

Twin Single Fire Coil 2x1

This ignition coil is specifically developed for engines with twin sparks.

The advantage of this coil is that there are two separated coils in one housing. So the ignition can be parallel or serial - offset with some angular degrees.

This coil is a series coil, produced in great quantities. The advantages of coils from run production are low costs and robustness.



Application	
Spark energy	2 x ≤ 50 mJ
Primary current	2 x ≤ 7.5 A
Operating temperature range @ outer core	-20 ... 140 °C
Storage temperature range	-40 ... 110 °C
Max. vibration	≤ 400 m/s ² @ 5 ... 2,500 Hz

Electrical Data	
Primary resistance	420 mΩ
Secondary resistance	incapable of measurement
High voltage rise time	≤ 2.1 kV/μs
Max. high voltage @ 1 MΩ 10 pF	≤ 35 kV
Spark current	≤ 95 mA
Spark duration @ 1 kV 1 MΩ	≤ 1.14 ms
Noise suppression	no
Suppression diode / EFU	yes
Integrated power stage	no
Ionic current signal	no

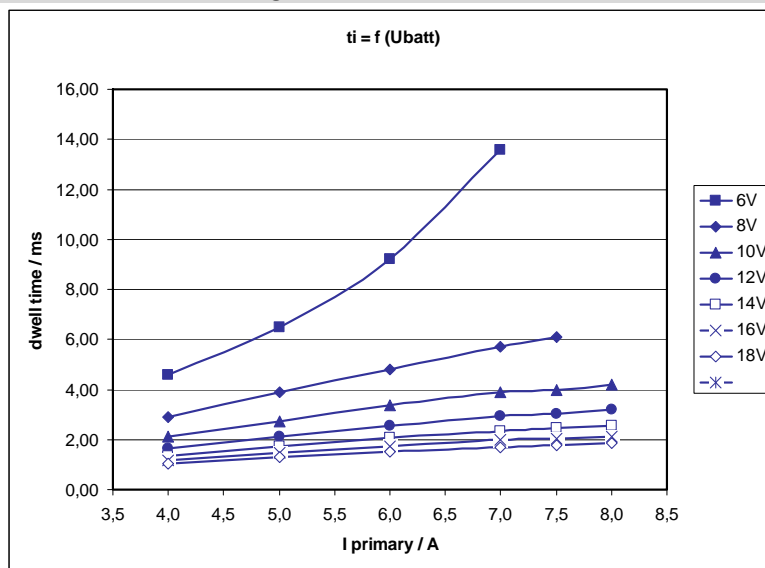
Mechanical Data	
Weight	496 g
Mounting	screw fastening

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

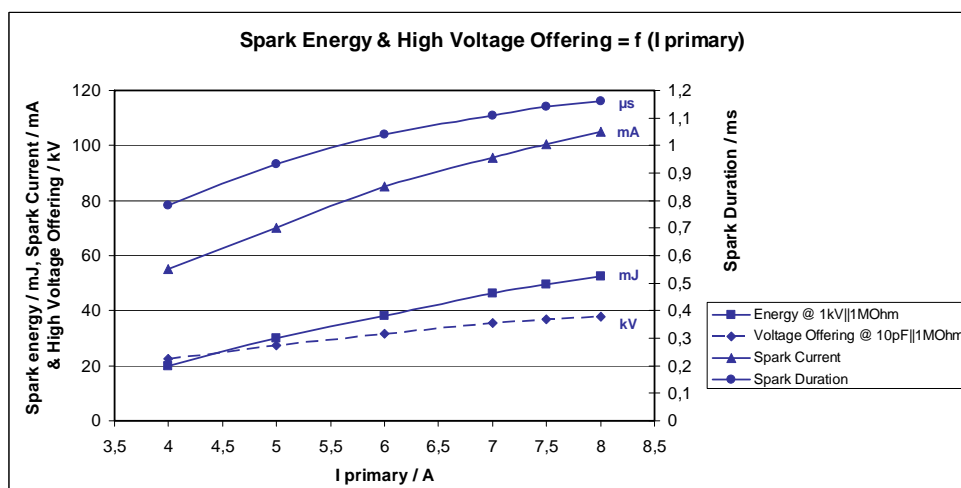
Characteristic Dwell Time [ms]

I primary	Ubatt						
	6 V	8 V	10 V	12 V	14 V	16 V	18 V
4.0 A	4.60	2.90	2.10	1.65	1.36	1.16	1.02
5.0 A	6.50	3.90	2.74	2.11	1.74	1.47	1.28
6.0 A	9.20	4.80	3.36	2.55	2.07	1.75	1.51
7.0 A	13.60	5,70	3,90	2,92	2,35	1,98	1,70
7.5 A		6.10	4.00	3.04	2.45	2.05	1.77
8.0 A		6.50	4.20	3.18	2.55	2.14	1.84

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]					
	4 A	5 A	6 A	7 A	7.5 A	8 A
Spark energy [mJ]	20	29.9	38	46.2	49.5	52.4
Spark duration [ms]	784	931	1,040	1,110	1,140	1,160
Spark current [mA]	55	70	85	90	95	105
High voltage [kV]	22.5	27.5	31.5	35.4	36.7	37.7



Connectors and Wires

Connector	Bosch Compact
Mating connector	D 261 205 335-01
Pin 1	Coil 2 (b) ECU Ignition Driver Stage
Pin 2	U _{batt}
Pin 3	Coil 1 (a) ECU Ignition Driver Stage

Various motorsport and automotive connectors are available on request.

Please specify the required wire length with your order.

Application Hint

The coil can be directly mounted on the engine.

Ignition cables are needed to connect the coil with the spark plug.

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

For technical reasons the values of the coils may vary.

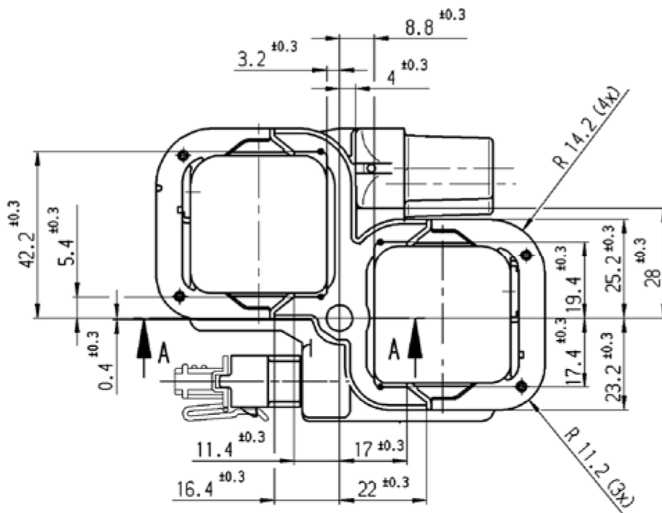
Please use only within the specified limit values.

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

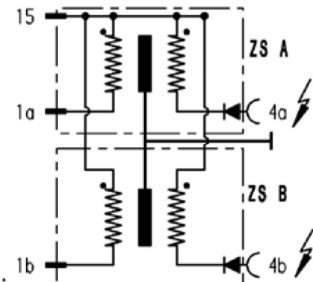
Part Number

Coil 2x1

0 221 503 035



Schaltbild
CIRCUIT DIAGRAM



Achtung :
Primäranschluß führt gefährliche Spannung !
CAUTION :
PRIMARY CONNECTION HAS DANGEROUS VOLTAGE !