

IGNITION COIL

TRANSISTORISED IGNITION

16.6mm Diameter



An on-plug coil for use with high current transistorised (inductive) ignition (TSI) as available in all our ECU's. Design and manufacture is in-house, so we can make the coil to suit your specific application. The information given here is for a typical coil. Many of the parameters can be tailored to a particular installation.

Please contact our technical consultancy service to discuss your requirements.

Electrical

Typical measurements at 25 °C (except where stated otherwise)

- Primary DC resistance 270 to 290mohm
- Primary inductance 135 to 155µH
- Primary current up to 25A

The following measurements are made with a power unit operating at 14V supplying 20A with the primary voltage clamped between 350 and 500V and the current collapsing at >5.5A/µs. The coil is mounted in an aluminium block to simulate a cylinder head.

- Secondary high voltage (fired off-load*) 25kV typ
- Secondary energy into 2nF load 18mJ typ
- Burn time of open spark > 650µs (burn threshold 100V, at atmospheric pressure)

Application

- Transistorised ignition systems

* Firing the coil off load should be avoided as it can cause cumulative damage by electrical breakdown

Cable and Connection Definition

- 20AWG un-screened cable
- Cable length 1200mm
- Various automotive and military standard connectors are available
- Connection

Black wire	Pin A	Pin 1	Primary Switched
White wire	Pin B	Pin 2	Primary Non Switched

Connect the primary so that "Primary Switched" is positive with respect to "Primary Non Switched" during discharge. The spark plug centre electrode discharge is negative with respect to ground. Screened cable can be provided, the screen is not connected to the coil and should be connected to the ECU.

Mechanical

- Polyester body
- Conductive elastomer contact with either a fixed or spring loaded plunger connection can be provided
- Weight less than 85g (including cable)
- Polyester boss for strain relief to the coil body
- Fluoro silicone O-rings to seal spark plug

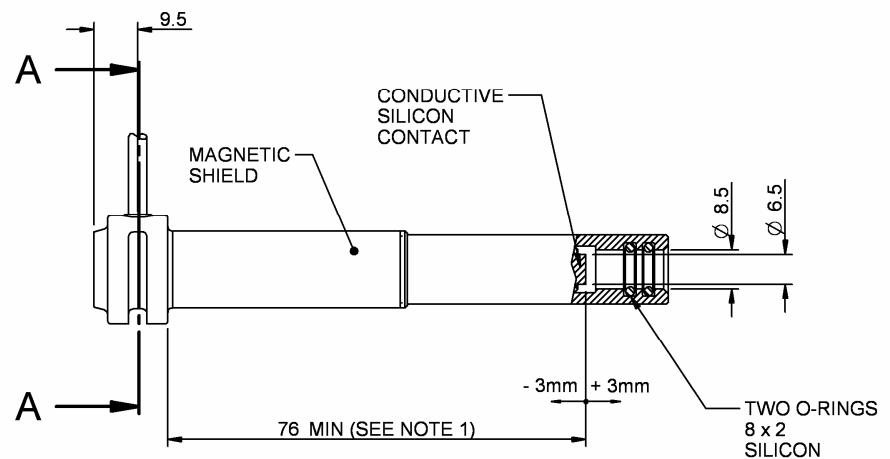
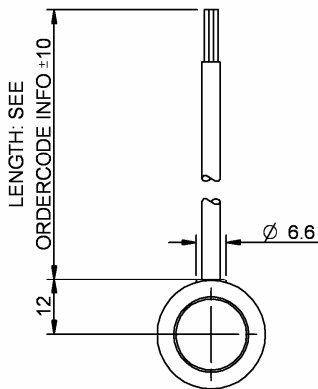
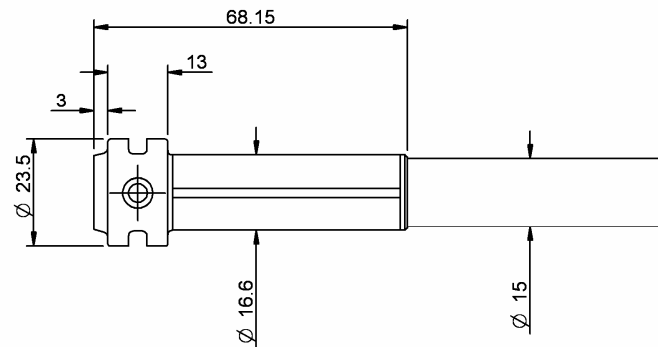
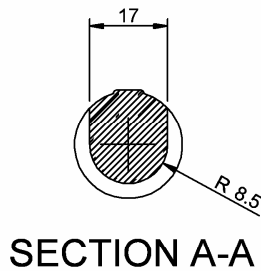
Environmental

- Resistant to standard motorsport fluids
- Operating temperature 0 to +150 °C
- Maximum temperature +180 °C for 10mins (coil not firing)
- DR25 jacketed cable
- Vibration 50 to 2500Hz @ 40g 8hrs per axis

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NOTE 1 - DIMENSIONS TO SUIT CUSTOMERS REQUIRMENTS

This drawing is typical and generic.
As each coil design is application specific, no order codes are shown.
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