

**BEST OF
CLASS**



Backlighting Options

• Non-Backlit LCD Black on Grey Background

Get Digital Accuracy with an Analog Footprint

The DW Series is a cost-effective solution to retrofitting an analog panel cutout with a digital meter.

- The DW is easy-reading with large display and wider viewing angles
- No additional wires makes installation faster and easier
- Automatic polarity indication
- Custom nomenclature optional

The MODUTEC DW Series is available as DC and AC Power Monitors and Process Monitors. Please refer to the DW Spec sheet found on our Web site www.jewellinstruments.com for specification and part numbers.

Specifications

Display

Digits:	3 1/2 (± 1999)
Type:	7 segment reflective LCD
Digit Height:	0.5" (12.7mm)
Polarity:	Automatic (-) displayed
Decimal Point:	Factory set. Provisions for selection by user optional
Overload:	Three lower digits blank for readings greater than 1999 counts

DC Inputs

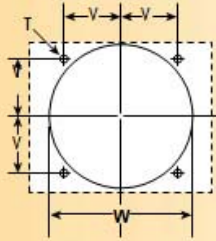
Input Resistance:	200mV & 2V ranges >100megohm, 20V & 200V ranges 1 megohm
Input Voltage Drop (current Meters):	200mV typical at fs
Overvoltage (voltmeters):	±300 VDC
Accuracy:	0.1% ±2 digits
Tempco:	100 ppm/°C typical
Conversion Rate:	2.5 per second
Normal Mode Rejection:	60db typical
Common Mode Rejection:	>86db
Common Mode Voltage Range:	±1V maximum
Operating Range:	32°F to 122°F (0°C to +50°C)
Storage Temperature:	-4°F to 158°F (-20°C to + 70°C)

Applications

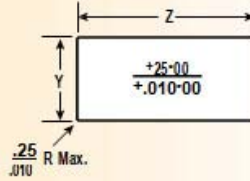
- ▶ Telecommunications
- ▶ Water Purification
- ▶ Sewage Treatment
- ▶ Flow
- ▶ Process
- ▶ Desalinization
- ▶ AC & DC Amps
- ▶ AC & DC Volts

DW Series (mm/in)

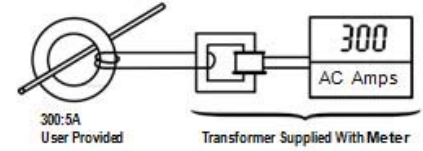
Panel Cutout for DW Series Surface Mount



Panel Cutout for DW Series Windo™ Mount

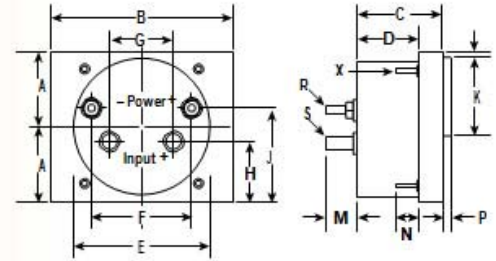


Connection for High Current Measurement



	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	V	W	X	Y	Z
2.5" mm	291	76.5	40.5	33.0	53.8	38.1	28.5	24.1	36.8	32.0	1.5	127	127	37	M-35	M-5	32	239	56.4	M-3	32.3	737
in.	1.145	3.01	1.6	1.30	2.12	1.50	1.12	.95	1.45	1.26	.06	.50	.50	.145	6-32	10-32	1.25	.94	2.22	4-40	1.27	2.9
3.5" mm	36.8	94.7	41.1	33.0	67.6	38.1	28.5	36.8	49.5	40.3	1.8	127	127	37	M-35	M-5	32	284	71.6	M-3	40.5	917
in.	1.45	3.73	1.62	1.30	2.66	1.50	1.12	1.45	1.95	1.585	.07	.50	.50	.145	6-32	10-32	1.25	1.12	2.82	4-40	1.585	361

DW Series Dimensional Drawings



DW Series Specifications

Range	2.5" Meter Part Number	3.5" Meter Part Number
<i>DC Microammeters</i>		
0-200	2DW-DUA-200-*	3DW-DUA-200-*
<i>DC Milliammeters</i>		
0-2	2DW-DMA-002-*	3DW-DMA-002-*
0-20	2DW-DMA-020-*	3DW-DMA-020-*
0-200	2DW-DMA-200-*	3DW-DMA-200-*
<i>DC Milliammeters — 2 wire, self-powered</i>		
4-20 ¹	L2DW-DMA-020	L3DW-DMA-020
4-20 ²	P2DW-DMA-020	P3DW-DMA-020
¹ Requires 1.5 VDC Loop-drop		
² Requires 2.75 VDC Loop-drop		

To Order: Select range and size from listing above. Complete the catalog number by replacing * with the power options suffix from below.

Power Option	Description	Suffix
115VAC	115VAC :±10%, 50 or 60 Hz	P115
230VAC	230VAC :±10%, 50 or 60 Hz	P230
5VDC	+ 5VDC :±5% at 3mA, typical ³	P5
10-28VDC (auto & marine)	+ 10 to +28VDC at 5mA, typical ³	P10-28
Battery	9VDC nom., 7.2 to 12 VDC at 150 ¹ -A, typical ⁴	P9

³Meters must have low input connected to DC supply return

⁴Meters must have input isolated from battery

Specifications and ordering information for DC & AC power monitors and Process Monitors can be found on our website.

DW Series Specifications (continued)

DC Power Monitors

Range:	10VDC to 28VDC
Resolution:	0.1VDC
Accuracy:	(±0.1% + 2 counts) with shunt amp
Display:	0.5" high digits LCD
Power Requirements:	10VDC to 28VDC @ 20MA
Operating Temperature:	32°F to 122°F (0°C to 50°C)
Storage Temperature:	-4°F to 149°F (-20°C to 65°C)

Circuit boards are conformal coated for protection

Volt Meters: Marine battery meters

Size	Part Number
2 1/2"	P2DW-DVV-10/28
3 1/2"	P3DW-DVV-10/28

Amp Meters

Size	Range	Shunt	Part Number
2 1/2"	0-50.0A	50mV	2DWS-DAA-050-P10-28
2 1/2"	0-500A	50mV	2DWS-DAA-500-P10-28
2 1/2"	0-10.00A	100mV	2DWS-DAA-010-P10-28
2 1/2"	0-100.0A	100mV	2DWS-DAA-100-P10-28
2 1/2"	0-1000A	100mV	2DWS-DAA-1000-P10-28
3 1/2"	0-50.0A	50mV	2DWS-DAA-050-P10-28
3 1/2"	0-500A	50mV	2DWS-DAA-500-P10-28
3 1/2"	0-10.00A	100mV	2DWS-DAA-010-P10-28
3 1/2"	0-100.0A	100mV	2DWS-DAA-100-P10-28
3 1/2"	0-1000A	100mV	2DWS-DAA-1000-P10-28

AC Power Monitors

Range:	80-130VAC, 160-260VAC
Resolution:	1V
Accuracy:	(±0.5% + 1 count)
Display:	0.5" high digits LCD
Power Requirements:	2VA Typical
Operating Temperature:	32°F to 122°F (0°C to 50°C)
Storage Temperature:	-4°F to 149°F (-20°C to 65°C)

Circuit boards are conformal coated for protection

Volt Meters

Size	Range	Part Number
2 1/2"	80-130VAC	P2DW-AVV-80/130
3 1/2"	80-130VAC	P3DW-AVV-80/130
2 1/2"	160-260VAC	P2DW-AVV-160/260
3 1/2"	160-260VAC	P3DW-AVV-160/260

DW Series Specifications (continued)

Range:	0-50 AMP AC ¹
Resolution:	0.1 AMP
Accuracy:	(±0.5% + 5 counts)
Display:	0.5" high digits LCD
Power Requirements:	2VA Typical
Operating Temperature:	32°F to 122°F (0°C to 50°C)
Storage Temperature:	-4°F to 149°F (-20°C to 65°C)

Circuit boards are conformal coated for protection
 Calibrated with external transformer that is shipped with meter.

Amp Meters

Size	Power	Part Number
2 1/2"	115VAC	2DW-AAAX-050-P115
3 1/2"	115VAC	3DW-AAAX-050-P115
2 1/2"	230VAC	2DW-AAAX-050-P230
3 1/2"	230VAC	3DW-AAAX-050-P230

Process Monitors

Type	Range	2 1/2" Meters Part Number	3 1/2" Meters Part Number
DC Milliammeters (Loop Receiver, 4-wire)	4-20	N2DW-DMA-020-*	N3DW-DMA-020-*
	10-50	N2DW-DMA-050-*	N3DW-DMA-050-*
DC Millivoltmeters	0-200	2DW-DMV-200-*	3DW-DMV-200-*
DC Voltmeters	0-2	2DW-DVV-002-*	3DW-DVV-002-*
	0-20	2DW-DVV-020-*	3DW-DVV-020-*
	0-200	2DW-DVV-200-*	3DW-DVV-200-*

To Order: Select range and size from listing above. Complete the catalog number by replacing * with the power options suffix from below.

Power Options:

Option	Description	* Suffix
115VAC	115VAC ±10%, 50 or 60 Hz	P115
230VAC	230VAC ±10%, 50 or 60 Hz	P230
5VDC	+ 5VDC ±5% at 3mA, typical ²	P5
1-28VDC (auto & marine)	+ 10 to +28VDC at 5mA, typical ²	P10-28
Battery	9VDC nom., 7.2 to 12 VDC at 150µA, typical ³	P9

¹ For higher currents, a 0-5 Amp AC input version is available for use with a user supplied current transformer. The value of full-scale current displayed for the 5 Amp input needs to be specified. e.g.: 2DW-AAAX-300-P115 would be a 2 1/2", 115VAC powered meter for use with a customer supplied 300 to 5 Amp current transformer.

² Meters must have low input connected to DC supply return

³ Meters must have input isolated from battery