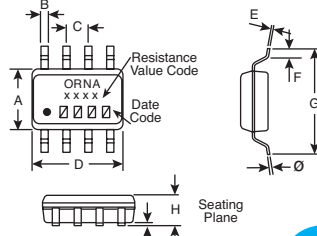
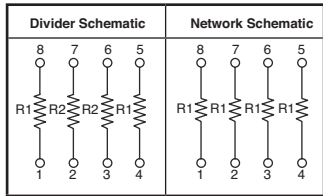
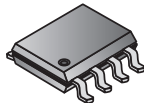


# VISHAY High Precision Resistor Network and Arrays

## VISHAY/THIN FILM HTRN, ORN AND ORNA SERIES - DUAL-IN-LINE HIGH TEMPERATURE/ HIGH PRECISION RESISTOR NETWORKS & DIVIDERS

### Common Features:

- Low temperature coefficient ( $\pm 25$  ppm/ $^{\circ}$ C)
- 0.068" (1.73 mm) maximum seated height
- Rugged molded case construction with no internal solder
- Standard 8 pin JEDEC MS-012 footprint
- Halogen-free



Dimensions		
	In.	mm
A	0.157	3.99
B	0.0165±0.0025	0.4±0.06
C	0.050	1.27
D	0.195 Max.	4.93
E	0.008±0.001	0.20±0.03
F	0.028±0.001	0.71±0.02
G	0.239±0.005	6.07±0.13
H	0.068 Max.	1.73
I	0.008±0.002	0.22±0.06
O	2" to 6"	



RoHS Compliant

LEAD-FREE

For quantities greater than listed, call for quote.

### Resistor Networks

MOUSER STOCK NO.	Vishay Part No.	Value $\Omega$		Ratio Tolerance	Price Each				
		R1	R2		1	10	25	50	100
71-HTRN2-1T5	HTRN2-1T5	10K	5K	2:1	7.63	7.10	6.31	6.10	5.91
71-HTRN4-1T5	HTRN4-1T5	4K	1K	4:1	7.63	7.11	6.31	6.18	5.91
71-HTRN5-1T5	HTRN5-1T5	10K	2K	5:1	7.63	7.10	6.31	6.31	5.91
71-HTRN10-1T5	HTRN10-1T5	10K	1K	10:1	7.63	7.10	6.31	6.10	5.91
71-HTRN20-1T5	HTRN20-1T5	20K	1K	20:1	7.63	7.10	6.31	6.10	5.91
71-HTRN25-1T5	HTRN25-1T5	25K	1K	25:1	8.44	7.30	6.98	6.70	6.54
71-HTRN50-1T5	HTRN50-1T5	50K	1K	50:1	8.76	8.10	7.24	7.00	6.79
71-HTRN100-1T5	HTRN100-1T5	100K	1K	100:1	9.25	8.60	7.65	7.50	7.17

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Vishay Part No.	Value $\Omega$		Tolerance	Ratio Tolerance	Price Each				
		R1	R2			1	10	25	50	100
71-ORN1001AUF	ORN1001AUF	1K	0.1%	0.1%	14.25	12.95	11.40	8.66	7.42	
71-ORN1001FUF	ORN1001FUF	1K	1%	0.5%	3.28	2.64	2.11	1.94	1.83	
71-ORN1001ZUF	ORN1001ZUF	1K	0.1%	0.025%	6.34	5.36	4.39	3.90	3.51	
71-ORN1002AUF	ORN1002AUF	10K	0.1%	0.1%	14.25	12.95	11.40	8.66	7.42	
71-ORN1002BUF	ORN1002BUF	10K	0.1%	0.1%	6.10	5.91	5.70	5.52	4.97	
71-ORN1002ZUF	ORN1002ZUF	10K	0.1%	0.025%	6.83	6.30	5.80	5.60	5.57	
71-ORN1003ZUF	ORN1003ZUF	100K	0.1%	0.025%	6.83	6.30	5.80	5.60	5.57	
71-ORN2001AUF	ORN2001AUF	2K	0.1%	0.1%	8.05	7.70	7.40	6.55	5.54	
71-ORN2002BUF	ORN2002BUF	20K	0.1%	0.1%	6.10	5.91	5.70	5.52	4.97	
71-ORN2002ZUF	ORN2002ZUF	20K	0.1%	0.025%	6.83	6.30	5.80	5.60	5.57	
71-ORN2500AUF	ORN2500AUF	500	0.1%	0.1%	8.05	7.70	7.40	6.55	5.54	
71-ORN2500DUF	ORN2500DUF	5K	0.5%	0.1%	6.26	6.00	5.77	5.12	4.33	
71-ORN2500ZUF	ORN2500ZUF	5K	0.1%	0.025%	6.83	6.30	5.80	5.60	5.57	
71-ORN2502AUF	ORN2502AUF	50K	0.1%	0.1%	14.25	12.95	11.40	8.66	7.42	

For quantities greater than listed, call for quote.

### Dividers

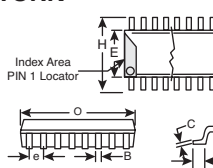
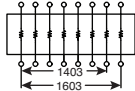
MOUSER STOCK NO.	Vishay Part No.	Value $\Omega$		Ratio Tolerance	Price Each				
		R1	R2		1	10	25	50	100
71-ORN2-1UF	ORN2-1UF	10K	5K	2:1	9.71	8.63	7.95	7.35	6.75
71-ORN5-1UF	ORN5-1UF	10K	2K	5:1	9.71	7.91	7.28	6.74	6.19
71-ORN10-1UF	ORN10-1UF	10K	1K	10:1	9.71	7.91	7.28	6.74	6.19
71-ORN50-1UF	ORN50-1UF	50K	1K	50:1	9.71	8.24	7.83	6.94	5.87
71-ORN100-1UF	ORN100-1UF	100K	1K	100:1	14.87	11.98	9.58	8.80	8.29

For quantities greater than listed, call for quote.

## VISHAY/THIN FILM MOLDED DUAL-IN-LINE RESISTOR NETWORK NOMCA SERIES PRECISION AUTOMOTIVE

### Features:

- Rugged molded case construction
- Excellent long term ratio stability
- Low TCR tracking  $\pm 5$ ppm/ $^{\circ}$ C
- AEC-Q200 qualified
- Tolerance: 0.1%
- Ratio Tolerance: 0.05%



DIM	14		16	
	in.	mm	in.	mm
H	0.235	5.969	0.235	5.969
E	0.154	3.911	0.154	3.910
O	0.340	8.363	0.390	9.906
A	0.063	1.600	0.063	1.600
e	0.050	1.270	0.050	1.270
B	0.015	0.381	0.015	0.381
C	0.008	0.203	0.008	0.203
L	0.025	0.635	0.025	0.635
A1	0.006	0.152	0.006	0.152
h	0.015	0.381	0.015	0.381

For quantities greater than listed, call for quote.

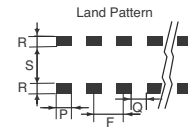
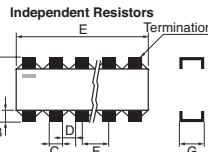
MOUSER STOCK NO.	Vishay Part No.	No. of Pins	Value ( $\Omega$ )	Price Each				
				1	10	25	50	100
71-NOMCA14031001ATS	NOMCA14031001ATS	14	1K	6.83	5.84	4.66	4.28	4.04
71-NOMCA14032001ATS	NOMCA14032001ATS	14	2K	6.83	5.84	4.66	4.28	4.04
71-NOMCA14035001ATS	NOMCA14035001ATS	14	5K	6.83	5.84	4.66	4.28	4.04
71-NOMCA14031002ATS	NOMCA14031002ATS	14	10K	6.83	5.84	4.66	4.28	4.04
71-NOMCA14032002ATS	NOMCA14032002ATS	14	20K	6.83	5.84	4.66	4.28	4.04
71-NOMCA14035002ATS	NOMCA14035002ATS	14	50K	6.83	5.84	4.66	4.28	4.04

MOUSER STOCK NO.	Vishay Part No.	No. of Pins	Value ( $\Omega$ )	Price Each				
				1	10	25	50	100
71-NOMCA16031001ATS	NOMCA16031001ATS	16	1K	7.15	6.12	4.88	4.48	4.24
71-NOMCA16032001ATS	NOMCA16032001ATS	16	2K	7.15	6.12	4.88	4.48	4.24
71-NOMCA16035001ATS	NOMCA16035001ATS	16	5K	7.15	6.12	4.88	4.48	4.24
71-NOMCA16031002ATS	NOMCA16031002ATS	16	10K	7.15	6.12	4.88	4.48	4.24
71-NOMCA16032002ATS	NOMCA16032002ATS	16	20K	7.15	6.12	4.88	4.48	4.24
71-NOMCA16035002ATS	NOMCA16035002ATS	16	50K	7.15	6.12	4.88	4.48	4.24

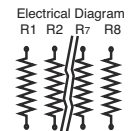
## VISHAY/SFERNICE PRA 100, 182 SERIES HIGH PRECISION RESISTOR ARRAYS

### Features:

- 100mW Resistor
- Packaged in waffle - Tape and reel available
- High stability passivated nichrome resistive layer 0.02% on ratio 1000h at Pn at 70°C
- Tight TCR (10 ppm/ $^{\circ}$ C) and TCR tracking (to 1ppm/ $^{\circ}$ C)
- Very low noise <35dB and voltage coefficient <0.1ppm/V
- Ratio tolerance from .1% to .01% ( $R \geq 20R$ )
- Pre-tinned terminations over nickel barrier
- Also available: One common pin N Resistor
- Absolute Tolerance: .1%
- Ratio Tolerance: .05%



MOUSER STOCK NO.	Vishay Part No.	Value $\Omega$	Price Each			
			1	25	50	100
71-PRA10012-1KBWN	PRA10012-1KBWN	1K	10.60	8.54	6.84	6.29
71-PRA10012-5KBWN	PRA10012-5KBWN	5K	10.60	8.54	6.84	6.29
71-PRA10012-10KBWN	PRA10012-10KBWN	10K	10.60	8.54	6.84	6.29
71-PRA10012-50KBWN	PRA10012-50KBWN	50K	10.60	8.54	6.84	6.29
71-PRA10012-100KBWN	PRA10012-100KBWN	100K	10.60	8.54	6.84	6.29
71-PRA10014-1KBWN	PRA10014-1KBWN	1K	18.74	15.09	12.08	11.12
71-PRA10014-5KBWN	PRA10014-5KBWN	5K	18.74	15.09	12.08	11.12
71-PRA10014-10KBWN	PRA10014-10KBWN	10K	18.74	15.09	12.08	11.12
71-PRA10014-50KBWN	PRA10014-50KBWN	50K	18.74	15.09	12.08	11.12
71-PRA10014-100KBWN	PRA10014-100KBWN	100K	18.74	15.09	12.08	11.12
71-PRA18212-1KBWN	PRA18212-1KBWN	1K	14.24	11.46	9.18	8.45
71-PRA18212-10KBWN	PRA18212-10KBWN	10K	14.24	11.46	9.18	8.45
71-PRA18212-100KBWN	PRA18212-100KBWN	100K	14.24	11.46	9.18	8.45
71-PRA18214-1KBWN	PRA18214-1KBWN	1K	24.00	19.20	16.96	14.46
71-PRA18214-10KBWN	PRA18214-10KBWN	10K	24.00	19.20	16.96	14.46



DIM	PRA 100		PRA 182	
	mm	mil	mm	mil
A	1.6 ± 0.2	63	3 ± 0.2	118
B	.4 ± 0.2	16	.4 ± 0.2	16
C	.65 ± 0.15	25.5	1.3 ± 0.35	51
D	.25	10	.25	10
E	E=(NXF)±2mm		E=(NXF)±8mil	
F	1	40	1.82	72
G	.38 ± 0.2/0	15	.38 ± 0.2/0	15
P	1	227.5	1.52	59.8
Q	.3	12	.3	12
R	1	40	1	40
S	.6	23.5	1.8	70.8