

70 series

Surface and Bezel Mounted Analog Panel Meters

The highly versatile Jewell surface and bezel mounted 70 series analog panel meter provides maximum flexibility for selecting size, type of mechanism, and method of mounting. Crystal clear cover is distortion free and unaffected by aging. The clean, clear appearance of these meters blends with any color scheme.

Mechanisms/Sizes

T taut band

- Compact self-shielded taut band movement using simplified, frictionless suspension system supporting moving assembly. For applications that do not have severe shock and vibration.
- 1½" (71T), 2½" (72T), 3½" (73T), and 5" (75T).

TB taut band

- High performance taut band movement having unique suspension system for shock resistance. Offers variety of ballistics with superior torque and damping capabilities.
- 2½" (72TB), 3½" (73TB), 5" (75TB), and 6" (76TB).

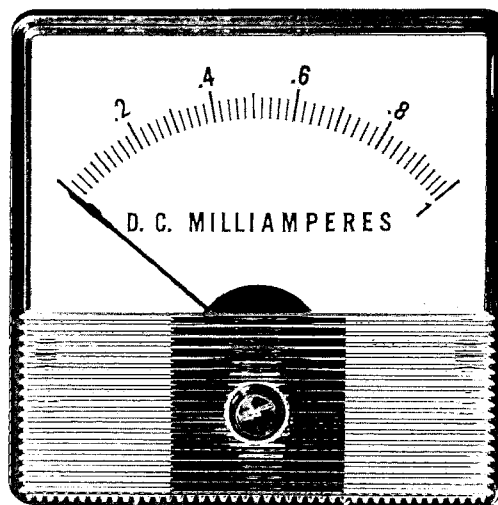
CM core-mag

- Compact, self-shielded D'Arsonval pivot and jewel movement providing excellent damping, repeatability and resistance to shock and vibration.
- 1½" (71CM), 2½" (72CM), 3½" (73CM), and 5" (75CM).

Pivot & Jewel

- D'Arsonval mechanism offering excellent sensitivity, repeatability and resistance to shock and vibration. Offers variety of ballistics with superior torque and damping capabilities.
- 2½" (72), 3½" (73), 5" (75), and 6" (76).

Jewell



Specifications

- **Performance** Meets requirements of American National Standard Institute ANSI C39.1.
- **Accuracy** All DC meters $\pm 2\%$ and all AC rectified-type meters $\pm 3\%$ of full scale at 23 degrees celsius.
- **Case** Precision molded, black thermoplastic, one-piece barrel and flange. Lexan material available on special orders.
- **Cover** Optically clear, molded Plexiglass cover snaps onto case. Clear serrated portion screens mechanisms opening. Corners are slightly rounded. Painted and Lexan covers available upon request.
- **Zero Set** Zero left is standard. Zero center, zero right, and offset zero available upon request.
- **Zero Adjuster** External adjuster on cover is standard on all models with minimum $\pm 3\%$ adjustment range.
- **Dial** White metal dial with sharp division marks, black printed numerals and radial arc. Special dials including mirrored and multicolor available upon request.
- **Pointer** Black lance pointer is standard. Knife edge or tubular pointers and red or white colors available upon request.
- **Deflection** T taut band standard is 100 degrees. TB taut band standard is 100 degrees. CM core-mag standard is 90 degrees. Pivot & Jewell standard is 100 degrees for 100 microamp range and above and 90 degrees for below.
- **Terminals** Threaded stud-type terminals is standard. Solder lugs available upon request.
- **Mounting** The 1½" meters are surface mounted by single mounting ring which screws into case barrel. All other sized meters are available in four-stud surface mountings to ANSI C39.1 drilling plan.
- **Bezel** Matte black bezels are precision molded of fiber glass reinforced Norly polyphenylene oxide thermoplastic. Available with hardware for 2½", 3½", and 5" meters.
- **Illumination** Lighting kit available for bezel mount option only. Kit mounts to top of meter to illuminate face of dial. Light bulbs not included.
- **Warranty** One year limited warranty.

Specifications subject to change without notice.

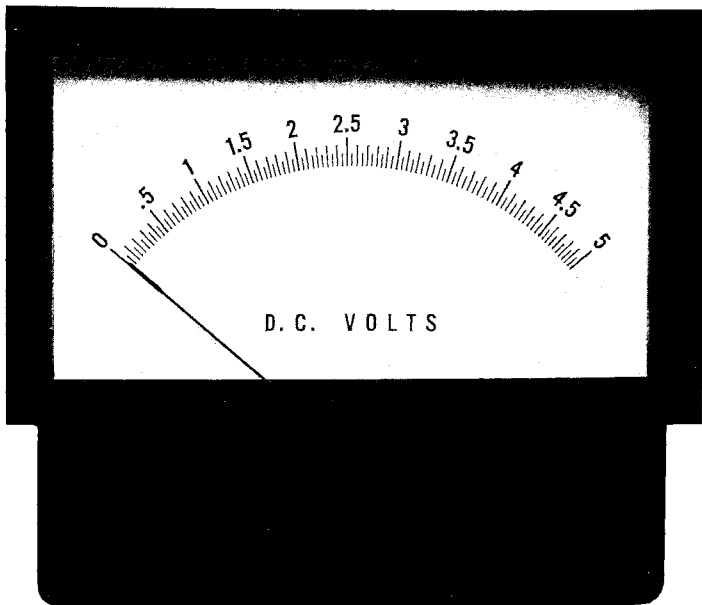
Ranges and Resistances

Standard Ranges	Standard Resistances			
	71T 72T 72T 75T	72TB 73TB 75TB 76TB	71CM 72CM 73CM 75CM	72 73 75 76
MICROAMPERES DC				
0-10	NA	3400	NA	NA
0-20	NA	1710	NA	2200
0-50	2560	1660	NA	1650
0-100	730	450	900	1325
0-200	225	197	500	460
0-500	272	41	200	280
50-0-50	730	450	900	1325
100-0-100	225	197	500	460
500-0-500	77	18	45	45
MILLIAMPERES DC				
0-1	77	18	45	45
0-5	7.9	CF	5	6
0-10	5.9	CF	CF	6
0-25	2	CF	CF	2
0-50	1	CF	CF	1
0-100	0.5	CF	CF	0.5
0-200	0.25	CF	CF	0.25
0-500	0.1	CF	CF	0.1
AMPERES DC				
0-1	0.05	0.05	CF	0.05
0-5	0.01*	CF	CF	0.01
0-10	0.005*	CF	CF	0.005
0-25	0.002*	CF	CF	0.002
0-50	0.001*	CF	CF	0.001

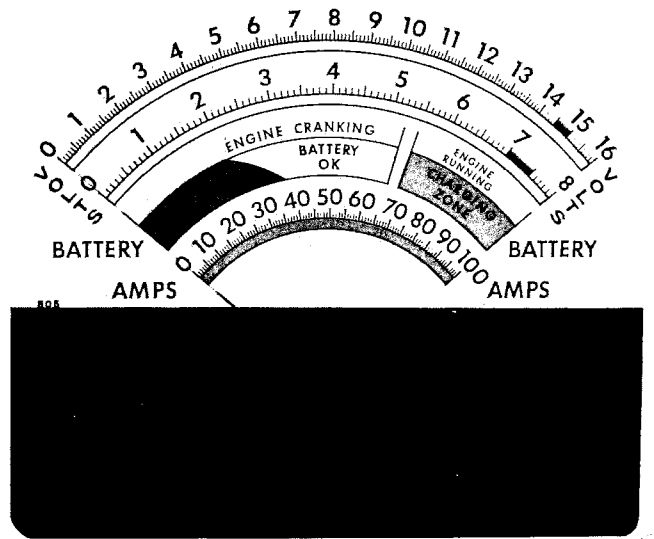
70 Series

Standard Ranges	Standard Resistances			
	71T 72T 73T 75T	72TB 73TB 75TB 76TB	71CM 72CM 73CM 75CM	72 73 75 76
MILLIVOLTS DC				
0-5	NA	20	CF	NA
0-10	NA	40	CF	NA
0-50	50	50	50	10
VOLTS DC (ohms/volt)				
0-1	1000	1000	1000	1000
0-5	1000	1000	1000	1000
0-10	1000	1000	1000	1000
0-15	1000	1000	1000	1000
0-25	1000	1000	1000	1000
0-30	1000	1000	1000	1000
0-50	1000	1000	1000	1000
0-100	1000	1000	1000	1000
0-150	1000	1000	1000	1000
0-200	1000	1000	1000	1000
0-500	1000	1000	1000	1000
VOLTS AC rectified (ohms/volt)				
0-150	1000	1000	1000	1000
0-300	1000**	1000	1000**	1000

NA - not available CF - consult factory
 Standard resistance for all ammeters in ohms $\pm 10\%$ and for all voltmeters in ohms $\pm 5\%$.
 Consult factory for special ranges and resistance.
 * Meters 1 1/2" supplied as 50MVDC for use with external shunt (not supplied).
 ** Not furnished for 1 1/2" meters.



75 Series with Bezel and Painted Cover

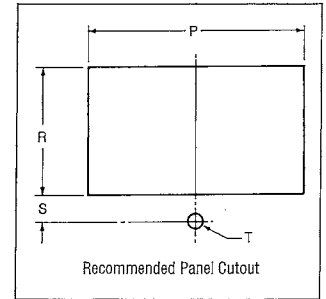
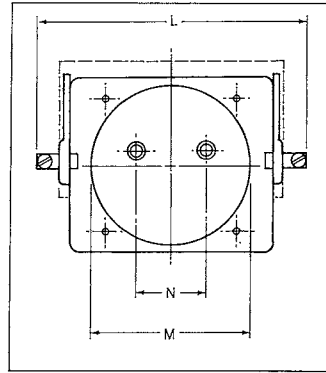
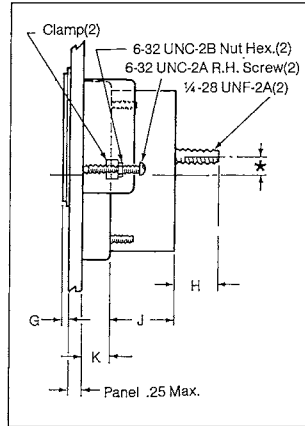
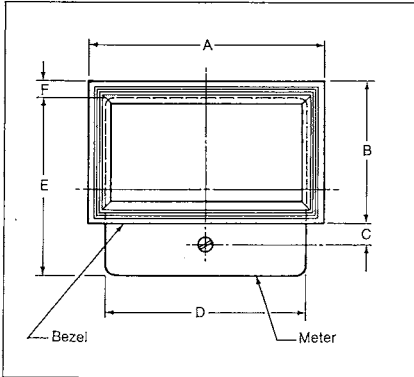


75 Series with Painted Cover

Dimensions

Bezel Mount

MODELS	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T
72, 72TB	3.12 in	1.72 in	0.47 in	2.47 in	2.47 in	0.29 in	0.078 in	0.75 in	1.10 in	0.40 in	3.41 in	2.19 in	1.20 in	3.00 in	1.57 in	0.55 in	0.25 in
72T, 72CM	79.25 mm	43.69 mm	11.94 mm	62.74 mm	62.74 mm	7.37 mm	1.98 mm	19.05 mm	27.94 mm	10.16 mm	86.61 mm	55.63 mm	30.48 mm	76.20 mm	39.88 mm	13.97 mm	6.35 mm
73, 73TB	3.88 in	2.31 in	0.39 in	3.47 in	2.97 in	0.24 in	0.09 in	0.75 in	1.10 in	0.46 in	4.407 in	2.73 in	1.20 in	3.73 in	2.18 in	0.46 in	0.25 in
73T, 73CM	98.55 mm	58.67 mm	9.91 mm	88.14 mm	75.44 mm	6.10 mm	2.29 mm	19.05 mm	27.94 mm	11.68 mm	111.94 mm	69.34 mm	30.48 mm	94.74 mm	55.37 mm	11.68 mm	6.35 mm
75, 75TB	5.03 in	2.97 in	0.545 in	4.64 in	4.15 in	0.20 in	0.10 in	0.75 in	1.04 in	0.60 in	5.10 in	2.73 in	1.20 in	4.81 in	2.75 in	0.652 in	0.25 in
75T, 75CM	127.76 mm	75.44 mm	13.84 mm	117.86 mm	105.41 mm	5.08 mm	2.54 mm	19.05 mm	26.42 mm	15.24 mm	129.54 mm	69.34 mm	30.48 mm	122.17 mm	69.85 mm	16.56 mm	6.35 mm

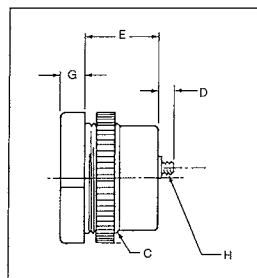
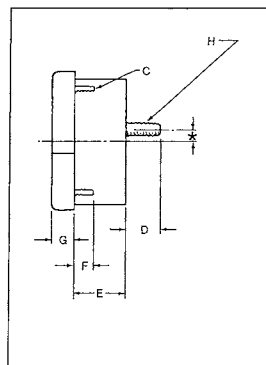
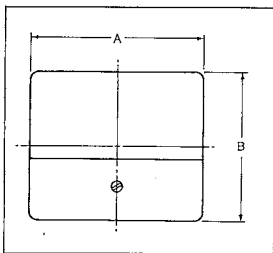


Bezel and Lighting Kits

	72 series	73 series	75 series
Bezel kit p/n	871172-001	870984-001	871171-001
Lighting kit p/n	871169-001	870537-001	871170-001

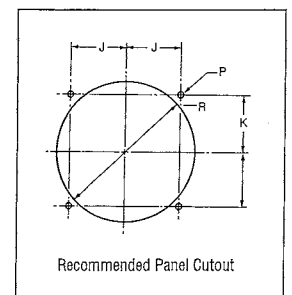
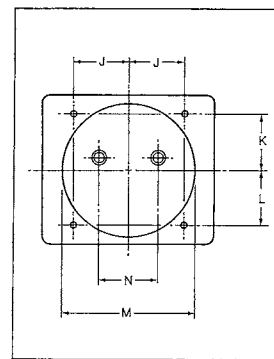
Surface Mount

MODELS	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R
71T	1.75 in	1.75 in	1 1/2-18 UNF-2A	0.23 in	1.00 in		0.35 in	6-32 UNC-2A				1.70 in	0.75 in		
71CM	44.45 mm	44.45 mm		5.84 mm	25.40 mm		8.89 mm					43.18 mm	19.05 mm		
72, 72TB	2.47 in	2.47 in	4-40 UNC-2A	0.75 in	1.10 in	0.44 in	0.40 in	1/4-28 UNF-2A	0.94 in	0.94 in	0.94 in	2.19 in	1.20 in	0.125 in	2.22 in
72T, 72CM	62.74 mm	62.74 mm		19.05 mm	27.94 mm	11.18 mm	10.16 mm		23.88 mm	23.88 mm	23.88 mm	55.63 mm	30.48 mm	3.18 mm	56.39 mm
73, 73TB	3.47 in	2.97 in	4-40 UNC-2A	0.75 in	1.10 in	0.44 in	0.46 in	1/4-28 UNF-2A	1.125 in	1.125 in	1.125 in	2.73 in	1.20 in	0.125 in	2.82 in
73T, 73CM	88.14 mm	75.44 mm		19.05 mm	27.94 mm	11.18 mm	11.68 mm		28.58 mm	28.58 mm	28.58 mm	69.34 mm	30.48 mm	3.18 mm	71.63 mm
75, 75TB	4.64 in	4.15 in	6-32 UNC-2A	0.75 in	1.04 in	0.40 in	0.60 in	1/4-28 UNF-2A	2.00 in	2.031 in	1.531 in	2.73 in	1.20 in	0.15 in	2.82 in
75T, 75CM	117.86 mm	105.41 mm		19.05 mm	26.42 mm	10.16 mm	15.24 mm		50.80 mm	51.59 mm	38.89 mm	69.34 mm	30.48 mm	3.81 mm	71.63 mm



1 1/2" meters

2 1/2" and 3 1/2" meters



Recommended Panel Cutout

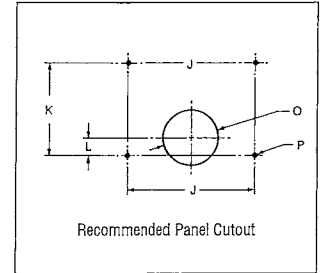
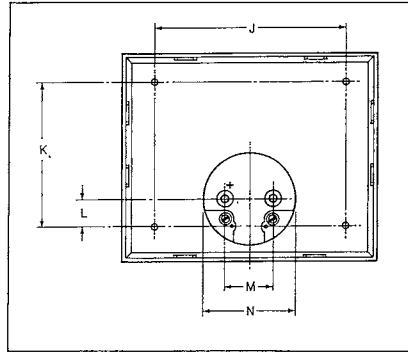
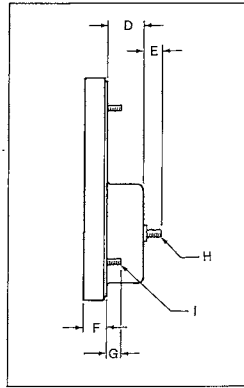
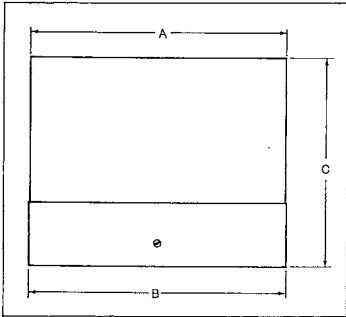
Terminal Position:

- Model 71T and 71CM are 0.185 in (4.70 mm) above center line.
- Models 72, 72T and 72CM are 0.24 in (6.10 mm) above center line.
- Models 73 and 75 are 0.70 in (17.78 mm) above center line.
- Models 73T, 75T, 73CM and 75CM are on the center line.

Dimensions (continued)

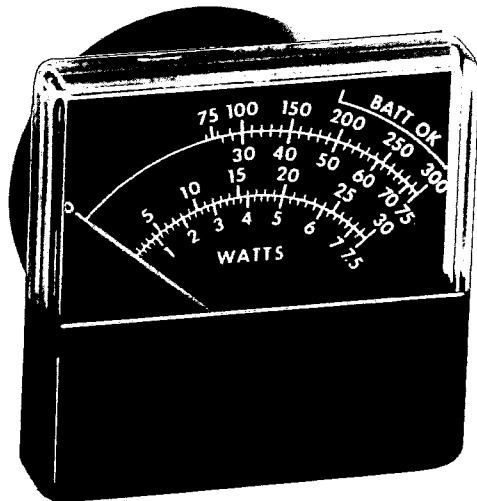
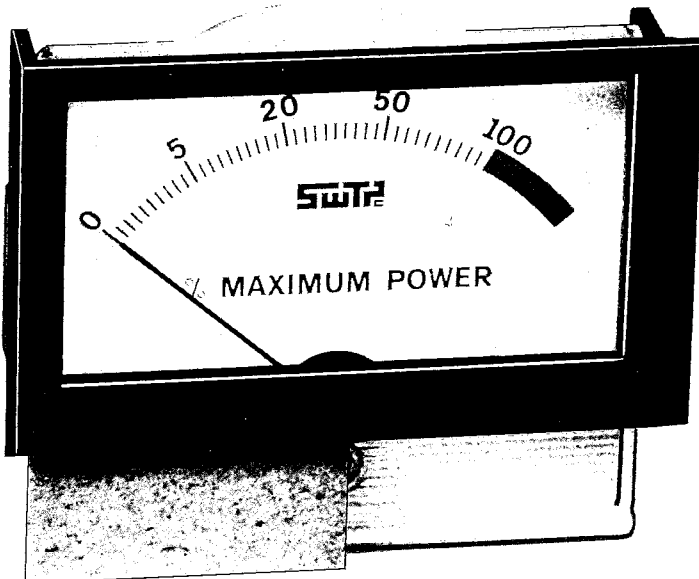
Surface Mount 6" meters

MODELS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
76	5.62 in	5.62 in	4.48 in	1.10 in	0.75 in	0.44 in	0.52 in	1/4-28	6-32 UNC-2A	4.50 in	3.50 in	1.02 in	1.20 in	2.73 in	2.82 in	0.15 in
76TB	142.75 mm	142.75 mm	113.79 mm	27.94 mm	19.05 mm	11.18 mm	13.21 mm	UNF-2A		114.30 mm	88.90 mm	25.91 mm	30.48 mm	69.34 mm	71.63 mm	3.81 mm



Scale and Pointer

METER	scale	pointer
71 series	1.30 in 33.02 mm	0.741 in 18.82 mm
72 series	2.18 in 55.37 mm	1.25 in 31.75 mm
73 series	2.95 in 74.93 mm	1.69 in 42.93 mm
75 series	3.82 in 97.03 mm	2.19 in 55.63 mm
76 series	5.00 in 127.00 mm	2.88 in 73.15 mm



JEWELL ELECTRICAL INSTRUMENTS

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