

80 series

Window Mount Analog Panel Meters

The Jewell window mount 80 series analog panel meter is designed with crisp appearance and high visibility. Only the clean lines of the dial face appear on your panel front, providing maximum layout flexibility. This unique space-saving meter saves up to 3 cubic inches behind panel when compared to "barrel type" meters.

Mechanisms/Sizes

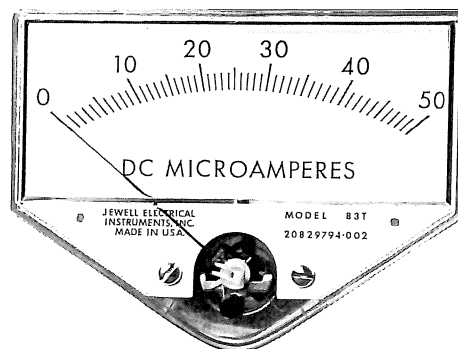
T taut band

- 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" (81T), 2½" (82T), and 3½" (83T).

CM core-mag

- Compact, self-shielded D'Arsonval pivot & jewel movement providing excellent damping, repeatability and resistance to shock and vibration.
- 1½" (81CM), 2½" (82CM), and 3½" (83CM).

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** T taut band has a plated sintered iron pole piece and CM core-mag has a black Lexan housing attached to flange. A plastic cap seals bottom of pole piece/housing.
- **Cover** Clear Plexiglass cover snaps onto a Plexiglass flange. A "nest" is provided in the back of the flange for mounting resistors on 1½" and 2½" meters. Lexan material available on special orders.
- **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, flattern arc. Special dials including mirrored and multicolor available upon request.
- **Pointer** Black knife edge pointer is standard. Lance or tubular pointers and red or white colors available upon request.
- **Deflection** T taut band standard is 100 degrees. CM core-mag standard is 90 degrees.
- **Terminals** Solder type terminals mounted on the back of the housing.
- **Mounting** Optional two-stud behind-panel mounting.
- **Illumination** Optional translucent white plastic dial with shadow-free clear solid meter back. This option deletes resistor nest and mounting studs from 1½" and 2½" meters.
- **Warranty** One year limited warranty.

Specifications subject to change without notice.

Ranges and Resistances

80 Series

Standard Ranges	Standard Resistances			
	81T	82T	83T	81CM 82CM 83CM
MICROAMPERES DC				
0-10	NA			NA
0-20	NA			NA
0-50	2560			NA
0-100	730			900
0-200	225			500
0-500	272			200
50-0-50	730			900
100-0-100	225			500
500-0-500	77			45
MILLIAMPERES DC				
0-1	77			45
0-5	7.9			5
0-10	5.9			50
0-25*	50			50
0-50*	50			50
0-100*	50			50
0-200*	50			50
0-500*	50			50
AMPERES DC				
0-1*	50			50
0-5*	50			50
0-10*	50			50
0-25*	50			50
0-50*	50			50

Standard Ranges	Standard Resistances			
	81T	82T	83T	81CM 82CM 83CM
MILLIVOLTS DC				
0-5	NA			CF
0-10	NA			CF
0-50	50			50
VOLTS DC (ohms/volt)				
0-1	1000			1000
0-5	1000			1000
0-10	1000			1000
0-15	1000			1000
0-25	1000			1000
0-30	1000			1000
0-50	1000			1000
0-100	1000			1000
0-150	1000			1000
0-200	1000			1000
0-500	1000			1000
VOLTS AC rectified (ohms/volt)				
0-150	1000			1000
0-300	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.

* All meters supplied as 50MVDC for use with external shunt (not supplied).

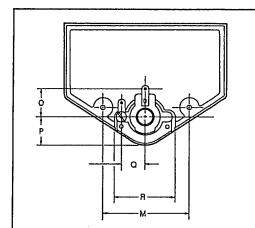
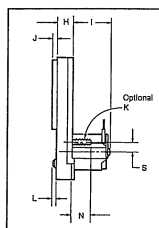
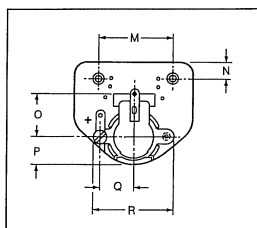
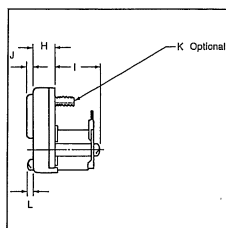
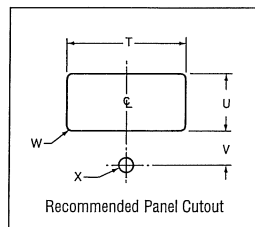
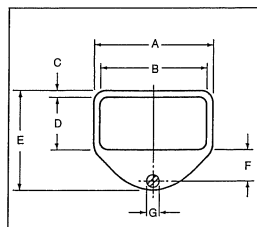
Dimensions

MODELS	A	B	C	D	E	F	G	H	I	J	K	L	M	N
81T	1.98 in	1.815 in	0.11 in	0.85 in	1.64 in	0.52 in	0.20 in	0.42 in	0.82 in	0.115 in	6-32 UNC-2A	0.72 in	1.25 in	0.27 in
81CM	50.29 mm	46.10 mm	2.79 mm	21.59 mm	41.67 mm	13.21 mm	5.08 mm	10.67 mm	20.83 mm	2.92 mm		18.29 mm	3.175 mm	6.86 mm
82T	2.50 in	2.35 in	0.08	1.11 in	2.10 in	0.585 in	0.20 in	0.45 in	0.82 in	0.115 in	6-32 UNC-2A	0.72 in	1.25 in	0.547 in
82CM	63.50 mm	59.69 mm	1.91 mm	28.19 mm	53.34 mm	14.86 mm	5.08 mm	11.43 mm	20.83 mm	2.92 mm		18.29 mm	3.175 mm	13.89 mm
83T	3.73 in	3.582 in	0.07	1.57 in	2.83 in	0.812 in	0.20 in	0.36 in	0.91 in	0.115 in	6-32 UNC-2A	0.72 in	2.00 in	0.43 in
83CM	94.74 mm	90.98 mm	1.88 mm	39.88 mm	71.88 mm	20.62 mm	5.08 mm	9.14 mm	23.11 mm	2.92 mm		18.29 mm	50.80 mm	10.92 mm

MODELS	O	P	Q	R	S	T	U	V	W	X
81T	0.70 in	0.45 in	0.55 in	1.355 in		1.825 in	0.86 in	0.515 in	0.07 in	0.213 in
81CM	17.78 mm	11.43 mm	13.97 mm	34.42 mm		46.36 mm	21.84 mm	13.08 mm	1.78 mm	5.41 mm
82T	0.70 in	0.63 in	0.55 in	1.355 in		2.36 in	1.11 in	0.58 in	0.02 in	0.213 in
82CM	17.78 mm	16.00 mm	13.97 mm	34.42 mm		59.94 mm	28.19 mm	14.73 mm	0.51 mm	5.41 mm
83T	0.70 in	0.64 in	0.55 in	1.42 in	0.222 in	3.598 in	1.59 in	0.804 in	0.02 in	0.228 in
83CM	17.78 mm	16.26 mm	13.97 mm	36.07 mm	5.64 mm	91.39 mm	40.39 mm	20.42 mm	0.51 mm	5.79 mm

Scale and Pointer

METER	scale	pointer
81 series	1.578 in 40.08 mm	0.90 in 22.86 mm
82 series	2.182 in 55.42 mm	1.25 in 31.75 mm
83 series	3.28 in 83.31 mm	1.879 in 47.73 mm



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

3 1/2" meters