RS-232
4 RS-485

Signal Conditioner (none required, select RD)

Remote Display

RD Requires RS232 or RS485 Digital Interface and no signal conditioner

Special Configuraion

SC Specify when scalings or configurations other than those defaults shown above are required.

DIGITAL SCOREBOARD DISPLAYS

6" & 9" LED or "Flip" Digit Models

Features:

- ◆ Large 6" or 9" tall digits
- ◆ Choice of traditional "Flip" Digits or daylight-bright LED digits.
- ◆ Readable to 360 Feet (9" Digits)
- ◆ 4 (9999), 5 (99999) or 6 (999999) Digits
- ◆ Serial 20mA or RS232 Input
- ◆ Compatible with many weighmeters
- ◆ Microprocessor electronics
- ◆ Sealed surface mount case
- ◆ Conduit box connections
- ◆ 18 Month Warranty



Model: **468-6RD**
6" Yellow "Flip" Digits



Model: **6XL-9RD**
9" Daylight-Bright LED Digits

Serial data **Digital Remote "SCOREBOARD" Displays** for general purpose applications or for use with weighmeters. These displays are ideal for viewing numeric information from a long distance and the sealed surface-mount case provides protection in dirty or damp environments. These displays are passive (2-wire) input and will accept ASCII data from computers, weighmeters and other RS232 or 20mA serial data sources. Flip digit models are provided with 115Vac power standard and 230Vac or 12Vdc power as options. LED models operate from worldwide power of 90 to 264 volts AC or DC.



Model: **687-6RD**
6" Yellow "Flip" Digits

ELECTRICAL SPECIFICATIONS

Display:

Flip Digit Models

Digit Type seven-segment electromagnetic "flip" digits (non-lighted)
Digit Height 6" (152mm) or 9" (229mm) high digits
Digit Color Saturn yellow, reflective
Digit Quantity 4 (9,999), 5 (99,999) or 6 (999,999) digits
Decimal point or colon(s) Decimal decal(s) applied as required

Daylight Readable LED Models

Digit Type 7-segment LED (5 or 10 LEDs per segment), 90°
viewing angle. Readable in bright sunlight
Digit Height 6" (152mm) or 9" (229mm) high digits
Digit Color Red/orange
Display range -999 to 9999, -9999 to 99999 or -99999 to 999999
Decimal point or colon(s) Specify with order, 9.99999, 99.9999, 999.999,
9999.99, or 99999.9

General:

Enclosure Extruded aluminum, black. Sealed with
conduit box for power & data connections

Operating power:

Flip digit models:

Standard 115Vac \pm 15%, 50/60Hz

Optional 230Vac \pm 15%, 50/60Hz or 12Vdc \pm 10%

LED digit models:

Standard 85 to 264Vac, 47-400Hz & 90 to 370Vdc

Environmental:

Operating temperature -32°C to +66°C

Storage temperature -40°C to 85°C

Relative humidity 95% at 40°C, non-condensing

Case Sealed against dust and moisture

Data input:

Data update Continuous

Connection:

Data rate 2.5 display updates per second max.

Baud rate 1200

Format #999999<cr>; odd or even parity, 8 data bit word length and 1 stop bit
/ D D D D D / Note 1 / CR

..... Pound Sign (decimal 035)

D Numeric data, 6 digits max. (decimal 048 to 057)

Note 1 This area may contain up to 4 non-numeric characters such as Lb, Kg etc.
These characters will not be displayed.

CR Carriage Return

MECHANICAL

Dimensions see **Dimensions & Mounting**

Weight:

Digit Size	4 Digit	5 Digit	6 Digit
6"	15 lb	17 lb	18 lb
9"	37 lb	43 lb	45 lb

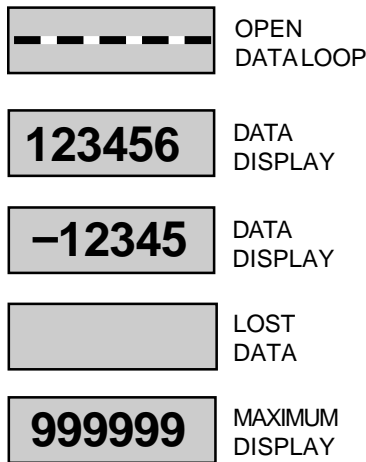
Case material Black painted aluminum, ABS back panel

Window material Clear or red acrylic

Connectors:

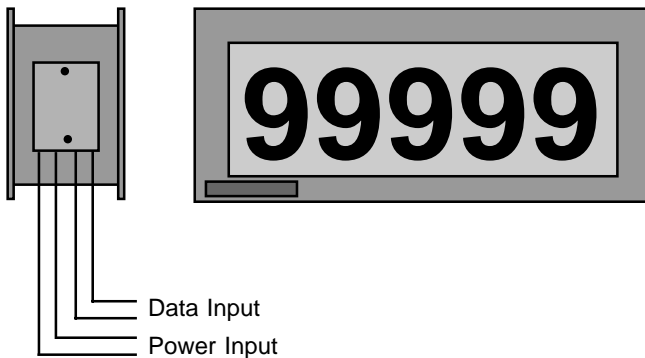
Power and Data input Pigtail leads via a weatherproof conduit box.

DISPLAY INDICATIONS



Note: Some programs may display HELP instead of center dashes to indicate an open data loop.

ELECTRICAL CONNECTIONS



Blk	ac Power Line 1	Yel	Data (+), TX(+)
Wht	ac Power Line 2	Blu	Data Return
Grn	Earth Ground		
Red	dc Pwr (+), optional, flip digits only		
Blk	dc Pwr Return, optional, flip digits only		

ORDERING GUIDE

One entry required per block. For example, model 587-6RD is a remote display with five, yellow six-inch 'flip' digits, 115Vac power input and RS232 serial data input. An asterick requires no entry.



MODEL

Flip Digit Models

468-6RD	6", 4 Digit Remote Display
467-9RD	9", 4 Digit Remote Display
587-6RD	6", 5 Digit Remote Display
587-9RD	9", 5 Digit Remote Display
687-6RD	6", 6 Digit Remote Display
687-9RD	9", 6 Digit Remote Display

Outdoor LED Digit Models

4XL-4RD	6", 4 Digit Remote Display
4XL-6RD	9", 4 Digit Remote Display
5XL-6RD	6", 5 Digit Remote Display
5XL-9RD	9", 5 Digit Remote Display
6XL-6RD	6", 6 Digit Remote Display
6XL-9RD	9", 6 Digit Remote Display



POWER (flip digit models)

*	115Vac, 50/60Hz
230Vac	230Vac, 50/60Hz
12Vdc	12Vdc



POWER (LED digit models)

*	90 to 264 Vac or Vdc is standard on LED models
---	--

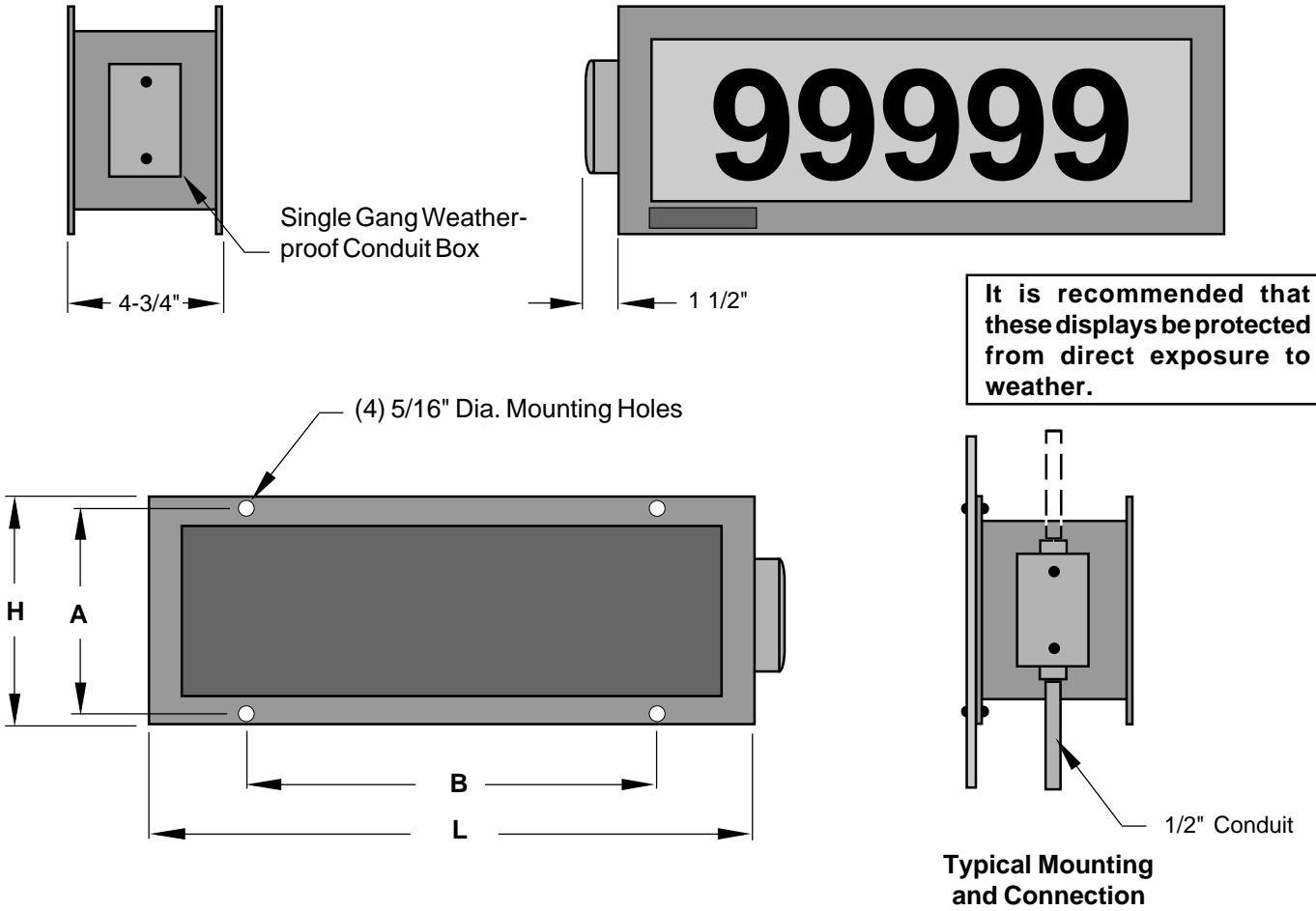


DATA INPUT (all models)

*	RS232 Serial
20mA	20mA Serial

DIMENSIONS and MOUNTING

SEE MODELS IN TABLE BELOW

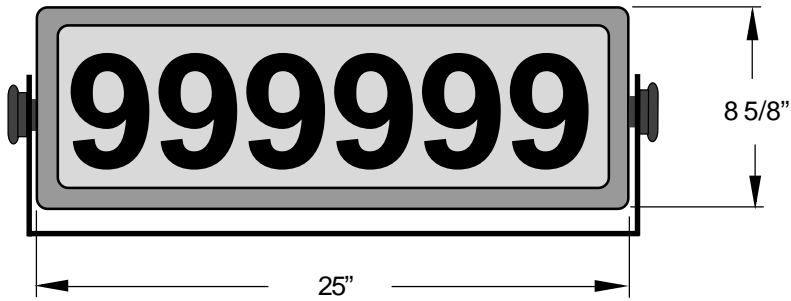


DIMENSIONS

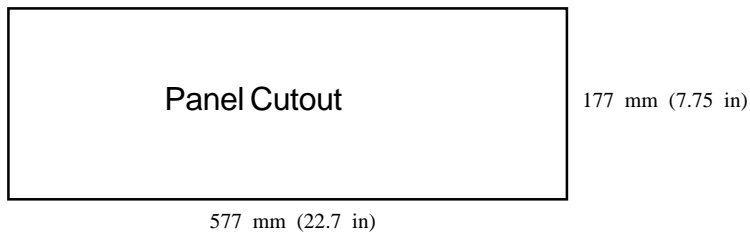
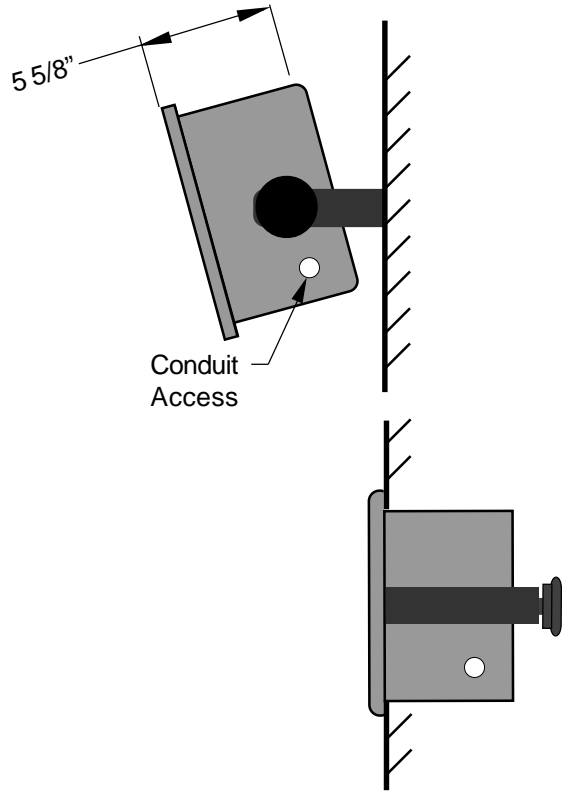
DIGIT SIZE	MODEL	L	H	B	A
4"	468-4 & 4XL-4	16 3/4	7 7/8	10 1/2	6 7/8
	587-4 & 5XL-4	25	7 7/8	16 3/4	6 7/8
	687-4 & 6XL-4	25	7 7/8	16 3/4	6 7/8
6"	468--6 & 4XL-6	25	9 3/4	16 3/4	8 3/4
	587-6 & 5XL-6	38 3/4	9 3/4	30 1/2	8 3/4
	687-6 & 6XL-6	38 3/4	9 3/4	30 1/2	8 3/4
9"	487-9 & 4XL-9	38 3/4	9 3/4	30 1/2	8 3/4
	587-9 & 5XL-9	61 3/8	13 3/4	53 1/8	12 3/4
	687-9 & 6XL-9	61 3/8	13 3/4	53 1/8	12 3/4

Dimensions Are In Inches +/- 1/8"

MIGHTY-4C REMOTE DISPLAY

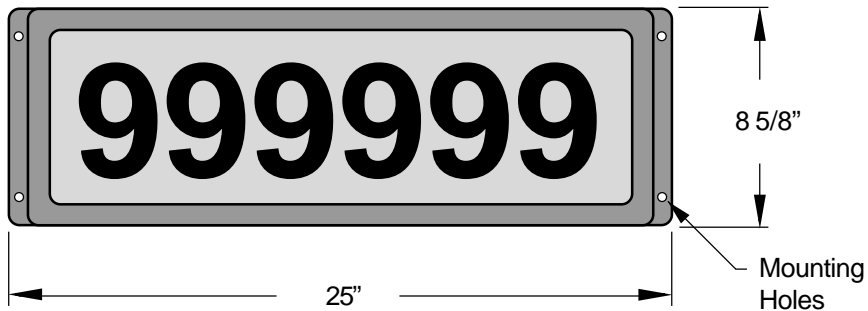


Option 1: Bale Mount

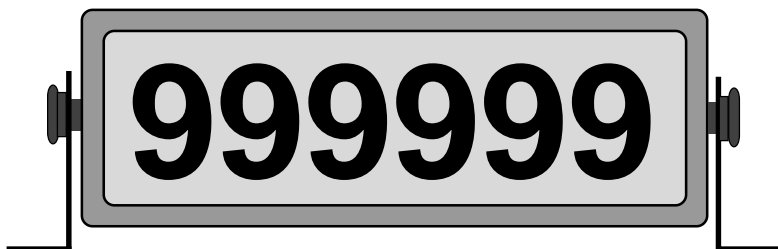
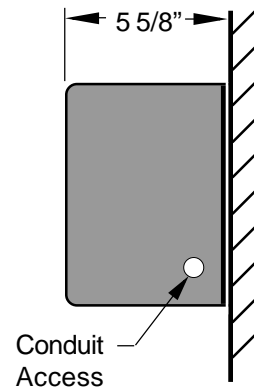


Option 2: Panel Mount

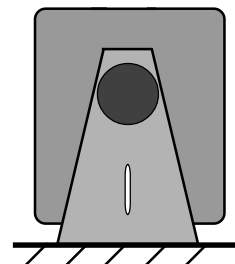
MIGHTY-5C REMOTE DISPLAY



Option 1: Wall Mount Back Panel Model M5CW

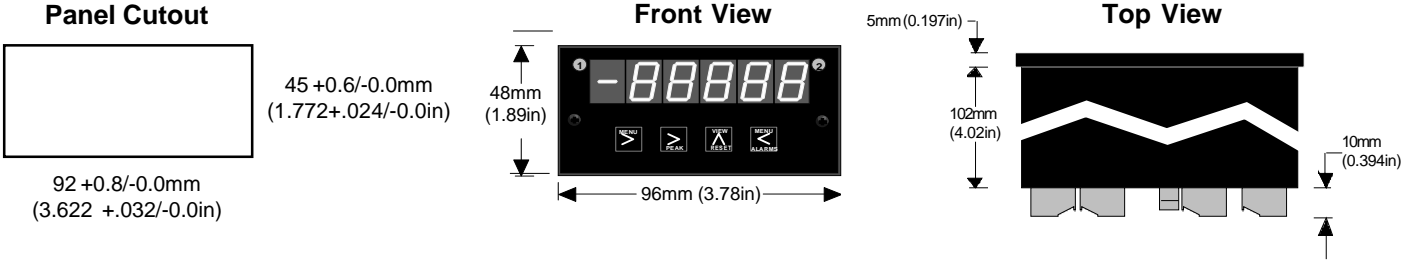


Option 2: Universal Mounting Brackets Model M5CB



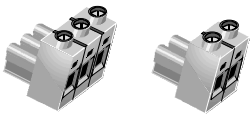
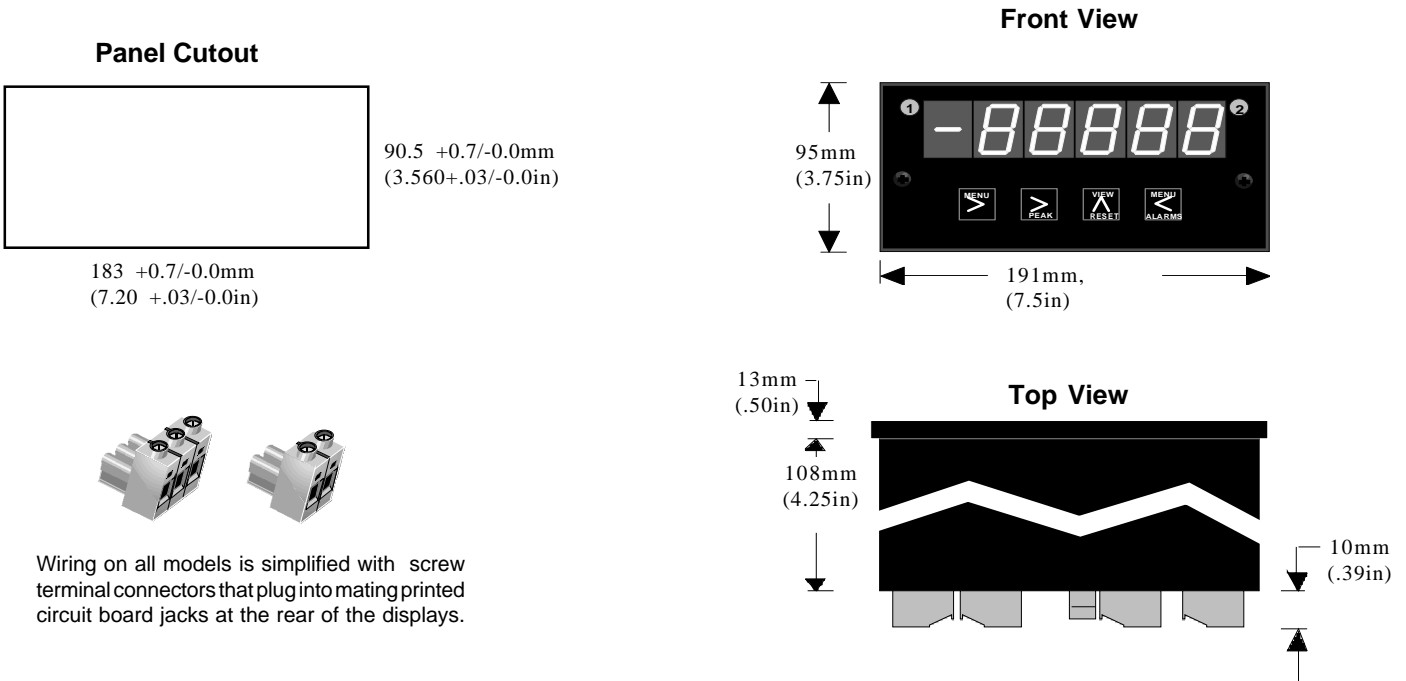
DIMENSIONS and MOUNTING (CONT.)

MICRO-C REMOTE DISPLAY (1/8 DIN DPM)



For extended features, add "E" to the part number i.e. MCRE

MIGHTY-1C REMOTE DISPLAY



Wiring on all models is simplified with screw terminal connectors that plug into mating printed circuit board jacks at the rear of the displays.

WARRANTY & SERVICE

LIMITED PRODUCT WARRANTY:

Electro-Numerics Incorporated warrants these products to be free of defects in material and workmanship for 18 or 24 months (depending on model) from date of shipment to original customer. This warranty on materials and workmanship may be considered as unconditional provided that, in the opinion of Electro-Numerics, the equipment has not been mechanically, environmentally or electrically abused and has been installed, maintained and operated within the limits of rated or normal usage.

Defective products must be sent, transportation charges prepaid with notice of the defect, to our plant in Temecula CA. This warranty is limited, at the option of Electro-Numerics, to repair, replacement, or an appropriate credit adjustment not to exceed the original equipment sales price. All warranty freight charges are F.O.B., our plant, Temecula, CA. Electro-Numerics assumes no liability in connection with the

sales of its products beyond that stated above and is not responsible for any incidental or consequential loss or damage which might result from a failure of any Electro-Numerics' product.

SERVICE:

Products being returned for service should be sent, freight prepaid, to Electro-Numerics, Inc., 42213 Sarah Way, Temecula, CA, U.S.A. to the attention of the Repair Department with a full description of the problem or reason for return. All items sent in for service are subject to a minimum evaluation charge of \$65.00 in the event that the product is found to be out-of-warranty or, if under warranty, not in need of additional service. Out-of-Warranty service and repair charges will be quoted on a case-by-case basis. All repaired products will be shipped to you F.O.B., Temecula, CA.

CONDITIONS OF SALE

Freight:

F.O.B Temecula, California. Insurance and handling charges are added to all shipments. Handling charges are computed at 1% of the shipment product cost with \$1 minimum & \$7 maximum.

Prices:

Prices published in catalogs, price lists or on the Internet are not offers to sell and are subject to change without notice. General price information should be specifically confirmed. Product listings, specifications and manufacturing details are subject to change without notice.

Payment Terms:

Net 30 days from invoice date with credit approval, Visa, Mastercard, American Express or C.O.D.. A 1^{1/2}% service charge will be added on balances beyond 30 days. All returns must be authorized and pass factory inspection. Returns are subject to a restocking fee and a maximum of 90 days from invoice date.



42213 Sarah Way, Temecula CA 92590
1-800-854-8530 Tel: 951-699-2437 Fax: 951-695-7246
Web Site: <http://www.electronumerics.com>