

Type SC10, SC15, SC30, SC55 Series

Key Features

- Wide Inductance Range
- Insulated Packaging
- Four Sizes
- Flame Retardant
- Wide Temperature Range
- Established Reliability
- Fully Protected from the Environment
- Available from Distribution



TE Connectivity quality and reliability are guaranteed in this range of insulated and shielded RF Inductors. The insulated range has a self-extinguishing polyolefin sleeve. Their small size make them ideal for use when space is at a premium. And they are also fully protected from environmental factors. Electrostatic and electromagnetic screening is provided by the magnetic enclosure. A wide range of values are available and the self-extinguishing polyolefin sleeve enhances environmental protection. The SC series was originally designed for military applications but now has widespread industrial use.

Characteristics - Electrical

| | SC10 | SC15 | SC30 | SC55 |
|---|-------------------------------|--|-----------------|-----------------|
| Inductance Range: | | See Table - E12 Grid (Non-standard values available to special order) | | |
| Selection Tolerance: | ±10% | ±10% | ±10% | ±10% |
| Power Rating at 70°C: | 0.33W | See Below | 0.25W | 0.30W |
| Isolation Voltage: | 700V DC or AC peak | | | |
| Limits of Inductance Change: | 5% after 1000 hours endurance | | | |
| Operating Temperature Range: | -55°C to +100°C | -55°C to +100°C | -55°C to +100°C | -55°C to +125°C |
| Recommended Storage Temperature: | 0°C to +35°C | | | |
| Climatic Category: | 55/100/21 | 55/100/21 | 55/100/21 | 55/125/21 |

SC15 Power Rating Values between 0.15uH and 4.7uH - Power Rating 0.33 Watt
Values between 5.6uH and 330uH - Power Rating 0.20 Watt

Packaging and Marking

| Type | Ammo Pack | Reeled | Weight per Component | Marking |
|------|------------|-------------|----------------------|---------|
| SC10 | 500 Pieces | 1500 Pieces | - | LC10 |
| SC15 | 500 Pieces | 1500 Pieces | - | LC15 |
| SC30 | 500 Pieces | 2500 Pieces | - | LC30 |
| SC55 | 500 Pieces | 1500 Pieces | 0.6g | LC55 |

Dimensions



| Size | L Max. | D Max. | l Min. | d |
|------|--------|--------|--------|-------|
| SC10 | 10.0mm | 4.2mm | 25mm | 0.6mm |
| SC15 | 10.0mm | 4.5mm | 30mm | 0.6mm |
| SC30 | 7.0mm | 2.8mm | 25mm | 0.5mm |
| SC55 | 11.4mm | 5.2mm | 30mm | 0.6mm |

Type SC10, SC15, SC30, SC55 Series

Characteristics - Electrical - Type SC10 - Section 1

| Inductance Value - μ H | Inductance Code | Test Freq. MHz | Q Factor Min. | S.R.F. MHz Min. | Max. DC Resistance Ohms at 20°C | Direct Current at 70°C Max. mA |
|----------------------------|-----------------|----------------|---------------|-----------------|---------------------------------|--------------------------------|
| 0.10 | R10 | 25 | 50 | 500 | 0.055 | 2060 |
| 0.12 | R12 | 25 | 50 | 475 | 0.060 | 1970 |
| 0.15 | R15 | 25 | 50 | 450 | 0.065 | 1900 |
| 0.18 | R18 | 25 | 50 | 425 | 0.070 | 1830 |
| 0.22 | R22 | 25 | 50 | 400 | 0.075 | 1770 |
| 0.27 | R27 | 25 | 50 | 380 | 0.085 | 1660 |
| 0.33 | R33 | 25 | 50 | 360 | 0.095 | 1570 |
| 0.39 | R39 | 25 | 50 | 330 | 0.11 | 1460 |
| 0.47 | R47 | 25 | 50 | 300 | 0.12 | 1390 |
| 0.56 | R56 | 25 | 50 | 280 | 0.14 | 1290 |
| 0.68 | R68 | 25 | 45 | 260 | 0.16 | 1210 |
| 0.82 | R82 | 25 | 45 | 235 | 0.26 | 950 |
| 1.0 | 1R0 | 25 | 45 | 210 | 0.30 | 880 |
| 1.2 | 1R2 | 7.9 | 32 | 190 | 0.50 | 685 |
| 1.5 | 1R5 | 7.9 | 32 | 170 | 0.60 | 625 |
| 1.8 | 1R8 | 7.9 | 32 | 156 | 0.75 | 560 |
| 2.2 | 2R2 | 7.9 | 32 | 140 | 1.10 | 460 |
| 2.7 | 2R7 | 7.9 | 32 | 125 | 1.40 | 410 |
| 3.3 | 3R3 | 7.9 | 32 | 115 | 1.90 | 350 |

Type SC10 - Section 2

| Inductance Value - μ H | Inductance Code | Test Freq. MHz | Q Factor Min. | S.R.F. MHz Min. | Max. DC Resistance Ohms at 20°C | Direct Current at 70°C Max. mA |
|----------------------------|-----------------|----------------|---------------|-----------------|---------------------------------|--------------------------------|
| 3.9 | 3R9 | 7.9 | 45 | 75 | 0.25 | 970 |
| 4.7 | 4R7 | 7.9 | 45 | 65 | 0.35 | 820 |
| 5.6 | 5R6 | 7.9 | 45 | 60 | 0.40 | 765 |
| 6.8 | 6R8 | 7.9 | 45 | 55 | 0.55 | 650 |
| 8.2 | 8R2 | 7.9 | 45 | 50 | 0.75 | 560 |
| 10 | 100 | 7.9 | 45 | 45 | 0.9 | 510 |
| 12 | 120 | 2.5 | 55 | 40 | 1.1 | 460 |
| 15 | 150 | 2.5 | 55 | 35 | 1.5 | 395 |
| 18 | 180 | 2.5 | 55 | 30 | 2.7 | 295 |
| 22 | 220 | 2.5 | 55 | 27 | 3.0 | 280 |
| 27 | 270 | 2.5 | 55 | 25 | 4.5 | 230 |
| 33 | 330 | 2.5 | 55 | 22 | 5.2 | 210 |
| 39 | 390 | 2.5 | 55 | 20 | 7.5 | 175 |
| 47 | 470 | 2.5 | 55 | 18 | 9.6 | 156 |

Type SC10 - Section 3

| Inductance Value - μ H | Inductance Code | Test Freq. MHz | Q Factor Min. | S.R.F. MHz Min. | Max. DC Resistance Ohms at 20°C | Direct Current at 70°C Max. mA |
|----------------------------|-----------------|----------------|---------------|-----------------|---------------------------------|--------------------------------|
| 56 | 560 | 2.5 | 55 | 11 | 8.1 | 170 |
| 68 | 680 | 2.5 | 55 | 10 | 9.0 | 161 |
| 82 | 820 | 2.5 | 50 | 8.5 | 10.0 | 153 |
| 100 | 101 | 2.5 | 50 | 7.0 | 11.0 | 146 |
| 120 | 121 | 0.79 | 40 | 6.5 | 12.0 | 140 |
| 150 | 151 | 0.79 | 40 | 5.5 | 13.0 | 134 |
| 180 | 181 | 0.79 | 45 | 5.0 | 15.0 | 125 |
| 220 | 221 | 0.79 | 45 | 4.2 | 17.0 | 117 |
| 270 | 271 | 0.79 | 45 | 3.8 | 19.5 | 110 |
| 330 | 331 | 0.79 | 45 | 3.3 | 22.0 | 103 |
| 390 | 391 | 0.79 | 45 | 3.1 | 24.5 | 98 |
| 470 | 471 | 0.79 | 45 | 2.9 | 26.5 | 94 |
| 560 | 561 | 0.79 | 45 | 2.7 | 30.0 | 88 |
| 680 | 681 | 0.79 | 45 | 2.5 | 33.0 | 84 |
| 820 | 821 | 0.79 | 45 | 2.3 | 36.5 | 80 |
| 1000 | 102 | 0.79 | 40 | 2.2 | 40.0 | 76 |

Section 1 was formerly the TE Connectivity C10 Series, Section 2 was formerly the TE Connectivity C11 Series, Section 3 was formerly the TE Connectivity C12 Series

Type SC10, SC15, SC30, SC55 Series

Characteristics - Electrical Type SC15

| Inductance Value - μ H | Inductance Code | Test Freq. MHz | Q Factor Min. | S.R.F. MHz Min. | Max. DC Resistance Ohms at 20°C | Direct Current at 70°C Max. mA |
|----------------------------|-----------------|----------------|---------------|-----------------|---------------------------------|--------------------------------|
| 0.15 | R15 | 25 | 50 | 525 | 0.030 | 2790 |
| 0.18 | R18 | 25 | 45 | 480 | 0.040 | 2420 |
| 0.22 | R22 | 25 | 50 | 450 | 0.055 | 2060 |
| 0.27 | R27 | 25 | 45 | 400 | 0.070 | 1830 |
| 0.33 | R33 | 25 | 45 | 360 | 0.090 | 1610 |
| 0.39 | R39 | 25 | 45 | 350 | 0.100 | 1530 |
| 0.47 | R47 | 25 | 45 | 310 | 0.120 | 1400 |
| 0.56 | R56 | 25 | 50 | 280 | 0.135 | 1320 |
| 0.68 | R68 | 25 | 50 | 250 | 0.15 | 1250 |
| 0.82 | R82 | 25 | 50 | 220 | 0.22 | 1030 |
| 1.0 | 1R0 | 25 | 50 | 200 | 0.29 | 900 |
| 1.2 | 1R2 | 7.9 | 33 | 180 | 0.42 | 750 |
| 1.5 | 1R5 | 7.9 | 33 | 160 | 0.50 | 685 |
| 1.8 | 1R8 | 7.9 | 33 | 150 | 0.65 | 600 |
| 2.2 | 2R2 | 7.9 | 33 | 135 | 0.95 | 495 |
| 2.7 | 2R7 | 7.9 | 33 | 120 | 1.20 | 440 |
| 3.3 | 3R3 | 7.9 | 33 | 110 | 2.00 | 340 |
| 3.9 | 3R9 | 7.9 | 33 | 100 | 2.30 | 320 |
| 4.7 | 4R7 | 7.9 | 33 | 90 | 2.60 | 300 |
| 5.6 | 5R6 | 7.9 | 45 | 60 | 0.32 | 690 |
| 6.8 | 6R8 | 7.9 | 50 | 55 | 0.50 | 550 |
| 8.2 | 8R2 | 7.9 | 50 | 50 | 0.60 | 505 |
| 10 | 100 | 7.9 | 55 | 45 | 0.90 | 415 |
| 12 | 120 | 2.5 | 65 | 42 | 1.10 | 375 |
| 15 | 150 | 2.5 | 65 | 40 | 1.40 | 330 |
| 18 | 180 | 2.5 | 75 | 34 | 2.25 | 260 |
| 22 | 220 | 2.5 | 75 | 30 | 2.50 | 250 |
| 24* | 240* | 2.5 | 60 | 27 | 2.50 | 250 |
| 27 | 270 | 2.5 | 60 | 25 | 2.60 | 242 |
| 30 | 300 | 2.5 | 65 | 21 | 2.80 | 230 |
| 33 | 330 | 2.5 | 65 | 19 | 3.00 | 227 |
| 36* | 360* | 2.5 | 60 | 15.5 | 2.50 | 250 |
| 39 | 390 | 2.5 | 60 | 14.5 | 2.60 | 244 |
| 43* | 430* | 2.5 | 60 | 13.7 | 2.70 | 238 |
| 47 | 470 | 2.5 | 55 | 13.0 | 2.75 | 235 |
| 51* | 510* | 2.5 | 55 | 12.7 | 2.85 | 231 |
| 56 | 560 | 2.5 | 55 | 12.0 | 3.00 | 225 |
| 62* | 620* | 2.5 | 55 | 11.5 | 3.15 | 220 |
| 68 | 680 | 2.5 | 55 | 11.0 | 3.30 | 215 |
| 75* | 750* | 2.5 | 55 | 10.5 | 3.70 | 203 |
| 82 | 820 | 2.5 | 50 | 10.3 | 3.90 | 200 |
| 91* | 910* | 2.5 | 50 | 10.0 | 4.30 | 188 |
| 100 | 101 | 2.5 | 50 | 9.5 | 4.50 | 185 |
| 110* | 111* | 0.79 | 60 | 8.9 | 4.90 | 176 |
| 120 | 121 | 0.79 | 65 | 8.7 | 5.20 | 170 |
| 130* | 131* | 0.79 | 65 | 8.5 | 5.45 | 167 |
| 150 | 151 | 0.79 | 65 | 8.0 | 6.05 | 160 |
| 160* | 161* | 0.79 | 65 | 7.5 | 6.40 | 154 |
| 180 | 181 | 0.79 | 65 | 7.0 | 6.75 | 150 |
| 200* | 201* | 0.79 | 65 | 6.5 | 7.10 | 147 |
| 220 | 221 | 0.79 | 65 | 6.2 | 7.45 | 144 |
| 240* | 241* | 0.79 | 65 | 5.9 | 7.80 | 140 |
| 270 | 271 | 0.79 | 65 | 5.7 | 9.00 | 131 |
| 300* | 301* | 0.79 | 65 | 5.4 | 11.50 | 118 |
| 330 | 331 | 0.79 | 65 | 5.1 | 12.50 | 111 |

Type SC10, SC15, SC30, SC55 Series

Characteristics - Electrical Type SC30

| Inductance Value - μ H | Inductance Code | Test Freq. MHz | Q Factor Min. | S.R.F. MHz Min. | Max. DC Resistance Ohms at 20°C | Direct Current at 70°C Max. mA |
|----------------------------|-----------------|----------------|---------------|-----------------|---------------------------------|--------------------------------|
| 0.022 | R022 | 50 | 33 | 1245 | 0.006 | 3000 |
| 0.027 | R027 | 50 | 33 | 1200 | 0.010 | 2800 |
| 0.033 | R033 | 50 | 33 | 1175 | 0.026 | 2620 |
| 0.039 | R039 | 50 | 33 | 1130 | 0.033 | 2320 |
| 0.047 | R047 | 50 | 33 | 1060 | 0.038 | 2170 |
| 0.056 | R056 | 50 | 33 | 990 | 0.048 | 1930 |
| 0.068 | R068 | 50 | 33 | 900 | 0.055 | 1800 |
| 0.082 | R082 | 50 | 33 | 750 | 0.065 | 1650 |
| 0.10 | R10 | 25 | 40 | 680 | 0.080 | 1490 |
| 0.12 | R12 | 25 | 40 | 640 | 0.090 | 1400 |
| 0.15 | R15 | 25 | 38 | 600 | 0.10 | 1330 |
| 0.18 | R18 | 25 | 35 | 550 | 0.12 | 1210 |
| 0.22 | R22 | 25 | 33 | 510 | 0.14 | 1120 |
| 0.27 | R27 | 25 | 33 | 430 | 0.16 | 1050 |
| 0.33 | R33 | 25 | 30 | 410 | 0.22 | 900 |
| 0.39 | R39 | 25 | 30 | 365 | 0.30 | 770 |
| 0.47 | R47 | 25 | 30 | 330 | 0.35 | 710 |
| 0.56 | R56 | 25 | 30 | 300 | 0.50 | 595 |
| 0.68 | R68 | 25 | 28 | 275 | 0.60 | 540 |
| 0.82 | R82 | 25 | 28 | 250 | 0.85 | 455 |
| 1.0 | 1R0 | 25 | 25 | 230 | 1.00 | 420 |
| 1.2 | 1R2 | 7.9 | 25 | 150 | 0.18 | 990 |
| 1.5 | 1R5 | 7.9 | 28 | 140 | 0.22 | 895 |
| 1.8 | 1R8 | 7.9 | 30 | 125 | 0.30 | 765 |
| 2.2 | 2R2 | 7.9 | 30 | 115 | 0.40 | 665 |
| 2.7 | 2R7 | 7.9 | 37 | 100 | 0.55 | 565 |
| 3.3 | 3R3 | 7.9 | 45 | 90 | 0.85 | 455 |
| 3.9 | 3R9 | 7.9 | 45 | 80 | 1.0 | 420 |
| 4.7 | 4R7 | 7.9 | 45 | 75 | 1.2 | 384 |
| 5.6 | 5R6 | 7.9 | 50 | 65 | 1.8 | 314 |
| 6.8 | 6R8 | 7.9 | 50 | 60 | 2.0 | 298 |
| 8.2 | 8R2 | 7.9 | 55 | 55 | 2.7 | 256 |
| 10 | 100 | 7.9 | 55 | 50 | 3.7 | 219 |
| 12 | 120 | 2.5 | 45 | 40 | 2.7 | 256 |
| 15 | 150 | 2.5 | 45 | 35 | 2.8 | 251 |
| 18 | 180 | 2.5 | 50 | 30 | 3.1 | 239 |
| 22 | 220 | 2.5 | 50 | 25 | 3.3 | 232 |
| 27 | 270 | 2.5 | 50 | 20 | 3.5 | 225 |
| 33 | 330 | 2.5 | 45 | 24 | 3.4 | 228 |
| 39 | 390 | 2.5 | 45 | 22 | 3.6 | 222 |
| 47 | 470 | 2.5 | 45 | 20 | 4.5 | 198 |
| 56 | 560 | 2.5 | 45 | 18 | 5.7 | 176 |
| 68 | 680 | 2.5 | 50 | 15 | 6.7 | 162 |
| 82 | 820 | 2.5 | 50 | 14 | 7.3 | 156 |
| 100 | 101 | 2.5 | 50 | 13 | 8.0 | 149 |
| 120 | 121 | 0.79 | 30 | 12 | 13.0 | 116 |
| 150 | 151 | 0.79 | 30 | 11 | 15.0 | 108 |
| 180 | 181 | 0.79 | 30 | 10 | 17.0 | 102 |
| 220 | 221 | 0.79 | 30 | 9 | 21.0 | 92 |
| 270 | 271 | 0.79 | 30 | 8 | 25.0 | 84 |
| 330 | 331 | 0.79 | 30 | 7 | 28.0 | 79 |
| 390 | 391 | 0.79 | 30 | 6.5 | 35.0 | 71 |
| 470 | 471 | 0.79 | 30 | 6 | 42.0 | 65 |
| 560 | 561 | 0.79 | 30 | 5 | 46.0 | 62 |
| 680 | 681 | 0.79 | 30 | 4 | 60.0 | 54 |
| 820 | 821 | 0.79 | 30 | 3.8 | 65.0 | 52 |
| 1000 | 102 | 0.79 | 30 | 3.4 | 72.0 | 49 |

The SC30 Series was formerly the TE Connectivity C30 Series

Type SC10, SC15, SC30, SC55 Series

Characteristics - Electrical Type SC55

| Inductance Value (μ H) | Inductance Code | Q Min. | Test Freq MHz | S.R.F. MHz Min. | Max. DC Resistance Ohms | Direct Current at 85°C Max. mA | Body Marking |
|-----------------------------|-----------------|--------|---------------|-----------------|-------------------------|--------------------------------|--------------|
| 1.0 | 1R0 | 45 | 7.9 | 190.0 | 0.04 | 2200 | 1uH0-K |
| 1.5 | 1R5 | 65 | 7.9 | 155.0 | 0.05 | 2000 | 1uH5-K |
| 2.2 | 2R2 | 60 | 7.9 | 130.0 | 0.06 | 1800 | 2uH2-K |
| 3.3 | 3R3 | 50 | 7.9 | 110.0 | 0.07 | 1700 | 3uH3-K |
| 4.7 | 4R7 | 50 | 7.9 | 95.0 | 0.12 | 1300 | 4uH7-K |
| 6.8 | 6R8 | 60 | 7.9 | 85.0 | 0.22 | 1000 | 6uH8-K |
| 10 | 100 | 50 | 7.9 | 65.0 | 0.35 | 750 | 10uH-K |
| 15 | 150 | 55 | 2.5 | 55.0 | 0.60 | 600 | 15uH-K |
| 22 | 220 | 65 | 2.5 | 45.0 | 1.10 | 430 | 22uH-K |
| 33 | 330 | 85 | 2.5 | 35.0 | 2.00 | 300 | 33uH-K |
| 47 | 470 | 70 | 2.5 | 20.0 | 2.50 | 270 | 47uH-K |
| 68 | 680 | 65 | 2.5 | 16.0 | 3.00 | 250 | 68uH-K |
| 100 | 101 | 65 | 2.5 | 14.0 | 4.00 | 220 | mH10-K |
| 150 | 151 | 80 | 0.79 | 9.5 | 5.80 | 230 | mH15-K |
| 220 | 221 | 80 | 0.79 | 8.0 | 7.30 | 200 | mH22-K |
| 330 | 331 | 80 | 0.79 | 7.5 | 12.00 | 160 | mH33-K |
| 470 | 471 | 80 | 0.79 | 6.5 | 20.00 | 120 | mH47-K |
| 680 | 681 | 85 | 0.79 | 5.0 | 24.00 | 110 | mH68-K |
| 1000 | 102 | 85 | 0.79 | 3.0 | 30.00 | 100 | 1mH0-K |

How to Order

| SC30 | 104 | K | T |
|------------------------------|---------------------------------------|------------------|-----------------------------|
| Common Part | Inductance Value | Tolerance | Packaging |
| SC10 SC15 SC30 SC55 | Please state code given in data above | K - 10% | R - Reeled T - Ammo Pack |

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