

# Laurel Electronics

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## August 2023 Customer Price List

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**Laurel Electronics, Inc.**

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## LAUREATE DIGITAL PANEL METERS & COUNTERS

High accuracy, high read rate, digitally programmable meters available for a wide range of industrial signals. Modular design with field installable option boards and calibration stored in EEPROM. Choice of relay options, analog output options, and serial communication options.

<b>L1, L2</b> .....	Meters for DC, AC, voltage, current, process, strain gauge, load cell, TC, RTD, ohms.....	<b>3</b>
<b>L5, L6, L7, L8</b> .....	Counters for frequency, rate, total, time, batch, quadrature, draw, ratio, analog total .....	<b>4</b>
<b>L5, L6</b> .....	Serial input meter and remote display. Optional dual relays and analog output .....	<b>5</b>
<b>LW</b> .....	Scale meter with special firmware for weighing applications.....	<b>6</b>

## LAUREATE DIN RAIL TRANSMITTERS

LT, LTE and LTS transmitters offer high accuracy, high update rate, and a wide choice of digitally programmable functions. Standard features include an isolated 4-20 mA or 0-10V analog output (user selectable), isolated serial data I/O (RS232, RS485, Ethernet) with Modbus or Custom ASCII protocol (user selectable), and dual 120 mA solid state relays (standard). Same signal conditioners and setup software as Laureate meters and counters.

<b>LT2, LT4</b> .....	Transmitters, analog input, 4-20 mA and RS232/485 outputs, dual relays .....	<b>5</b>
<b>LTE2, LTE4</b> .....	Transmitters, analog input, 4-20 mA and Ethernet outputs, dual relays.....	<b>5</b>
<b>LT6, LT8</b> .....	Transmitters, pulse input, 4-20 mA and RS232/485 outputs, dual relays .....	<b>6</b>
<b>LTE6, LTE8</b> .....	Transmitters, pulse input, 4-20 mA and Ethernet outputs, dual relays.....	<b>6</b>
<b>LTS6</b> .....	Serial-to-analog converter. RS232 or RS485 in, 4-20 mA out.....	<b>8</b>
<b>QLS</b> .....	Quad loop splitter. Splits one 4-20 mA or 0-10V input into four 4-20 mA current loops.....	<b>8</b>

## MAGNA LARGE DIGIT DISPLAYS

Available for serial, process, strain gauge, thermocouple, RTD, totalizer, frequency, rate, timer, and clock operation. Sealed to IP65 (NEMA4X).

<b>MAGNA</b> .....	Large Digit Displays, digit height of 2", 4", 6" or 8" .....	<b>7</b>
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## LOW COST & SMALL SIZE METERS

<b>L40</b> .....	Universal, low-cost analog input meter for 65 signal types and ranges .....	<b>7</b>
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## METER ACCESSORIES

<b>NL &amp; BL</b> .....	Laureate meter lens options without logo or button pads .....	<b>8</b>
<b>CBL &amp; BKBD</b> .....	Computer interface cables and b breakout board .....	<b>8</b>
<b>IPC, BOX, CASE</b> .....	Environmental enclosures and splash-proof cover for 1/8 DIN meters .....	<b>8</b>

## HOW TO CONFIGURE MODEL NUMBERS

To build a Laurel model number, make one entry per bold heading, or use the ordering guide at the end of our product web pages. For example, **L20010DCV1** is a 200 mV DC Laureate voltmeter with an AC power supply and an analog output. Add **-X** to Laureate model numbers for operation down to -40°C (-13°F), like **L20010DCV1-X**. Laureate add-on accessories are separated by commas. The above meter with a NEMA-4X enclosure would be **L20010DCV1-X, BOX1**. MAGNA large digit displays have ordering options separated by hyphens, as in **M44-MPR-MT2**.

**LAUREATE DPM, ANALOG INPUT**

L.....Laureate Series meter, plug-in screw terminal connectors.....\$157

**Display Color (one required)**

1.....Basic DPM, green LEDs.....NC  
 2.....Basic DPM, red LEDs.....NC  
 3.....Extended DPM, green LEDs.....\$33  
 4.....Extended DPM, red LEDs.....\$33

“Extended” allows custom curve linearization and rate from successive readings. Not applicable to temperature.

**Power (one required)**

0.....85-264 Vac or 95-300 Vdc.....\$75  
 1.....12-34 Vac or 10-48 Vdc.....\$115

**Relay Output (optional)**

0.....None  
 1.....Two 8A Form C contact relays.....\$101  
 2.....Two 120 mA solid state relays.....\$70  
 3.....Four 8A Form A contact relays.....\$128  
 4.....Four 120 mA solid state relays.....\$96

**Analog Output (optional)**

0.....None  
 1.....4-20 mA, 0-10 V, -10 to +10V.....\$115

**Data Communications (optional)**

0.....None  
 1.....RS232 (L232 board).....\$81  
 2.....RS485 with 2 RJ11 connectors (L485 board)...\$109  
 4.....RS485 with 2 RJ45 connectors (LMOD board).\$135  
 5.....USB (LUSB board).....\$81  
 6.....USB-to-RS485 gateway (LUSB485 board).....\$135  
 7.....Ethernet (LNET board).....\$237  
 8.....Ethernet-to-RS485 gateway (LNET485 board).\$259  
 A.....Ethernet+USB (LNET1 board).....\$182  
 B.....Ethernet+RS485 (LNET1485 board).....\$204  
 C.....WiFi+USB int. antenna (LWIFI board).....\$171  
 D.....WiFi+USB ext. antenna LWIFIX board).....\$193  
 E.....WiFi+USB+RS485 int. ant. (LWIFI485 board)..\$204  
 F.....WiFi+USB+RS485 ext. ant. (LWIFIX485 bd)....\$226

**Input Type (one required)**

**DC Volts (DC ranges are jumper selectable)**

DCV1.....± 200.00 mV.....\$81  
 DCV2.....± 2.0000 V.....\$81  
 DCV3.....± 20.000 V.....\$81  
 DCV4.....± 200.00 V.....\$81  
 DCV5.....± 600.0 V (range not ETL certified).....\$81  
 DCV6.....± 300.0 V (range ETL certified).....\$81

**DC Amperes (DC ranges are jumper selectable)**

DCA1.....± 2.0000 mA.....\$81  
 DCA2.....± 20.000 mA.....\$81  
 DCA3.....± 200.00 mA.....\$81  
 DCA4.....± 5.000 A.....\$81

**RMS Volts (AC RMS ranges are jumper selectable)**

RMV1.....200.00 mV.....\$135  
 RMV2.....2.0000 V.....\$135  
 RMV3.....20.000 V.....\$135  
 RMV4.....200.00 V.....\$135

RMV5.....600.0 V (range not ETL certified).....\$135  
 RMV6.....300.0 V (range ETL certified).....\$135

**RMS Amperes (AC RMS ranges are jumper selectable)**

RMA1.....2.0000 mA.....\$135  
 RMA2.....20.000 mA.....\$135  
 RMA3.....200.00 mA.....\$135  
 RMA4.....5.000 A.....\$135

**Process Signals (4-20 mA, 0-10V plus all DC ranges)**

P.....4-20 mA = 0-100.00 display.....\$81  
 P1.....Custom scaling.....\$103  
 Specify minimum signal & displayed reading, maximum signal & displayed reading. 5, 10 or 24 Vdc excitation.

**Strain Gauges, Potentiometers (4-wire ratio)**

SG.....0 to 200 mV = 0 to 100.00 display.....\$81  
 SG1.....Custom scaling.....\$103  
 Specify minimum signal & displayed reading, maximum signal & displayed reading. Includes 10 Vdc excitation.

**Load Cells (6-wire ratio)**

WM1.....-99,999 to +99,999.....\$164  
 Specify minimum signal & displayed reading, maximum signal & displayed reading. Full scale ranges from ± 20 mV to ± 500 mV. Includes 10 Vdc excitation.

**Thermocouple (TC ranges are user selectable)**

JC.....-210 to 760°C.....\$81  
 JF.....-347 to 1400°F.....\$81  
 KC.....-244 to 1372°C.....\$81  
 KF.....-408 to 2501°F.....\$81  
 TC.....-257 to 400°C.....\$81  
 TF.....-430 to 752°F.....\$81  
 EC.....-270 to 1000°C.....\$81  
 EF.....-450 to 1830°F.....\$81  
 NC.....-245 to 1300°C.....\$81  
 NF.....-410 to 2370°F.....\$81  
 RC.....-45 to 1768°C.....\$81  
 RF.....-49 to 3213°F.....\$81  
 SC.....-46 to 1768°C.....\$81  
 SF.....-51 to 3214°F.....\$81

**RTD Input (RTD or ohms ranges are user selectable)**

P385C.....Pt 100 Ω platinum, -202 to 850°C.....\$81  
 P385F.....Pt 100 Ω platinum, -331 to 1562°F.....\$81  
 P392C.....Pt 100 Ω platinum, -202 to 631°C.....\$81  
 P392F.....Pt 100 Ω platinum, -331 to 1168°F.....\$81  
 N672C.....Ni 120 Ω nickel, -100°C to +260°C.....\$81  
 N672F.....Ni 120 Ω nickel, -148°F to +500°F.....\$81  
 C427C.....Cu 10 Ω copper, -100°C to +260°C.....\$81  
 C427F.....Cu 10 Ω copper, -148°F to +500°F.....\$81

**Ohms Input**

R0.....0-2.0000 ohm (special fixed range).....\$116  
 R1.....0-20.000 ohm (selectable range).....\$81  
 R2.....0-200.00 ohm (selectable range).....\$81  
 R3.....0-2.0000 kohm (selectable range).....\$81  
 R4.....0-20.000 kohm (selectable range).....\$81  
 R5.....0-200.00 kohm (selectable range).....\$81  
 R6.....0-2.0000 Mohm (special fixed range).....\$116  
 R7.....0-20.000 Mohm (special fixed range).....\$116

**Extended Operating Temperature**

-X.....-40°C to 75°C (not 0°C to 55°C).....\$33

## LAUREATE COUNTER / TIMER, PULSE INPUT

L ..... Laureate Series multifunction counter / timer / rate meter ..... \$169

### Display Color (one required)

5 ..... Basic counter, green LEDs ..... NC  
6 ..... Basic counter, red LEDs ..... NC  
7 ..... Extended counter, green LEDs ..... \$41  
8 ..... Extended counter, red LEDs ..... \$41

Please see Input Types below for meaning of "Extended."

### Power (one required)

0 ..... 85-264 Vac or 95-300 Vdc ..... \$75  
1 ..... 12-34 Vac or 10-48 Vdc ..... \$115

### Relay Output (optional)

0 ..... None ..... NC  
1 ..... Two 8A Form C contact relays ..... \$101  
2 ..... Two 120 mA solid state relays ..... \$70  
3 ..... Four 8A Form A contact relays ..... \$128  
4 ..... Four 120 mA solid state relays ..... \$96

### Analog Output (optional)

0 ..... None ..... NC  
1 ..... Single isolated analog output ..... \$115  
2 ..... Dual isolated analog outputs ..... \$172

### Data Communications (optional)

0 ..... None  
1 ..... RS232 (L232 board) ..... \$81  
2 ..... RS485 with 2 RJ11 connectors (L485 board) ... \$109  
4 ..... RS485 with 2 RJ45 connectors (LMOD board) \$135  
5 ..... USB (LUSB board) ..... \$81  
6 ..... USB-to-RS485 gateway (LUSB485 board) ..... \$135  
7 ..... Ethernet (LNET board) ..... \$237  
8 ..... Ethernet-to-RS485 gateway (LNET485 board) \$259  
A ..... Ethernet+USB (LNET1 board) ..... \$182  
B ..... Ethernet+RS485 (LNET1485 board) ..... \$204  
C ..... WiFi+USB int. antenna (LWIFI board) ..... \$171  
D ..... WiFi+USB ext. antenna LWIFIX board) ..... \$193  
E ..... WiFi+USB+RS485 int. ant. (LWIFI485 board) .. \$204  
F ..... WiFi+USB+RS485 ext. ant. (LWIFIX485 bd) .... \$226

### Input Type (one required)

#### Dual Channel Pulse or AC Inputs

FR ..... Scalable to 999,999 ..... \$81

#### With standard main board

Two pulse channels for frequency, totalizing or timing.

#### Extended counter

Above plus rate and total simultaneously, linearized inputs using up to 180 points, arithmetic functions (A\*B, A/B, A+B, A-B, A/B-1), phase angle, duty cycle, up/down counting, batch control.

### Process Rate & Total

VF1 ..... 4-20 mA ..... \$81  
VF2 ..... 0-1 mA ..... \$81  
VF3 ..... 0-10 V ..... \$81

#### Basic counter

Rate, square root of rate (differential pressure or target type flow meters), rate.or total on two channels.

#### Extended counter

Above plus linearized inputs using up to 180 points, batch control with rate, total and # of batches or grand total of all batches, time measurements based on rate.

### Quadrature

QD ..... scalable to 999,999 ..... \$123

#### Basic counter

Position or length from encoders. Accepts differential or single-ended inputs. 1x, 2x or 4x plus zero index.

#### Extended counter

Above plus bidirectional rate. Rate and position or length are not simultaneous.

### Cable & Case Add-ons. See page 8.

## SERIAL INPUT METER / REMOTE DISPLAY

L ..... Laureate 6-digit remote display ..... \$169

### Display Color (one required)

5 ..... Remote display, green LEDs ..... NC  
6 ..... Remote display, red LEDs ..... NC

### Power (one required)

0 ..... 85-264 Vac or 90-300 Vdc ..... \$75  
1 ..... 12-32 Vac or 10-48 Vdc ..... \$115

### Relay Output (optional)

0 ..... None ..... NC  
1 ..... Two 8A Form C contact relays ..... \$101  
2 ..... Two 120 mA solid state relays ..... \$70  
3 ..... Four 8A Form A contact relays ..... \$128  
4 ..... Four 120 mA solid state relays ..... \$96

### Analog Output (optional)

0 ..... None ..... NC  
1 ..... Single isolated analog output ..... \$115  
2 ..... Dual isolated analog outputs ..... \$172

### Serial Communications (one required)

0 ..... None  
1 ..... RS232 (L232 board) ..... \$81  
2 ..... RS485 with 2 RJ11 connectors (L485 board) ... \$109  
4 ..... RS485 with 2 RJ45 connectors (LMOD board) \$135  
5 ..... USB (LUSB board) ..... \$81  
7 ..... Ethernet (LNET board) ..... \$237  
A ..... Ethernet+USB (LNET1 board) ..... \$182  
B ..... Ethernet+RS485 (LNET1485 board) ..... \$204  
C ..... WiFi+USB int. antenna (LWIFI board) ..... \$171  
D ..... WiFi+USB ext. antenna LWIFIX board) ..... \$193  
E ..... WiFi+USB+RS485 int. ant. (LWIFI485 board) .. \$204  
F ..... WiFi+USB+RS485 ext. ant. (LWIFIX485 bd) .... \$226

### Cable & Case Add-ons. See page 8.

## LAUREATE TRANSMITTERS, ANALOG INPUT

Includes isolated 4-20 mA or 0-10V analog output, isolated serial data output (Modbus or Custom ASCII protocol), isolated dual 120 mA solid state relays, isolated 5, 10 or 24 Vdc excitation output (for DC, AC, process, strain gauge, load cell inputs), and detachable screw clamp connectors.

LT..... 4-20 mA & RS232/RS485 outputs..... \$164  
LTE ..... 4-20 mA & Ethernet outputs ..... \$388

### Main Board (one required)

2 ..... Standard analog input ..... NC  
4 ..... Extended analog input..... \$33

Extended allows custom curve linearization and rate from successive readings. Not applicable to analog input LTE models or to temperature.

### Power (one required)

0 ..... 85-264 Vac or 95-300 Vdc..... \$89  
1 ..... 12-32 Vac or 10-48 Vdc..... \$89

### Signal Input Type (one required)

#### DC Volts (DC ranges are jumper selectable)

DCV1 ..... ± 200.00 mV ..... \$81  
DCV2 ..... ± 2.0000 V ..... \$81  
DCV3 ..... ± 20.000 V ..... \$81  
DCV4 ..... ± 200.00 V ..... \$81  
DCV5 ..... ± 600.0 V (range not ETL certified) ..... \$81  
DCV6 ..... ± 300.0 V (range ETL certified) ..... \$81

#### DC Amperes (DC ranges are jumper selectable)

DCA1 ..... ± 2.0000 mA ..... \$81  
DCA2 ..... ± 20.000 mA ..... \$81  
DCA3 ..... ± 200.00 mA ..... \$81  
DCA4 ..... ± 5.000 A ..... \$81

#### RMS Volts (AC RMS ranges are jumper selectable)

RMV1 ..... 200.00 mV ..... \$135  
RMV2 ..... 2.0000 V ..... \$135  
RMV3 ..... 20.000 V ..... \$135  
RMV4 ..... 200.00 V ..... \$135  
RMV5 ..... 600.0 V (range not ETL certified) ..... \$135  
RMV6 ..... 300.0 V (range ETL certified) ..... \$135

#### RMS Amperes (AC RMS ranges are jumper selectable)

RMA1 ..... 2.0000 mA ..... \$135  
RMA2 ..... 20.000 mA ..... \$135  
RMA3 ..... 200.00 mA ..... \$135  
RMA4 ..... 5.000 A ..... \$135

#### Process Signals (4-20 mA, 0-5V, etc.)

P ..... 4-20 mA in = 4-20 mA out ..... \$81  
P1 ..... Custom scaling ..... \$103

Specify min input & output, max input & output.

#### Strain Gauges, Potentiometers (4-wire ratio)

SG ..... 0-200 mV in = 4-20 mA out ..... \$81  
SG1 ..... Custom scaling ..... \$103

Most sensitive range of ±200 mV. Specify min input signal & min output, max input signal & max output. Excitation set to 10 Vdc.

#### Load Cells (6-wire ratio)

WM1..... Load cell custom scaling..... \$164

Most sensitive range of ±20 mV. Specify min input signal & min output, max input signal & max output. Excitation set to 10 Vdc.

### Thermocouple (TC ranges are use selectable)

JC ..... -210 to 760°C ..... \$81  
JF ..... -347 to 1400°F ..... \$81  
KC ..... -244 to 1372°C ..... \$81  
KF ..... -408 to 2501°F ..... \$81  
NC ..... -245 to 1300°C ..... \$81  
NF ..... -410 to 2370°F ..... \$81  
TC ..... -257 to 400°C ..... \$81  
TF ..... -430 to 752°F ..... \$81  
EC ..... -270 to 1000°C ..... \$81  
EF ..... -450 to 1830°F ..... \$81  
RC ..... -45 to 1768°C ..... \$81  
RF ..... -49 to 3213°F ..... \$81  
SC ..... -46 to 1768°C ..... \$81  
SF ..... -51 to 3214°F ..... \$81

### RTD Input (RTD ranges are user selectable)

P385C ..... Pt 100 Ω platinum, -202 to 850°C..... \$81  
P385F ..... Pt 100 Ω platinum, -331 to 1562°F ..... \$81  
P392C ..... Pt 100 Ω platinum, -202 to 631°C..... \$81  
P392F ..... Pt 100 Ω platinum, -331 to 1168°F ..... \$81  
N672C ..... Ni 120 Ω nickel, -100°C to +260°C..... \$81  
N672F ..... Ni 120 Ω nickel, -148°F to +500°F ..... \$81  
C427C ..... Cu 10 Ω copper, -100°C to +260°C..... \$81  
C427F ..... Cu 10 Ω copper, -148°F to +500°F..... \$81

### Ohms Input

R0 ..... 0-2.0000 ohm (fixed range) ..... \$115  
R1 ..... 0-20.000 ohm (selectable range) ..... \$81  
R2 ..... 0-200.00 ohm (selectable range) ..... \$81  
R3 ..... 0-2.0000 kohm (selectable range)..... \$81  
R4 ..... 0-20.000 kohm (selectable range)..... \$81  
R5 ..... 0-200.00 kohm (selectable range)..... \$81  
R6 ..... 0-2.0000 Mohm (fixed range) ..... \$115  
R7 ..... 0-20.000 Mohm (fixed range) ..... \$115

### Extended Operating Temperature

-X ..... -40°C to 75°C (not 0°C to 55°C) ..... \$33

### Accessory Cables (required to program LT models)

CBL04..... RS232 cable. Connects RS232 port of PC to RS232 port of LTS transmitter..... \$23

CBL02..... USB-to-DB9 adapter cable. Includes FTDI chip for compatibility with all versions of Windows. Combination of CBL02 and CBL04 connects PC USB port to LT RS232 port. .... \$47

## LAUREATE TRANSMITTERS, PULSE INPUT

Includes 4-20 mA or 0-10V analog output, serial data output, dual 120 mA state relays, isolated 5, 10 or 24 Vdc excitation output, and detachable screw clamp connectors.

LT ..... 4-20 mA & RS232/RS485 ..... \$164  
LTE ..... 4-20 mA & Ethernet ..... \$388

### Main Board (one required)

6 ..... Standard pulse input ..... NC  
8 ..... Extended (see notes below) ..... \$55

### Power (one required)

0 ..... 85-264 Vac or 95-300 Vdc ..... \$89  
1 ..... 12-34 Vac or 10-48 Vdc ..... \$89

### Signal Input Type (one required)

#### Dual Channel Pulse or AC Inputs

FR ..... Dual pulse or AC inputs ..... \$81

#### With standard main board

Two pulse channels for frequency, totalizing or timing.

#### With Extended main board

Above plus rate and total simultaneously, linearized inputs using up to 180 points, ratio, draw, arithmetic functions (A\*B, A/B, A+B, A-B), phase angle, duty cycle, dynamic up/down counting, batch control.

### Process Input with Totalizing

VF1 ..... 4-20 mA ..... \$81  
VF2 ..... 0-1 mA ..... \$81  
VF3 ..... 0-10 V ..... \$81

#### With standard main board

Rate, rate & total simultaneously (analog totalizer), square root of rate (for differential pressure flow meters).

#### With Extended main board

Above plus linearized inputs using up to 180 points, batch control with rate, total and # of batches or grand total of all batches, time measurements based on rate.

### Quadrature

QD ..... Quadrature inputs ..... \$123

#### With standard main board

Position or length from encoders. Accepts differential or single-ended inputs: 1x, 2x or 4x, plus zero index.

#### With Extended main board

Above plus bidirectional rate (rate and position or length are not simultaneous).

### Accessory Cables (required to program LT models)

CBL04 ..... RS232 cable. Connects RS232 port of PC to RS232 port of LTS transmitter ..... \$23

CBL02 ..... USB-to-DB9 adapter cable. Includes FTDI chip for compatibility with all versions of Windows. Combination of CBL02 and CBL04 connects PC USB port to LT RS232 port. .... \$47

## LAUREATE SCALE / WEIGHING METER

LW ..... Laureate scale / weighing meter, plug-in screw terminal connectors ..... \$197

### Display Color (one required)

1 ..... Basic meter, green LEDs ..... NC  
2 ..... Basic meter, red LEDs ..... NC

### Power (one required)

0 ..... 85-264 Vac or 95-300 Vdc ..... \$75  
1 ..... 12-32 Vac or 10-48 Vdc ..... \$115

### Relay Output (optional)

0 ..... None  
1 ..... Two 8A Form C contact relays ..... \$101  
2 ..... Two 120 mA solid state relays ..... \$70  
3 ..... Four 8A Form A contact relays ..... \$128  
4 ..... Four 120 mA solid state relays ..... \$96

### Analog Output (optional)

0 ..... None  
1 ..... 4-20 mA, 0-20 mA, 0-10V ..... \$115

### Serial Communications (optional)

0 ..... None  
1 ..... RS232 (L232 board) ..... \$81  
2 ..... RS485 with 2 RJ11 connectors (L485 board) ..... \$109  
4 ..... RS485 with 2 RJ45 connectors (LMOD board) ..... \$135  
5 ..... USB (LUSB board) ..... \$81  
6 ..... USB-to-RS485 gateway (LUSB485 board) ..... \$135  
A ..... Ethernet+USB (LNET1 board) ..... \$182  
B ..... Ethernet+RS485 (LNET1485 board) ..... \$204  
C ..... WiFi+USB int. antenna (LWIFI board) ..... \$171  
D ..... WiFi+USB ext. antenna LWIFIX board) ..... \$193  
E ..... WiFi+USB+RS485 int. ant. (LWIFI485 board) .. \$204  
F ..... WiFi+USB+RS485 ext. ant. (LWIFIX485 bd).... \$226

### Signal Input Type (one required)

Specify min signal & displayed reading, max signal & displayed reading. Includes 5, 10 or 24 Vdc excitation.

### DC Volts (DC, P & SG ranges are jumper selectable)

DCV1 ..... ± 200.00 mV ..... \$81  
DCV2 ..... ± 2.0000 V ..... \$81  
DCV3 ..... ± 20.000 V ..... \$81

### Process Signals (4-20mA, 0-5V, etc.)

P ..... 4-20 mA = 0-100.00 display ..... \$81  
P1 ..... Custom scaling ..... \$103

### Strain Gauges, Potentiometers (4-wire ratio)

SG ..... 0-200.00 mV = 0-100.00 display ..... \$81  
SG1 ..... Custom scaling ..... \$103

### Load Cells (6-wire ratio)

WM1 ..... -99,999 to +99,999 ..... \$164  
Includes custom scaling. Full scale ranges of ±20 mV to ±500 mV.

### Extended Operating Temperature

-X ..... -40°C to 75°C (not 0°C to 55°C) ..... \$33

### Cable & Case Add-ons. See page 9.

## MAGNA SERIES LARGE DIGIT DISPLAYS

Build a model number with items separated by hyphens. Ordered items are shipped installed in display. Example: M24-MPR-MT2. MAGNA displays are custom built, and MAGNA orders are non-cancelable, non-returnable.

### Base Display with Black NEMA-4 Case

<b>M24</b> .....	2" (57 mm), 4 digits. Display 8.8.8.8. ....	\$585
<b>M26</b> .....	2" (57 mm), 6 digits. Display 8.8.8.8.8.8. ....	\$750
<b>M44</b> .....	4" (102 mm), 4 digits. Display 8.8.8.8. ....	\$920
<b>M46</b> .....	4" (102 mm), 6 digits. Display 8.8.8.8.8.8. ....	\$1200
<b>M64</b> .....	6" (150 mm), 4 digits. Display 8.8.8.8. ....	\$1620
<b>M66</b> .....	6" (150 mm), 6 digits. Display 8.8.8.8.8.8. ....	\$1645
<b>M84</b> .....	8" (200 mm), 4 digits. Display 8.8.8.8. ....	\$1990
<b>M86</b> .....	8" (200 mm), 6 digits. Display 8.8.8.8.8.8. ....	\$2035

### Signal Input (one required, select one)

<b>MCR</b> .....	Counter/rate meter .....	\$125
<b>MCT</b> .....	Clock / timer with decimals " . " .....	\$110
<b>MCT2</b> .....	Clock / timer with colons " : " .....	\$155
<b>MLC</b> .....	Load cell.....	\$135
<b>MPR</b> .....	Process (4-20 mA, 0-10V).....	\$110
<b>M232</b> .....	RS232 serial input.....	\$90
<b>M485</b> .....	RS485 / RS485 serial input.....	\$125
<b>MTC</b> .....	Thermocouple input .....	\$340
	Specify TC type (J,K,T,E,N,R,S) and °C or °F.	
<b>MRTD</b> .....	RTD input.....	\$340
	Specify RTD type (Pt100, Ni120, Cu10) and °C or °F.	

### Ohms Input

<b>R0</b> .....	0-2.0000 ohm (special fixed range).....	\$365
<b>R1</b> .....	0-20.000 ohm (jumper selectable).....	\$340
<b>R2</b> .....	0-200.00 ohm (jumper selectable).....	\$340
<b>R3</b> .....	0-2.0000 kohm (jumper selectable).....	\$340
<b>R4</b> .....	0-20.000 kohm (jumper selectable).....	\$340
<b>R5</b> .....	0-200.00 kohm (jumper selectable).....	\$340
<b>R6</b> .....	0-2.0000 Mohm (special fixed range).....	\$365

MAGNA temperature and ohms displays consist of a MAGNA M232 RS232 display plus an externally mounted Laureate LT RS232 transmitter (page 6).

### Analog Output (optional, select one or none)

<b>MAO1</b> .....	4-20 mA.....	\$95
<b>MAO2</b> .....	0-10V. ....	\$95
<b>MAO3</b> .....	-10V to +10V .....	\$160

### Relay Output (optional, select one or none)

<b>MRL1</b> .....	Two 5A, 250 Vac relays. ....	\$80
<b>MRL2</b> .....	Four 5A, 250 Vac relays.....	\$105

### Serial Data Output (optional, select one or none)

<b>MO232</b> .....	RS232. ....	\$85
<b>MO485</b> .....	RS485 with Modbus ASCII.....	\$125

### Case and Mounting (one required, select one)

<b>MT1</b> .....	Panel mount, black NEMA4 (IP65) case .....	\$210
<b>MT2</b> .....	Wall mount, black NEMA4 (IP65) case .....	\$115
<b>MT3</b> .....	Suspension mount, black NEMA4 case .....	\$115

### Modifying Options (not shippable separately)

<b>MRDLV</b> ..	Daylight viewing brightness.....	\$175
<b>MHTR</b> .....	AC heater for operation to -25°C (-13°F).....	\$400
<b>MPS2</b> .....	11-30 Vdc power instead of 85-265 Vac .....	\$115
<b>MGR</b> .....	Green (not red) LED display.....	\$0

**UM** .....

Extra case width for 2 blank digits..... \$60

Use UM for units of measure like °C. Required with M24 for relay, analog output or serial output options. Added at no charge with MHTR for M24 or M44.

### Add-on Option

**MRP** .....

MAGNA wired remote programmer..... \$150

### Additional MAGNA Configurations

Available by special quotation:

- LED colors green, blue, white, yellow (not just red).
- Digit heights of 12", 16", 24" or 32" (not just 4", 6" or 8").
- 8 digits (not just 4 or 6 digits).
- 2 or 4 solid state relays (not just mechanical relays).
- Stainless steel housing for food processing and pharmaceutical applications.
- Explosion-proof stainless steel housing rated for ATEX Zones 2 and 22 (equivalent to UL Class 1 / Division 2).

## L40 Universal, Low-Cost Analog Input Meter

Build a model number with items separated by hyphens. Ordered items are shipped installed in display. Example: L40- FS-A1 (Type K thermocouple, 1°C resolution)

### Base Meter

**L40**.....

Digital meter for 65 user-selectable analog signal types and ranges: DC voltage or current, AC RMS voltage or current, process signals (4-20 mA, 0-10V), thermocouple (10 types, °C or °F), RTD (6 types, °C or °F), thermistors (NTC or PTC), resistance (0-10k or 0-100k ohms), and potentiometer inputs.....\$148

### Custom Setup by Laurel or Distributor

**FS** .....

Jumper setting and front panel programming. Specify signal type and range. For DC, AC, process and resistance signal which require scaling, specify min input, min reading, max input, max reading. For temperature, specify 1° or 0.1° resolution and °C or °F. For NTC thermistors, specify R25 and beta.....\$22

**Slot 1 Option Board.** Shipped installed in meter. Can also be ordered separately.

<b>A1</b> .....	Single 8A relay for Slot 1.....	\$33
<b>M1</b> .....	Isolated, scalable 4-20 mA output.....	\$55
<b>S1</b> .....	Isolated RS485 output, Modbus RTU.....	\$55

**Slot 2 Option Board.** Requires Slot 1 option board. Shipped installed in meter. Can also be ordered separately.

**A2** .....

Single 8A relay for Slot 2..... \$33

**Case Add-ons.** Same mechanical options as Laureates. See page 8.

**QLS QUADRUPLE OUTPUT LOOP SPLITTER**

Splits one 4-20 mA, 1-5V, 0-5V or 0-10V input into four 4-20 mA loops with a common ground or different grounds.

- QLS-1.....Loop splitter, 85-264 Vac.....\$274
- QLS-2.....Loop splitter, 10-48 Vdc.....\$274

**ACCESSORIES FOR METERS & COUNTERS**

**LAUREATE SERIAL CABLES**

- CBL01.....RJ11-to-DB9 cable. Connects RS232 port of PC to RS232 port of meter.....\$23
- CBL02.....USB-to-DB9 adapter cable. The combination of CBL01 and CBL02 connects USB port of PC to RS232 port of meter.....\$47
- CBL03-1...6-wire data cable, 1 ft, with RJ11 connectors. Daisy chains meters via RS485.....\$10
- CBL03-7...6-wire data cable, 7 ft, with RJ11 connectors. Daisy chains meters via RS485.....\$10
- CBL04.....RS232 cable. Connects RS232 port of PC to RS232 port of LT transmitter.....\$23
- CBL05.....USB cable, A-B. Connects USB port of PC to USB port of meter.....\$19
- CBL06.....USB-to-RS485 adapter cable for meters. Connects USB port of PC to meter with RS485 option with dual RJ11 jack.....\$47
- BKBD.....RS485 adapter board. Allows Laureate meters and transmitters to be daisy chained to the same RS485 bus.....\$47

**LAUREATE LENS OPTIONS**

- NL .....Button pads, no Laurel logo.....\$5

**PROTECTION & CASES FOR 1/8 DIN METERS**

- IPC.....Front panel cover, seals front of meter case to NEMA 4X.....\$48
- BOX1.....Wall mount polycarbonate enclosure sealed to NEMA 4X.....\$169
- BOX2.....Wall mount polycarbonate enclosure sealed to NEMA 4X, plus IPC cover.....\$218
- CASE1.....Benchtop laboratory case for one 1/8 DIN meter.....\$140
- CASE2.....Benchtop laboratory case for two 1/8 DIN meters.....\$140

**LAUREATE SERIAL-TO-ANALOG CONVERTER**

Converts streaming serial data input into an isolated 4-20 mA or 0-10V analog output. Includes dual 120 mA solid state relays and detachable screw clamp connectors. Includes 60 minutes of technical phone support with screen sharing.

- LTS6.....RS232/RS485 in, 4-20 mA out.....\$314

**Power (one required)**

- 0.....85-264 Vac or 95-300 Vdc.....\$89
- 1.....12-34 Vac or 10-48 Vdc.....\$89

**Accessory Cables (required to program LT models)**

- CBL04.....RS232 cable. Connects RS232 port of PC to RS232 port of LTS transmitter.....\$23
- CBL02.....USB-to-DB9 adapter cable. Includes FTDI chip for compatibility with all versions of Windows. Combination of CBL02 and CBL04 connects PC USB port to LTS RS232 port.....\$47