

# PEARSON ELECTRONICS, INC.

## Standard Current Monitors

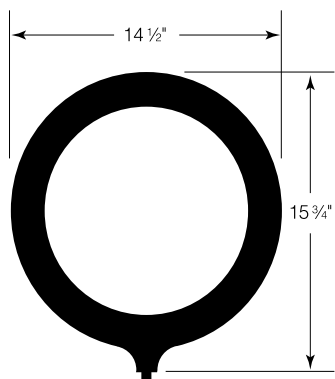


Figure A  
Thickness: 1 3/4"  
Connector: UHF

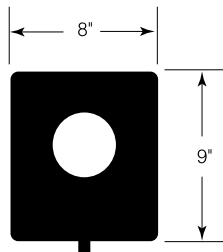


Figure C  
Thickness: 2 3/4"  
Connector: UHF

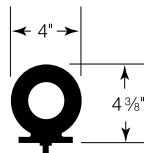


Figure D  
Thickness: 1"  
Connector: BNC

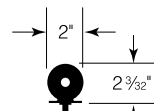


Figure E  
Thickness: 1"  
Connector: BNC

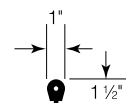


Figure F  
Thickness: 5/8"  
Connector: SMA

### STANDARD CURRENT MONITORS

Accuracy +1%, -0% initial pulse response for all models, with a high impedance load such as 1 megohm in parallel with 20 pF. A 50 ohm termination will reduce the output to half. Those labeled \* are double shielded and are recommended for high voltage or high noise environments. The entries labeled \*\* may need a small dc bias current through the secondary for maximum current-time rating.

<sup>†</sup>Type N Connector

Model Number	Figure	Output (volts/amp)	Hole Dia. (inches)	TIME DOMAIN PARAMETERS				FREQUENCY DOMAIN PARAMETERS			
				Maximum Peak Curr. (amps)	Droop (%/microsec.)	Useable Rise Time (nanosec.)	IT Max. (amp-sec.)	Maximum RMS Curr. (amps)	Approx. 3dB pt. Low (Hz)	High (MHz)	I/f (peak amps/Hz)
2877	F	1.0	0.25	100	0.2	2	0.0004**	2.5	300	200	0.0025
4100	E	1.0	0.5	500	0.09	10	0.002**	5	140	35	0.006
2100	D	1.0	2.0	500	0.08	20	0.005**	7.5	125	20	0.017
3100*	C	1.0	3.5	500	0.04	50	0.03**	12	40	7	0.1
150	D	0.5	2.0	1,000	0.02	20	0.02**	15	40	20	0.07
325*	C	0.25	3.5	2,000	0.1	30	0.09	60	160	10	0.6
2878	F	0.1	0.25	400	0.02	5	0.004**	10	30	70	0.025
410	E	0.1	0.5	5,000	0.06	20	0.25	50	120	20	1.7
411	E	0.1	0.5	5,000	0.0009	20	0.2**	50	1	20	0.6
110	D	0.1	2.0	5,000	0.0008	20	0.5**	65	1	20	1.5
110A <sup>†</sup>	D	0.1	2.0	10,000	0.0008	20	0.5**	65	1	20	1.5
310*	C	0.1	3.5	5,000	0.02	40	0.6	140	40	10	3.6
1010*	A	0.1	10.75	5,000	0.25	50	0.7**	120	400	7	4.4
1025	D	0.025	2.0	20,000	0.1	100	0.5	100	160	4	3.0
3025*	C	0.025	3.5	20,000	0.004	100	3.0	325	7	4	20.0
2879	F	0.01	0.25	2,000	0.002	20	0.04**	25	3	20	0.25
5046	E	0.01	0.5	25,000	0.0003	20	0.5**	100	0.5	20	3.0
101	D	0.01	2.0	50,000	0.0001	100	2.5**	200	0.25	4	12.0
4997	D	0.01	2.0	20,000	0.0003	20	1.0**	150	0.5	20	3.5
301X*	C	0.01	3.5	50,000	0.003	200	22.0	400	5	2	140.0

(continued)



# PEARSON ELECTRONICS, INC.

## Standard Current Monitors & Capacitive Voltage Dividers

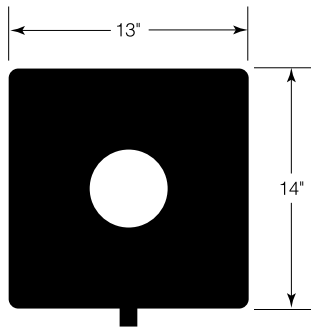


Figure B  
Thickness: 4"  
Connector: UHF

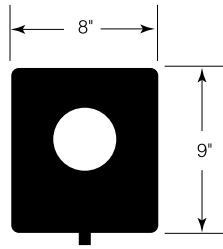


Figure C  
Thickness: 2 3/4"  
Connector: UHF

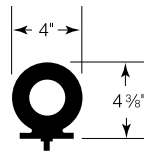


Figure D  
Thickness: 1"  
Connector: BNC

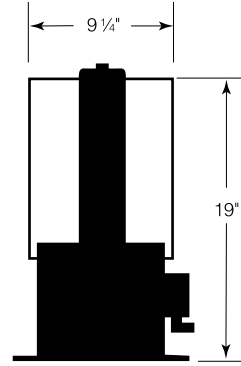


Figure G

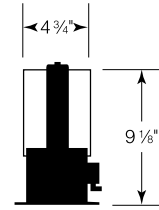


Figure H

### STANDARD CURRENT MONITORS

The accuracy of these current monitors is  $\pm 1\%$ , with a high impedance load such as 1 megohm in parallel with 20 pF. With the exception of the 2093, which has a 1 ohm output impedance, a 50 ohm termination will reduce the output to half. Those labeled \* are double shielded and are recommended for high voltage or noise environments. The entries labeled \*\* may need a small dc bias current through the secondary for maximum current-time rating. †Type N connector

Model Number	Figure	Output (volts/amp)	Hole Dia. (inches)	TIME DOMAIN PARAMETERS				FREQUENCY DOMAIN PARAMETERS			
				Maximum Peak Curr. (amps)	Droop (%/millisec.)	Useable Rise Time (microsec.)	IT Max. (amp-sec.)	Maximum RMS Curr. (amps)	Approx. 3dB pt. Low (Hz)	High (MHz)	I/f (peak amps/Hz)
1080*	C†	0.005	3.5	200,000	2.0	0.25	25	750	3.0	1.5	150
1330*	C	0.005	3.5	100,000	1.0	0.25	65	1400	0.9	1.5	400
4418	D	0.001	2.0	200,000	0.05	0.2	6.0**	400	0.7	2	40
1423*	C	0.001	3.5	500,000	0.7	0.3	75	2500	1.0	1.2	450
2093*	B	0.001	4.75	500,000	0.09	2.0	1200	2500	0.15	0.2	7500

We welcome inquiries regarding your specific current monitor needs should none of the standard models meet your requirements.

### ATTENUATOR MODEL A10

The Model A10 attenuator may be used with all standard Pearson Current Monitors, except Model 2093, to reduce signal output voltage by a factor of 10. All maximum ratings of these models are preserved. The attenuator is symmetrical and can be used in either direction.

Voltage ratio ..... 10:1 (-20 dB)	Maximum peak voltage .... 500 Volts	$\pm 1$ dB bandwidth ..... DC to 100MHz
Midband accuracy ..... $\pm 1\%$	Maximum RMS Voltage .... 7.5 Volts	Connectors ..... BNC
Input/Output resistance ..... 50 Ohms	Useable rise time ..... 5 nanoseconds	

### CAPACITIVE VOLTAGE DIVIDERS

Accuracy: Nameplate division ratio measured at 35 degrees C and temperature compensated to within  $\pm 1\%$  for 20 degrees C to 80 degrees C. Accuracy is  $\pm 5\%$  with 25 feet of RG-58 cable on the output.

Model Number	Figure	Maximum Pulse Voltage in Oil (kV)	Voltage Division Ratio	Typical Capacitance Added to Circuit	Droop (%/microsec.)	Useable Rise Time (nanosec.)
VD-305A	H	300	5,000:1	18pF	0.02	100
VD-500A	G	500	10,000:1	38pF	0.01	200

Custom Calibration for other ratios or use in air is available.  
Immersion in clean transformer oil is necessary for measuring high pulse voltages.  
Droop values given above assume a one megohm cable termination.

Cable termination—typical oscilloscope input (one megohm and 20 pF in parallel).  
Output Connector—BNC.

### HIGH VOLTAGE PULSE TRANSFORMERS

Pearson Electronics also specializes in the design of high voltage pulse transformers. These transformers employ open construction and are intended to be immersed in high voltage insulating oil. Pulse output voltages range from 100kV to 500kV with pulse lengths from 0.25 to 50  $\mu$ -secs. We welcome inquiries regarding your specific pulse transformer requirements.

