

Symbol	Typ	Titel
F	Sektion	SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F02	Klasse	COMBUSTION ENGINES (cyclically operating valves therefor, lubricating, exhausting, or silencing engines F01); HOT-GAS OR COMBUSTION-PRODUCT ENGINE PLANTS
F02P	Unterklasse	IGNITION, OTHER THAN COMPRESSION IGNITION, FOR INTERNAL-COMBUSTION ENGINES ; TESTING OF IGNITION TIMING IN COMPRESSION-IGNITION ENGINES (specially adapted for rotary-piston or oscillating-piston engines F02B 53/12; ignition of combustion apparatus in general, glowing plugs F23Q; measuring of physical variables in general G01; controlling in general G05; data processing in general G06; electrical components in general, <u>see</u> section H; sparking plugs H01T)
		<u>Electric spark ignition installations characterised by the type of ignition power generation or storage</u>
F02P 1/00	Hauptgruppe	Installations having electric ignition energy generated by magneto- or dynamo-electric generators without subsequent storage
F02P 1/02	1-Punkt Untergruppe	. the generator rotor being characterised by forming part of the engine flywheel
F02P 1/04	1-Punkt Untergruppe	. the generator being specially adapted for use with specific engine types, e.g. engines with V-arrangement of cylinders
F02P 1/06	1-Punkt Untergruppe	. Generator drives, e.g. having snap couplings
F02P 1/08	1-Punkt Untergruppe	. Layout of circuits
F02P 3/00	Hauptgruppe	Other installations
F02P 3/01	1-Punkt Untergruppe	. Electric spark ignition installations without subsequent energy storage, i.e. energy supplied by an electrical oscillator (with magneto- or dynamo-electric generators F02P 1/00; piezo-electric ignition F02P 3/12; with continuous electric spark F02P 15/10) [4]
F02P 3/02	1-Punkt Untergruppe	. having inductive energy storage, e.g. arrangements of induction coils
F02P 3/04	2-Punkt Untergruppe	. . Layout of circuits
F02P 3/045	3-Punkt Untergruppe	. . . for control of the dwell or anti-dwell time [4]
F02P 3/05	3-Punkt Untergruppe	. . . for control of the magnitude of the current in the ignition coil (during starting F02P 15/12) [4]
F02P 3/055	3-Punkt Untergruppe	. . . with protective means to prevent damage to the circuit or the ignition coil [4]
F02P 3/06	1-Punkt Untergruppe	. having capacitive energy storage (piezo-electric or electrostatic ignition F02P 3/12)
F02P 3/08	2-Punkt Untergruppe	. . Layout of circuits (for low tension F02P 3/10)
F02P 3/09	3-Punkt Untergruppe	. . . for control of the charging current in the capacitor (F02P 15/12 takes precedence) [4]
F02P 3/10	2-Punkt Untergruppe	. . Low-tension installation, e.g. using surface-discharge sparking plugs
F02P 3/12	1-Punkt Untergruppe	. Piezo-electric ignition; Electrostatic ignition
		<u>Advancing or retarding electric ignition spark; Arrangements of distributors or of circuit-makers or -breakers for electric spark ignition; Electric spark ignition control or safety means, not otherwise provided for</u>
F02P 5/00	Hauptgruppe	Advancing or retarding ignition; Control therefor [6]
F02P 5/02	1-Punkt Untergruppe	. non-automatically; dependent on position of personal controls of engine, e.g. throttle position

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F02P 5/04	1-Punkt Untergruppe	. automatically, as a function of the working conditions of the engine or vehicle or of the atmospheric conditions (dependent on position of personal controls of engine F02P 5/02)
F02P 5/05	2-Punkt Untergruppe	. . using mechanical means [4]
F02P 5/06	3-Punkt Untergruppe	. . . dependent on engine speed [4]
F02P 5/07	4-Punkt Untergruppe	 Centrifugal timing mechanisms [6]
F02P 5/10	3-Punkt Untergruppe	. . . dependent on fluid pressure in engine, e.g. combustion-air pressure [4]
F02P 5/12	4-Punkt Untergruppe	 dependent on a specific pressure other than that of combustion-air, e.g. of exhaust, cooling fluid, lubricant [4]
F02P 5/14	3-Punkt Untergruppe	. . . dependent on specific conditions other than engine speed or engine fluid pressure, e.g. temperature [4]
F02P 5/145	2-Punkt Untergruppe	. . using electrical means [4]
F02P 5/15	3-Punkt Untergruppe	. . . Digital data processing [4]
F02P 5/152	4-Punkt Untergruppe	 dependent on pinking (detecting or indicating knocks in internal-combustion engines G01L 23/22) [6]
F02P 5/153	4-Punkt Untergruppe	 dependent on combustion pressure [6]
F02P 5/155	3-Punkt Untergruppe	. . . Analogue data processing [4]
F02P 5/16	1-Punkt Untergruppe	. characterised by the mechanical transmission between sensing elements or personal controls and final actuating elements
F02P 7/00	Hauptgruppe	Arrangement of distributors, circuit-makers or -breakers, or pick-up devices (advancing or retarding ignition or control therefor F02P 5/00; such devices <u>per se</u>, <u>see</u> the relevant classes of section H, e.g. rotary switches H01H 19/00, contact-breakers, distributors H01R 39/00, generators H02K)
F02P 7/02	1-Punkt Untergruppe	. of distributors
F02P 7/03	2-Punkt Untergruppe	. . with electrical means (ignition occurring simultaneously at different places in one engine cylinder or in two or more separate engine cylinders F02P 15/08) [4]
F02P 7/04	2-Punkt Untergruppe	. . having distributors with air-tight casing
F02P 7/06	1-Punkt Untergruppe	. of circuit-makers or -breakers, or pick-up devices adapted to sense particular points of the timing cycle [4]
F02P 7/063	2-Punkt Untergruppe	. . Mechanical pick-up devices, circuit-makers or -breakers, e.g. contact-breakers [4]
F02P 7/067	2-Punkt Untergruppe	. . Electromagnetic pick-up devices [4]
F02P 7/07	3-Punkt Untergruppe	. . . Hall-effect pick-up devices [4]
F02P 7/073	2-Punkt Untergruppe	. . Optical pick-up devices [4]
F02P 7/077	2-Punkt Untergruppe	. . Circuits therefor, e.g. pulse generators [4]
F02P 7/08	2-Punkt Untergruppe	. . having air-tight casings
F02P 7/10	1-Punkt Untergruppe	. Drives of distributors or of circuit-makers or -breakers
F02P 9/00	Hauptgruppe	Electric spark ignition control, not otherwise provided for
F02P 11/00	Hauptgruppe	Safety means for electric spark ignition, not otherwise provided for
F02P 11/02	1-Punkt Untergruppe	. Preventing damage to engines or engine-driven gearing
F02P 11/04	1-Punkt Untergruppe	. Preventing unauthorised use of engines (of vehicles B60R 25/04; ignition locks H01H 27/00)

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F02P 11/06	1-Punkt Untergruppe	. Indicating unsafe conditions
F02P 13/00	Hauptgruppe	Sparkignition plugs structurally combined with other parts of internal-combustion engines (with fuel injectors F02M 57/06; predominant aspects of the parts, <u>see</u> the relevant subclasses)
F02P 15/00	Hauptgruppe	Electric spark ignition having characteristics not provided for in, or of interest apart from, groups F02P 1/00-F02P 13/00
F02P 15/02	1-Punkt Untergruppe	. Arrangements having two or more sparking plugs
F02P 15/04	1-Punkt Untergruppe	. one of the spark electrodes being mounted on the engine working piston
F02P 15/06	1-Punkt Untergruppe	. the electric spark triggered by engine working cylinder compression
F02P 15/08	1-Punkt Untergruppe	. having multiple-spark ignition, i.e. ignition occurring simultaneously at different places in one engine cylinder or in two or more separate engine cylinders
F02P 15/10	1-Punkt Untergruppe	. having continuous electric sparks
F02P 15/12	1-Punkt Untergruppe	. having means for strengthening spark during starting
F02P 17/00	Hauptgruppe	Testing of ignition installations, e.g. in combination with adjusting (testing fuel injection apparatus F02M 65/00; testing ignition installations in general F23Q 23/00); Testing of ignition timing in compression-ignition engines [4]
F02P 17/02	1-Punkt Untergruppe	. Checking or adjusting ignition timing [6]
F02P 17/04	2-Punkt Untergruppe	. . dynamically [6]
F02P 17/06	3-Punkt Untergruppe	. . . using a stroboscopic lamp [6]
F02P 17/08	3-Punkt Untergruppe	. . . using a cathode-ray oscilloscope (F02P 17/06 takes precedence) [6]
F02P 17/10	1-Punkt Untergruppe	. Measuring dwell or antidwell time [6]
F02P 17/12	1-Punkt Untergruppe	. Testing characteristics of the spark, ignition voltage or current (testing of sparking plugs G01M 19/02) [6]
		<u>Other ignition</u>
F02P 19/00	Hauptgruppe	Incandescent ignition, e.g. during starting of internal-combustion engines; Combination of incandescent and spark ignition [4]
F02P 19/02	1-Punkt Untergruppe	. electric, e.g. layout of circuits of apparatus having glowing plugs
F02P 19/04	1-Punkt Untergruppe	. non-electric, e.g. heating incandescent spots by burners (use of burners for direct ignition F02P 21/00)
F02P 21/00	Hauptgruppe	Direct use of flames or burners for ignition
F02P 21/02	1-Punkt Untergruppe	. the flames being kept burning essentially external to engine working chambers
F02P 21/04	1-Punkt Untergruppe	. Burning-cartridges or like inserts being arranged in engine working chambers (as starting aid F02N 17/02)
F02P 23/00	Hauptgruppe	Other ignition
F02P 23/02	1-Punkt Untergruppe	. Friction, pyrophoric, or catalytic ignition
F02P 23/04	1-Punkt Untergruppe	. Other physical ignition means, e.g. using laser rays