

Single Fire Coil P35-E

www.bosch-motorsport.com



- ▶ Max. 34 kV
- ▶ Max. 38 mJ
- ▶ Max. 2.0 kV/μs
- ▶ Connector length on customer requirement
- ▶ Max. 10,000 1/min

For this single fire coil the customer can define the length of the spark plug connector. The P35-E has no integrated transistor and requires an ECU with internal ignition power stages. The P35-E is for spark plugs with ceramic diameter $d = 8 \text{ mm}$ or $d = 10 \text{ mm}$. The single fire coil benefits from series production ensuring robustness.

Application

Spark energy	≤ 38 mJ
Primary current	≤ 7.5 A
Operating temperature range at outer core	-20 to 140°C
Storage temperature range	-40 to 100°C
Max. vibration	≤ 400 m/s ² at 5 to 2,500 Hz

Technical Specifications

Variations

	P35-E8	P35-E10
Plug ceramic diameter	8 mm	10 mm

Length (L)	85 to 225 mm	110 to 225 mm
Please specify the required wire and spark plug connector length with your order.		

Mechanical Data

Length	Please see Variations
Weight	194 to 250 g
Mounting	Screw fastening

Electrical Data

Primary resistance with wire	760 mΩ
Secondary resistance	Incapable of measurement
High voltage rise time	≤ 2.0 kV/μs
Max. high voltage at 1 MΩ 10 pF	≤ 34 kV
Spark current	≤ 90 mA
Spark duration at 1 kV 1 MΩ	≤ 1.13 ms
Noise suppression	Inductive
Suppression diode / EFU	Integrated

Characteristic

Measured with power stage IGBT IRG4BC40S

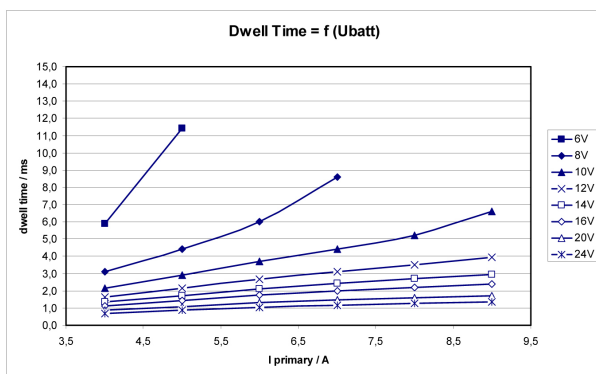
Connectors and Wires

Connector Sumitomo
 Mating connector D 261 205 367
 Pin 1 ECU ignition power stage
 Pin 2 ECU_{Gnd}
 Pin 3 U_{batt}

Characteristic dwell times [ms]

U _{batt}	I _{primary}					
	4.0A	5.0A	6.0A	7.0A	8.0A	9.0A
6V	5.9	11.4				
8V	3.1	4.4	6.0	8.6		
10V	2.2	2.9	3.7	4.4	5.2	6.6
12V	1.6	2.1	2.7	3.1	3.5	3.9
14V	1.4	1.7	2.1	2.4	2.7	3.0
16V	1.1	1.4	1.8	2.0	2.2	2.4
18V	1.0	1.2	1.5	1.7	1.9	2.0
20V	0.9	1.1	1.3	1.5	1.6	1.7
22V	0.8	1.0	1.2	1.3	1.4	1.5
24V	0.7	0.9	1.0	1.2	1.3	1.4

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

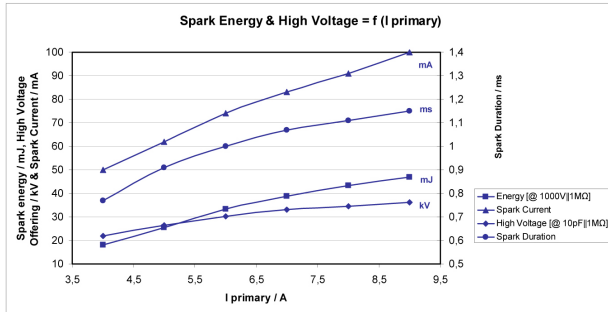


Dwell time

Spark energy and provided high voltage

I prim.	Spark energy	-duration	-current	Hi voltage
4 A	18 mJ	0.77 ms	50 mA	22 kV
5 A	25.4 mJ	0.91 ms	62 mA	26.5 kV

6 A	33.4 mJ	1 ms	74 mA	30.3 kV
7 A	38.8 mJ	1.07 ms	83 mA	33 kV
8 A	43.3 mJ	1.11 ms	91 mA	34.5 kV
9 A	47 mJ	1.15 ms	100 mA	36.2 kV



Spark energy

Installation Notes

During mounting of the spark plug please pay attention that full clamping and proper contacts are made to ensure safe connection between coil and spark plug.

Please pay attention to your spark plug, if it has a ceramic diameter of 8 or 10 mm.

The P35-E has no integrated transistor and requires an ECU with internal ignition power stages.

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 homepage.

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

Ordering Information

P35-E8

Please specify the required wire and spark plug connector length with your order.

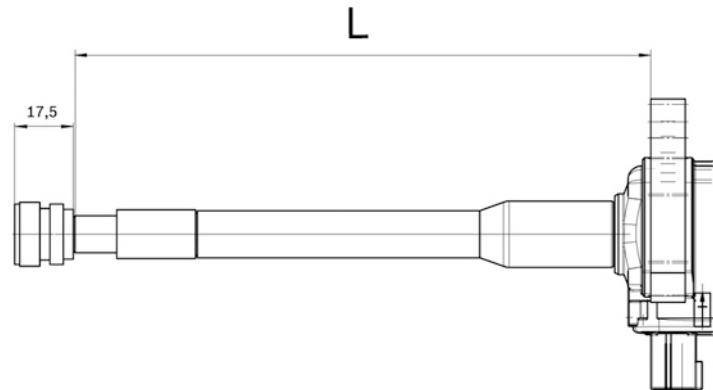
Order number **F 02U V00 235-01**

P35-E10

Please specify the required wire and spark plug connector length with your order.

Order number **F 02U V00 440-01**

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.
Motor Sport Department
3-33-8 Tsuruya-cho, Kanagawa-ku, Yokohama-shi
Kanagawa 221-0835
Japan
Tel.: +81 45 410 1650
Fax: +81 45 410 1651
motorsport@bosch.com
www.bosch-motorsport.com