

Double Fire Coil 3x2

This dual spark ignition coil is designed for low-cost applications in 6-cylinder engines.

The advantage of this coil is that the ECU needs only three internal ignition power stages for supplying a 6-cylinder engine.

The double fire 3x2 coil benefits from series production ensuring robustness and low cost.



Application	
Spark energy	≤ 65 mJ
Primary current	≤ 8.0 A
Operating temperature range @ outer core	-20 ... 120 °C
Storage temperature range	-40 ... 100 °C
Max. vibration	≤ 200 m/s ² @ 5 ... 250 Hz

Electrical Data	
Primary resistance with cable	500 mΩ
Secondary resistance	12 kΩ
High voltage rise time	≤ 1.9 kV/μs
Max. high voltage @ 1 MΩ 10 pF	≤ 35 kV
Spark current	≤ 80 mA
Spark duration @ 1 kV 1MΩ	≤ 1.9 ms
Noise suppression	No
Suppression diode / EFU	No
Integrated power stage	No
Ion current signal	No

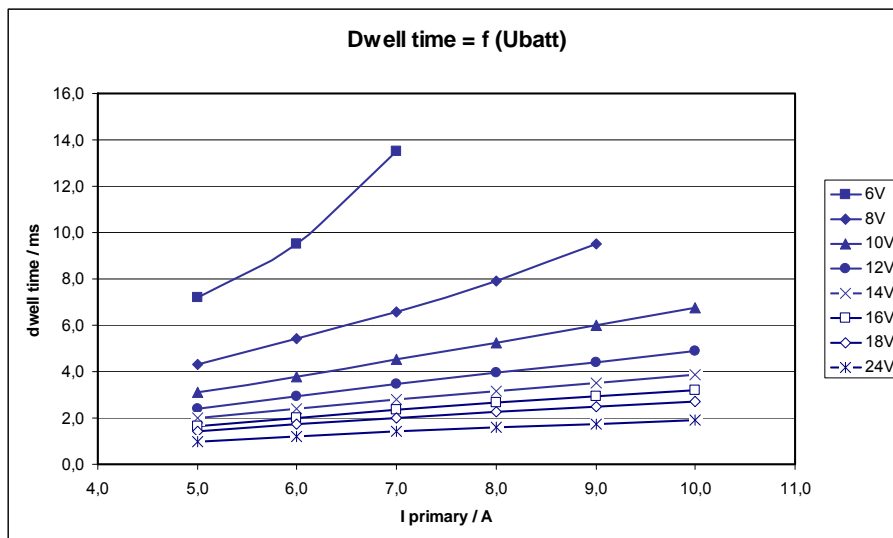
Mechanical Data	
Weight	1,490 g
Mounting	screw fastening

Communication	
Measured with power stage	IGBT IRG4BC40S (U _{ce} = 600 V)

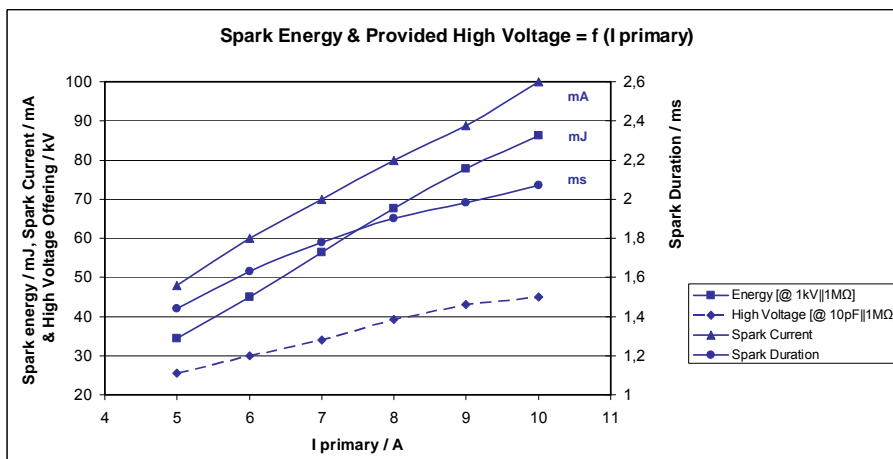
Characteristic Dwell Time [ms]

I primary	Ubatt									
	6 V	8 V	10 V	12 V	14 V	16 V	18 V	20 V	22 V	24 V
5.0 A	7.2	4.3	3.1	2.4	2.0	1.7	1.4	1.3	1.1	1.0
6.0 A	9.5	5.4	3.8	2.9	2.4	2.0	1.7	1.5	1.3	1.2
7.0 A	13.5	6.6	4.5	3.5	2.8	2.4	2.0	1.8	1.6	1.4
8.0 A		7.9	5.2	3.9	3.2	2.7	2.3	2.0	1.8	1.6
9.0 A		9.5	6.0	4.4	3.5	2.9	2.5	2.2	1.9	1.8
10.0 A			6.7	4.9	3.9	3.2	2.7	2.4	2.1	1.9

Measured values are without loom resistance. Loom resistance must be less than the primary resistance. The needed dwell time is to be verified through current measurement.


Characteristic Spark Energy & Provided High Voltage

	I primary [A]					
	5 A	6 A	7 A	8 A	9 A	10 A
Spark Energy [mJ]	34.4	45	56.5	67.6	77.7	86.2
Spark Duration [ms]	1.44	1.63	1.78	1.9	1.98	2.07
Spark Current [mA]	48	60	70	80	88.8	100
High Voltage [kV]	25.4	29.9	34	39.3	43	45



Connectors and Wires

Connector	Bosch Jetronic
Mating connector	D 261 205 351-01
Pin 1	Coil 3 ECU Ignition Driver Stage
Pin 2	Coil 2 ECU Ignition Driver Stage
Pin 3	Coil 1 ECU Ignition Driver Stage
Pin 4	U _{batt}

Various motorsport and automotive connectors are available on request.

Application Hint

The coil can be directly mounted on the engine.

Ignition wires are needed to connect the coil with the spark plug, please pay attention that the spark plugs are connected in the correct ignition firing order. Numbers in the offer drawing or on the ignition coil are not the ignition firing order but the cylinders' order.

This coil is only for use with engine control units having two integrated ignition power stages, e.g. IGBT or BIP.

For technical reasons the values of the coils may vary.

Please use only within the specified limit values.

Please find further application hints in the offer drawing (<http://www.bosch-motorsport.com>).

Part Number

Coil 3x2

0 221 503 002

