

# WELWYN Vitreous Enamelled Wirewound Resistors



## W20 SERIES

### Features:

- CECC approved
- Suitable for harsh environments
- Impervious lead free vitreous enamel coating
- Overload characteristics ideal for protection circuits
- High stability and reliability
- High power dissipation for size

### Electrical Data

Commercial	W21	W22	W23	W24
Power Rating at 25°C Watts	3.0	7.0	10.0	14.0
Resistance Range at 1% tolerance Ohms	1R to 10K	1R to 22K	1R to 60K	1R to 100K
2% tolerance Ohms	0R5 to 10K	0R5 to 22K	1R to 60K	1R to 100K
5% tolerance Ohms	0R1 to 10K	0R1 to 22K	0R15 to 60K	0R2 to 100K
TCR (-55° to 200°C) pp/°C	Typically: <+75		Maximum: +200	



RoHS Compliant

### W21 Series, 3 Watts

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Welwyn Part No.	Value (ohm)	Tol. (%)	Price Each				
				1	10	100	250	500
756-W21-R10J	W21-R10J	0.1	5	.61	.535	.476	.45	.443
756-W21-R15J	W21-R15J	0.15	5	.61	.535	.476	.45	.443
756-W21-R22J	W21-R22J	0.22	5	.61	.535	.476	.45	.443
756-W21-R33J	W21-R33J	0.33	5	.61	.535	.476	.45	.443
756-W21-R47J	W21-R47J	0.47	5	.61	.535	.476	.45	.443
756-W21-R68J	W21-R68J	0.68	5	.61	.535	.476	.45	.443
756-W21-1R0J	W21-1R0J	1	5	.61	.535	.476	.45	.443
756-W21-1R5J	W21-1R5J	1.5	5	.47	.451	.382	.355	.352
756-W21-2R2J	W21-2R2J	2.2	5	.47	.451	.382	.355	.352
756-W21-3R3J	W21-3R3J	3.3	5	.47	.451	.382	.355	.352
756-W21-4R7J	W21-4R7J	4.7	5	.47	.451	.382	.355	.352
756-W21-6R8J	W21-6R8J	6.8	5	.47	.451	.382	.355	.352
756-W21-10RJ	W21-10RJ	10	5	.47	.451	.382	.355	.352
756-W21-15RJ	W21-15RJ	15	5	.47	.451	.382	.355	.352
756-W21-22RJ	W21-22RJ	22	5	.47	.451	.382	.355	.352
756-W21-33RJ	W21-33RJ	33	5	.47	.451	.382	.355	.352
756-W21-47RJ	W21-47RJ	47	5	.47	.451	.382	.355	.352
756-W21-68RJ	W21-68RJ	68	5	.47	.451	.382	.355	.352
756-W21-100RJ	W21-100RJ	100	5	.47	.451	.382	.355	.352
756-W21-150RJ	W21-150RJ	150	5	.47	.451	.382	.355	.352
756-W21-220RJ	W21-220RJ	220	5	.47	.451	.382	.355	.352
756-W21-330RJ	W21-330RJ	330	5	.47	.451	.382	.355	.352
756-W21-470RJ	W21-470RJ	470	5	.47	.451	.382	.355	.352
756-W21-680RJ	W21-680RJ	680	5	.47	.451	.382	.355	.352
756-W21-1K0J	W21-1K0J	1K	5	.47	.451	.382	.355	.352
756-W21-1K5J	W21-1K5J	1.5K	5	.61	.588	.498	.463	.458
756-W21-2K2J	W21-2K2J	2.2K	5	.63	.557	.496	.469	.462
756-W21-3K3J	W21-3K3J	3.3K	5	.63	.557	.496	.469	.462
756-W21-4K7J	W21-4K7J	4.7K	5	.77	.704	.625	.591	.563
756-W21-6K8J	W21-6K8J	6.8K	5	.77	.704	.625	.591	.563
756-W21-10KJ	W21-10KJ	10K	5	.77	.704	.625	.591	.563

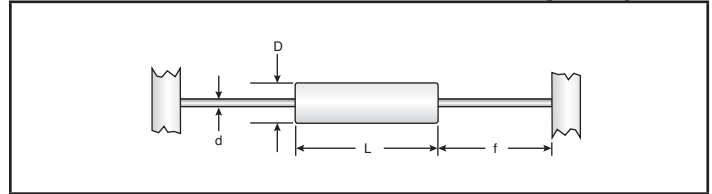


RoHS Compliant

### W22 Series, 7 Watts

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Welwyn Part No.	Value (ohm)	Tol. (%)	Price Each				
				1	10	100	250	500
756-W22-R10J	W22-R10J	0.1	5	.88	.756	.658	.632	.619
756-W22-R15J	W22-R15J	0.15	5	.88	.756	.658	.632	.619
756-W22-R22J	W22-R22J	0.22	5	.88	.756	.658	.632	.619
756-W22-R33J	W22-R33J	0.33	5	.88	.756	.658	.632	.619
756-W22-R47J	W22-R47J	0.47	5	.88	.756	.658	.632	.619
756-W22-R68J	W22-R68J	0.68	5	.88	.756	.658	.632	.619
756-W22-1R0J	W22-1R0J	1	5	.88	.756	.658	.632	.619
756-W22-1R5J	W22-1R5J	1.5	5	.88	.756	.658	.632	.619
756-W22-2R2J	W22-2R2J	2.2	5	.88	.756	.658	.632	.619
756-W22-3R3J	W22-3R3J	3.3	5	.89	.803	.676	.634	.577
756-W22-4R7J	W22-4R7J	4.7	5	.89	.803	.676	.634	.577
756-W22-6R8J	W22-6R8J	6.8	5	.89	.803	.676	.634	.577
756-W22-10RJ	W22-10RJ	10	5	.89	.803	.676	.634	.577
756-W22-15RJ	W22-15RJ	15	5	.89	.803	.676	.634	.577
756-W22-22RJ	W22-22RJ	22	5	.89	.803	.676	.634	.577
756-W22-33RJ	W22-33RJ	33	5	.89	.803	.676	.634	.577
756-W22-47RJ	W22-47RJ	47	5	.89	.803	.676	.634	.577
756-W22-68RJ	W22-68RJ	68	5	.89	.803	.676	.634	.577
756-W22-100RJ	W22-100RJ	100	5	.89	.803	.676	.634	.577
756-W22-150RJ	W22-150RJ	150	5	.89	.803	.676	.634	.577
756-W22-220RJ	W22-220RJ	220	5	.89	.803	.676	.634	.577



### Physical Data

Dimensions (mm) & Weight (g)					
Type	L max	D max	f min	d nom	Wt. nom
W21	12.7	5.6	22.75	0.8	1
W22	22.0	8.0	23.1	0.8	2
W23	38.0	8.0	-	0.8	3.5
W24	53.5	8.0	-	0.8	5



RoHS Compliant

### W22 Series, 7 Watts Cont.

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Welwyn Part No.	Value (ohm)	Tol. (%)	Price Each				
				1	10	100	250	500
756-W22-330RJ	W22-330RJ	330	5	.89	.803	.676	.634	.577
756-W22-470RJ	W22-470RJ	470	5	.89	.803	.676	.634	.577
756-W22-680RJ	W22-680RJ	680	5	.89	.803	.676	.634	.577
756-W22-1K0J	W22-1K0J	1K	5	.89	.803	.676	.634	.577
756-W22-1K5J	W22-1K5J	1.5K	5	.89	.803	.676	.634	.577
756-W22-2K2J	W22-2K2J	2.2K	5	.84	.744	.615	.59	.562
756-W22-3K3J	W22-3K3J	3.3K	5	.84	.744	.615	.60	.59
756-W22-4K7J	W22-4K7J	4.7K	5	.84	.744	.615	.60	.59
756-W22-6K8J	W22-6K8J	6.8K	5	.84	.744	.615	.60	.59
756-W22-10KJ	W22-10KJ	10K	5	.84	.744	.615	.60	.59
756-W22-47RJ	W22-47RJ	47	5	.89	.803	.676	.634	.577
756-W22-68RJ	W22-68RJ	68	5	.89	.803	.676	.634	.577
756-W22-100RJ	W22-100RJ	100	5	.89	.803	.676	.634	.577
756-W22-150RJ	W22-150RJ	150	5	.89	.803	.676	.634	.577
756-W22-220RJ	W22-220RJ	220	5	.89	.803	.676	.634	.577
756-W22-330RJ	W22-330RJ	330	5	.89	.803	.676	.634	.577
756-W22-470RJ	W22-470RJ	470	5	.89	.803	.676	.634	.577
756-W22-680RJ	W22-680RJ	680	5	.89	.803	.676	.634	.577
756-W22-1K0J	W22-1K0J	1K	5	.89	.803	.676	.634	.577
756-W22-1K5J	W22-1K5J	1.5K	5	.89	.803	.676	.634	.577
756-W22-2K2J	W22-2K2J	2.2K	5	.84	.744	.615	.59	.562
756-W22-3K3J	W22-3K3J	3.3K	5	.84	.744	.615	.60	.59
756-W22-4K7J	W22-4K7J	4.7K	5	.84	.744	.615	.60	.59
756-W22-6K8J	W22-6K8J	6.8K	5	.84	.744	.615	.60	.59
756-W22-10KJ	W22-10KJ	10K	5	.84	.744	.615	.60	.59



RoHS Compliant

### W23 Series, 11 Watts

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Welwyn Part No.	Value (ohm)	Tol. (%)	Price Each				
				1	10	100	250	500
756-W23-4R7J	W23-4R7J	4.7	5	1.71	1.63	1.35	1.34	1.27
756-W23-10RJ	W23-10RJ	10	5	1.71	1.63	1.35	1.34	1.27
756-W23-15RJ	W23-15RJ	15	5	1.71	1.63	1.35	1.34	1.27
756-W23-22RJ	W23-22RJ	22	5	1.71	1.63	1.35	1.34	1.27
756-W23-68RJ	W23-68RJ	68	5	1.71	1.63	1.35	1.34	1.27
756-W23-100RJ	W23-100RJ	100	5	1.71	1.63	1.35	1.34	1.27
756-W23-150RJ	W23-150RJ	150	5	1.71	1.63	1.35	1.34	1.27
756-W23-330RJ	W23-330RJ	330	5	1.71	1.63	1.35	1.34	1.27
756-W23-1K0J	W23-1K0J	1K	5	1.71	1.63	1.35	1.34	1.27
756-W23-4K7J	W23-4K7J	4.7K	5	1.71	1.63	1.35	1.34	1.27
756-W23-10KJ	W23-10KJ	10K	5	2.05	1.97	1.64	1.62	1.53
756-W23-22KJ	W23-22KJ	22K	5	2.05	1.97	1.64	1.62	1.53
756-W23-47KJ	W23-47KJ	47K	5	2.34	2.24	1.87	1.84	1.75



RoHS Compliant

### W24 Series, 14 Watts

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Welwyn Part No.	Value (ohm)	Tol. (%)	Price Each				
				1	10	100	250	500
756-W24-10RJ	W24-10RJ	10	5	2.01	1.92	1.60	1.57	1.50
756-W24-22RJ	W24-22RJ	22	5	2.01	1.92	1.60	1.57	1.50
756-W24-47RJ	W24-47RJ	47	5	2.01	1.92	1.60	1.57	1.50
756-W24-1K0J	W24-1K0J	1K	5	2.01	1.92	1.60	1.57	1.50
756-W24-2K2J	W24-2K2J	2.2K	5	2.01	1.92	1.60	1.57	1.50
756-W24-4K7J	W24-4K7J	4.7K	5	2.01	1.92	1.60	1.57	1.50
756-W24-10KJ	W24-10KJ	10K	5	2.50	2.38	1.99	1.96	1.85
756-W24-47KJ	W24-47KJ	47K	5	2.86	2.72	2.28	2.24	2.12
756-W24-68KJ	W24-68KJ	68K	5	2.86	2.72	2.28	2.24	2.12
756-W24-100KJ	W24-100KJ	100K	5	2.85	2.71	2.28	2.23	2.12