Application of the Ignition Sensor Unit (ISU)

This application note contains general information on the installation of the ignition sensor unit (ISU). You do **not need an ignition sensor unit (ISU)** if you are using an ignition controller from MOTORTECH that has an auxiliary synchronization output (ASO).

The application note is aimed at personnel tasked with the setup, operation, maintenance, and repair of gas engines. A certain level of technical knowledge with respect to the operation of gas engines and basic knowledge of electronic ignition systems are necessary.

> **Read the operating manuals of the devices**
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> This application note is an addition to the operating manuals of the ignition controller and the detonation control system. Read and understand the complete documentation of both devices prior to start-up.

Function

The ignition sensor unit (ISU) transmits ignition pulses from the ignition controller's output for the first cylinder in firing order to the ignition input of the DetCon2/20. All other ignition timing points are calculated according to the configuration of the DetCon2/20.
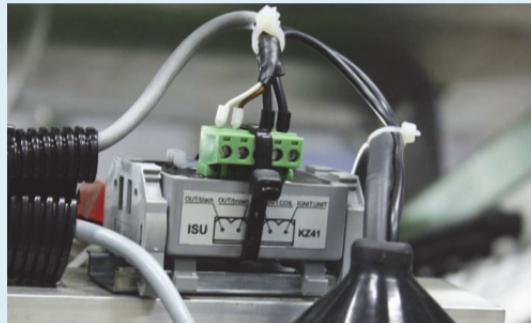
Mounting

The ignition sensor unit (ISU) is mounted on a DIN rail on the engine or close to the engine.
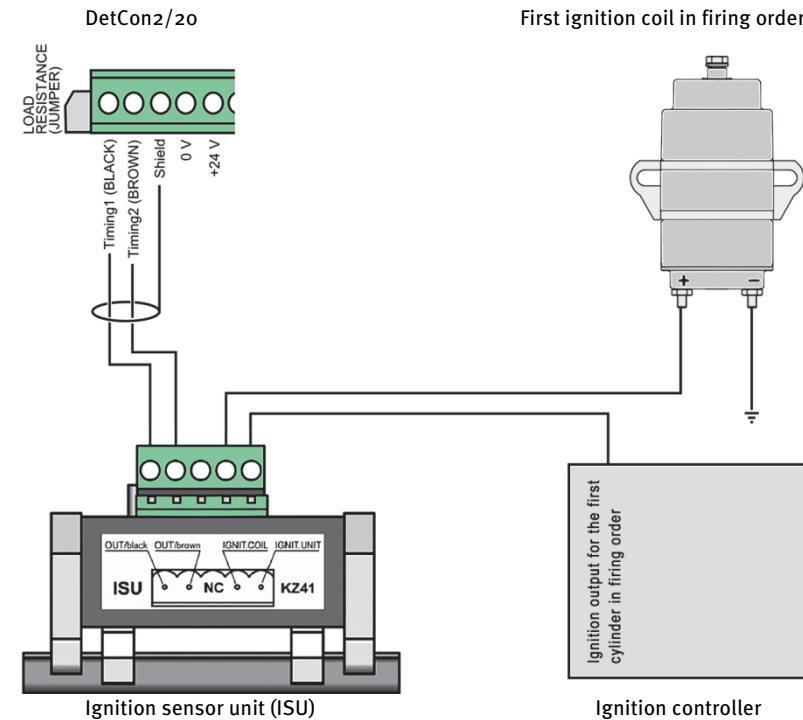
> **Information on the Installation**
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> The ignition sensor unit (ISU) is fully potted and therefore resistant to vibrations. If mounted on the engine or in an environment where vibrations occur, the plug must be secured e.g. with cable strap.
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> Note that the contacts of the connector are bare and must be protected against moisture and contamination. If the engine should be in such a location, the ignition sensor unit (ISU) can, for example, be mounted in a junction box or housed in a control cabinet.

Wiring

Connect the ignition sensor unit (ISU) to the DetCon2/20, the first ignition coil in firing order and the ignition controller as shown in the drawing.

Ignition sensor unit (ISU)   Ignition controller

Load Resistance Jumper on DetCon2/20

If you are using the ignition sensor unit (ISU), the load resistance jumper must be plugged into the DetCon2/20.

DetCon20