

## OPEN WOUND POWER RESISTORS **O** SERIES



### FEATURES

- POWER RATINGS 20 - 220 WATTS
- 11 WATTAGE SIZES
- HIGH SHORT TERM OVERLOAD CAPACITY
- WIDE SELECTION OF MOUNTING STYLES

ARCOL Open Wound resistors are produced with materials capable of operating at high temperatures enabling them, size for size, to withstand higher power dissipation than any other protected type.

**FORMER** High quality unglazed porcelain.

**WINDING** Close wound with best quality iron free copper nickel having a thin regular film of oxide over its entire surface which provides excellent inter-turn insulation.

**TERMINATIONS** Nickel silver bands are fitted to all units; it is assumed that a soldered connection will be made to the lug provided unless it is stated on the order that a mechanical connection is required. In this case, extra nuts and washers will be provided at a small extra charge.

**RATING** All units are rated to dissipate the given wattage when mounted vertically in free air in an ambient temperature of 25°C, the approximate temperature rise under these conditions being 300°C. When units are to be mounted horizontally, they should be derated to 90% of their nominal rating.

**RESISTANCE TOLERANCE** Semi-adjustable  $\pm 10\%$ . Fixed  $\pm 5\%$ .

### CHARACTERISTICS

Tolerance	Fixed J ( $\pm 5\%$ ) and semi-adjustable K ( $\pm 10\%$ ). Please consult ARCOL for closer tolerances.
Temperature coefficients typical values	Typically less than 100ppm/°C depending on type.
Power dissipation @ 25°C	20 watts to 220 watts.
Core	Electrical porcelain.
Element	Oxidised copper nickel alloy (iron free).
Terminals	Nickel silver.

### ELECTRICAL SPECIFICATIONS

ARCOL TYPE	WATT/25°C	$\Omega$ MINIMUM	$\Omega$ MAXIMUM	MAXIMUM NUMBER OF ADJUSTABLE BANDS
020	20	R187	300R	1
030	30	R354	600R	2
040	40	R50	1K48	4
045	45	R2	735R	1
060A	60	R47	1K405	3
060	60	R32	1K300	2
090A	90	1R77	2K975	6
090	90	R24	2K3	3
0130	130	R375	3K87	4
0180	180	R92	5K83	5
0220	220	R7	6K6	6

### TYPES OF ADJUSTABLE BANDS

**TYPE L (Adjustable)** For vibration proof adjustment of resistance. Requires access to one side of band only.

**TYPE S (Fixed)** For one off pre-setting of the resistance prior to installation application. Requires access to both sides of the adjusting band.

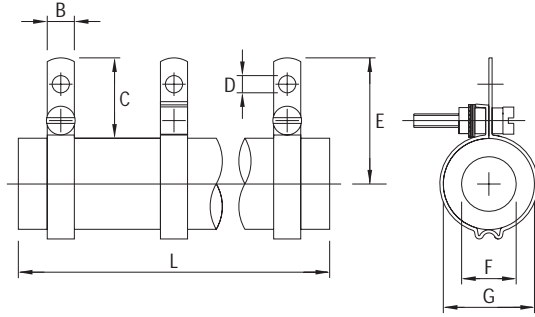
	MOUNTING TYPE				
	H	HR	U	FC	--
BAND TYPE L	HL	HRL	UL	FCL	L
BAND TYPE S	HS	HRS	US	FCS	S

### ORDERING SYSTEM

<b>O</b>	<b>1 8 0</b>	<b>H</b>	<b>L</b>	<b>2 R 2</b>	<b>K</b>	TOLERANCE CODE	<b>J = <math>\pm 5\%</math></b>	<b>K = <math>\pm 10\%</math></b>
SERIES	WATTAGE RATING	MOUNTING ARRANGEMENT	ADJUSTING BANDS	OHMIC VALUE	TOLERANCE			

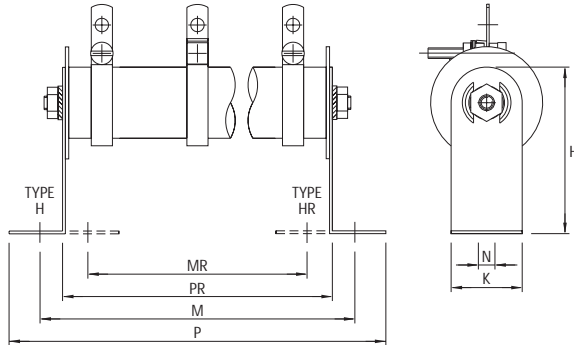
# OPEN WOUND POWER RESISTORS **O** SERIES

## DIMENSIONS

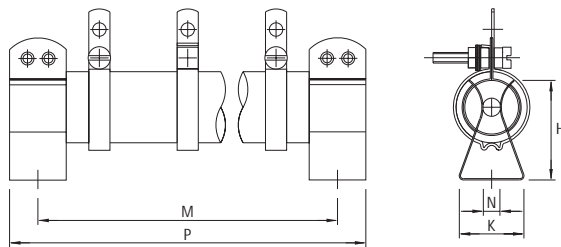


ARCOL TYPE	DIMENSIONS (MM)						
	B ± 0.2	C ± 0.2	D MAX	E MAX	F MAX	G MAX	L MAX
O20	4.76	14.00	3.00	22.14	9.75	15.89	33.50
O30	4.76	14.00	3.00	22.14	9.75	15.89	51.50
O40	4.76	14.00	3.00	22.14	9.75	15.89	103.50
O60A	4.76	14.00	3.00	23.89	12.75	19.38	90.78
O90A	4.76	14.00	3.00	23.89	12.75	19.38	168.30
O45	6.35	19.00	4.00	33.78	18.36	29.17	52.02
O60	6.35	19.00	4.00	33.78	18.36	29.17	77.52
O90	6.35	19.00	4.00	33.78	18.36	29.17	104.04
O130	6.35	19.00	4.00	33.78	18.36	29.17	155.04
O180	9.52	22.00	4.80	36.78	18.36	29.17	220.32
O220	9.52	22.00	4.80	36.78	18.36	29.17	245.82

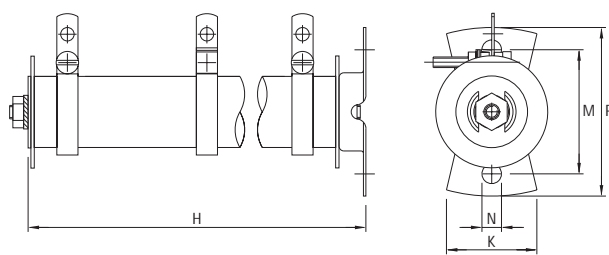
## MOUNTING ARRANGEMENTS



ARCOL TYPE	HORIZONTAL MOUNTING (H & HR)						
	DIMENSIONS (MM)						
	H	K	M	MR	N	P	PR
O20	28.9	15.9	44.0	23.9	3.7	54.2	34.9
O30	28.9	15.9	62.0	41.9	3.7	72.2	52.9
O40	28.9	15.9	113.0	92.9	3.7	123.2	103.9
O60A	35.8	19.0	106.4	74.3	4.7	122.0	90.9
O90A	35.8	19.0	182.4	150.3	4.7	198.0	166.9
O45	46.3	28.6	71.1	31.0	5.1	90.9	52.9
O60	46.3	28.6	96.1	56.0	5.1	115.9	77.9
O90	46.3	28.6	122.1	82.0	5.1	141.9	103.9
O130	46.3	28.6	172.1	132.0	5.1	191.9	153.9
O180	46.3	28.6	236.1	196.0	5.1	255.9	217.9
O220	46.3	28.6	261.1	221.0	5.1	280.9	221.0



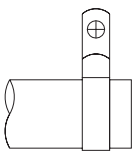
ARCOL TYPE	FERRULE CLIP MOUNTING (FC & GFC)				
	DIMENSIONS (MM)				
	H	K	M	N	P
O20	40.0	17.3	47.8	4.1	60.5
O30	40.0	17.3	65.0	4.1	76.2
O40	40.0	17.3	115.8	4.1	127.0
O60A	47.0	25.4	108.0	4.6	120.7
O90A	47.0	25.4	184.2	4.6	196.9
O45	64.0	31.8	69.9	6.4	82.6
O60	64.0	31.8	95.3	6.4	108.0
O90	64.0	31.8	120.7	6.4	133.4
O130	64.0	31.8	171.5	6.4	184.2
O180	64.0	31.8	235.0	6.4	247.7
O220	64.0	31.8	260.5	6.4	273.2



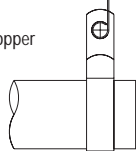
ARCOL TYPE	UPRIGHT MOUNTING (U)				
	DIMENSIONS (MM)				
	H	K	M	N	P
O20	39.7	19.0	25.4	4.0	34.5
O30	57.7	19.0	25.4	4.0	34.5
O40	108.7	19.0	25.4	4.0	34.5
O60A	95.7	19.0	25.4	4.0	34.5
O90A	171.7	19.0	25.4	4.0	34.5
O45	61.7	34.0	44.5	5.0	60.0
O60	86.7	34.0	44.5	5.0	60.0
O90	112.7	34.0	44.5	5.0	60.0
O130	162.7	34.0	44.5	5.0	60.0
O180	226.7	34.0	44.5	5.0	60.0
O220	251.7	34.0	44.5	5.0	60.0

## TERMINATION DETAILS

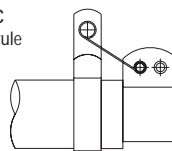
TYPE G  
Tinned Lug



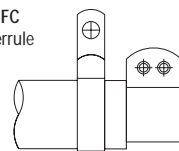
TYPE W  
Flexible Copper Wires



TYPE FC  
Live Ferrule



TYPE GFC  
Dead Ferrule



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