

Plugable Inductors (Pin Type Coils)

FASTRON plugable inductors offer a wide range of inductance values from 1 μ H to 150 000 μ H, a high Q and also suitable for high currents and high voltages. They come in shielded, tube and cap versions able to protect the winding. They are available in reel packing and ammopack.

Applications Applied in DC-DC converters and all types of electronic instruments, such as digital amplifier LPF and signal filtering applications.

Technical Data

| | |
|---------------------------------------|---|
| L – Value (rated inductance) | Measured with Bode 100 Vector Network Analyzer at frequency f_L |
| Q – Factor (min) | Measured with Bode 100 Vector Network Analyzer at frequency f_Q |
| SRF (min) | ≥ 40 MHz measured with HP8753ES Network Analyzer < 40 MHz measured with Bode 100 Vector Network Analyzer |
| 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 40°C above the ambient temperature of 25°C I_{sat} Current based on inductivity drop of 10% related to the unloaded inductivity |
| Operating Temperature | For plugable inductors : -55°C to +85°C For 07HCP, 07HVP, 09HCP, 09HVP : -55°C to +150°C (including component self-heating) For 07HCP/T, 07HVP/T, 09HCP/T, 09HVP/T : -55°C 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 ± 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 ± 1 seconds Standard: IEC 68-2-20 (Tb) |
| Resistance to Solvent | Resistant to Isopropyl alcohol for 5 ± 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°C for 96 hours IEC 68-2-2 for Dry heat test: +85°C (plugable, 07HCP/T, 07HVP/T, 09HCP/T, 09HVP/T) and +150°C (07HCP, 07HVP, 09HCP, 09HVP) for 96 hours IEC 60068-2-78 for Humidity test: 40°C at RH 95% for 4 days |
| Thermal Shock Test | Temperature cycle : For plugable, 07HCP/T, 07HVP/T, 09HCP/T, 09HVP/T : -55°C to +85°C to -55°C : For 07HCP, 07HVP, 09HCP, 09HVP : -55°C to +150°C to -55°C Max/Min temperature duration: 15 minutes Temperature transition duration: 5 minutes Cycles: 25 Standard: MIL-STD-202G |
| Tensile Strength of Leads (Pull Test) | Components withstand a pulling force of 10N for 10 ± 1 seconds IEC 60068-2-21 (Ua1) |
| Mechanical Shock | Mil-Std 202 Method 213 Condition C 3 axis, 6 times, total 18 shocks 100 G, 6 ms, half-sine |
| Vibration | Mil-Std 202 Method 204 20 mins at 5G 10 Hz to 2000 Hz 12 cycles each of 3 orientations |

Remarks : Above technical data is for non-shielded type only.

Ordering Code Example: 09P-101X-YY

09P - **101** **X** - **YY** → **09P-101K-51**
 (Model) (Inductance Value) (Tolerance) (Packing Code)

Core Type - Ferrite

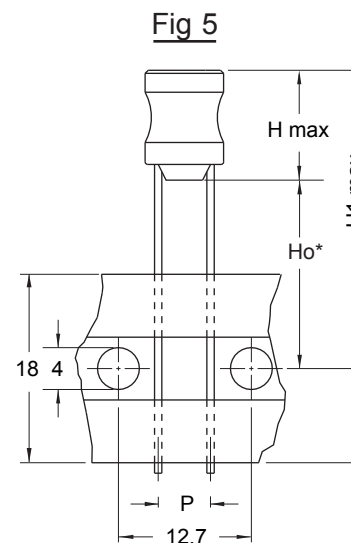
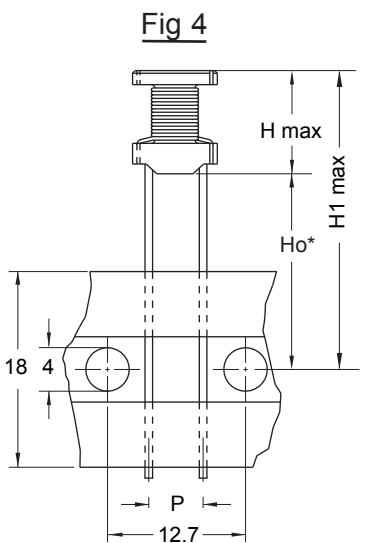
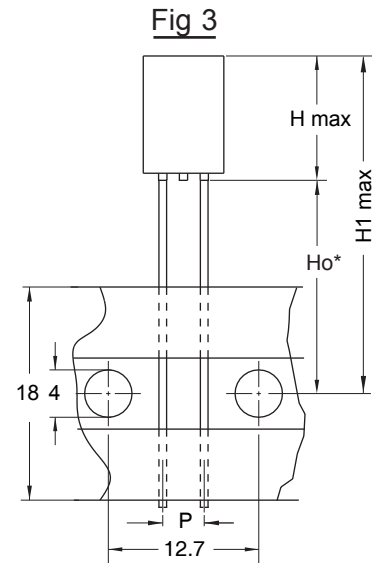
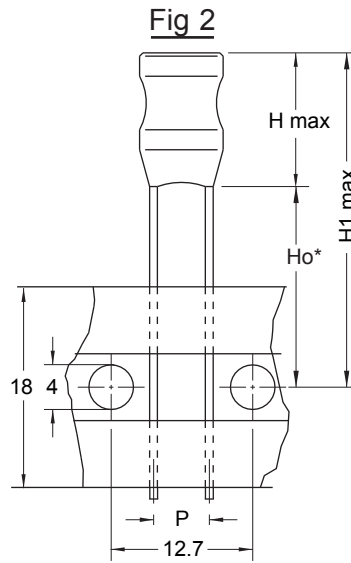
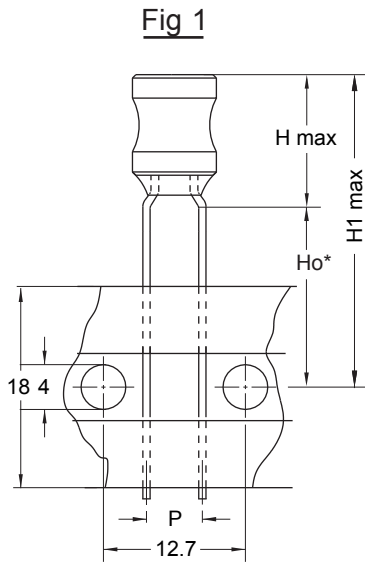
Tolerances - J (5%), K (10%), M (20%)

Packing Code - 50 (Loose in Box) / (Tray / Box), 51 (Taped / Reel)

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Packing Specification

Reel Taping
Packing code : 51



*according to IEC 286

| Series | H max | Ho | H1 max | P | Fig |
|-------------------|-------|----|--------|-----|-----|
| 07P | 12.5 | 16 | 28 | 5 | 1 |
| 07P/F | 10.5 | 18 | 32.2 | 3.5 | 3 |
| 09P | 13.5 | 18 | 32.2 | 5 | 2 |
| 09P/F | 13.4 | 18 | 32.2 | 5 | 3 |
| 07HCP & 07HVP | 10 | 18 | 32.2 | 5 | 4 |
| 07HCP/T & 07HVP/T | 10.5 | 18 | 32.2 | 5 | 5 |

Packing Specification