Ignition Coil P65-T

- Max. 33 kV
- Max. 65 mJ
- Developed for GDI engines
- Max. 10,000 1/min (with reduced dwell time)

This single fire coil is a low cost concept designed for direct mounting on the cylinder head.
The coil P65-T has an integrated transistor and requires an ECU with internal ignition drivers.

Application

Spark energy	≤ 65 mJ
Primary current	≤ 7.0 A
Operating temperature range at outer core	-40 to 140°C
Storage temperature range	-40 to 140°C
Max. vibration	≤ 480 m/s^2 at 5 to 2,000 Hz

Technical Specifications

Mechanical Data

Length	143 mm
Weight	223 g
Mounting	Screw fastening
Fits to spark plugs with a ceramic diameter of 10 mm	

Electrical Data

Primary resistance with wire	Incapable of measurement
Secondary resistance	Incapable of measurement
High voltage rise time	≤ 1.4 kV/µs
Max. high voltage at 1 MOhm || 10 pF	≤ 33 kV
Spark current	≤ 70 mA
Spark duration at 1 kV || 1 MOhm	≤ 1.85 ms
Noise suppression	Inductive and 1 kOhm resistance
Integrated suppression diode / EFU	
Integrated power stage	

Characteristic

Measured with power stage	BIP 385

Connectors and Wires

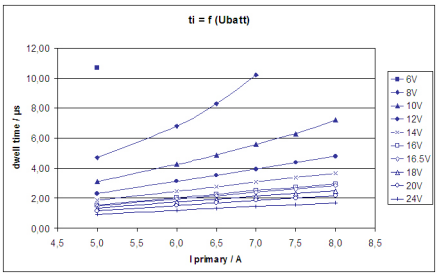
Connector	Tyco 0-1488991-1
Mating connector	F 02U B00 555-01
Pin 1	ECU ignition signal
Pin 2	ECU GND
Pin 3	U_{batt}

Characteristic dwell times [ms]

U_{batt}	**I primary**					
	5.0 A	**5.5 A**	**6.0 A**	**6.5 A**	**7.0 A**	**7.5 A**
Max. 1000 /min	10	9	8	7	6	5
6 V	10.7	11.6				
8 V	4.7	5.4	6.8	8.3	10.2	
10 V	3.1	3.55	4.25	4.87	5.6	6.3
12 V	2.32	2.66	3.12	3.51	3.94	4.36
14 V	1.86	2.1	2.45	2.75	3.07	3.36
16 V	1.55	1.77	2.03	2.26	2.51	2.73
16.5 V	1.49	1.7	1.95	2.17	2.40	2.61
18 V	1.34	1.51	1.73	1.92	2.13	2.31

20 V	1.16	1.33	1.51	1.67	1.85	2.0
24 V	0.93	1.05	1.19	1.32	1.45	1.57

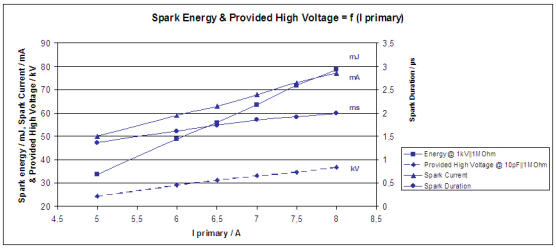
Measured values are without loom resistance. Loom resistance must be less than the primary resistance. The needed dwell time is to be verified through current measurement



Dwell time

Spark energy and provided high voltage

I prim.	Spark energy	-duration	-current	Hi voltage
5 A	33.7 mJ	1.37 ms	50 mA	24.4 kV
5.5 A	42 mJ	1.54 ms	54 mA	27.0 kV
6 A	48.9 mJ	1.62 ms	59 mA	29.1 kV
6.5 A	55.9 mJ	1.74 ms	63 mA	31.2 kV
7 A	63.6 mJ	1.85 ms	68 mA	33.2V
7.5 A	71.9 mJ	1.92 ms	73 mA	34.7 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.

The coil P65-T has an integrated transistor and requires an ECU with internal ignition drivers with 10 to 20 mA current output.

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.

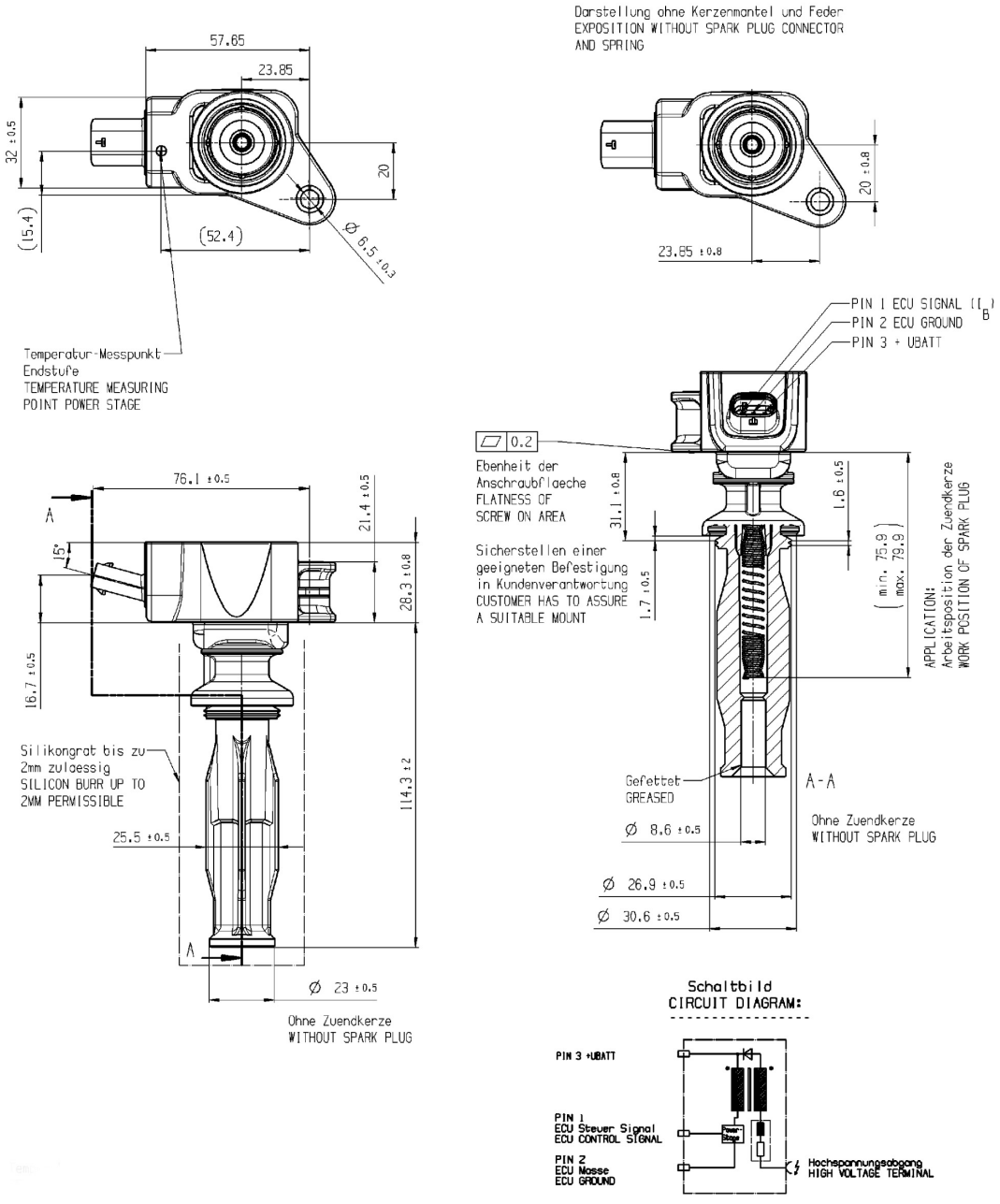
Design Note

We strongly recommend the design of the spark plug shaft has to ensure that there are no sharp edges in the shaft geometry due to design or machining. Only in compliance with this recommendation, a proper function can be ensured.

Ordering Information

Ignition Coil P65-T
Order number **0 221 604 024**

Dimensions



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| , V, 22. Jan 2019