

STEPPED ATTENUATOR SERIES

- Precision step adjustment
- High quality
- Long life
- Space saving

BOURNS

FOR ORDERING INFORMATION SEE PAGE 152.

Stepped Attenuator

Bourns® Stepped Attenuator

Electrical Characteristics¹

Voltage	32 VAC maximum										
Minimum Resistance	5 ohms maximum										
Insulation Resistance (500 vdc)	1,000 megohms minimum										
Dielectric Withstanding Voltage	MIL-STD-202, Method 301										
Sea Level	1,000 VAC minimum										
Temperature Coefficient	±150ppm/°C										
Volume Controls											
Taper	dB										
Standard dB/TR range											
50 dB	10K - 100K ohms										
60 dB	20K - 100K ohms										
70 dB	50K - 100K ohms										
Resistance Tolerance	±5% nominal										
Detent Step Angle	15° per step										
Detent Positions	22										
Total Rotational Angle	315°										
dB Taper	Increments										
Value	1	2	3	4	5	6	7	8	20	21	22
-50dB	Inf.	-50	-42	-37	-34	-32	-30	-28	-4	-2	0
-60 dB	Inf.	-60	-50	-42	-37	-33	-30	-28	-4	-2	0
-70dB	Inf.	-70	-60	-50	-40	-34	-30	-28	-4	-2	0
dB Step Error	Within 0.5dB at each step with respect to the first step										
Tone Controls											
Taper	Linear										
Total Resistance Range	10K ohms - 100K ohms (±5% nominal)										
Step Resistance Values	±5% nominal (except center detent position to be ±3%)										
Total Resistance Tolerance	±5% nominal										
Detent Step Angle	30° per step										
Detent Positions	11 or 12										
Total Rotational Angle	300°										

Environmental Characteristics¹

Storage Temperature Range	-40°C to +125°C										
Temperature Coefficient Over Temperature Range	±150 ppm										
Vibration	15G										
Wiper Bounce	0.1MS maximum										
Shock	50G										
Wiper Bounce	0.1MS maximum										
Rotational Life	100,000 cycles										
Moisture Resistance	MIL-STD-202, Method 103, Condition B										

Mechanical Characteristics¹

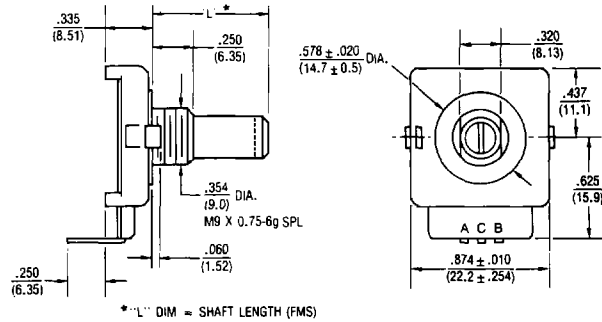
Stop Strength	7 in-lbs. maximum										
Terminals	Printed circuit pins or solder lugs										
Mechanical Angle											
315°	22 detent positions										
300°	11 detent positions										
Mounting Torque	7 in-lb. maximum										

¹At room ambient: +25°C nominal and 50% relative humidity nominal, except as noted. Specifications are subject to change without notice.

Stepped Attenuator

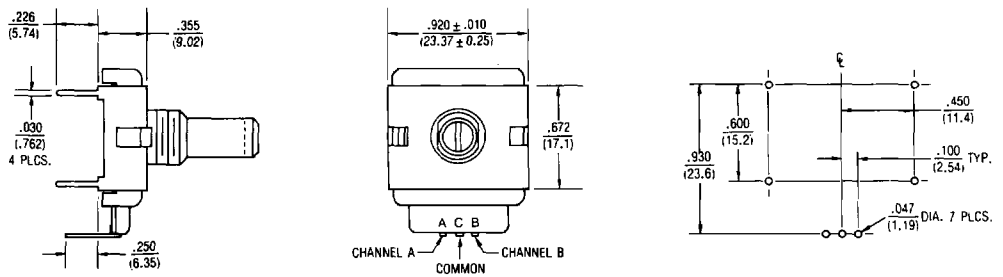
Bourns® Stepped Attenuator

BUSHING MOUNTED

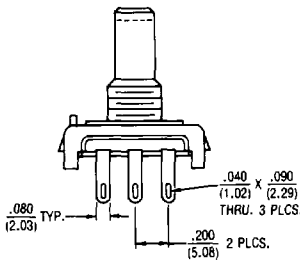


PCB BRACKET MOUNTED

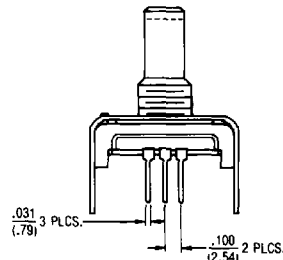
Dimensions not given are the same as bushing mounted.



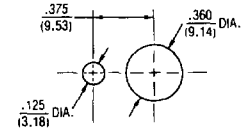
SOLDER LUG



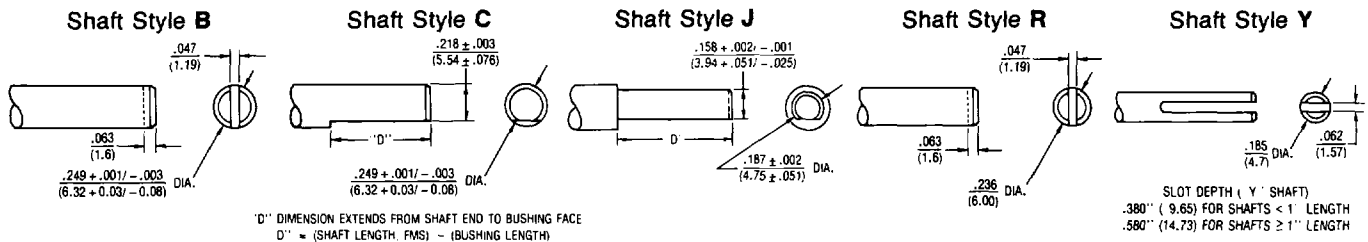
TERMINAL



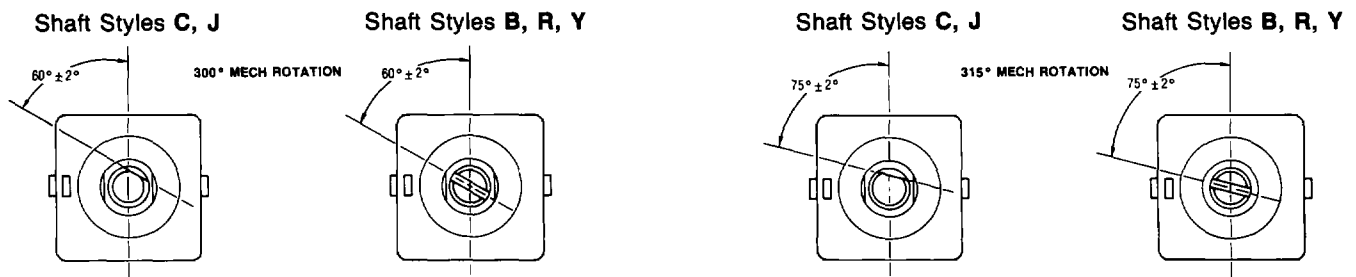
PANEL HOLE DIMENSIONS



SHAFT STYLES (Full CCW Rotation)



SHAFT ORIENTATIONS



FOR TOLERANCES NOT SHOWN .XX = ± .010
.XXX = ± .005

Specifications are subject to change without notice.

HOW TO ORDER Stepped Attenuator Bourns® Stepped Attenuator

PART NUMBERING SYSTEM

P A W 0 J - B 2 4 - B A 0 1 0 3

SHAFT LENGTH (FMS)	
Code	Description
24	3/4" (19mm) Length
28	7/8" (22.2mm) Length
32	1" (25.4mm) Length
36	1-1/8" (28.6mm) Length
Metric	
19	19mm Length (Shaft Style "R" Only)
24	24mm Length (Shaft Style "R" Only)

SHAFT STYLES (See Outline Drawing)	
Code	Description
B	1/4" Dia. Slotted
C	1/4" Dia. Flatted
J	3/16" Dia. Flatted
R	6mm Dia. Slotted (use metric lengths)
Y	3/16" Dia. Split Shaft

ANTI-ROTATION LUG	
Code	Description
0J	9:00 Position
0D	None

BUSHING CONFIGURATION	
Code	Description
0	9mm x .250 Length Threaded M3 x 0.75 Gg 5 Pl

TERMINAL CONFIGURATION (X Indicates "Equipped With")				
Features	Code			
	A	B	C	D
PC Pins	X	X		X
Solder Lugs		X	X	
PCB Bracket		X		X
Hardware Incl.	X	X	X	X

RESISTANCE VALUES	
Code	Value
103	10K Ohms
203	20K Ohms
253	25K Ohms
503	50K Ohms
104	100K Ohms

CENTER TAP OPTION	
Code	Description
0	No Center Tap
1	Center Tap

Code	Description	AVAILABLE RESISTANCE VALUES (Codes Shown)					Detents
		103	203	253	503	104	
A	30db	—	—	—	—	—	22
B	60db	—	203	253	503	104	22
C	70db	—	—	—	503	104	22
D	Linear	103	203	253	503	104	11*

*21 available on request

The sample part number demonstrates the identification code for Bourns

The part number shown is a commonly used model, typically available from stock.