H01T

SPARK GAPS; OVERVOLTAGE ARRESTERS USING SPARK GAPS; SPARKING PLUGS; CORONA DEVICES; GENERATING IONS TO BE INTRODUCED INTO NON-ENCLOSED GASES (overvoltage protection circuits H02H)

Definition statement

This place covers:

- Spark gaps, which is used with the following meaning: enclosed or non-enclosed;
- Discharge device having cold electrodes and used exclusively to discharge a quantity of electrical energy in a small time duration.

References

Limiting references

This place does not cover:

Air purifiers	B03C
Surface shaping	B29C
Devices for generating ozone	C01B
Fuel Injection	F02M
Ignition circuits	F02P
Glow plugs	F23Q
Pressure sensors	G01L
Charging electrographic elements	G03G
Voltage dependent resistors	H01C
Ignition coils	H01F
Fuses	H01H
Discharge tubes	H01J
Overvoltage protection circuits	H02H
Electrostatic discharge in general	H05F
Generating plasma	H05H

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electrotherapy	A61N
Air purifiers	B03C
Working of metal by the action of a high concentration of electric current	B23H
Welding, e.g. arc welding, electron beam welding or electrolytic welding	B23K
Surface shaping	B29C
Devices for generating ozone	C01B
Fuel Injection	F02M
Ignition circuits	F02P

Glow plugs	F23Q
Pressure sensors	G01L
Charging electrographic elements	G03G
Voltage dependent resistors	H01C
Ignition coils	H01F
Fuses	H01H 85/00
Discharge tubes	H01J
Gas-filled discharge tubes with solid cathode	H01J 17/00
Electric arc lamps	H05B 31/00
Spark gaps for electrostatic discharge (ESD) components	H05F 3/04
Generating plasma	H05H 1/24

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

spark gap	Enclosed or non-enclosed discharge device having cold electrodes and used exclusively to discharge a quantity of electrical energy in a small time duration

H01T 1/00

Details of spark gaps

Definition statement

This place covers:

Constructional details of the spark gap or of means structurally associated therewith.

The intended use of the spark gap (e.g. overvoltage arrester) is not considered.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Thermally-actuated switches comprising a contact member actuated by melting of fusible material, actuated due to burning of combustible material or due to explosion of explosive material	H01H 37/76

H01T 1/14

Means structurally associated with spark gap for protecting it against overload or for disconnecting it in case of failure (H01T 1/15, H01T 1/16, H01T 1/18 take precedence; emergency protective circuit arrangements for spark gap arrestors H02H 7/24)

References

Limiting references

This place does not cover:

Protection against excessive pressure	H01T 1/15
Series resistor structurally associated with spark gap	H01T 1/16
Electrolytic device structurally associated with spark gap	H01T 1/18
Emergency protective circuit arrangements for spark gap arresters	H02H 7/24

H01T 1/24

Selection of materials for electrodes (H01T 1/22 takes precedence)

References

Limiting references

This place does not cover:

Means for starting arc or facilitating ignition of spark gap by the shape or the composition of the electrodes	H01T 1/22

H01T 2/00

Spark gaps comprising auxiliary triggering means (triggering circuits H01T 15/00)

Definition statement

This place covers:

Triggering means, e.g. electrodes or additional discharge activation arrangements.

References

Limiting references

This place does not cover:

Triggering circuits	H01T 15/00

H01T 4/00

Overvoltage arresters using spark gaps (H01T 2/00 takes precedence; overvoltage protection circuits using spark gaps H02H 9/06)

Definition statement

This place covers:

Spark gaps used as voltage limiting means.

References

Limiting references

This place does not cover:

Overvoltage arresters comprising auxiliary triggering means	H01T 2/00
Overvoltage protection circuits using spark gaps	H02H 9/06

Informative references

Attention is drawn to the following places, which may be of interest for search:

Voltage dependent resistors used as overvoltage arresters	H01C 7/12

H01T 4/02

Details

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of spark gaps	H01T 1/00

H01T 4/04

Housings (H01T 4/06 takes precedence)

References

Limiting references

This place does not cover:

Mounting arrangements for a plurality of overvoltage arresters	H01T 4/06

H01T 4/08

structurally associated with protected apparatus (with switches H01H 9/14; with fuses H01H 85/44)

References

Limiting references

This place does not cover:

Switches	H01H 9/14
Structural association of fuses with spark gap arresters	H01H 85/44

Informative references

Attention is drawn to the following places, which may be of interest for search:

Means for providing an external arc discharge path over insulators	H01B 17/46

H01T 4/14

Arcing horns (associated with insulators H01B 17/46)

References

Limiting references

This place does not cover:

Arcing horns associated with insulators	H01B 17/46

H01T 7/00

Rotary spark gaps, i.e. devices having one or more rotating electrodes

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Ignition distributors	F02P 7/02

H01T 9/00

Spark gaps specially adapted for generating oscillations

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surgical instruments for extracorporeal shock wave lithotripsy	A61B 17/225
Generating seismic energy using spark discharges	G01V 1/157
Sound-producing devices using electric discharge	G10K 15/06

Gas-filled discharge tubes with solid cathode	H01J 17/00
Generation of oscillations using a shock-excited tuned circuit excited by spark	H03B 11/02
Jamming of communication	H04K 3/00

H01T 13/00

Sparking plugs

Definition statement

This place covers:

Sparking plugs for internal combustion engines.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Structurally associated with fuel injector	F02M 57/06
Connected with ignition coil	F02P 3/02
Laser ignition devices	F02P 23/04
Glow plugs	F23Q 7/00
Apparatus for recording rapid changes in pressure for detecting knocks in internal-combustion engines or combined pressure-sensitive members and ignitors for an internal combustion engine	G01L 23/22
Ignition coils	H01F 38/12

H01T 13/04

Means providing electrical connection to sparking plugs

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sparking plugs structurally associated with fuel injectors	F02M 57/06
Electric connections in general	H01R

H01T 13/22

having two or more electrodes embedded in insulation (sparking plugs having two or more spark gaps H01T 13/46)

References

Limiting references

This place does not cover:

Electrodes embedded in insulation for sparking plugs having two or more spark gaps	H01T 13/46

H01T 13/24

having movable electrodes (H01T 13/28 takes precedence)

References

Limiting references

This place does not cover:

Spherically shaped electrodes, e.g. ball-shaped	H01T 13/28

H01T 13/38

Selection of materials for insulation

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Insulating materials in general	H01B 3/00

H01T 13/40

structurally combined with other devices (combined or associated with fuel injectors F02M 57/06; structurally combined with other parts of internal-combustion engines F02P 13/00)

References

Limiting references

This place does not cover:

Sparking plugs combined or associated with fuel injectors	F02M 57/06
Sparking plugs structurally combined with other parts of internal-combustion engines	F02P 13/00

H01T 13/50

having means for ionisation of gap (H01T 13/52 takes precedence)

References

Limiting references

This place does not cover:

Characterised by a discharge along a surface	H01T 13/52

H01T 13/58

Testing (testing characteristics of the spark in internal-combustion engine ignition F02P 17/12)

References

Limiting references

This place does not cover:

Testing characteristics of the spark in internal-combustion engine ignition	F02P 17/12

H01T 14/00

Spark gaps not provided for in groups H01T 2/00 - H01T 13/00 (devices providing for corona discharge H01T 19/00)

References

Limiting references

This place does not cover:

Devices providing for corona discharge	H01T 19/00

H01T 15/00

Circuits specially adapted for spark gaps, e.g. ignition circuits (ignition circuits for internal-combustion engines F02P; electric spark ignition for combustion apparatus F23Q; protection circuits using spark gaps H02H 9/06)

References

Limiting references

This place does not cover:

Ignition circuits for internal combustion engines	F02P
Electric spark ignition for combustion apparatus	F23Q
Protection circuits using spark gaps	H02H 9/06

Informative references

Attention is drawn to the following places, which may be of interest for search:

Circuits for starting welding or cutting arc	B23K 9/06
Circuit arrangements generating plasma	H05H 1/36

H01T 19/00

Devices providing for corona discharge (for charging electrographic elements G03G 15/02)

References

Limiting references

This place does not cover:

Devices for charging electrographic elements	G03G 15/02

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surface shaping by electric discharge	B29C 59/10
Printing machines – Devices for treating the surface of sheets	B41F 23/00
Devices for generating ozone	C01B 13/11
Physical treatment of fibres, threads, or yarns	D06M 10/02
Carrying-off electrostatic charges	H05F 3/04

H01T 21/04

Cleaning (means for self-cleaning H01T 13/14; abrasive blasting devices for cleaning sparking-plugs B24C 3/34)

References

Limiting references

This place does not cover:

Means for self-cleaning	H01T 13/14
Abrasive blasting devices for cleaning sparking-plugs	B24C 3/34

H01T 21/06

Adjustment of spark gaps (sparking-plugs having movable electrodes for adjusting the gap H01T 13/26)

References

Limiting references

This place does not cover:

Sparking-plugs having movable electrodes for adjusting the gap	H01T 13/26

H01T 23/00

Apparatus for generating ions to be introduced into non-enclosed gases, e.g. into the atmosphere

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electrotherapy applying ionised fluids	A61N 1/44
Air purifiers	B03C 3/68
Discharge tubes with provision for emergence of ions from the vessel	H01J 33/00
Generating plasma	H05H 1/24