



IGNITION SYSTEM 3W / M1.1

with microprozessor controlled auto timing

General

For optimum operation of combustion engines an ignition system with auto timing is necessary. For easy starting a spark is ideal in the top dead center (TDC) of the engine. With increasing RPM a pre-ignition timing up to 30 degree is needed. This is achieved with our system using a high precision RPM-check by two magnets built-in the hub of the engine. The hall sensor transmits the signal to the microprocessor programmed with our engine characteristic.

Technical specifications

Temperature range: - 40°C / +65°C, ambient temperature
Voltage range: 6V - 8,4V, nominal voltage

	Single	Twin
Operating voltage	6 - 8,4V	6 - 8,4V
Current consumption (Standby)	10mA	10mA
	ca. 100mA* / 1000 RPM	ca. 110mA* / 1000 RPM
	ca. 900mA* / 6000 RPM	ca. 950mA* / 6000 RPM
Ignition voltage	>20 KV	> 20 KV
RPM max	10000 RPM	10000 RPM
Magnet (red); Northpole	TDC	TDC
Magnet (green); Southpole	47°**(55°) before TDC	47°**(55°) before TDC

* current consumption depends on the voltage of battery used with increasing voltage, current consumption goes down.

** The new grey Sensor requires a smaller angle between the magnets (Since 2008 in deliveries)

Like all other electronic devices the ignition box gets warm under operation conditions. For that reason a simple air flow has to be guaranteed. Therefore the 4 delivered rubber mounts or 2 stripes hook and look tape have to be used for installation, insuring a gap underneath the box.

Cable information

Sensor cable / multi coloured
Red / Black long with socket
Yellow / white with plug

to pick up sensor
to battery
connection for 3W tachometer
(Output signal: positive pulse, Ground 0- 4V, length of impulse 800 micro seconds, signal is supplied from the microprocessor (modified square wave))

Since June 2003 the operating voltage is 6V / 5 Cells NiCd /NimH or 8,4V / 2 Cells LiPo (2S). It can be used without voltage regulators. A voltage regulator is integrated and regulate the voltage to 5V.

The ignition which were built before 2003 need 4,8V (4 Cells NiCd /NimH).

The ignition is set by factory. No adjustment is required

Important Note from praxis

Because an Ignitionsystem consists of several components like Battery, Ignitionbox, Sensor and Spark plug, a correct function of all components is vital for a safe Ignition spark. In case of service it is important to send all components to 3W. A description of the misfunction helps to save time and costs.