

High Power Decade Resistance Substituter

HPRS Series

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Economical, high-performance, high-power resistance for all laboratory, test, and calibration needs.



Standard 6-Decade HPRS High Power Decade Resistance Substituter

Features:

- Resistance from 1 m Ω to 10 M Ω
- Wide choice: 3 to 9 decade units
- Accuracy: 0.5% or 1%
- Power Rating : 225 W/decade, 250 W max. or higher
- Rack mounting available
- Special and custom configurations available

See also:

- More economical: **RS Series**
- Higher accuracy: **HARS-X** or **HARS-LX Series**
- Higher resistance: **HRRS Series**
- Higher voltage: **HRRS-5kV** and **HRRS-10kV Series**
- RTD simulators: **RTD Series** -- without zero subtraction
- Programmable models: **PRS Series**

SPECIFICATIONS

Resistance per step	Total decade resistance	Max current*	Max power per step* (W)	Temperature coefficient (ppm/°C)	Resistor Type
1 m Ω	0.009 Ω	8 A	0.036	± 50	Resistance Wire
10 m Ω	0.09 Ω	6 A	0.36	± 50	
100 m Ω	0.9 Ω	6 A	3.6	± 20	
1 Ω	9 Ω	5 A	25	-20 to +80	Power Film
10 Ω	90 Ω	1.5 A	25	-20 to +80	
100 Ω	900 Ω	0.5 A	25	-20 to +80	
1 k Ω	9 k Ω	150 mA†	25†	-20 to +80	
10 k Ω	90 k Ω	50 mA†	25†	-20 to +80	Wirewound/ metal film
100 k Ω	900 k Ω	V limit†	V limit†	-20 to +80	
1 M Ω	9 M Ω	V limit†	V limit†	± 50	Wirewound/film

*Subject to maximum of 250 W max. per unit

†Subject to 1000 V (dc+ac) peak max

Accuracy:

after subtraction of zero resistance, at 23°C; traceable to SI

Option F: $\pm(1\% + 20 \text{ m}\Omega)$

Option C: $\pm(0.5\% + 20 \text{ m}\Omega)$

Zero Resistance:

<5 m Ω per decade

Terminals:

Two five-way binding posts and one ground post electrically connected to case.

Dimensions:

43.9 cm W x 8.9 cm H x 10.2 cm D (17.3" W x 3.5" H x 4" D)

Weight:

2.4 kg (5.3 lbs), nominal



HPRS - 30 ampere unit



IET LABS, INC. in the **GenRad** Tradition
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ORDERING INFORMATION

Model* (1.0% accuracy shown)	Total resistance (Ω)	No of Dials	Resolution (Ω)
HPRS-F-3-0.001	0.999	3	0.001
HPRS-F-3-0.01	9.99	3	0.01
HPRS-F-3-0.1	99.9	3	0.1
HPRS-F-3-1	999	3	1
HPRS-F-3-10	9.99 k	3	10
HPRS-F-3-100	99.9 k	3	100
HPRS-F-3-1K	999 k	3	1 k
HPRS-F-3-10K	9.99 M	3	10 k
HPRS-F-4-0.001	9.999	4	0.001
HPRS-F-4-0.01	99.99	4	0.01
HPRS-F-4-0.1	999.9	4	0.1
HPRS-F-4-1	9.999 k	4	1
HPRS-F-4-10	99.99 k	4	10
HPRS-F-4-100	999.9 k	4	100
HPRS-F-4-1K	9.999 M	4	1 k
HPRS-F-5-0.001	99.999	5	0.001
HPRS-F-5-0.01	999.99	5	0.01
HPRS-F-5-0.1	9.999 9 k	5	0.1
HPRS-F-5-1	99.999 k	5	1
HPRS-F-5-10	999.99 k	5	10
HPRS-F-5-100	9.999 9 M	5	100

Model* (1.0% accuracy shown)	Total resistance (Ω)	No of Dials	Resolution (Ω)
HPRS-F-6-0.001	999.999	6	0.001
HPRS-F-6-0.01	9.999 99 k	6	0.01
HPRS-F-6-0.1	99.999 9 k	6	0.1
HPRS-F-6-1 (HPRS-150)	999.999 k	6	1
HPRS-F-6-10	9.999 99 M	6	10
HPRS-F-7-0.001	9.999 999 k	7	0.001
HPRS-F-7-0.01 (HPRS-200)	99.999 99 k	7	0.01
HPRS-F-7-0.1	999.999 9 k	7	0.1
HPRS-F-7-1	9.999 999 M	7	1
HPRS-F-8-0.001	99.999 999 k	8	0.001
HPRS-F-8-0.01	999.999 99 k	8	0.01
HPRS-F-8-0.1 (HPRS-200W)	9.999 999 9 M	8	0.1

* For 0.5% accuracy, substitute "C" for "F" in part number

Options:

-RM for rack mountable version



HPRS-600W: One of the various HPRS custom configurations to suit particular applications



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