

## Rod Core Chokes (RCC)

FASTRON's Rod Core Choke series consists of the most common inductance values. They come in different core sizes, currents, and are designed as a single layer coil. Rated current up to 10A, high mechanical stability, high saturation currents and custom designs on request

**Applications** Noise suppression coil for Brush-Collector Motors, for Automotive and many industrial Applications, able to carry AC-Line voltage, HF Filter, for Attenuation circuit and storage Inductor in Converters, switching regulators, SMPS-power supplies and broadband filtering.

### Technical Data

L – Value (rated inductance)	Measured with HP 4194A Impedance / Gain-phase Analyzer or equivalent at frequency $f_L$
DCR (max)	Measured at 25 °C
Rated DC Current	I based on temperature rise, determined at the point where the temperature rise does not exceed 15°C above the ambient temperature of 25°C
Operating Temperature	-55 to 125°C (including component self-heating)
Recommended soldering method	Wave
Moisture Sensitivity Levels (MSL)	MSL Level 1, indicating unlimited floor life at $\leq 30^\circ\text{C}$ / 85% relative humidity
Solderability	Using lead free solder (Sn 99.9) at $260^\circ\text{C} \pm 5^\circ\text{C}$ for $5 \pm 0.5$ seconds, min 90% solder coverage of metallization Standard: IEC 68-2-20 (Ta)
Resistance to Soldering Heat	Resistant to $260^\circ\text{C} \pm 5^\circ\text{C}$ for $10 \pm 1$ seconds Standard: IEC 68-2-20 (Tb)
Resistance to Solvent	Resistant to Isopropyl alcohol for $5 \pm 0.5$ minutes at $23^\circ\text{C} \pm 5^\circ\text{C}$ Standard: IEC 68-2-45
Climatic Test	Defined by the following standards IEC 68-2-1 for Cold test: $-55^\circ\text{C}$ for 96 hours IEC 68-2-2 for Dry heat test: $+125^\circ\text{C}$ for 96 hours IEC 60068-2-78 for Humidity test: $40^\circ\text{C}$ at RH 95% for 4 days
Thermal Shock Test	Temperature cycle : $-55^\circ\text{C}$ to $+125^\circ\text{C}$ to $-55^\circ\text{C}$ Max/Min temperature duration: 15 minutes Temperature transition duration: 5 minutes Cycles: 25 Standard: MIL-STD-202G
Coil on Core strength	Core withstand a two times-test pressing force of 15N for 1 minute at room temperature ( $25^\circ\text{C}$ ).

**Ordering Code** Example: **3RCC-1R8M-00**

**3**      **RCC**                      **1R8**                      **M**                      **00**  
(Case Size)(Core Type) - (Inductance Value)(Tolerance) - (Packing Code)

Case Size      - Core diameter 3 and 3,3mm, 4mm, 5mm, 6mm  
Core Type      - Ferrite-Rod bar  
Tolerances    - M (20%)  
Packing Code - 00 (loose packing in box)