

Laurel High Performance DPMs

FEATURES

- ±99999 Display Span
- User Selectable Ranges
- 60 Readings Per Second
- Adaptive Digital Filter
- 1/8 DIN, NEMA-4X Front
- 5, 10, 24V DC Excitation Out

OPTIONS (all outputs isolated)

- Dual Setpoint Relay Outputs
- Linearized Isolated Analog Transmitter Outputs
- USB, RS-232 & RS-485 Data I/O
- Custom Curve Linearization
- Datalogging PC Software

Laureate™ DPMs offer exceptional accuracy at high reading rates. Advanced programming features provide flexibility in measuring DCV, ACV, DCA, ACA, temperature, weight, strain, process & pot follower.



SPECIFICATIONS

Display	Five 14.2 mm (.56") high LED digits
A-to-D Conversion	
A-to-D rate	60/s at 60 Hz, 50/s at 50 Hz
Display update	3.5/s at 60 Hz, 3/s at 50 Hz
Accuracy at 25°C	
DC, Process	< 0.01% FS ±2 counts
Strain, Load	< 0.01% FS ±2 counts
True RMS	< 0.03% FS (10 Hz-10 kHz)
	CF = 3.0 at full scale (AC or DC coupled)
Thermocouple	< 0.2°C
RTD	< 0.1°C
Noise Rejection	
CMR, DC to 60 Hz	130 dB
NMR to 50/60Hz line	90 dB with min filtering
Transducer Excitation Output (std)	
Output	100 mA @ 5V, 120 mA @ 10V, 50 mA @ 24V
Dual Relay Output (opt)	
Contact relays	8A @ 250 Vac or 24 Vdc
Solid state relays	0.13A @ 140 Vac or 180 Vdc
Linearized Analog Output (opt)	
Level	0-20 mA, 4-20 mA, 0-10 Vdc, -10 to +10 Vdc
Resolution	16 bits (0.0015%)
Environmental	
Operating temperature	0 - 55°C, 95% RH at 40°C, non-condensing
Data Communications (opt)	
Type	USB, RS-232, RS-485 (2- or 4-wire), Ethernet
Protocol	Modbus RTU, Modbus ASCII, Laurel ASCII

ACCESSORIES

CBL01	RJ11 TO DB9 Cable to PC Com port
CBL02	USB to DB9 Adapter
CBL05	USB Cable to PC USB Port

ORDERING INFORMATION

Example: L10010DCV1

<input type="checkbox"/> Laureate Series	L	Laureate Panel Meter
	LW	Laureate Weight Meter
<input type="checkbox"/> Main Board	1	DPM with green LEDs
	2	DPM with red LEDs
	3	Extended, green LEDs
	4	Extended, red LEDs
<small>Note: Extended capability for DPMs is required for custom curve linearization.</small>		
<input type="checkbox"/> Power	0	85-264 Vac/90-370 Vdc
	1	10-48Vdc/12-30 Vac
<input type="checkbox"/> Setpoint Output	0	None
	1	Dual 8 A relays
	2	Dual solid state relays
<input type="checkbox"/> Analog Output (isolated)	0	None
	1	0-20 mA, 4-20 mA, 0-10 V, -10 to +10 V
<input type="checkbox"/> Digital Interface (isolated)	0	None
	1	RS-232
	2	RS-485 (dual RJ11 connectors)
	4	RS-485 (dual RJ45 connectors)
	5	USB
	6	USB to RS-485 Converter
	7	Ethernet
	8	Ethernet to RS-485 Converter

Input Type (isolated)

DC Volts	DCV1	200.00 mV
	DCV2	2.0000 V
	DCV3	20.0000 V
	DCV4	200.00 V
	DCV5	600.0 V
DC Amperes	DCA1	2.0000 mA
	DCA2	20.0000 mA
	DCA3	200.00 mA
	DCA4	5.0000 A

Process Signals (4-20 mA, 0-5 V, etc.)	P	4-20 mA = 0-10000
	P1	Custom Scaling

Strain Gage, Potentiometer (4-wire ratio)	SG	0-200 mV = 0-20000
	SG1	Custom Scaling

Note: The same DC signal conditioner board can be user configured for DC Volts, DC Amps, process, or strain.

100-Ohm Platinum RTDs	P385C	-202 to 850°C
	P385F	-331 to 1562°F
	P392C	-202 to 631°C
	P392F	-331 to 1168°F

Thermocouples	JC	-210 to 760°C	EF	-400 to 1830°F
	JF	-347 to 1400°F	NC	-245 to 1300°C
	KC	-244 to 1372°C	NF	-410 to 2370°F
	KF	-408 to 2501°F	SC	-46 to 1768°C
	TC	-257 to 400°C	SF	-51 to 3214°F
	TF	-430 to 752°F	RC	-45 to 1768°C
	EC	-240 to 1000°C	RF	-49 to 3213°F

Note: The same temperature signal conditioner board can be user configured for all T/C and RTD types

TRMS Volts	RMV1	200.00 mV	RMV2	2.0000 V
	RMV3	20.0000 V	RMV4	200.00 V
	RMV5	600.0 V (ETL approved to 300 V)		
	RMV6	300.0 V		

TRMS Amperes	RMA1	2.0000 mA	RMA2	20.0000 mA
	RMA3	200.00 mA	RMA4	5.0000 A

Note: The same AC RMS signal conditioner can be user-configured for AC Volts or Amps

Load Cells (6-wire ratio)	WM1	-99,999 to +99,999
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Note: Excitation is 10V DC for up to four 350Ω load cells in parallel