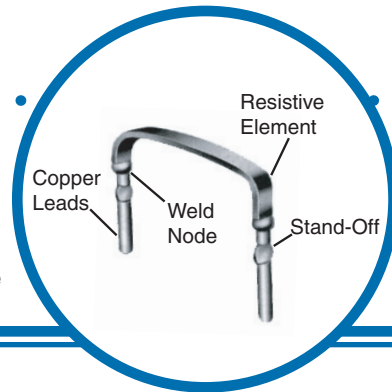


Open Air Current Sense Resistors

OAR Series

- TCR's to $\pm 20\text{ppm}/^\circ\text{C}$
- Power ratings of 1, 3, & 5W @ 85°C
- Resistance range from $2.5\text{m}\Omega$ to $100\text{m}\Omega$
- Open air design maximizes thermal performance
- Welded copper leads minimize effects from solder wicking and provide true 1% performance



Features:

- Welded construction
- Flameproof
- Inductance less than 10 nanohenries
- Solderable copper leads (60/40)

Applications:

- Current sensing
- Feedback
- Low inductance
- Surge and pulse

Electrical Data

Part Number	Power Rating @ 85°C (watts)	Resistance Range ($\text{m}\Omega$)	Tolerance ($\pm\%$)	TCR ($\pm\text{ppm}/^\circ\text{C}$)	Inductance (nH)
OAR-1	1.0	3, 5, 10, *20, *25, 50	1, 2 ¹ , 5	20	<10
OAR-3	3.0	2.5, 5, 10, 15, 20, 25, *30, 50, 100			
OAR-5	5.0	3, 5, 10, *15, *20, *25, *50			

Notes:

¹ $\pm 2\%$ tolerance available $<0.005\text{m}\Omega$

* denotes resistance values that may have longer lead times than other values listed

* Please contact factory for resistance values not listed

Environmental Data

Load Life (1000 hours @ 25°C)	$\Delta R/R < 1\%$
Moisture (no load for 1000 hours)	$\Delta R/R < 1\%$
Temperature Cycling (-40°C to $+125^\circ\text{C}$ for 1000 cycles)	$\Delta R/R < 1\%$
Operating Temperature	-40°C to $+125^\circ\text{C}$

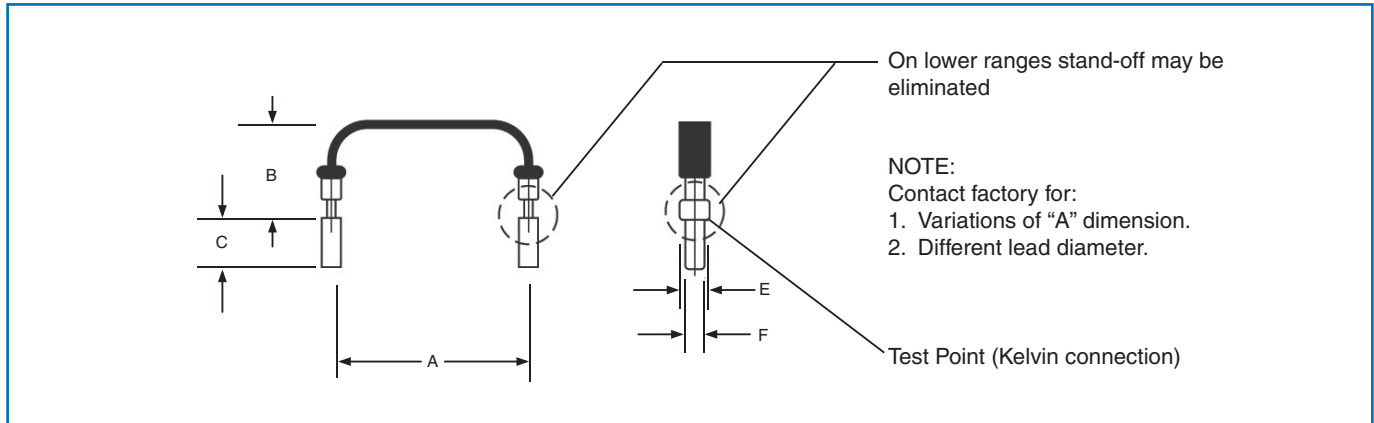
General Note

IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

Wire and Film Technologies Division • 4222 South Staples Street • Corpus Christi Texas 78411 USA
Telephone: 361 992 7900 • Facsimile: 361 992 3377 • Website: www.irc-tt.com

Open Air Current Sense Resistors

Physical Data



Dimensions (Inches and (mm))

IRC Type	A	B	C	E	F
OAR-1	0.450 +0.040/-0.020 (11.43 +1.020/-0.508)	0.200 ±0.100 (5.08 ±2.54)	0.125 ±0.030 (3.18 ±0.762)	0.065 +0.010/-0.005 (1.65 +0.254/-0.127)	0.040 ±0.002 (1.02 ±0.051)
OAR-3	0.600 +0.040/-0.020 (15.24 +1.020/-0.508)	0.600 Typ (15.3 max.)	0.125 ±0.030 (3.18 ±0.762)	0.065 +0.010/-0.005 (1.65 +0.254/-0.127)	0.040 ±0.002 (1.02 ±0.051)
OAR-5	0.800 +0.040/-0.020 (20.32 +1.020/-0.508)	0.350 Typ (8.9 max.)	0.125 ±0.030 (3.18 ±0.762)	0.065 +0.010/-0.005 (1.65 +0.254/-0.127)	0.040 ±0.002 (1.02 ±0.051)

Ordering Data

Sample Part No. **OAR** **1** **R100** **F** **LF**

IRC Style •
OAR

Power Rating in Watts •
1 = 1W
3 = 3W
5 = 5W

Resistance Range •
'R' indicates decimal point location

Tolerance •
F = ±1%, G = ±2%, J = ±5%

RoHS Indicator •
LF indicates RoHS compliance
Blank indicates Sn/Pb terminal
tinning; available on special request