

## CL configuration, ceramic dielectric

Feed through filter range using discoidal ceramics for the capacitive element - type 2R1. This robust multilayer structure provides solutions to RFI problems from 30kHz to 1 GHz. The units are housed in robust, sealed metal containers of thread construction, and offer a range of terminal finishes. Specifically designed for military, industrial, telecoms and medical applications.

- Capacitive value – 1.2uF 80Vdc rated
- Wide choice of performance options
- Excellent temperature stability
- Hermetic construction



## Mechanical Specifications

Manufacture: sealed threaded construction  
 Connections: wire or tag terminations  
 Mounting: thread ¼ inch-28 UNF 2A

## Case Variants

| Style | Seal     | L1<br>max | L2<br>max | L3<br>max | L4 (std) |     | L4 (long thread) |     | D2   |     |
|-------|----------|-----------|-----------|-----------|----------|-----|------------------|-----|------|-----|
|       |          |           |           |           | TAG      | PIN | TAG              | PIN |      |     |
| 1     | resin    | 4.6       | 4.85      | 8.25      | 17       | 8.9 | 17.2             |     | 1    |     |
| 2     | resin    | 4.6       | 7.95      | 8.25      | 17       | -   | -                | 12  | 29.3 | 1   |
| 3     | hermetic | 4.6       | 4.85      | 8.5       | 17       | 8.9 | 17.2             | -   | -    | 1.5 |
| 4     | hermetic | 4.6       | 7.95      | 8.5       | 17       | -   | -                | 12  | 29.3 | 1.5 |
| 5     | hermetic | 14.7      | 4.85      | 18.8      | 27       | 8.9 | 17.2             | -   | -    | 1.5 |
| 6     | hermetic | 14.7      | 7.95      | 18.8      | 27       | -   | -                | 12  | 29.3 | 1.5 |

## Filter Range - AKCL

(example pt no. - AKCL100412RKT1S)

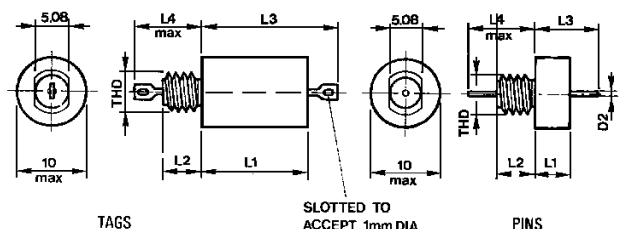
| Code         | Max values             |                        | Typical Insertion loss (dB) |            |            |          |           |          |   | CCT |
|--------------|------------------------|------------------------|-----------------------------|------------|------------|----------|-----------|----------|---|-----|
|              | I <sub>dc</sub><br>(A) | R <sub>dc</sub><br>(Ω) | 30<br>kHz                   | 150<br>kHz | 300<br>kHz | 1<br>MHz | 10<br>MHz | 1<br>GHz |   |     |
| 100 412RK-1- | 15                     | 0.008                  | 15                          | 28         | 34         | 44       | 60        | 70       | 1 |     |
| 100 412RK-3- | 15                     | 0.008                  | 15                          | 28         | 34         | 44       | 60        | 70       | 1 |     |
| 100 412RA-5- | 0.06                   | 70                     | 44                          | 70         | 70         | 70       | 70        | 70       | 1 |     |
| 101 412RA-5- | 0.06                   | 70                     | 44                          | 70         | 70         | 70       | 70        | 70       | 2 |     |
| 100 412RB-5- | 0.15                   | 12                     | 24                          | 52         | 64         | 70       | 70        | 70       | 1 |     |
| 101 412RB-5- | 0.15                   | 12                     | 24                          | 52         | 64         | 70       | 70        | 70       | 2 |     |
| 100 412RC-5- | 0.25                   | 4                      | 18                          | 42         | 56         | 70       | 70        | 70       | 1 |     |
| 101 412RC-5- | 0.25                   | 5                      | 18                          | 42         | 56         | 70       | 70        | 70       | 2 |     |
| 100 412RD-5- | 0.30                   | 2.3                    | 16                          | 35         | 44         | 62       | 70        | 70       | 1 |     |
| 101 412RD-5- | 0.30                   | 2.3                    | 16                          | 35         | 44         | 62       | 70        | 70       | 2 |     |
| 100 412RE-5- | 0.45                   | 1.2                    | 15                          | 31         | 37         | 55       | 70        | 70       | 1 |     |
| 101 412RE-5- | 0.45                   | 1.2                    | 15                          | 31         | 37         | 55       | 70        | 70       | 2 |     |
| 100 412RJ-5- | 10                     | 0.01                   | 15                          | 28         | 33         | 44       | 64        | 70       | 1 |     |
| 101 412RJ-5- | 10                     | 0.01                   | 15                          | 28         | 33         | 44       | 64        | 70       | 2 |     |

Case finish: T = Tin plated  
 S = Silver plated  
 G = Gold plated  
 Case style available: 2 instead of 1; 4 instead of 3; 6 instead of 5  
 Termination: W = Wire  
 T = Tag  
 P = Headed wire  
 I<sub>dc</sub> (category current) equals 0.6 I<sub>R</sub> (rated current) with linear derating from 105°C to +125°C

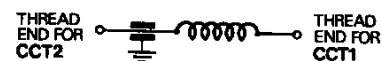
## Electrical Specifications

Rated voltage (V<sub>R</sub>): 80 Vdc  
 Category voltage (V<sub>C</sub>): 50 Vdc  
 Rated current (I<sub>R</sub>): referred to room temperature = 40°C  
 Voltage test (2<sub>s</sub>): 2.5 V<sub>R</sub> dc  
 Climatic category: (55/125/56);  
 Temperature range: -55°C to +125°C  
 Capacitance value: 1.2uF

## Dimensions (mm) and connections



## Circuit diagram (CL configuration)



## OTHER PRODUCT RANGES AVAILABLE:

Ceramic feed through filters (CL, Pi, 1T, CC, 2P, 2T configurations)  
 AK 100-101 series in accordance with BS9121 F0009  
 AK 170-171 series in accordance with BS9121 F0011  
 Please, contact Arcotronics UK for more detailed information.

## Approvals

BS 9121 F0008 meets MIL-F-15733 requirements