Twin Single Fire Coil 2x1

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BOSCH
Invented for life

- Max. 35 kV
- 2 x ≤ 50 mJ
- Max. 2.1 kV/µs
- Developed for twin spark engines
- 2 independent coils in 1 housing

This ignition coil is specifically developed for engines with twin sparks.
The advantage of this coil is that are two separated coils in one housing. So the ignition can be parallel or serial-offset with some angular degrees.
The Twin Single Fire Coil 2x1 has no integrated transistor and requires an ECU with internal ignition power stages.
This coil is a series coil, produced in great quantities. The advantages of coils from run production are low costs and high robustness.

Application

Spark energy	2 x ≤ 50 mJ
Primary current	2 x ≤ 7.5 A
Operating temperature range outer core	-20 to 140°C
Storage temperature range	-40 to 110°C
Max. vibration	≤ 400 m/s² at 5 to 2,500 Hz

Technical Specifications

Mechanical Data

Weight	496 g
Mounting	Screw fastening

Electrical Data

Primary resistance with wire	420 mΩ
Secondary resistance	Incapable of measurement
High voltage rise time	≤ 2.1 kV/µs
Max. high voltage at 1 MΩ || 10 pF	≤ 35 kV
Spark current	≤ 95 mA
Spark duration at 1 kV || 1 MΩ	≤ 1.14 ms
Suppression diode / EFU	

Characteristic

Measured with power stage	IGBT IRG4BC40S (U_{ce}=600 V)

Connectors and Wires

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

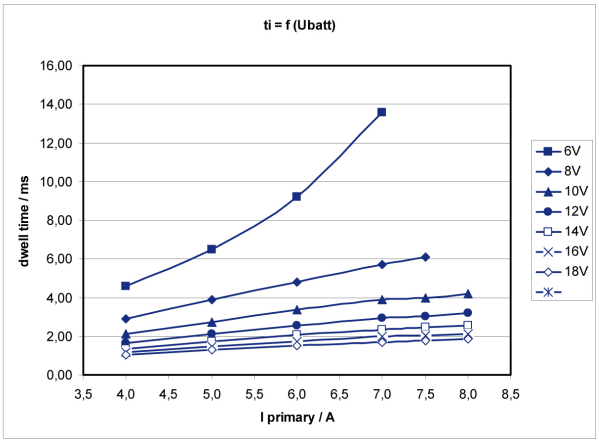
Various motorsport and automotive connectors are available on request.

Please specify the required wire length with your order.

Characteristic dwell times [ms]

U_{batt}	I primary					
	4.0 A	5.0 A	6.0 A	7.0 A	7.5 A	8.0 A
6 V	4.6	6.5	9.2	13.6		
8 V	2.9	3.9	4.8	5.7	6.1	6.5
10 V	2.1	2.74	3.36	3.9	4.0	4.2
12 V	1.65	2.11	2.55	2.92	3.04	3.18
14 V	1.36	1.74	2.07	2.35	2.45	2.55
16 V	1.16	1.47	1.75	1.98	2.05	2.14
18 V	1.02	1.28	1.51	1.7	1.77	1.84

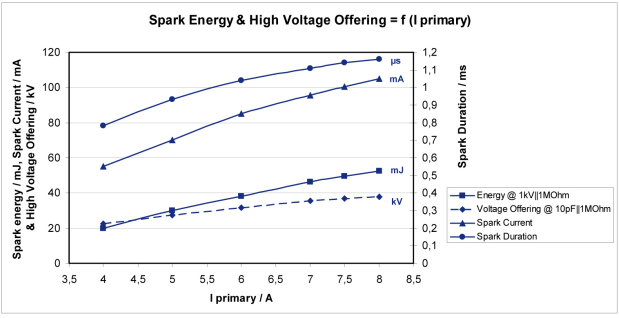
Measured values are without loom resistance. Loom resistance must be less than the primary resistance. The needed dwell time is to be verified through current measurement



Dwell time

Spark energy and provided high voltage

I prim.	Spark energy	-duration	-current	Hi voltage
4 A	20 mJ	0.784 ms	55 mA	22.5 kV
5 A	29.9 mJ	0.931 ms	70 mA	27.5 kV
6 A	38 mJ	1.04 ms	85 mA	31.5 kV
7 A	46.2 mJ	1.11 ms	90 mA	35.4 kV
7.5 A	49.5 mJ	1.14 ms	95 mA	36.7 kV
8 A	52.4 mJ	1.16 ms	105 mA	37.7 kV



Spark energy

Installation Notes

The coil can be mounted directly on the engine.

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

The Twin Single Fire Coil 2x1 has no integrated transistors and requires an ECU with internal ignition power stages, e.g. IGBT or BIP.

For technical reasons the values of the coils may vary.

Please regard the specified limit values.

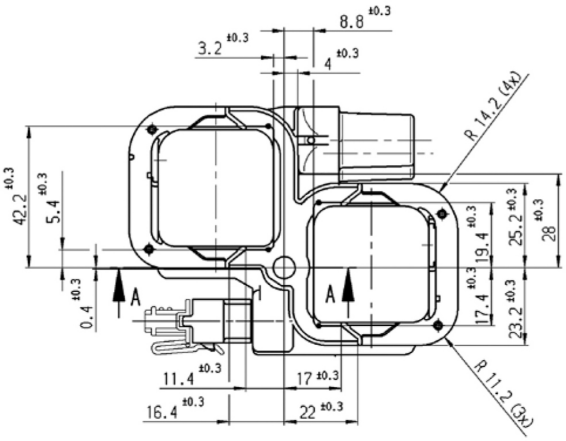
Please find further application hints in the offer drawing at our home-page.

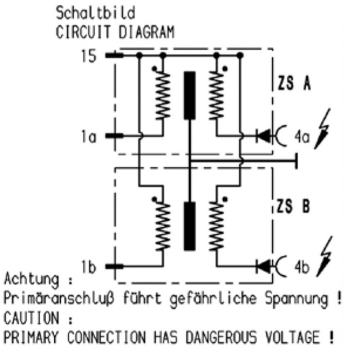
In case of ignition-caused malfunctions, please use screened sensor wires.

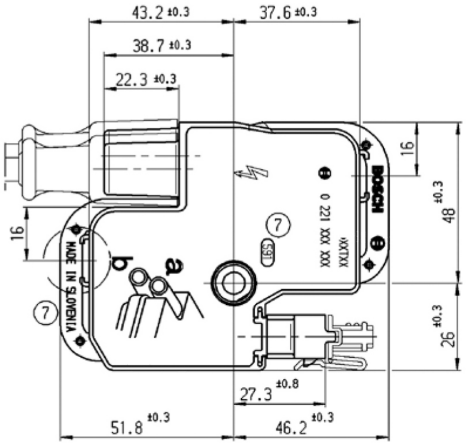
Ordering Information

Twin Single Fire Coil 2x1
Order number **0 221 503 035**

Dimensions







Represented by:

Europe:
Bosch Engineering GmbH
Motorsport
Robert-Bosch-Allee 1
74232 Abstatt
Germany
Tel.: +49 7062 911 79101
Fax: +49 7062 911 79104
motorsport@bosch.com
www.bosch-motorsport.de

North and South America:
Bosch Engineering North America
Motorsports
38000 Hills Tech Drive
Farmington Hills, MI 48331-3417
United States of America
Tel.: +1 248 876 2977
Fax: +1 248 876 7373
motorsport@bosch.com
www.bosch-motorsport.com

Asia-Pacific:
Bosch Engineering Japan K.K.
Motorsport Department
18F Queen's Tower C, 2-3-5 Minato Mirai Nishi-ku, Yokohama-shi
Kanagawa 220-6218
Japan
Tel.: +81 45 650 5610
Fax: +81 45 650 5611
motorsport@bosch.com
www.bosch-motorsport.com

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