

MARTEL ELECTRONICS QM Series 2-Wire Panel Meters



The QM Single Mounting Hole Series are Nema 4 rated meters for simple commercial and industrial applications. To install, the user needs only to drill a single 7/32" (5.5mm) hole in the panel. A rubber seal is included, providing splashproof protection for the unit when fitted to the meter during installation. Includes: meter, mounting nut, washer and panel seal. All meters have reverse polarity protection.

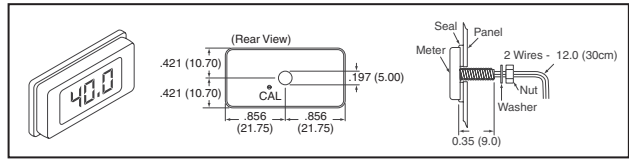
QM Voltmeter: 2-wire voltmeter powered from the voltage that it is measuring. The module indicates "LO" at voltages below 4V and "HI" at above 25V (40V for QM100V-40). **Specifications:** • Measured Input Voltage: 4 – 25VDC (QM100V), 4 – 40VDC (QM100V-40) • Supply Voltage: 3 – 50VDC • Sample Rate: 3 samples/second • Operating Range: 0°C – 50°C

QM Thermometer: A dual inside (sensor included) and outside (sensor required) digital thermometer that can display temperatures in either Fahrenheit or Celsius. **Specifications:** • Internal Sensor: 14°F – 122°F (-10°C – 50°C) • External Sensor: -4°F – 428°F (-20°C – 220°C) • Operating Range: -10°C – 50°C • Supply Voltage: 4 – 28VDC

QM Hourmeter: Automatically blanks the leading zeros for easy reading and display of hours and 1/10 hours. An output is provided that pulses high after every hour. Features trip and total time range. **Specifications:** • Resolution Range: 9,999.9 hour or 99,999 hour • Supply Voltage: 5 – 27VDC • Operating Range: 0°C – 50°C

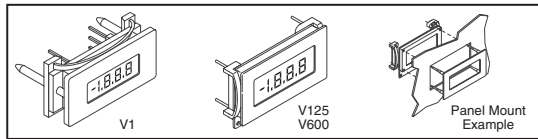
QM130M Digitalized Analog Gauge: An LCD analog gauge that looks similar to an analog voltmeter. A moving needle illustrates a quick confirmation of meter levels and changing colors allow quick visuals of meter status. This meter can be scaled for reading voltages or currents. **Specifications:** • Supply Voltage: 5 – 12VDC • Resolution: 125mVDC • Full Scale Reading: 1VDC

QM140V Scalable Meter: A universal 0 – 200mV input meter that with scaling resistors is able to measure 200mV/µA, 2V/mV and 20V/MA ranges. Trim pot calibration included on rear of meter. **Specifications:** • Supply Voltage: 7.5V – 15VDC • Sample Rate: 3 samples/second • Operating Range: 0°C – 50°C



Description	Digi-Key Part No.	Price Each	Martel Part No.
Voltmeter 4 – 25VDC, 100mV resolution	227-1042-ND	44.16	QM100V
Voltmeter 4 – 40VDC, 200mV resolution	227-1054-ND	44.16	QM100V-40
Thermometer, Inside/Outside -10°C – 50°C	227-1043-ND	44.16	QM110T
Hourmeter, 9,999.9 hrs trip/totalized time	227-1044-ND	44.16	QM120C
LCD Analog Gauge, moving LCD needle	227-1045-ND	34.84	QM130M
Universal Scalable Meter, Volt/Current	227-1046-ND	53.00	QM140V

V Series Very Low Cost Voltmeter

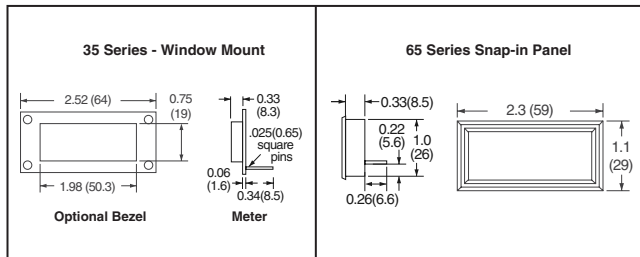


The V Series is a range of low cost LCD, 3 1/2 digit panel instruments. The meters have a ±200mVDC full scale reading with a typical accuracy of 0.25%. These meters use a 9VDC and are designed for high volume OEM applications where lowest possible cost is a major concern. They feature an exceptionally large display in a miniature package and includes auto-zero and user-selectable decimal points. All module's are supplied with a black panel mounting bezel kit.

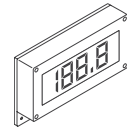


Description	Digi-Key Part No.	Price Each			Martel Part No.
		1	5	10	
Mini LCD Voltmeter, .25" digit height, 200mV Input, Includes Bezel	227-1059-ND	20.94	19.90	18.85	V1
Standard LCD Voltmeter, .50" digit height, 200mV Input, Includes Bezel	227-1060-ND	22.60	21.47	20.34	V125
Large LCD Voltmeter, .60" digit height, 200mV Input, Includes Bezel	227-1061-ND	24.26	23.05	21.84	V600

35/65 Series Digital Panel Meters



This low cost range of meters is the solution for a wide range of OEMs and Panel Builders. The DPM35 is available with either red or green LEDs and has an optional mounting bezel (BEZ35). The DPM65 has a reflective LCD display and comes with a snap-in bezel. **Inputs:** • Ranges: ±200.0mV, ±2.000V, ±20.00V • Single-ended; (INLO internally referenced to supply GND) **Power Supply:** • Voltage: 5VDC (±5%) **Mounting:** • 35 Series: Window mount or bezel mount with optional bezel • 65 Series: Snap-in bezel mount • Connection: 10 pins, 0.025" (.635mm) square on 0.1" (2.54mm) centers



Description	Digi-Key Part No.	Price Each			Martel Part No.
		1	5	10	
DPM Red LED, 200mV, 35 Series	227-1034-ND	49.60	47.12	44.64	DPM35R
DPM Green LED, 200mV, 35 Series	227-1035-ND	49.60	47.12	44.64	DPM35G
DPM Reflective LCD, Differential, 65 Series	227-1036-ND	49.60	47.12	44.64	DPM65
DPM Reflective LCD, Single-rail, 65 Series	227-1037-ND	49.60	47.12	44.64	DPM65S
Optional Snap-in Bezel for DPM35 Series	227-1038-ND	4.04	3.84	3.64	BEZ35

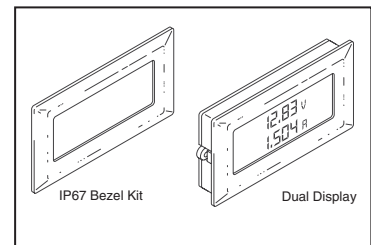
◆ RoHS Compliant

700 Series Industrial Voltmeter

The 700 Series Voltmeters are low cost LCD displays for panel instruments and portable equipment. Use the Dual Display meter to display "matched readings" (voltage and current or temperature and humidity) with separate selectable annunciators and calibration adjustments. Use the DPM742 (screw terminal connections) and 750 (with annunciators and low battery indicator) meters for portable equipment or industrial applications. LED backlight standard on 742 and 750. Use optional IP67 silver metallic bezel for watertight, industrial applications. All meters include a standard black bezel kit.

Description	Digi-Key Part No.	Price Each			Martel Part No.
		1	5	10	
IP67 Industrial Bezel Kit, for use with DPM742-BL and DPM750S-BL	227-1058-ND	25.00	23.75	22.50	BEZ700-IP
Dual Display Voltage-Ampere meter, 0-200mV Input	227-1057-ND	129.70	123.22	116.73	DPM702S
Large LCD (.50") 4-20mA Loop Meter, screw terminal connections	227-1056-ND	133.46	126.79	120.12	DPM742-BL
Large LCD (.50") Voltmeter, 20-0mV Input, with Annunciators/Low Battery	227-1055-ND	77.04	73.19	69.34	DPM750S-BL

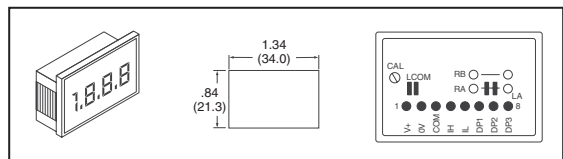
◆ RoHS Compliant



SP Series 3.5 Digital Voltmeter

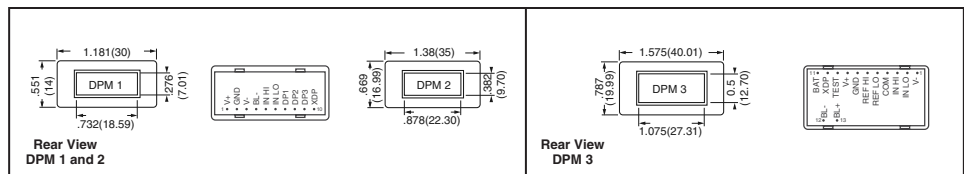
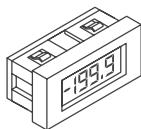
The 12-pin dual-in-line connection version is compatible with competing meters. This lower cost version is more suited to new designs. Includes full-scale reading ±200mVDC with a typical accuracy of 0.1% (±1 count). The module is 1.38" (35.05mm) width x 0.88" (22.35mm) height. Low cost means it will suit high and low volume applications. IP65 splash proof construction.

Description	Digi-Key Part No.	Price Each	Martel Part No.
Large Bright Red LED Voltmeter, 200mV Input	227-1052-ND	59.16	SP300



Series 10 Universal Volt/Ammeter

The DPM1, 2 and 3AS-BL features 200mVDC measurement with auto-zero and auto-polarity. Decimal points are user selectable. The DPM1, 2 and 3AS-BL feature a negative rail generator which enables the meter to measure a signal referenced to its own power supply GND. LED backlighting ensures excellent readability under low light conditions. The design of the housing allows the module to be easily snapped into a panel. The low cost module will suit high and low volume applications.



Description	Digi-Key Part No.	Price Each			Martel Part No.
		1	5	10	
Mini 5.5mm LCD Universal Meter with Backlight	227-1047-ND	60.84	57.80	54.76	DPM1AS-BL
Mini 8.2mm LCD Universal Meter with Backlight	227-1048-ND	65.84	62.55	59.26	DPM2AS-BL
Mini 11mm LCD Universal Meter with Backlight	227-1049-ND	69.16	65.71	62.25	DPM3AS-BL

◆ RoHS Compliant

More Product Available Online: www.digkey.com

<p>Fig. 1</p> <p>Panel Cutout: .87" x 1.77" 22.10mm x 44.96mm</p> <p>DPM125 LCD Legacy Series</p> <p>The DPM125 features auto-zero, auto-polarity, 200mV-2V-20V fsr, 12.5mm digit height, low battery indication and selectable decimal points. The meter will plug directly into a 12-pin SIL socket or can be panel mounted using snap-in bezel provided.</p>	<p>Fig. 2</p> <p>Panel Cutout: 1.06" x 2.24" 26.92mm x 56.90mm</p> <p>DPM500 LCD Legacy Series</p> <p>The DPM500 features auto-zero, auto-polarity, 200mV-2V-20V fsr, 12.5mm digit height, adjustable low battery indication, selectable decimal points and 10 user-selected annunciators. The meter will plug into a 40-pin DIL socket or can be panel mounted using snap-in bezel provided.</p>	<p>Fig. 3</p> <p>Panel Cutout: 1.26" x 2.44" 32.00mm x 61.98mm External Bezel</p> <p>DPM600 LCD Legacy Series</p> <p>The DPM600 features auto-zero, auto-polarity, 200mV-2V-20V fsr, 12.5mm digit height, adjustable low battery indication, selectable decimal points and 12 user-selected annunciators. The meter has 36 pins for PCB mounting or can be panel mounted with optional bezel (p/n MB10).</p>	<p>Fig. 4</p> <p>Panel Cutout: 1.3" x 2.68" 33.02mm x 68.07mm</p> <p>DPM2000 LCD Legacy Series</p> <p>The DPM2000 features auto-zero, auto-polarity, 200mV-2V-20V fsr, 15mm digit height, adjustable low battery indication, selectable decimal points and 12 user-selected annunciators. The meter will plug into a 40-pin DIL socket or can be panel mounted using snap-in bezel provided.</p>	<p>Fig. 5</p> <p>Panel Cutout: 1.3" x 2.68" 33.02mm x 68.07mm</p> <p>DPM40 LED Series</p> <p>The DPM40 features auto-zero, auto-polarity, 200mV-2V-20V fsr, 11mm LED digit height and selectable decimal points. The meter is supplied with a bezel and filter to give a high contrast display.</p>
---	---	--	--	---

Fig.	Supply	Input	Digi-Key Part No.	1	5	10	Martel Part No.
1	7.5 - 15	200mV	227-1007-ND	68.94	65.50	62.05	DPM125
	7.5 - 15	200mV	227-1008-ND	82.24	78.13	74.02	DPM125L
2	7.5 - 15	20V	227-1011-ND	94.16	89.46	84.75	DPM500-20
	3.6 - 6.5	2V	227-1016-ND	94.16	89.46	84.75	DPM500S-2
	3.6 - 6.5	20V	227-1017-ND	97.66	92.78	87.90	DPM500S-20
3	5 - 15	20V	227-1023-ND	82.06	77.96	73.86	DPM600-20
	5 - 15	200mV	227-1027-ND	79.96	75.97	71.97	DPM2000
4	5 - 15	2V	227-1028-ND	79.96	75.97	71.97	DPM2000-2
	5 - 15	20V	227-1029-ND	79.96	75.97	71.97	DPM2000-20
	5	200mV	227-1030-ND	97.66	92.78	87.90	DPM40

◆ RoHS Compliant

CRAMER COMPANY
Precision Timers and Motion Devices

Hour Meters

The Cramer line of ETIs (Elapsed Time Indicators) are used to record the amount of "on-time" operation for industrial and commercial grade equipment. Resettable and Non-resettable versions are available either in round or square bezel, displayed in tenths of an hour.

Applications: • Indicating, monitoring and recording a process where the time used is required • Recording "on-time" usage of machinery for billing purposes • Preventative maintenance for machinery or equipment

Features: • Large, easy-to-read numbers • Rugged design • Continuous duty • Tamper proof • Permanently lubricated • Square or round bezel

Specifications: • Power Consumption: 2.7 watts • Working Voltage: 110VAC/115VAC • Electrical Connections: 6' leads, 22 gauge wire • Operating Temperature: -20°C - 55°C • Mounting: Front panel • Agency Approval: UL, CSA

Description	Digi-Key Part No.	1	50	Cramer Part No.
Round Bezel, 0 - 99.9K hours, 115VAC, Non-resettable	CRA214-ND	35.93	31.40	28.37
Round Bezel, 0 - 9.9K hours, 115VAC, Resettable	CRA216-ND	75.37	65.86	59.51
Square Bezel, 0 - 99.9K hours, 110VAC, Non-resettable	CRA215-ND	35.93	31.40	28.37
Square Bezel, 0 - 9.9K hours, 115VAC, Resettable	CRA217-ND	75.37	65.86	59.51

Honeywell HOBBS **Hour Meters**



Dimensions in Inches (mm)

The 98000 Series LCD Hour Meters: Provides a large easy-to-read display in a conventional size package. Specifications: • Operating Temperature: -40°C - 85°C • Operating Voltage: 9 - 64VDC • 6 digit display • Digit Height: 6mm

The 20000 Series Deluxe Hour Meters: Totally sealed and benefits from an uncommon design which integrates the motor and frame into one substructure. Specifications: • Operating Temperature: -54°C - 68°C • Number Size: 3mm • UL Listed • CSA Certified

The 82000 Series Dichron Hour Meters: Meter must be moisture resistant when submerged in water at 150°F for 3 minutes. Specifications: • Operating Voltage: 10 - 80VDC

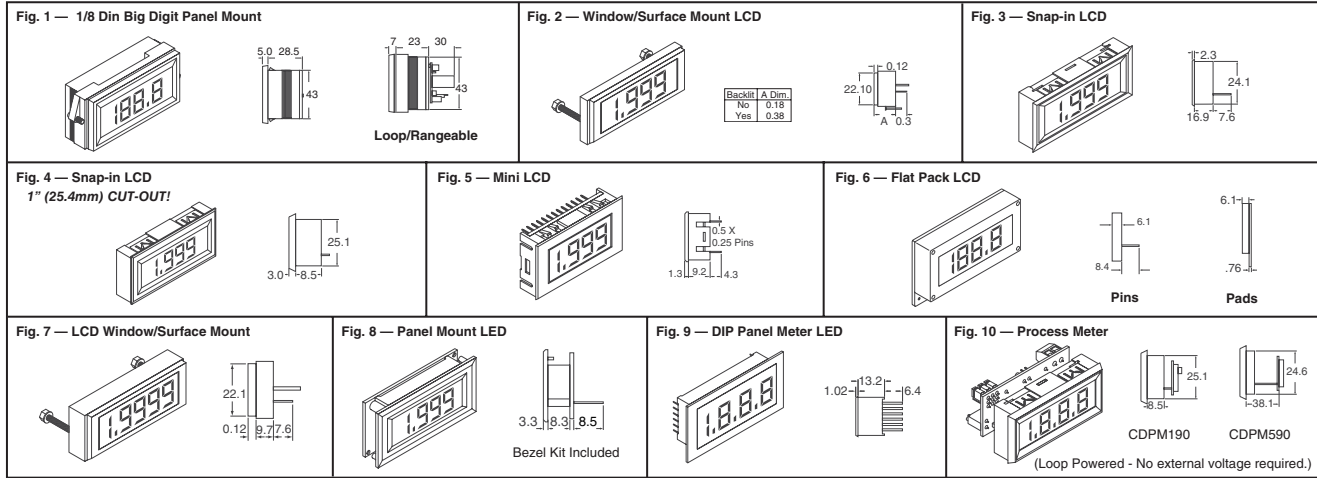
Fig.	No. of Terminals	Dimensions Inch (mm)		Digi-Key Part No.	1	50	100	Honeywell Part No.
98000 Series - LCD Hour Meters								
1	2	2.1 (52.12)	1.18 (30.07)	700-1003-ND NEW!	29.75	21.57	20.83	098203 99
				700-1004-ND NEW!	28.70	20.81	20.09	098204 99
2	3	1.60 (40.6)	1.08 (27.4)	480-2069-ND	32.03	23.41	23.00	098311 57
				480-2070-ND	48.53	37.82	33.26	098321 94
				480-2068-ND	46.31	35.28	33.60	098301 94
3	3	1.25 (31.8)	2.13 (54.1)	480-2066-ND	34.73	25.18	24.32	098313 12
				480-2067-ND	34.62	25.10	24.24	098323 81
				480-2065-ND	36.68	26.81	26.34	098303 92
4	3	2.27 (57.7)	2.00 (50.8)	480-2072-ND	37.91	27.71	27.22	098312 03
				480-2073-ND	41.01	29.74	28.71	098322 93
				480-2071-ND	42.07	31.01	30.45	098302 93
5	4	1.26 (32.0)	.712 (18.08)	480-2064-ND	13.61	9.22	8.83	098750 100
				700-1000-ND	14.60	9.96	9.63	098755 100
20000 Series - Deluxe Hour Meters								
6	2	1.60 (40.6)	1.08 (27.4)	480-2080-ND	32.67	23.88	23.46	020116 23
7	2	1.398 (35.5)	1.02 (25.9)	480-2078-ND	31.47	23.00	22.60	020001 17
8	2	2.19 (55.6)	2.70 (68.6)	480-2079-ND	32.90	24.05	23.63	020017 14
82000 Series - Dichron Hour Meters								
6	2	1.55 (39.4)	1.03 (26.2)	480-2076-ND	18.85	13.47	12.80	082452 82
7	2	1.41 (35.8)	1.25 (31.8)	480-2074-ND	18.85	13.47	12.80	082450 83
8	2	1.98 (50.3)	2.24 (56.9)	480-2075-ND	19.23	13.74	13.05	082451 84
				480-2077-ND	18.85	13.47	12.80	082453 85

<p>Fig. 1 NEW!</p> <p>Snap-in Mount: Panel Cut-out: 1.43 x 0.91 Rectangular Opening</p>	<p>Fig. 2</p> <p>Retainer Mount: Panel Cut-out: 1.45 x 0.95 Rectangular Opening</p>	<p>Fig. 3</p> <p>Panel Cut-out: 1.45 x 0.95 Rectangular Opening (2) 0.15 holes spaced 1.750</p>
<p>Fig. 4</p> <p>Retainer Mount 2.27 Panel Cut-out: 2.00 Diameter Opening</p>	<p>Fig. 5</p> <p>Four-Pin Mount: Panel Cut-out: .300 x .583 Rectangular Opening</p>	<p>Fig. 6</p> <p>Retainer Mount: Panel Cut-out: 1.45 x 0.95 Rectangular Opening</p>
<p>Fig. 7</p> <p>Two-Screw Mount: Panel Cut-out: 1.45 x 0.95 Rectangular Opening (2) 0.15 holes spaced 1.750</p>	<p>Fig. 8</p> <p>Three-Screw Mount: Panel Cut-out: 2.00 Diameter Opening (3) 0.125 holes equally spaced on 2.42 bolt circle diameter</p>	

More Product Available Online: www.digkey.com

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380





CTON Digital Panel Meters are low cost, professional looking meters for industrial and OEM applications. Voltmeter versions feature autozero on power up and can read both positive and negative DC voltages. Selectable decimal points allow easy voltage readings. LCD versions are available in either non-backlit (std. LCD) or backlit (Red, Green or Blue) for low light viewing. CTON's 4-20mA loop type meters are intended to interface with sensor inputs that require power from the meter to operate.

Sensors such as temperature, pressure, gas, airflow vibration, etc. can be used for loop meter monitoring. Use LCD meters for low power applications and long lifetimes or use LED versions for easier viewing in varying light conditions and different angles.

3.5 Digit LCD Specifications: • **Decimal Point:** User selectable 3-position • **Full Scale Ranges:** ±200mVDC, ±2VDC, ±20VDC • **Power:** 9VDC isolated @ 180µA, 5VDC @ 3mA • **Conversion Rate:** 2.5 per second • **Storage Temperature:** -10°C - 50°C • **Type:** Surface Mount • **Pins:** 13 or 10 pins, .64mm square on 2.54mm centers • **Backlit Power Options:** +5 VDC, ±5%, Red 165mA typical (200mA maximum); Green 115mA typical (160mA maximum) • **Backlit Connections:** Standard 2 solder pads • **Styles:** Surface/window or snap-in bezel mount

Miniature LCD Specifications: • **Annunciators:** 11 different user selectable annunciators: BAT, °C, °F, -, m, µ, MΩ, KΩ, V, A, HOLD • **Decimal Point:** User selectable 3-position • **Full Scale Range:** Standard ±200mVDC, ±2VDC • **Power:** 9VDC

isolated (7.2-15V) at 150µA, 5VDC @ 5mA • **Conversion Rate:** 2.5 per second • **Storage Temperature:** -20°C - 70°C • **Type:** Snap-in Bezel Mount • **Pins:** Standard 26 pins, .46mm square, DIP style

4.5 Digit LCD Specifications: • **Annunciators:** 9VDC powered meters have "BT" when power < 7.2VDC • **Decimal Point:** User selectable 4-position • **Hold:** Standard feature • **Full Scale Range:** ±200mVDC and ±2VDC • **Power:** 9VDC isolated @ 1mA, 5VDC @ 3.5mA • **Conversion Rate:** 2 per second • **Storage Temperature:** -10°C - 60°C • **Types:** Surface/window mount • **Pins:** 13 pins, .64mm square on 2.54mm centers

3.5 Digit LED Specifications: • **Type:** 7-segment light emitting diode (LED) • **Digits:** 0.56" (12.7mm) height • **Color:** Green or Red • **Polarity:** Displays (-) automatically • **Decimal Point:** User selectable 3-position • **Over/Under Range:** Over range displays "1" and under-range displays "-1" • **Hold:** Standard feature • **Full Scale Ranges:** ±200mVDC, ±2VDC, ±20VDC • **Configuration:** Bipolar, fully differential • **Power:** ±5VDC, ±5% at 200mA • **Conversion Rate:** 3 per second • **Zeroing:** Automatic • **Operating Temperature:** 0°C - 50°C • **Storage Temperature:** -20°C - 70°C • **Relative Humidity:** 0 to 95% non-condensing • **Type:** Bezel Mount • **Pins:** Standard 10 pins, .64mm square on 2.54mm centers • **5-Year Unconditional Warranty**

Process Meter Specifications: • Meter and loop powered/controlled PCB in one unit • 3.5 or 4.5 digit • LCD and red or green LED • Fully scalable • 300Ω Impedance, nominal

Fig.	Supply	Input	Digit Color	Digi-Key Part No.	1	Price Each	10	50	C-Ton Part No.	Use Cable Assy.	
1/8 Din Big Digit 3.5 LCD											
1	+5	200mV	—	CDPM801A-ND†	59.74	56.76	52.28	DK801A	Incl.	—	
	+5	2V	—	CDPM802A-ND†	59.74	56.76	52.28	DK802A	Incl.	—	
	+5	20V	—	CDPM803A-ND†	59.74	56.76	52.28	DK803A	Incl.	—	
	Loop	4-20mA	—	CDPM807A-ND†	69.72	66.24	61.01	DK807A	—	—	
	Loop	4-20mA	(-)Blue	CDPM757B-ND	82.42	78.30	72.12	DK757B	—	—	
	Loop	4-20mA	(-)Red	CDPM857B-ND	69.72	66.24	61.01	DK857B	—	—	
	Loop	4-20mA	(-)Green	CDPM957B-ND	69.72	66.24	61.01	DK957B	—	—	
Range Selectable — RoHS Compliant											
1	12/24V	5/10V/200mV	—	CDPM809-ND†	69.72	66.24	61.01	DK809	—	—	
	12/24V	5/10V/200mV	(-)Green	CDPM959-ND	69.72	66.24	61.01	DK959	—	—	
1/8 Din Big Digit 3.5 LED											
1	+5	200mV	Red	CDPM851A-ND	59.74	56.76	52.28	DK851A	Incl.	—	
	+5	2V	Red	CDPM852A-ND	59.74	56.76	52.28	DK852A	Incl.	—	
	+5	20V	Red	CDPM853A-ND	59.74	56.76	52.28	DK853A	Incl.	—	
	+5	200mV	Green	CDPM951A-ND	59.74	56.76	52.28	DK951A	Incl.	—	
	+5	2V	Green	CDPM952A-ND	59.74	56.76	52.28	DK952A	Incl.	—	
	+5	20V	Green	CDPM953A-ND	59.74	56.76	52.28	DK953A	Incl.	—	
	Window/Surface Mount 3.5 Digit LCD										
	2	+9	200mV	—	CDPM101-ND†	39.80	37.81	34.83	DK101	J4C13	—
		+9	2V	—	CDPM102-ND†	39.80	37.81	34.83	DK102	J4C13	—
		+9	20V	—	CDPM103-ND†	39.80	37.81	34.83	DK103	J4C13	—
+5		200mV	—	CDPM301-ND†	39.80	37.81	34.83	DK301	J1C13	—	
+5		2V	—	CDPM302-ND†	39.80	37.81	34.83	DK302	J1C13	—	
+5		20V	—	CDPM303-ND†	39.80	37.81	34.83	DK303	J1C13	—	
+5		200mV	Green	CDPM331-ND	49.78	47.30	43.56	DK331	J1C13	—	
+5		2V	Green	CDPM332-ND	49.78	47.30	43.56	DK332	J1C13	—	
+5		2V	(-)Green	CDPM432-ND	49.78	47.30	43.56	DK432	J1C13	—	
2	+5	200mV	(-)Red	CDPM531-ND	49.78	47.30	43.56	DK531	J1C13	—	
	+5	2V	(-)Red	CDPM532-ND	49.78	47.30	43.56	DK532	J1C13	—	
Snap-in 3.5 Digit LCD											
3	+5	200mV	—	CDPM500-ND†	39.80	37.81	34.83	DK500	J1C13	—	
	+5	2V	—	CDPM501-ND†	39.80	37.81	34.83	DK501	J1C13	—	
	+5	20V	—	CDPM502-ND†	39.80	37.81	34.83	DK502	J1C13	—	
	+9	2V	—	CDPM504-ND	39.80	37.81	34.83	DK504	J4C13	—	
	+9	20V	—	CDPM505-ND	39.80	37.81	34.83	DK505	J4C13	—	
Snap-in 3.5 Digit LCD - 25.40mm Cutout — RoHS Compliant											
4	+5	200mV	—	CDPM110-ND†	39.80	37.81	34.83	DK110	J1C10	—	
	+5	2V	—	CDPM111-ND†	39.80	37.81	34.83	DK111	J1C10	—	
	+5	20V	—	CDPM112-ND†	39.80	37.81	34.83	DK112	J1C10	—	
Miniature 3.5 Digit LCD											
5	+5	200mV	—	CDPM201-ND†	39.80	37.81	34.83	DK201	—	—	
	+5	2V	—	CDPM202-ND†	39.80	37.81	34.83	DK202	—	—	
	+9	2V	—	CDPM204-ND†	39.80	37.81	34.83	DK204	—	—	
	+9	200mV	—	CDPM203-ND†	39.80	37.81	34.83	DK203	—	—	

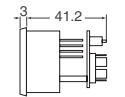
Fig.	Supply	Input	Digit Color	Digi-Key Part No.	1	Price Each	10	50	C-Ton Part No.	Use Cable Assy.
Flat Pack 3.5 Digit LCD										
6	+9	200mV	—	CDPM171-ND†	39.80	37.81	34.83	DK171	—	—
	+9	2V	—	CDPM172-ND†	39.80	37.81	34.83	DK172	—	—
	+9	20V	—	CDPM173-ND†	39.80	37.81	34.83	DK173	—	—
	+9	200mV	—	CDPM174-ND†	39.80	37.81	34.83	DK174	—	—
	+9	2V	—	CDPM175-ND†	39.80	37.81	34.83	DK175	—	—
	+9	20V	—	CDPM176-ND†	39.80	37.81	34.83	DK176	—	—
6	+5	200mV	—	CDPM177-ND†	39.80	37.81	34.83	DK177	—	—
	+5	2V	—	CDPM178-ND†	39.80	37.81	34.83	DK178	—	—
	+5	20V	—	CDPM179-ND†	39.80	37.81	34.83	DK179	—	—
	Bezel Kit for DK170 Series				CDPM170-ND	6.20	5.89	5.43	DK170	—
Window/Surface Mount 4.5 Digit LCD										
7	+5	200mV	—	CDPM702-ND†	49.78	47.30	43.56	DK702	J4C13	—
	+5	2V	—	CDPM703-ND†	49.78	47.30	43.56	DK703	J4C13	—
	+9	200mV	—	CDPM704-ND†	49.78	47.30	43.56	DK704	J4C13	—
	+9	2V	—	CDPM705-ND†	49.78	47.30	43.56	DK705	J4C13	—
Snap-in 4.5 Digit LCD										
3	+5	200mV	—	CDPM710-ND†	49.78	47.30	43.56	DK710	J4C13	—
	+5	2V	—	CDPM711-ND†	49.78	47.30	43.56	DK711	J4C13	—
	+5	20V	—	CDPM712-ND†	49.78	47.30	43.56	DK712	J4C13	—
3.5 Digit LED — RoHS Compliant										
8	+5	200mV	Green	CDPM601-ND	39.80	37.81	34.83	DK601	J1C10	—
	+5	2V	Green	CDPM602-ND	39.80	37.81	34.83	DK602	J1C10	—
	+5	20V	Green	CDPM603-ND	39.80	37.81	34.83	DK603	J1C10	—
	+5	200mV	Red	CDPM604-ND	39.80	37.81	34.83	DK604	J1C10	—
	+5	2V	Red	CDPM605-ND	39.80	37.81	34.83	DK605	J1C10	—
	+5	20V	Red	CDPM606-ND	39.80	37.81	34.83	DK606	J1C10	—
DIP Panel Meter 3.5 Digit LED										
9	+5	200mV	Red	CDPM630-ND	45.78	43.50	40.06	DK630	—	—
	+5	2V	Red	CDPM631-ND	45.78	43.50	40.06	DK631	—	—
	+5	20V	Red	CDPM632-ND	45.78	43.50	40.06	DK632	—	—
	+5	200mV	Green	CDPM633-ND	45.78	43.50	40.06	DK633	—	—
	+5	2V	Green	CDPM634-ND	45.78	43.50	40.06	DK634	—	—
	+5	20V	Green	CDPM635-ND	45.78	43.50	40.06	DK635	—	—
9	+5	200mV	Blue	CDPM636-ND	55.76	52.98	48.79	DK636	—	—
	+5	2V	Blue	CDPM637-ND	55.76	52.98	48.79	DK637	—	—
	+5	20V	Blue	CDPM638-ND	55.76	52.98	48.79	DK638	—	—
	Bezel for 630/640 Series				CDPM650-ND	2.10	2.00	1.84	DLA-BEZ	—
DIP Panel Meter 3.5 Digit LED with Hold Function										
9	+5	200mV	Red	CDPM640-ND	49.78	47.30	43.56	DK640	—	—
	+5	2V	Red	CDPM641-ND	49.78	47.30	43.56	DK641	—	—
	+5	20V	Red	CDPM642-ND	49.78	47.30	43.56	DK642	—	—
Process Meter — RoHS Compliant										
10	Loop	4-20mA	—	CDPM590-ND†	64.84	61.60	56.74	DK590	—	—
	Loop	4-20mA	—	CDPM190-ND†	64.84	61.60	56.74	DK190	—	—

Note: Other ranges and colors are available on our web site. † Pad ‡ Pin † Non-Backlit ◆ RoHS Compliant

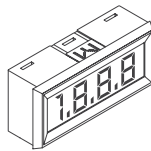
More Product Available Online: www.digkey.com

Voltage and Process Meters

C-TON's industrial digital meters intended as replacement meters for many popular panel and process meters. Wide range of input voltages, display options and user selectable annunciators make these meters universal for use as voltmeters, temperature readings, pressure readings and percentage displays.



(diagram shown is Rangeable version)



5 year Unconditional Warranty

SPECIFICATIONS:

- **Display Type:** 45° (11.4mm) 7 segment LCD
- **Annunciators:** °F, °C, PSI, %, user selectable
- **Decimal Points:** User selectable
- **Panel Cutout:** 1" x 2.4"
- **Panel Clearance Required:** 1.25" (31.75mm)
- **Input Ranges:** ±200mVDC, ±2VDC, ±20VDC
- **Over/Under Range Indication:** 1.... / -1....
- **Configuration:** Bipolar Differential
- **Performance Conversion Rate:** 3 per second
- **Operating Temperature:** 0°C - 50°C
- **Power Supply:** 5VDC @ 3.5mA
- **Backlight Power:** 5VDC
- **Mounting:** Snap-in bezel
- **Connection:** 13 pins, 0.025" (.64mm) square on 0.100" (2.54mm) centers

PROCESS SPECIFICATIONS:

- **Meter and loop powered PCB** in one package
- **Panel Clearance Required:** 1.75" (44.45mm)
- **Input Range:** Fully scalable
- **Power Supply:** 4-20mA process loop
- **Optional Backlight Power:** 5VDC or 24VDC
- **Connection:** 2 pin screw terminals (4 pin with optional backlights)

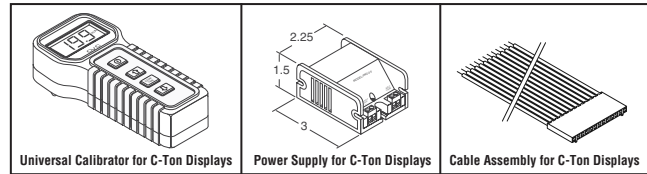
RANGEABLE VOLTAGE SPECIFICATIONS:

- 3.5 and 4.5 digit with high-contrast LCD display
- **Input Ranges:** 0-5VDC, 0-10VDC or 0-200mvDC (selectable)
- **Power Supply:** 12VDC or 24VDC regulated (selectable)
- **Optional Backlight Power:** 24VDC @ 24mA
- **Connection:** 6 screw terminal

Power Supply	Input	Digit Color	Backlit Voltage	Digi-Key Part No.	Price Each			C-Ton Part No.	Use Cable Assembly	
					1	10	50			
3.5 Digit LCD										
+5	200mV	—	—	CDPM541-ND	39.80	37.81	34.83	DK541	J4C13	
	2V	—	—	CDPM542-ND	39.80	37.81	34.83	DK542	J4C13	
	20V	—	—	CDPM543-ND	39.80	37.81	34.83	DK543	J4C13	
	2V	(-) Amber	5VDC	CDPM552-ND	49.78	47.30	43.56	DK552	J4C13	
	20V	(-) Amber	5VDC	CDPM553-ND	49.78	47.30	43.56	DK553	J4C13	
	2V	(-) Green	5VDC	CDPM562-ND	49.78	47.30	43.56	DK562	J4C13	
	20V	(-) Green	5VDC	CDPM563-ND	49.78	47.30	43.56	DK563	J4C13	
	2V	(-) Red	5VDC	CDPM572-ND	49.78	47.30	43.56	DK572	J4C13	
	20V	(-) Red	5VDC	CDPM573-ND	49.78	47.30	43.56	DK573	J4C13	
	3.5 Digit Process									
	Loop	4-20mA	—	—	CDPM191-ND	71.82	68.23	62.85	DK191	—
			(-) Amber	24VDC	CDPM192-ND	81.80	77.71	71.58	DK192	—
(-) Green			24VDC	CDPM193-ND	81.80	77.71	71.58	DK193	—	
(-) Red			24VDC	CDPM194-ND	81.80	77.71	71.58	DK194	—	
3.5 Rangeable										
12/24V	5/10V/200mV	(-) Amber	24VDC	CDPM196-ND	81.80	77.71	71.58	DK196	—	
		(-) Green	24VDC	CDPM197-ND	81.80	77.71	71.58	DK197	—	
		(-) Red	24VDC	CDPM198-ND	81.80	77.71	71.58	DK198	—	
		—	—	CDPM199-ND	71.82	68.23	62.85	DK199	—	
4.5 Digit LCD										
+5	200mV	—	—	CDPM741-ND	49.78	47.30	43.56	DK741	J4C13	
	2V	—	—	CDPM742-ND	49.78	47.30	43.56	DK742	J4C13	
	20V	—	—	CDPM743-ND	49.78	47.30	43.56	DK743	J4C13	
	2V	(-) Amber	5VDC	CDPM752-ND	59.74	56.76	52.28	DK752	J4C13	
	20V	(-) Amber	5VDC	CDPM753-ND	59.74	56.76	52.28	DK753	J4C13	
	2V	(-) Green	5VDC	CDPM762-ND	59.74	56.76	52.28	DK762	J4C13	
	20V	(-) Green	5VDC	CDPM763-ND	59.74	56.76	52.28	DK763	J4C13	
	2V	(-) Red	5VDC	CDPM772-ND	59.74	56.76	52.28	DK772	J4C13	
	20V	(-) Red	5VDC	CDPM773-ND	59.74	56.76	52.28	DK773	J4C13	
	4.5 Digit Process									
	Loop	4-20mA	—	—	CDPM790-ND	89.78	85.30	78.56	DK790	—
			(-) Green	24VDC	CDPM793-ND	98.76	93.83	86.42	DK793	—
(-) Red			24VDC	CDPM794-ND	98.76	93.83	86.42	DK794	—	
—			—	CDPM799-ND	89.78	85.30	78.56	DK799	—	
4.5 Rangeable										
12/24V	5/10V/200mV	(-) Amber	24VDC	CDPM796-ND	98.76	93.83	86.42	DK796	—	
		(-) Green	24VDC	CDPM797-ND	98.76	93.83	86.42	DK797	—	
		(-) Red	24VDC	CDPM798-ND	98.76	93.83	86.42	DK798	—	
		—	—	CDPM799-ND	89.78	85.30	78.56	DK799	—	

• RoHS Compliant

Optional Accessories for all CTON Displays



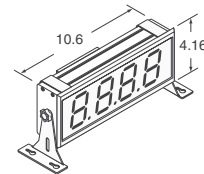
Description	Digi-Key Part No.	Price Each			C-Ton Part No.
		1	10	50	
Current and Voltage Calibrator — RoHS Compliant					
Programmable Current and Voltage Calibration Unit	CDPM1009-ND	149.00	—	—	CVC
Power Supplies					
5VDC Out, 300mA	CDPM1000-ND	20.90	19.86	18.29	PW2-5
12VDC Out, 200mA	CDPM1001-ND	20.90	19.86	18.29	PW2-12
24VDC Out, 100mA	CDPM1002-ND	20.90	19.86	18.29	PW2-24
Cable Assemblies — RoHS Compliant					
10 Pin Connector with 12" Wires, 26AWG	CDPM1003-ND	3.16	3.01	2.77	J1C10
13 Pin Connector with 12" Wires, 26AWG	CDPM1004-ND	3.16	3.01	2.77	J1C13
13 Pin Connector with 12" Wires, 26AWG	CDPM1005-ND	3.16	3.01	2.77	J4C13

• RoHS Compliant

Large Digit Voltage Meters

SPECIFICATIONS:

- **Display Digits:** 3.5 digits (±1999)
- **Set Voltage Ranges:** ±200mVDC, ±2VDC, ±20VDC
- **Adjustable Voltage Ranges:** 200mVDC, 5VDC, 10VDC
- **Offset Range:** -1999 - 1999
- **Gain Range:** 1 - 1000
- **4-20mA Loop Ranges:** 4 - 20mADC
- **Operating Temperature:** -10°C - 50°C
- **Power Supply:** 90 - 250VAC @ 12VA
- **Mounting:** 180° gimbal mounting with 30° stops, or bezel mount
- **Connection:** Screw terminals



Description	LED Color	Digi-Key Part No.	Price Each		C-Ton Part No.
			1	10	
2.3" Universal Current and Voltage Meter with Mounting Hardware	Red	CDPM1006-ND	349.00	—	BDR-999R
	Green	CDPM1007-ND	349.00	—	BDR-999G
	Blue	CDPM1008-ND	349.00	—	BDR-999B

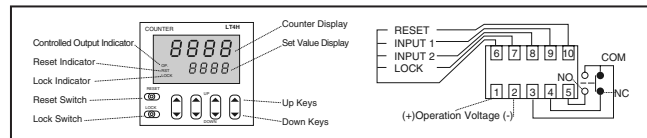
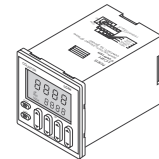
Panasonic Counters and Timers

Panasonic Electric Works

LC4H Digital Counters

Panasonic/Aromat's LC4H Digital Counters are presettable counters that will count up or count down until your preset count is reached, then trigger the internal relay to switch in one of seven output modes.

Features such as 2 color back-lit display and waterproof front panel display allow this counter to be used in extreme environments.



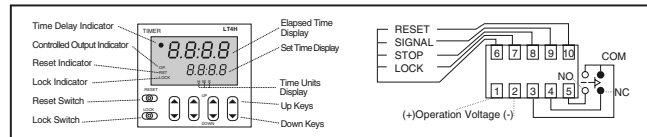
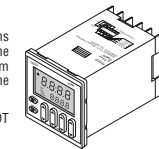
Operating Voltage	Terminal	Digi-Key Part No.	1	Price Each	50	Panasonic Part No.
100-240VAC	11 pin octal	255-1218-ND	106.00	95.40	90.10	LC4H-RA-AC240V
100-240VAC	Screw	255-1219-ND	110.50	99.45	93.93	LC4H-RA-AC240VS
12-24VDC	11 pin octal	255-1220-ND	101.00	90.90	85.85	LC4H-RA-DC24V
12-24VDC	Screw	255-1221-ND	105.50	94.95	89.68	LC4H-RA-DC24VS

• RoHS Compliant

LT4H Digital Timers

Panasonic/Aromat's LT4H Digital Timer is intended for process control for applications requiring duration time control such as delay-on/off, repeat cycle and start/stop time accumulation. The LT4H has features such as a bright 2 color back-lit display and EE-Programmable memory, keeping your program settings without the need of an internal battery. The waterproof front panel keeps out dirt and water under poor operating conditions.

Timing from .001 second to 999.9 hours, with 8 modes of operation and built-in timed SPDT relay (5A 250VAC).



Operating Voltage	Terminal	Digi-Key Part No.	1	Price Each	50	Panasonic Part No.
100-240VAC	11 pin octal	255-1214-ND	104.00	93.60	88.40	LT4H-AC240V
100-240VAC	Screw	255-1215-ND	104.00	93.60	88.40	LT4H-AC240VS
12-24VDC	11 pin octal	255-1216-ND	104.00	93.60	88.40	LT4H-DC24V
12-24VDC	Screw	255-1217-ND	104.00	93.60	88.40	LT4H-DC24VS

• RoHS Compliant

More Product Available Online: www.digkey.com

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380

