BX7D Manual Wirewound Rheostats

Product Overview

Oxide-insulated constantan wire is wound on a ceramic tube. A sliding contact adjusts resistance continuously. Use as an adjustable load in AC or DC circuits. Non-inductive builds on request.

Typical Applications

Instrument calibration, lab testing and teaching
Current and voltage adjustment
DC motor excitation and speed control



Shown: single-tube configuration

Configuration Guide

Configuration	Models	Tube Ø	Listed current (A)	Details
Single tube	BX7D-1/1 to 1/6	64 mm	0.1-30	This page
Twin tube	BX7D-2/3 to 2/6	64 mm	0.1-50	This page
Single tube	BX7D-1/7 to 1/13	100 mm	0.1-50	Page 2
Guarded single tube	BXS-150 / 300 / 600	47 / 64 mm	0.18-20	Page 2

Ø64 mm Single Tube

Width 90 mm / Height 135 mm

Model	BX7D-1/1	BX7D-1/2	BX7D-1/3	BX7D-1/4	BX7D-1/5	BX7D-1/6
Legacy model	RXH-A8	RXH-A10	RXH-A12	RXH-A14	RXH-A16	RXH-A18
Similar model	BX7-11	BX7-12	BX7-13	BX7-14	BX7-15	BX7-16
Length (mm)	265	325	370	420	470	520
Current (A)	**Rated resistance (Ω)**					
0.1	5,000	7,000	8,700	10,500	12,500	14,500
0.2	1,900	2,600	3,200	4,000	4,500	5,000
0.3	1,100	1,500	1,900	2,300	2,700	3,000
0.5	600	800	1,000	1,200	1,400	1,600
0.8	250	350	420	500	600	700
1	140	190	240	290	340	390
1.5	100	140	180	210	250	280
2	50	70	90	100	120	140
2.5	35	45	55	70	80	90
3	23	32	40	50	55	65
3.5	17	23	30	35	40	48
5	10	15	18	22	25	30
6	6.5	9	12	15	18	20
7	4.7	6	8	10	12	14
8	3	4	5	6.5	7.5	8.5
10	2.5	3.5	4.5	5.5	6.5	7.5
13	1.5	2	2.5	3	3.5	4.2
15	1.1	1.5	1.9	2.3	2.6	3
20	0.75	1	1.3	1.5	1.8	2
30	0.55	0.75	0.95	1.1	1.3	1.5

Ø64 mm Twin Tube

Width 175 mm / Height 150 mm

Model	BX7D-2/3	BX7D-2/4	BX7D-2/5	BX7D-2/6
Legacy model	RXH-B12	RXH-B14	RXH-B16	RXH-B18
Similar model	BX7-21	BX7-22	BX7-23	BX7-24
Length (mm)	370	420	470	520
Current (A)	**Rated resistance (Ω)**			
0.1	17,500	21,000	25,000	29,000
0.2	6,400	8,000	39,000*	10,000
0.3	3,800	4,600	5,400	6,000
0.5	2,000	2,400	2,800	3,200
0.8	840	1,000	1,200	1,400
1	480	580	680	780
1.5	360	420	500	560
2	180	200	240	280
2.5	110	140	160	180
3	80	100	110	130
3.5	60	70	80	95
4.5	36	44	50	60
6	24	30	36	40
7	16	20	24	28
8	10	13	15	17
10	9	11	13	15
13	5	6	7	8.5
15	3.8	4.5	5.2	6
20	2.6	3	3.5	4
22.5	1.9	2.2	2.6	3
30	1.4	1.7	1.9	2.1
50	0.48	0.56	0.64	0.72

* The source lists 39,000 Ω at 0.2 A for BX7D-2/5. Confirm this combination before ordering.

Ø100 mm and Guarded Single-Tube Models

Ø100 mm Single Tube

Width 120 mm / Height 185 mm

Model	BX7D-1/7	BX7D-1/8	BX7D-1/9	BX7D-1/10	BX7D-1/11	BX7D-1/12	BX7D-1/13
Legacy model	RXH-C40	RXH-C45	RXH-C50	RXH-C55	RXH-C60	RXH-C65	RXH-C70
Similar model	BX8-11	BX8-12	BX8-13	BX8-14	BX8-15	BX8-16	BX8-17
Length (mm)	465	515	565	615	665	715	765
Current (A)	Rated resistance (Ω)						
0.1**	18,500 / 21,500 / 24,500						
0.2	7,000	8,500	9,500	10,500	11,500	12,500	13,000
0.3	4,000	4,700	5,300	5,700	6,300	6,700	7,300
0.5	2,000	2,400	2,700	3,000	3,300	3,700	4,000
0.8	800	1,000	1,200	1,400	1,600	1,800	2,000
1	500	580	650	730	800	880	900
1.5	380	430	500	550	600	650	700
2	190	215	240	270	300	330	360
2.5	130	145	160	180	200	220	235
3	90	100	110	120	130	140	150
3.5	63	72	82	92	100	110	120
4.5	45	50	55	60	65	70	75
6	25	28	30	35	40	45	50
7	16	19	22	25	28	30	32
8	12	14	16	18	20	22	24
10	9.5	11	12	13.5	15	16.5	18
13	5.6	6.5	7.5	8.2	9	10	11
15	3.7	4.3	4.8	5.5	6	6.5	7.2
20	2.7	3	3.5	3.8	4.2	4.6	5
22.5	2	2.4	2.7	3	3.3	3.6	4
30	1.5	1.7	1.9	2.1	2.3	2.5	2.7
50	0.5	0.6	0.7	0.75	0.8	0.9	1

** The source lists three resistance values at 0.1 A. Confirm which models they apply to.

Guarded Single Tube / BXS

The guarded variants use BXS model numbers. Select the model and its listed resistance and current pair.

Model	Tube Ø (mm)	Overall dimensions L × W × H (mm)	Weight (kg)
BXS-150	47	285 × 140 × 95	1.8
BXS-300	47	385 × 140 × 95	2.4
BXS-600	64	485 × 160 × 100	3.2

BXS-150	
Resistance (Ω)	Current (A)
10	4
33	2.2
100	1.25
330	0.7
1,000	0.4
3,300	0.22

BXS-300	
Resistance (Ω)	Current (A)
3.3	10
10	5.7
33	3.1
100	1.8
330	1.0
1,000	0.57
3,300	0.31
10,000	0.18

BXS-600	
Resistance (Ω)	Current (A)
1.6	20
5	11.4
16.5	6.2
50	3.6
165	2
500	1.1
1,650	0.63
5,000	0.36

Guarded models offer continuous adjustment, low drift in continuous use, and series or parallel configurations.

For a quote, specify the model, rated current and resistance, plus any guard or non-inductive requirement.