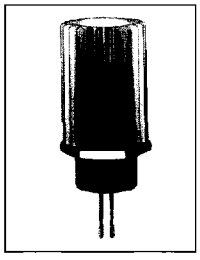
MODEL PH
Wirewound Resistors
Precision Power
Aluminum Housed, Thru-Chassis Mount



FEATURES

- Complete welded construction
- Complete environmental protection
- Designed to utilize heat-sink effect of chassis
- Plug-in connections available for quick connect/disconnect from circuit

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	RATING (Watts)	RESISTANCE RANGES (Ohms) * .05%, .1%, .25%	.5%, 1%, 3%	MAX. WORKING VOLTAGE	MAX. WEIGHT (Grams)	STANDARD TEMPERATURE COEFFICIENT VALUE RANGES (Ohms) † ± 50PPM	± 30PPM	± 20PPM
PH-10-1	10	1-12.7k	.1-47.1k	240	6	1-9.9	10-79	80-47.1k
PH-25	25	.5-25.7k	.1-95.2k	550	22	1-9.9	10-169	170-95.2k
PH-25A	25	.5-25.7k	.1-95.2k	550	22	1-9.9	10-169	170-95.2k
PH-50	50	3-52k	.1-75k	1500	80	1-99	100-999	1k-75k
PH-100	100	5-35k	.1-50k	1700	186	1-99	100-999	1k-50k

* Consult factory for extended values. † Consult factory for values below 1 ohm and for special T.C. requirements.

ELECTRICAL SPECIFICATIONS

Resistance Tolerance: ± 3%, ± 1%, ± .5%, ± .25%, ± .10%, ± .05%.

Dielectric Strength: 1000 VAC on PH-10-1. 2500 VAC on PH-25, PH-25A, PH-50 and PH-100.

Maximum Working Voltage: Maximum working voltage determined at .001" diameter wire resistance values.

ENVIRONMENTAL PERFORMANCE

General: Testing of PH resistors is done according to the procedures and test methods described in MIL-R-18546.

MATERIAL SPECIFICATIONS

Core: Ceramic steatite or alumina, depending on physical size.

Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance value.

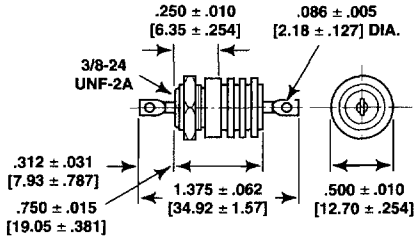
End Caps: Stainless steel.

Housing: Aluminum with hard anodic coating.

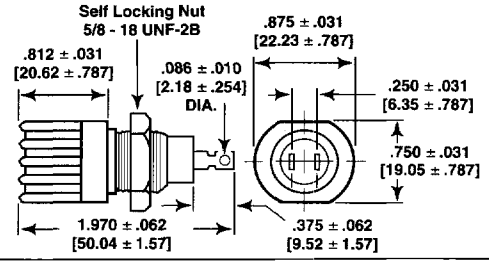
Standard Terminal(s): Tinned Copperweld® on PH-10-1. 180 alloy on PH-25A, PH-25, PH-50 and PH-100.

DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]

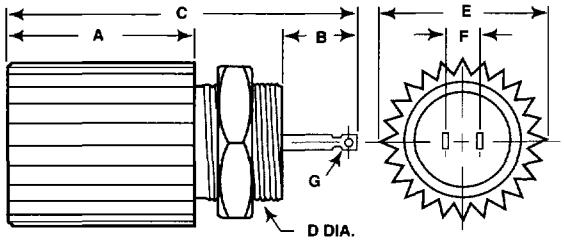
PH-10-1



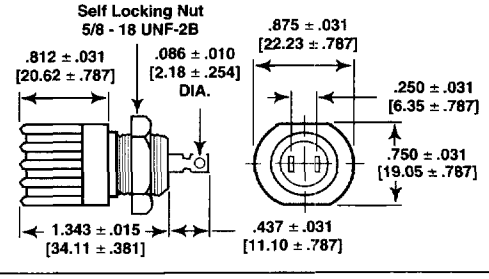
PH-25



PH-50 & PH-100



PH-25A Smaller Version of PH-25



MODEL	A	B	C	D	E	F	G
PH-50	1.675 ± .031 [42.55 ± .787]	.700 ± .031 [17.78 ± .787]	3.0 ± .062 [76.2 ± 1.57]	7/8 - 20 UNEF - 2A	1.188 ± .031 [30.18 ± .787]	.187 ± .031 [4.75 ± .787]	.093 ± .010 [2.36 ± .254]
PH-100	2.0 ± .031 [50.8 ± .787]	.780 ± .031 [19.81 ± .787]	3.75 ± .062 [95.25 ± 1.57]	1-1/4 - 18 UNEF - 2A	1.75 ± .031 [44.45 ± .787]	.375 ± .031 [9.52 ± .787]	.093 ± .010 [2.36 ± .254]

MODEL PH

APPLICABLE MIL SPECIFICATIONS

The Dale® PH models meet the electrical and environmental requirements of MIL-R-18546. There are, however, no direct mil equivalents in this configuration.

POWER RATING

Dale PH resistor ratings are based on the following requirements:

1. 275°C maximum internal hotspot temperature.
2. 1% maximum ΔR in 1000-hours load life for PH-10-1, PH-25 and PH-50.
   3% maximum ΔR in 1000-hours load life for PH-100.
3. Proper heat sink
   4 x 6 x 2 x .040 aluminum chassis = PH-10-1.
   5 x 7 x 2 x .040 aluminum chassis = PH-25.
   12 x 12 x .125 aluminum panel = PH-50 and PH-100.

SPECIAL MODIFICATIONS

1. Special resistance-temperature characteristics.
2. Special terminal configurations and materials.
3. Non-inductive type resistor.
4. Special resistances and tolerances.
5. Special exterior finishes and platings.

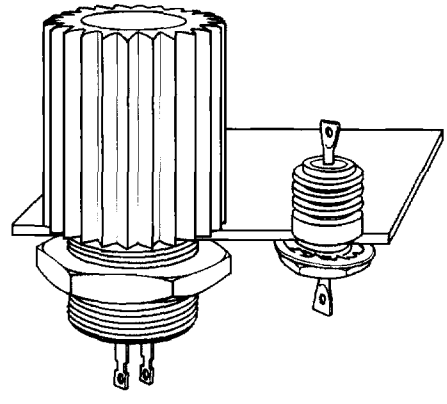
PH — NON-INDUCTIVE

Models of equivalent physical and electrical specifications are available with non-inductive (Aryton-Perry) winding.

Two conditions apply:

1. Maximum resistance value must be divided by two.
2. Maximum working voltage must be multiplied by .707.

MOUNTING INFORMATION

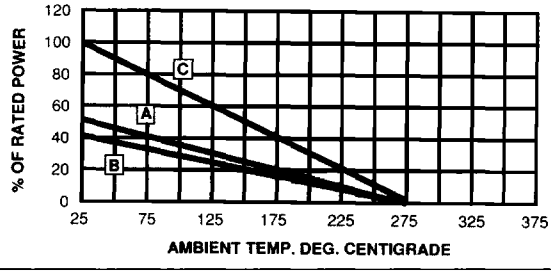


Two Terminal Configurations (PH-10-1, PH-25, PH-50 and PH-100)
Thru chassis mounting

DERATING

Dale PH resistors have an operating temperature range of - 55°C to + 275°C. Derating is required for reduced chassis mounting area and for high ambient temperatures. The following curves apply to the operation of unmounted resistors:

A = PH-10-1, PH-25, unmounted. **B** = PH-50, PH-100, unmounted.
C = Mounted to aluminum chassis.



PART MARKING

— Dale
— Style
— Value and tolerance
— Wattage
— Date code

HOW TO ORDER

PH-100	10	1%
MODEL	RESISTANCE	TOLERANCE