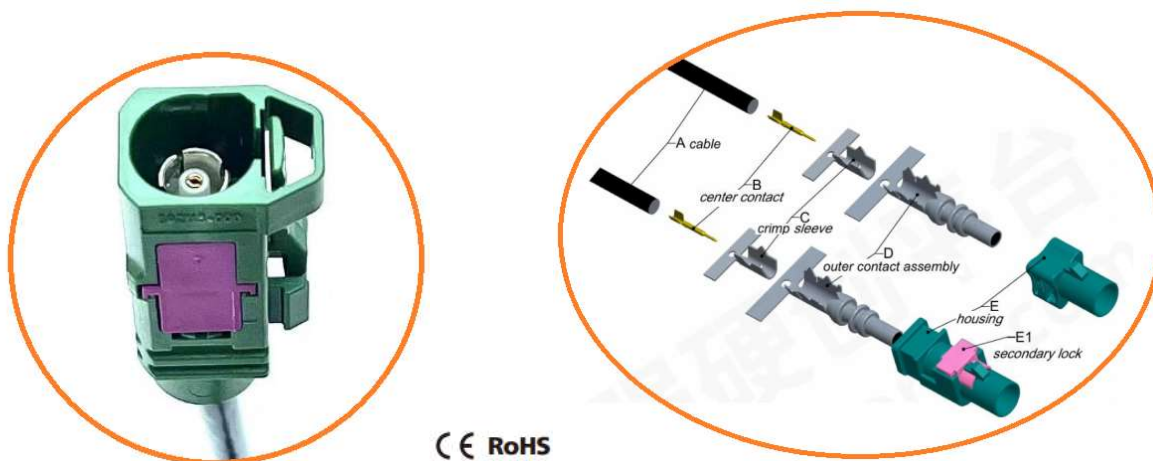


FAKRA Female Connector with Cable Assembly (A Coding to Z Coding)

Product Description

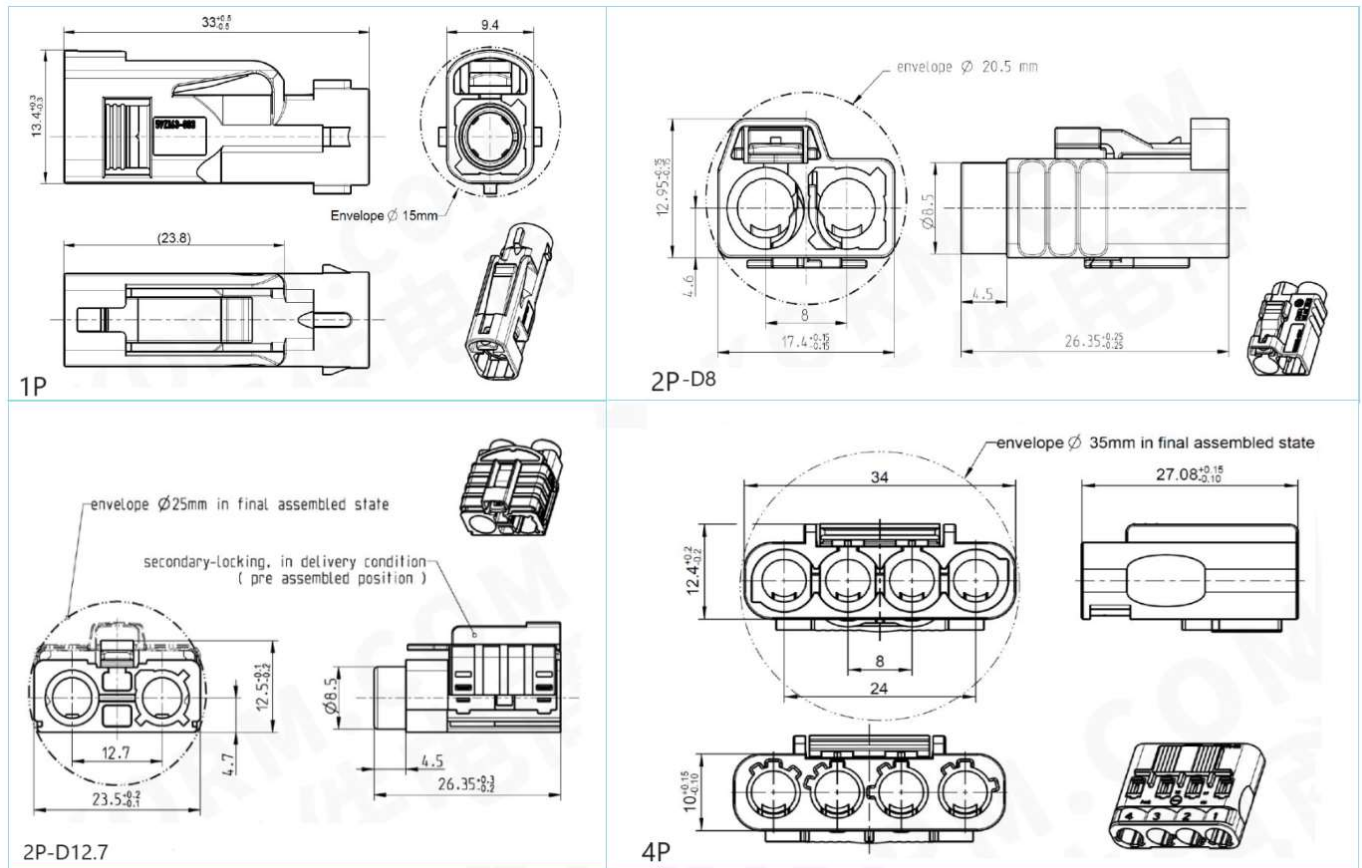
FAKRA (Automated Expert Group) to establish a unified connector system and standards that everyone will follow. Due to its special standard locking system, FAKRA connectors meet the high performance and safety requirements of today's automotive industry.



◆ General Information of Cable Assembly

Feature/Speed	-Primary and secondary locking systems for increased assembly security -13 mechanical and colored coding with one neutral coding, refer to FAKRA coding on next page -20 Gbps of data speed for the connected vehicle, supporting any modern radar, camera, lidar or sensor applications
Rated Current	1A Max
Rated Voltage	300V
Insulation Resistance	$\geq 100M\Omega$
Contact Resistance	$\leq 5\Omega$
Operation Temperature	-40°C ~+105°C
Poles	1,2,4 Poles are available (Refer to SKU table)
Cable	RG 174, RTK 031, RG59, RG179, RG58/62 etc. (50, 61,75, 93,120 Ohm) options
Retention Force Latch	$\geq 110\text{ N}$
Retention Force Lock	$\geq 80\text{ N}$ (Primary) $\geq 60\text{ N}$ (Secondary)
Compliant to Standard	Per ISO20860-1 and -2, USCAR17 and 18
Water Resistance Level	No/IPX7/IPX9K in locked condition options
Application	Driving modules, Camera, Antenna, GPS, Gateway/Switch modules, 4K displays, High-speed cable networking, Sensor-device connectivity, surround view cameras, Infotainment devices

◆ Dimensions of Related Components (Unit is mm)



Housing

Single



Double 8 mm



Double 12.7 mm



Quard



◆ General Information of Connector

Frequency Range:	DC-6GHz	Insulation Resistance:	1000M Ω min.
Working Voltage:	335V max.	Impedance:	50 Ω Max.
Center Contact Resistance:	20m Ω max.	Return Loss:	\geq 18 dB
Dielectric Withstanding Voltage:	1000V min.	IP Rating:	No/IPX7/IPX9K in locked condition (options)
Temperature Range:	-40 $^{\circ}$ C to +105 $^{\circ}$ C	Housing/Center contact:	PBT, PA/CuZn, CuBe, CuSn
V.S.W.R(电压驻波比):	1.3 Max.	Mating Endurance:	\geq 25 Cycles
High Data Rates:	Up to 8Gbps		

FAKRA Coding (A-Z)

Coding		Jack		Plug		Color / RAL-No. (Similar)
		Single	Double	Single	Double	
A	Radio without phantom supply					Black/ 9005
B	Radio with phantom supply					White/ 9001
C	GPS: telematics or navigation					Blue/ 5005
D	GSM Cellular phone					Bordeaux/ 4004
E	TV1					Green/ 6002
F	TV2					Brown/ 8011
G	Remote control keyless entry					Grey/ 7031
H	GPS: telematics and navigation					Violet/ 4003
I	Radio controlled parking heating					Beige/ 1001
K	Radio with IF					Curry/ 1027
L	Not defined					Camine red/ 3002
M	Not defined					Pastel orange/ 2003
N	Not defined					Pastel green/ 6019
Z	Neutral coding					Waterblue/ 5021

Colors of the plastic housings are in accordance with the listed RAL colours, minor colour differences due to manufacturing are possible.

4P Coding	Color	
	A	black
	B	white
	E	green

◆ SKU Table

SKU No.	Poles	Conn. Type	Type	Remark
T-FAKRASTF-01-Coding A-Z	1	Female	Straight	Coding A-Z
T-FAKRASTF-02-D8-Coding A-Z	2	Female	Straight	Double 8mm type, Coding A-Z
T-FAKRASTF-02-D12.7-Coding A-Z	2	Female	Straight	Double 12.7mm type, Coding A-Z
T-FAKRASTF-04-Coding A-Z	4	Female	Straight	Coding A-Z

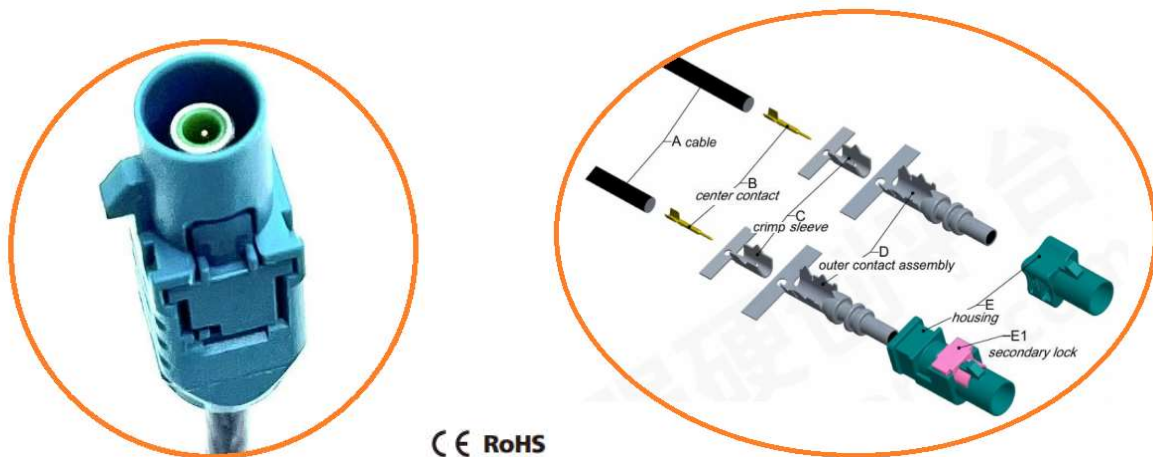
Notes: Coding A-Z color

- A Black
- B White
- C Blue
- D Bordeaux violet
- E Green
- F Brown
- G Grey
- H Violet
- I Beige
- K Curry
- L Carmin red
- M Pastel orange
- N Pastel green
- Z Water blue

FAKRA Male Connector Cable Assembly, (A Coding to Z Coding)

Product Description

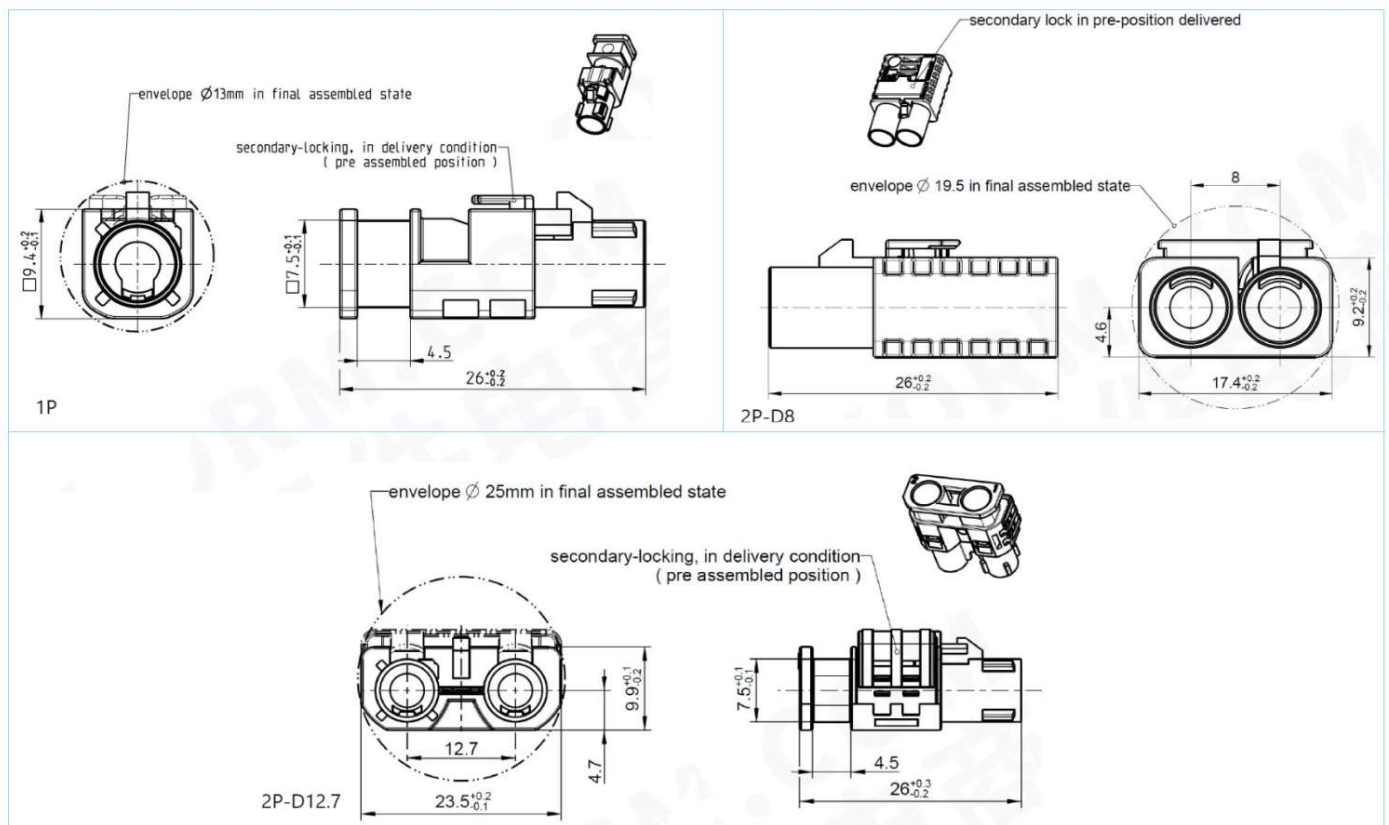
FAKRA (Automated Expert Group) to establish a unified connector system and standards that everyone will follow. Due to its special standard locking system, FAKRA connectors meet the high performance and safety requirements of today's automotive industry.



◆ General Information of Cable Assembly

Feature/Speed	-Primary and secondary locking systems for increased assembly security -13 mechanical and colored coding with one neutral coding, refer to FAKRA coding on next page -20 Gbps of data speed for the connected vehicle, supporting any modern radar, camera, lidar or sensor applications
Rated Current	1A Max
Rated Voltage	300V
Insulation Resistance	$\geq 100M\Omega$
Contact Resistance	$\leq 5\Omega$
Operation Temperature	$-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
Poles	1,2 Poles are available (Refer to SKU table)
Cable	RG 174, RTK 031, RG59, RG179, RG58/62 etc. (50, 61,75, 93,120 Ohm) options
Retention Force Latch	$\geq 110\text{ N}$
Retention Force Lock	$\geq 80\text{N}$ (Primary) $\geq 60\text{N}$ (Secondary)
Compliant to Standard	Per ISO20860-1 and -2, USCAR17 and 18
Water Resistance Level	No/IPX7/IPX9K in locked condition options
Application	Driving modules, Camera, Antenna, GPS, Gateway/Switch modules, 4K displays, High-speed cable networking, Sensor-device connectivity, surround view cameras, Infotainment devices

◆ Dimensions of Related Components (Unit is mm)



Housing Plug,

Single

Product



Double 8 mm

Product



Double 12.7 mm

Product



◆ General Information of Connector

Frequency Range:	DC-6GHz	Insulation Resistance:	1000MΩ min.
Working Voltage:	335V max.	Impedance:	50 Ω Max.
Center Contact Resistance:	20mΩ max.	Return Loss:	≥ 18 dB
Dielectric Withstanding Voltage:	1000V min.	IP Rating:	IPX7/IPX9K in locked condition (options)
Temperature Range:	-40 °C to +105 °C	Housing/Center contact:	PBT, PA/CuZn, CuBe, CuSn
V.S.W.R(电压驻波比):	1.3 Max.	Mating Endurance:	≥25 Cycles
High Data Rates:	Up to 8Gbps		

FAKRA Coding (A-Z)

Coding		Jack		Plug		Color / RAL-No. (Similar)
		Single	Double	Single	Double	
A	Radio without phantom supply					Black/ 9005
B	Radio with phantom supply					White/ 9001
C	GPS: telematics or navigation					Blue/ 5005
D	GSM Cellular phone					Bordeaux/ 4004
E	TV1					Green/ 6002
F	TV2					Brown/ 8011
G	Remote control keyless entry					Grey/ 7031
H	GPS: telematics and navigation					Violet/ 4003
I	Radio controlled parking heating					Beige/ 1001
K	Radio with IF					Curry/ 1027
L	Not defined					Camine red/ 3002
M	Not defined					Pastel orange/ 2003
N	Not defined					Pastel green/ 6019
Z	Neutral coding					Waterblue/ 5021

◆ SKU Table

SKU No.	Poles	Conn. Type	Type	Remark
T-FAKRASTM-01-Coding A-Z	1	Male	Straight	Coding A-Z
T-FAKRASTM-02-D8-Coding A-Z	2	Male	Straight	Double 8mm type, Coding A-Z
T-FAKRASTM-02-D12.7-Coding A-Z	2	Male	Straight	Double 12.7mm type, Coding A-Z

Notes: Coding A-Z color

- A Black
- B White
- C Blue
- D Bordeaux violet
- E Green
- F Brown
- G Grey
- H Violet
- I Beige
- K Curry
- L Carmin red
- M Pastel orange
- N Pastel green
- Z Water blue

MINI FAKRA Female Connector with Cable Assembly

Product Description

The High-Speed FAKRA Mini Coaxial Cable Solution delivers 20 Gbps of data speed for the connected vehicle, reducing installation space requirements by up to 80 percent compared to traditional FAKRA, supporting any modern radar, camera, lidar or sensor applications.

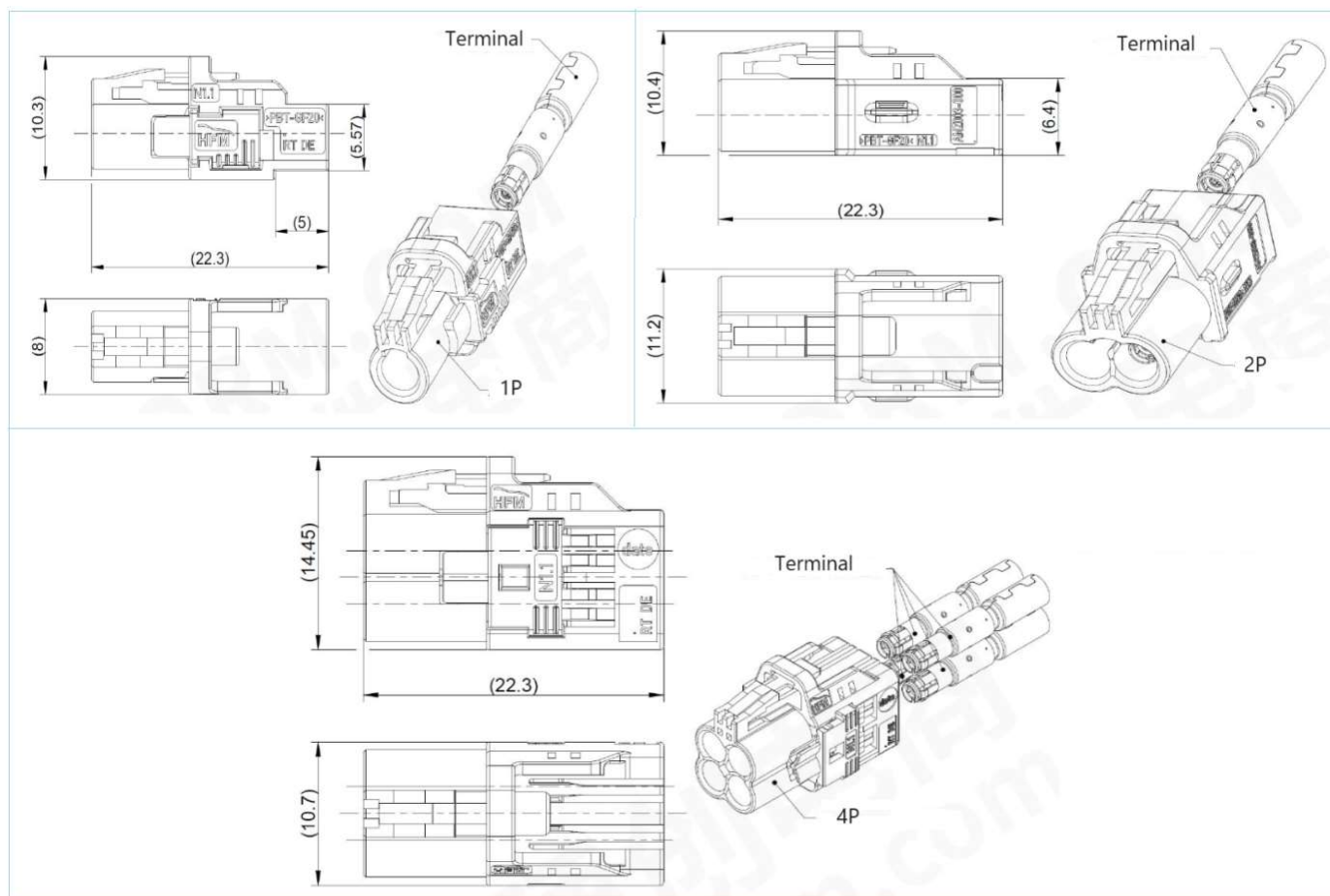


CE RoHS

◆ General Information of Cable Assembly

Feature/Speed	<ul style="list-style-type: none"> -Primary and secondary locking systems for increased assembly security -Multiple color-coded enclosures provide visual guidance during assembly and prevent connectors from mismatching with different keyway options. -20 Gbps of data speed for the connected vehicle, supporting any modern radar, camera, lidar or sensor applications
Rated Current	1A Max
Rated Voltage	60V AC/DC
Insulation Resistance	$\geq 100\text{M}\Omega$
Contact Resistance	$\leq 5\Omega$
Operation Temperature	$-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
Poles	1,2,4 Poles are available (Refer to SKU table)
Cable	RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options
Retention Force Latch	$\geq 110\text{ N}$
Retention Force Lock	$\geq 80\text{N}$ (Primary) $\geq 60\text{N}$ (Secondary)

◆ Dimensions of Related Components (Unit is mm)



◆ General Information of Connector

Frequency Range:	DC-15GHz	Insulation Resistance:	1000MΩ min.
Working Voltage:	335V max.	Impedance:	50 Ω Max.
Center Contact Resistance:	15mΩ max.	High Data Rates:	Up to 8Gbps
Dielectric Withstanding Voltage:	1000V min.	Mating Endurance:	≥25 Cycles
Temperature Range:	-40 °C to +105 °C	Housing/Center contact:	PBT-GF
Return Loss: ≥ 25 dB@DC-3GHz, (≥ -20db@3-6GHz, ≥ -12db@6-9GHz)			

FAKRA Coding (A-Z)

Coding		Jack		Plug		Color / RAL-No. (Similar)
		Single	Double	Single	Double	
A	Radio without phantom supply					Black/ 9005
B	Radio with phantom supply					White/ 9001
C	GPS: telematics or navigation					Blue/ 5005
D	GSM Cellular phone					Bordeaux/ 4004
E	TV1					Green/ 6002
F	TV2					Brown/ 8011
G	Remote control keyless entry					Grey/ 7031
H	GPS: telematics and navigation					Violet/ 4003
I	Radio controlled parking heating					Beige/ 1001
K	Radio with IF					Curry/ 1027
L	Not defined					Camine red/ 3002
M	Not defined					Pastel orange/ 2003
N	Not defined					Pastel green/ 6019
Z	Neutral coding					Waterblue/ 5021

4P KEY CODE CHART							
Keying							
Code	A	B	C	D	E	F	Z
Color	Jet Black 	Cream 	Signal Blue 	Claret Violet 	Leaf Green 	Nut Brown 	Water Blue

◆ SKU Table

SKU No.	Poles	Conn. Type	Type	Remark
T-MFAKRASTF-01-Coding A-Z	1	Female	Straight	Coding A-Z
T-MFAKRASTF-02-Coding A-Z	2	Female	Straight	Coding A-Z
T-MFAKRASTF-04-Coding A-Z	4	Female	Straight	Coding A-Z

Notes: Coding A-Z color

- A Black
- B White
- C Blue
- D Bordeaux violet
- E Green
- F Brown
- G Grey
- H Violet
- I Beige
- K Curry
- L Carmin red
- M Pastel orange
- N Pastel green
- Z Water blue