

# EPOXY COATED INDUCTORS

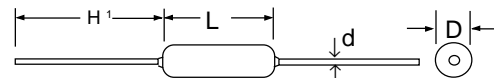
## AL SERIES



Term.W is RoHS compliant & 260°C compatible



RESISTORS • CAPACITORS • COILS • DELAY LINES



1 Lead length applies to loose units (for taped parts refer to T&R specification)

- Widest selection in the industry!
- Delivery typically from stock
- Premium grade materials enable high current, SRF, Q, and temperature ratings
- Low cost due to automated production

|                       |                   |
|-----------------------|-------------------|
| Temperature Range     | -25°C to +105°C   |
| Insulation Resistance | 1000 MΩ Min.      |
| Dielectric Strength   | 500 VAC           |
| TCof Inductance (typ) | +50 to +500ppm/°C |

| RCD Type | L ±.04 [1] | D ±.03 [.76] | d Typ.     | H' Min.    |
|----------|------------|--------------|------------|------------|
| AL02     | .125 [3.2] | .078 [2.0]   | .020 [.50] | .94 [24]   |
| AL03     | .250 [6.3] | .090 [2.3]   | .020 [.50] | 1.0 [25.4] |
| AL05     | .350 [8.9] | .135 [3.4]   | .025 [.64] | 1.0 [25.4] |

| Induc. (μH) | Induc. code | Test Freq. (MHz) | MODEL AL02 |           |             |                        | MODEL AL03 |           |             |                        | MODEL AL05 |           |             |                        |
|-------------|-------------|------------------|------------|-----------|-------------|------------------------|------------|-----------|-------------|------------------------|------------|-----------|-------------|------------------------|
|             |             |                  | Q Min.     | SRF (MHz) | DCR Max.(Ω) | Rated DC* Current (mA) | Q Min.     | SRF (MHz) | DCR Max.(Ω) | Rated DC* Current (mA) | Q Min.     | SRF (MHz) | DCR Max.(Ω) | Rated DC* Current (mA) |
| .10         | R10         | 25.2             | 35         | 450       | .18         | 700                    | 45         | 500       | .08         | 1350                   | 50         | 525       | .06         | 2000                   |
| .12         | R12         | 25.2             | 35         | 450       | .20         | 660                    | 45         | 480       | .09         | 1270                   | 50         | 525       | .06         | 1800                   |
| .15         | R15         | 25.2             | 35         | 450       | .22         | 620                    | 45         | 470       | .10         | 1200                   | 50         | 525       | .07         | 1650                   |
| .18         | R18         | 25.2             | 35         | 450       | .24         | 600                    | 45         | 460       | .12         | 1105                   | 45         | 420       | .07         | 1600                   |
| .22         | R22         | 25.2             | 35         | 450       | .4          | 400                    | 45         | 450       | .14         | 1025                   | 50         | 380       | .08         | 1400                   |
| .27         | R27         | 25.2             | 35         | 410       | .43         | 380                    | 45         | 410       | .16         | 960                    | 45         | 370       | .09         | 1320                   |
| .33         | R33         | 25.2             | 35         | 360       | .48         | 370                    | 45         | 360       | .22         | 815                    | 45         | 360       | .10         | 1280                   |
| .39         | R39         | 25.2             | 35         | 300       | .51         | 350                    | 45         | 310       | .30         | 700                    | 45         | 320       | .12         | 1200                   |
| .47         | R47         | 25.2             | 35         | 230       | .56         | 330                    | 45         | 300       | .35         | 650                    | 45         | 310       | .13         | 1150                   |
| .56         | R56         | 25.2             | 35         | 210       | .61         | 320                    | 45         | 280       | .50         | 545                    | 50         | 280       | .14         | 1100                   |
| .68         | R68         | 25.2             | 35         | 190       | .67         | 310                    | 45         | 200       | .60         | 495                    | 50         | 250       | .16         | 1030                   |
| .82         | R82         | 25.2             | 35         | 170       | .74         | 290                    | 45         | 180       | .70         | 415                    | 50         | 220       | .17         | 980                    |
| 1.0         | 1R0         | 25.2             | 35         | 150       | .80         | 270                    | 45         | 230       | .72         | 385                    | 50         | 200       | .18         | 920                    |
| 1.2         | 1R2         | 7.96             | 40         | 110       | .90         | 260                    | 45         | 160       | .75         | 590                    | 50         | 180       | .19         | 880                    |
| 1.5         | 1R5         | 7.96             | 40         | 80        | 1.0         | 250                    | 45         | 140       | .76         | 535                    | 50         | 160       | .21         | 830                    |
| 1.8         | 1R8         | 7.96             | 40         | 60        | 1.1         | 240                    | 45         | 120       | .77         | 455                    | 50         | 150       | .23         | 790                    |
| 2.2         | 2R2         | 7.96             | 40         | 45        | 1.2         | 230                    | 45         | 110       | .60         | 395                    | 50         | 135       | .25         | 750                    |
| 2.7         | 2R7         | 7.96             | 40         | 40        | 1.3         | 220                    | 45         | 95        | .65         | 355                    | 60         | 120       | .27         | 720                    |
| 3.3         | 3R3         | 7.96             | 40         | 38        | 1.4         | 210                    | 45         | 75        | .85         | 270                    | 60         | 110       | .32         | 670                    |
| 3.9         | 3R9         | 7.96             | 40         | 35        | 1.6         | 200                    | 45         | 65        | 1.00        | 250                    | 60         | 100       | .36         | 640                    |
| 4.7         | 4R7         | 7.96             | 40         | 32        | 1.7         | 190                    | 45         | 56        | 1.20        | 230                    | 70         | 90        | .40         | 620                    |
| 5.6         | 5R6         | 7.96             | 40         | 30        | 1.9         | 180                    | 50         | 48        | 1.80        | 185                    | 70         | 74        | .45         | 590                    |
| 6.8         | 6R8         | 7.96             | 40         | 28        | 2.0         | 175                    | 50         | 36        | 2.00        | 175                    | 70         | 68        | .50         | 550                    |
| 8.2         | 8R2         | 7.96             | 40         | 26        | 2.2         | 165                    | 50         | 25        | 2.70        | 165                    | 80         | 53        | .60         | 530                    |
| 10          | 100         | 7.96             | 40         | 24        | 2.5         | 160                    | 50         | 20        | 3.70        | 160                    | 65         | 45        | .65         | 500                    |
| 12          | 120         | 2.52             | 40         | 22        | 2.5         | 150                    | 45         | 18        | 2.70        | 155                    | 60         | 34        | .70         | 480                    |
| 15          | 150         | 2.52             | 40         | 20        | 2.8         | 145                    | 45         | 15        | 2.80        | 150                    | 60         | 20        | .75         | 460                    |
| 18          | 180         | 2.52             | 40         | 18        | 3.1         | 140                    | 50         | 12        | 3.10        | 145                    | 60         | 14        | .80         | 430                    |
| 22          | 220         | 2.52             | 40         | 17        | 3.4         | 130                    | 50         | 10        | 3.30        | 140                    | 60         | 9.9       | .90         | 410                    |
| 27          | 270         | 2.52             | 40         | 16        | 4.3         | 80                     | 50         | 9         | 3.50        | 135                    | 55         | 7.6       | 1.00        | 390                    |
| 33          | 330         | 2.52             | 40         | 14        | 4.7         | 76                     | 45         | 8         | 3.5         | 130                    | 55         | 6.5       | 1.10        | 370                    |
| 36          | 360         | 2.52             | 40         | 13        | 5.0         | 75                     | 45         | 7.7       | 3.6         | 127                    | 50         | 6.5       | 1.15        | 360                    |
| 39          | 390         | 2.52             | 40         | 13        | 5.2         | 74                     | 45         | 7.5       | 3.6         | 125                    | 50         | 6.5       | 1.20        | 350                    |
| 43          | 430         | 2.52             | 40         | 12        | 5.5         | 72                     | 45         | 7.2       | 4.1         | 117                    | 45         | 6.4       | 1.25        | 345                    |
| 47          | 470         | 2.52             | 40         | 12        | 5.8         | 70                     | 50         | 7.0       | 4.5         | 110                    | 45         | 6.3       | 1.30        | 340                    |
| 51          | 510         | 2.52             | 40         | 11        | 6.1         | 69                     | 50         | 6.7       | 5.1         | 105                    | 45         | 6.2       | 1.40        | 330                    |
| 56          | 560         | 2.52             | 40         | 11        | 6.4         | 68                     | 50         | 6.5       | 5.7         | 105                    | 45         | 6.2       | 1.50        | 320                    |
| 62          | 620         | 2.52             | 40         | 10        | 6.8         | 66                     | 50         | 6.2       | 6.2         | 100                    | 40         | 5.9       | 1.70        | 310                    |
| 68          | 680         | 2.52             | 40         | 10        | 7.2         | 64                     | 50         | 6.0       | 6.7         | 100                    | 40         | 5.7       | 1.80        | 305                    |
| 75          | 750         | 2.52             | 40         | 9.5       | 9.5         | 55                     | 50         | 5.7       | 7.0         | 95                     | 40         | 5.5       | 1.90        | 295                    |
| 82          | 820         | 2.52             | 40         | 9.5       | 11          | 46                     | 50         | 5.5       | 7.3         | 95                     | 35         | 5.3       | 2.00        | 290                    |
| 91          | 910         | 2.52             | 40         | 9.2       | 11.5        | 45                     | 50         | 5.2       | 7.7         | 93                     | 35         | 5.0       | 2.30        | 280                    |
| 100         | 101         | 2.52             | 40         | 9.0       | 12          | 44                     | 50         | 5.0       | 8           | 90                     | 30         | 4.8       | 2.50        | 275                    |
| 110         | 111         | .796             | 40         | 8.5       | 12.5        | 43                     | 45         | 4.9       | 11          | 90                     | 60         | 4.0       | 3.10        | 200                    |
| 120         | 121         | .796             | 40         | 8.0       | 13          | 42                     | 45         | 4.8       | 13          | 90                     | 60         | 3.8       | 3.70        | 185                    |
| 130         | 131         | .796             | 40         | 6.5       | 15          | 40                     | 45         | 4.6       | 14          | 87                     | 60         | 3.6       | 4.00        | 180                    |
| 150         | 151         | .796             | 40         | 6.0       | 16          | 39                     | 45         | 4.5       | 15          | 85                     | 60         | 3.5       | 4.20        | 175                    |
| 160         | 161         | .796             | 40         | 5.7       | 17          | 38                     | 45         | 4.2       | 16          | 83                     | 60         | 3.2       | 4.40        | 170                    |
| 180         | 181         | .796             | 40         | 5.5       | 18          | 37                     | 45         | 4.0       | 17          | 80                     | 60         | 3.0       | 4.60        | 165                    |
| 200         | 201         | .796             | 40         | 5.2       | 19          | 36                     | 45         | 3.7       | 19          | 77                     | 60         | 2.9       | 4.90        | 160                    |
| 220         | 221         | .796             | 40         | 5.0       | 20          | 35                     | 45         | 3.5       | 21          | 75                     | 60         | 2.8       | 5.1         | 155                    |
| 240         | 241         | .796             | 40         | 4.7       | 22          | 30                     | 45         | 3.2       | 23          | 70                     | 60         | 2.7       | 5.6         | 150                    |
| 270         | 271         | .796             | 40         | 4.6       | 25          | 28                     | 45         | 3.0       | 25          | 65                     | 60         | 2.6       | 6.0         | 145                    |
| 300         | 301         | .796             | 40         | 4.4       | 28          | 27                     | 45         | 2.9       | 27          | 63                     | 60         | 2.4       | 6.3         | 140                    |
| 330         | 331         | .796             | 40         | 4.2       | 30          | 26                     | 45         | 2.8       | 28          | 60                     | 60         | 2.4       | 6.5         | 137                    |
| 360         | 361         | .796             | 40         | 3.9       | 32          | 25                     | 45         | 2.7       | 32          | 57                     | 60         | 2.3       | 7.0         | 135                    |
| 390         | 391         | .796             | 40         | 3.8       | 34          | 25                     | 45         | 2.6       | 35          | 55                     | 60         | 2.3       | 7.5         | 133                    |
| 430         | 431         | .796             | 40         | 3.6       | 36          | 24                     | 45         | 2.5       | 39          | 55                     | 60         | 2.2       | 8.0         | 129                    |
| 470         | 471         | .796             | 40         | 3.5       | 38          | 24                     | 45         | 2.4       | 42          | 55                     | 60         | 2.2       | 8.5         | 126                    |
| 510         | 511         | .796             | 40         |           |             |                        | 45         | 2.2       | 44          | 52                     | 60         | 2.1       | 9.0         | 123                    |
| 560         | 561         | .796             |            |           |             |                        | 45         | 2.0       | 46          | 50                     | 60         | 2.1       | 9.5         | 120                    |
| 620         | 621         | .796             |            |           |             |                        | 45         | 1.9       | 54          | 47                     | 60         | 2.0       | 11          | 117                    |
| 680         | 681         | .796             |            |           |             |                        | 45         | 1.8       | 60          | 45                     | 55         | 1.9       | 12          | 113                    |
| 750         | 751         | .796             |            |           |             |                        | 45         | 1.7       | 63          | 42                     | 55         | 1.9       | 13          | 109                    |
| 820         | 821         | .796             |            |           |             |                        | 45         | 1.6       | 65          | 40                     | 55         | 1.8       | 14          | 105                    |
| 910         | 911         | .796             |            |           |             |                        | 45         | 1.5       | 69          | 40                     | 55         | 1.5       | 18          | 95                     |
| 1000        | 102         | .796             |            |           |             |                        | 45         | 1.4       | 72          | 40                     | 50         | 1.4       | 20          | 85                     |
| 1100        | 112         | .252             |            |           |             |                        |            |           |             |                        | 30         | 1.3       | 30          | 64                     |
| 1200        | 122         | .252             |            |           |             |                        |            |           |             |                        | 30         | 1.2       | 40          | 63                     |
| 1300        | 132         | .252             |            |           |             |                        |            |           |             |                        | 30         | 1.1       | 49          | 61                     |
| 1500        | 152         | .252             |            |           |             |                        |            |           |             |                        | 30         | 1.0       | 52          | 59                     |
| 1600        | 162         | .252             |            |           |             |                        |            |           |             |                        | 30         | 1.0       | 54          | 58                     |
| 1800        | 182         | .252             |            |           |             |                        |            |           |             |                        | 30         | 1.0       | 56          | 56                     |
| 2200        | 222         | .252             |            |           |             |                        |            |           |             |                        | 30         | 1.0       | 58          | 46                     |

\* Current rating is based on ambient temp of 90°C or less, derate 4%/°C above 90°C

### OPTIONS

- Improved Q & SRF levels
- Increased current & temp ratings
- Reduced DC Resistance
- Non-magnetic construction (opt.Y)
- Inductance testing at 1KHz (opt.55)

### MARKING

Units are color banded with inductance value and tolerance (except AL02 which is typically not marked with tolerance band).

### P/N DESIGNATION:

RCD Type AL05  - 101 - K T W  
 Options: Y, 55 (leave blank if std)  
 Inductance (uH): 2 digits & multiplier (R10=0.1uH, 1R0=1uH, 100=10uH)  
 Tolerance Code: K=10% (standard), M=20%, J=5%  
 Packaging: B=Bulk, T=T&R, A=Ammo; AL02 only avail. as Ammo or cut Ammo (B)  
 Termination: W = Lead-free, Q = Tin/Lead (leave blank if either is acceptable)

RCD Components Inc, 520 E. Industrial Park Dr, Manchester, NH, USA 03109 [rcdcomponents.com](http://rcdcomponents.com) Tel: 603-669-0054 Fax: 603-669-5455 Email: [sales@rcdcomponents.com](mailto:sales@rcdcomponents.com)

FA034A Sale of this product is in accordance with GF-061. Specifications subject to change without notice.