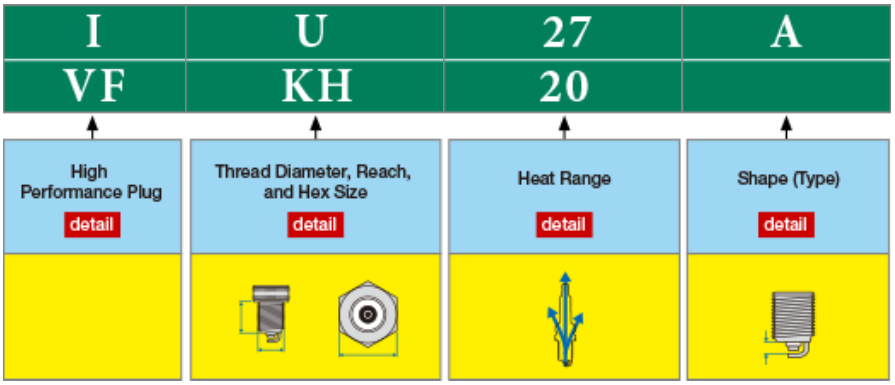
DENSO SPARK PLUG

Identifying DENSO Plugs

IRIDIUM POWER Series (Power, Tough, Plus) & TT



High Performance Plug

I	·····	0.4 mm diameter iridium <POWER>
V	·····	0.4 mm diameter iridium with platinum tip <TOUGH>
VF	·····	0.4 mm diameter iridium with 0.7 mm needle type platinum tip <TOUGH>
VD	·····	0.7 mm diameter iridium with 0.7 mm needle type platinum tip <TOUGH>
P	·····	1.1 mm platinum center electrode
VS	·····	0.7 mm diameter iridium with platinum tip <TOUGH>

Thread Diameter, Reach, and Hex Size

K	·····	14×19.0×16.0
KB	·····	14×19.0×16.0 (New Triple Electrodes)
KA	·····	14×22.0 (Shroud 3.0)×16.0 (New Triple Electrodes)
KD	·····	14×20.5 (Shroud 1.5)×16.0
KH	·····	14×26.5×16.0
KBH	·····	14×26.5×16.0 (New Triple Electrodes)
Q	·····	14×19.0×16.0
W	·····	14×19.0×20.6
WF	·····	14×12.7×20.6
WM	·····	14×19.0×20.6 (Compact Insulator)
T	·····	14×17.5 (Taper Seat)×16.0
TF	·····	14×11.2 (Taper Seat)×16.0
TL	·····	14×25.0 (Taper Seat)×16.0 (Long Insulator)

TV	·····	14×25.0 (Taper Seat)×16.0
XU	·····	12×19.0×16.0
XUH	·····	12×26.5×16.0
CH	·····	12×26.5×14.0
XEH	·····	12×26.5×14.0
XEBH	·····	12×26.5×14.0 (New Triple Electrodes)
X	·····	12×19.0×18.0
XG	·····	12×21.8 (Shroud 2.8)×18.0
XEHC	·····	12×28 (Shroud 1.5)×14
U	·····	10×19.0×16.0
UF	·····	10×12.7×16.0
UH	·····	10×19.0 (Half Thread)×16.0
NH	·····	10×19.0 (Half Thread)×16.0
UEH	·····	10×26.5×14
Y	·····	8×19.0 (Half Thread)×13.0

Heat Range

DENSO	NGK	CHAMPION	BOSCH
16	5	12,11	8
20	6	10,9	7,6
22	7	8,7	5
24	8	6,63,61	4
27	9	4,59	3
29	9.5	57	
31	10	55	2
32	10.5	53	
34	11		
35	11.5		

Shape (Type)

A	·····	Slant electrode, No U-Groove, No taper cut	**I**	·····	Spark position: 4 mm Projected insulator (1.5 mm)
B	·····	Projected insulator (1.5 mm)	**J**	·····	Spark position: 5 mm
C	·····	No U-Groove	**K**	·····	Spark position: 4 mm Projected insulator (2.5mm)
D	·····	No U-Groove	**L**	·····	Spark position: 5 mm
E	·····	Shroud: 2 mm	**T**	·····	For LPG applications <PLUS>
ES	·····	Stainless steel gasket	**TT**	·····	TT series
F	·····	Special specification	**Y**	·····	0.8 mm gap
G	·····	Stainless steel gasket, Terminal one type	**Z**	·····	Taper cut

Iridium Plugs / Platinum Plugs / Normal Plugs

F	K	20	H	R		11
S	XU	22		PR	-A	9
	KJ	20		CR	-L	11
Type of precious metal detail	Thread Diameter and Hex Size detail	Heat Range detail	Reach detail	Shape (Type) detail	Shape (Type) detail	Gap detail

Type of precious metal

D	·····	0.7 mm diameter iridium with 0.7 mm needle type platinum
F	·····	0.55 mm diameter iridium with 0.7 mm needle type platinum
P	·····	1.1 mm diameter platinum with platinum tip
S	·····	0.7 mm diameter iridium with platinum tip
SV、V	·····	0.4 mm diameter iridium with platinum tip
Z	·····	0.55 mm diameter iridium with platinum tip
E	·····	0.7 mm diameter iridium with 1.0 mm needle type platinum

Thread Diameter and Hex Size

C	·····	12×14.0
L	·····	18×22.2 (Reach: 12.7 mm)
M	·····	18×25.4 (Reach: 12 mm)
MA	·····	18×20.6 (Taper seat, Reach: 12 mm)
MW	·····	18×20.6 (Reach: 12 mm)
J	·····	14×20.6 (Projected plug)
K	·····	14×16.0 (Miniature plug)
KJ	·····	14×16.0 (Projected Miniature plug)
LP	·····	14×20.6 (Plug for LPG applications)
Q	·····	14×16.0 (Miniature plug)
QJ	·····	14×16.0 (Projected Miniature plug)

QL	·····	14×20.6 (Miniature long cylinder housing plug)
S	·····	14×20.6 (Surface gap plug(for RE engines))
T	·····	14×16.0 (Taper seat)
W	·····	14×20.6
	·····	14×19.0 (Compact type)
X	·····	12×18.0
XE	·····	12×14.0
XU	·····	12×16.0
N	·····	10×16.0
U	·····	10×16.0
Y	·····	8×13.0
XB	·····	12×(Bi-hex)
UE	·····	10×14

Heat Range

DENSO	NGK	CHAMPION	BOSCH
4			
9	2	18	10
14	4	16,14	9
16	5	12,11	8
20	6	10,9	7,6
22	7	8,7	5
24	8	6,63,61	4
27	9	4,59	3
29	9.5	57	
31	10	55	2
32	10.5	53	
34	11		
35	11.5		

Reach

A	·····	19.0 mm (Spark position: 7.0 mm) J16AR-U11
A	·····	21.5mm S29A
B	·····	19.0 mm (Spark position: 9.5 mm) J16BR-U
C	·····	19.0 mm (Spark position: 5.0 mm) KJ20CR-L11
D	·····	20.5 mm (Shroud 2) K20DTR-S11
E (With gasket)	·····	19.0 mm W16EX-U
E (With gasket)	·····	20.0 mm W25EBR

H	·····	26.5mm K16HPR-U11
H	·····	19.0 mm (Spark position: 8.5 mm) QJ16HR-U
L	·····	11.2mm W14L
N (Taper seat, Half thread)	·····	17.5mm T20NR-U11
V (Taper seat)	·····	25mm PT16VR13
None	·····	9.5 mm W14M-U 11.2 mm L14-U, M24S 19mm SK20R11 21.5 mm S29A

E	·····	Shroud 2.0mm FXE20HE11
F	·····	12.7mm W20FP-U
FE	·····	19.0 mm (Half thread) U24FER9
G	·····	22.0 mm (Shroud 3.0) PK20GR8
G	·····	21.8 mm (Shroud 2.8) X27GPR-U

None (Taper seat)	·····	8.3 mm T20M-U 11.2 mm W14L

Shape (Type)

A	·····	Double ground electrodes W22EA
AY	·····	Double ground electrodes with bent shape J16AY
B	·····	Triple ground electrodes W22EB
BG	·····	Triple ground electrodes (shroud) SK20BGR11
C	·····	Shroud 1.5mm SXU22HCR11
D	·····	4 ground electrodes W27EDR
D	·····	Projected (1.5 mm projection, spark position 3.5 mm) XU22HDR9
K	·····	Projected (1 mm projection) W16EKR-S11
LM	·····	Compact type (Hex 20.6 mm) W14LM-U

M	·····	Shortened insulator head length W27EMR-C
M	·····	Compact type (Hex 19.0 mm) W20M-U
P	·····	Projected (1.5 mm projection) W16EP-U
Q	·····	Projected 2mm, Spark position 3.5mm
R	·····	5Kohm resistor K16R-U
S	·····	Non-projected (0 mm Projection) W22ES-U
S	·····	Iridium on a single side KJ20SR11
T	·····	Double ground electrodes K16TR11
TM	·····	Double ground electrodes K22TMR11
TN	·····	Double ground electrodes K22TNR-S
X	·····	Fully projected (2.5 mm Projection) W16EX-U

Shape (Type)

-A	·····	Special specification SK16PR-A11
-B	·····	Special specification K16PSR-B8
-C	·····	Cut-back ground electrode W27EMR-C
-CY	·····	Special specification FC16HR-CY9
-D	·····	Copper-core Ground DK20PR-D13
-E	·····	Special specification SK16PR-E11
-F	·····	Special specification J17SK16PR-F11
-G	·····	Grease applied on to threads, for CNG SK20R8-G
-GL	·····	Platinum center electrode X22EPR-GL
-L	·····	Heat resistant ground electrode K20PR-L11
-L	·····	3.5 mm projected insulator for motorcycles W20FP-UL
-L	·····	Retracted insulator for motorcycles W20FR-L
-M	·····	Larger ground electrode SK20PR-M11S
-N	·····	For Yamaha and Kawasaki U27ESR-N

-P	·····	Double Platinum Ground Electrode SK20R-P11
		Single-sided platinum plug K16PR-P11
-Q	·····	Special specification FC16HR-Q8
-R	·····	10K ohm resistor K22PR-UR
-S	·····	Semi-surface gap discharge type W20EP-S11
-S	·····	Stainless gasket U27FER9S
-T	·····	For LPG SK20HR8-T
-T	·····	Special specification FK20HBR11-T
-TP	·····	Taper-cut, single-side platinum plug K20PR-TP11
-U	·····	U groove ground electrode K16PR-U
-V	·····	1.3 mm diameter, nickel center electrode W27ES-V

Gap

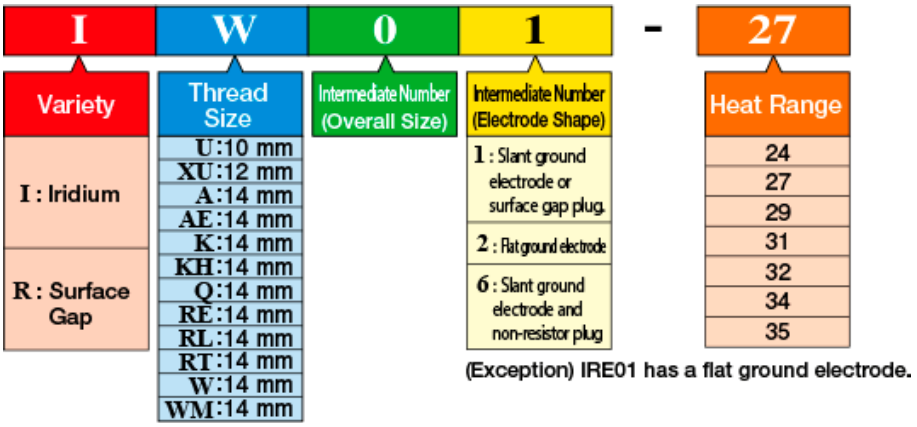
5	·····	0.5mm (.020")
8	·····	0.8mm (.032")
9	·····	0.9mm (.035")
10	·····	1.0mm (.040")
11	·····	1.1mm (.044")
13	·····	1.3mm (.050")
14	·····	1.4mm (.055")
15	·····	1.5mm (.060")

<None> Cars: 0.8 mm M/C: 0.7 mm
<Exceptions> P16R, PQ16R, PQ20R are 1.1 mm

IRIDIUM RACING

⚠ Warning: On choosing the right racing plug

- Generally, electrodes that project into the combustion chamber have better ignitability and have better performance. However, because of more exposure to high temperature combustion gases and because ground electrode becomes longer, heat resistance and durability decrease. The higher the level of tuning, the greater the need is to use a less projecting type.
- As the level of tuning is increased, so does the need for higher heat range.



(Exception) IRE01 has a flat ground electrode.

Relevant information

CATALOG DOWNLOAD

Spark Plug Sales Companies