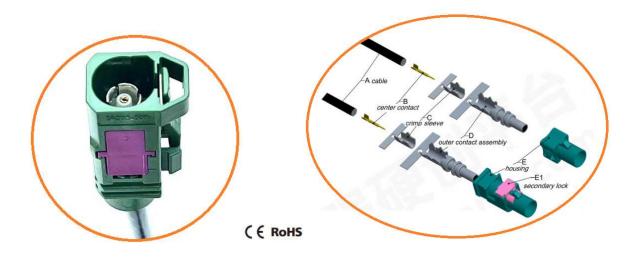
FAKRA Female Connector with Cable Assembly (A Coding to Z Coding)

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.

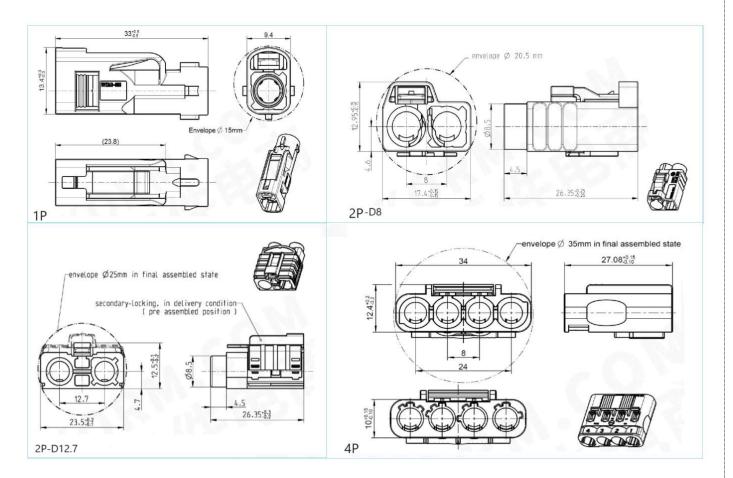


General Information of Cable Assembly

Ocheral information of G	ible Assembly			
	-Primary and secondary locking systems for increased assembly security			
	-13 mechanical and colored coding with one neutral coding, refer to FAKRA coding			
Feature/Speed	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	≥100MΩ			
Contact Resistance	≤5Ω			
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			
Rentention Force Latch	≥ 110 N			
Dantantian Fance Look	≥80N (Primary)			
Rentention Force Lock	≥60N (Secondary)			
Compliant to Standard	Per ISO20860-1 and -2, USCAR17 and 18			
Water Resistance Level	No/IPX7/IPX9K in locked condition options			
	Driving modules, Camera, Antenna, GPS, Gateway/Switch modules, 4K displays,			
Application	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

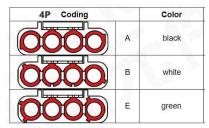
Frequency Range:	DC-6GHz	Insulation Resistance: $1000M\Omega$ min.
Working Voltage:	335V max.	Impedance: 50 Ω Max.
Center Contact Resistance:	20mΩ max.	Return Loss: ≥ 18 dB
Dielectric Withstanding Voltage:	1000V min.	IP Rating: No/IPX7/IPX9K in locked condition (options)
Temperature Range:	-40 °C to +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)

Cod	ding	Jack		Plug		Color / RAL-No.	
		Single	Double	Single	Double	(Similar)	
A	Radio without phantom supply	8		0		Black/ 9005	
В	Radio with phantom supply	6		Ö	D	White/ 9001	
С	GPS: telematics or navigation			Ö	O ^H O	Blue/ 5005	
D	GSM Cellular phone	(a)		Ö		Bordeaux/ 4004	
E	TV1			Ö		Green/ 6002	
F	TV2			ā	Q [∏] ⊙	Brown/ 8011	
G	Remote control keyless entry			Ö	D O	Grey/ 7031	
Н	GPS: telematics and navigation			a	Q 1	Violet/ 4003	
I	Radio controlled parking heating			Ö		Beige/ 1001	
K	Radio with IF			۵		Curry/ 1027	
L	Not defined			Ö		Camine red/ 3002	
М	Not defined			Ö		Pastel orange/ 2003	
N	Not defined			Ö		Pastel green/ 6019	
Z	Neutral coding			Ö		Waterblue/ 5021	

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





◆ SKU Table

SKU No.	Poles	Conn. Type	Туре	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

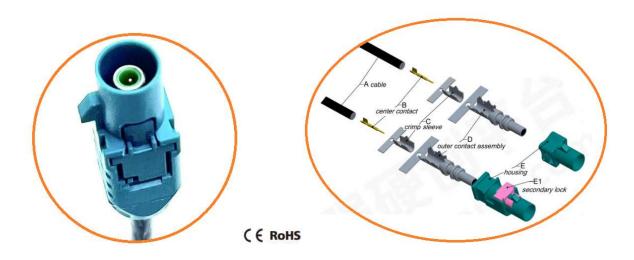
Z Water blue



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.

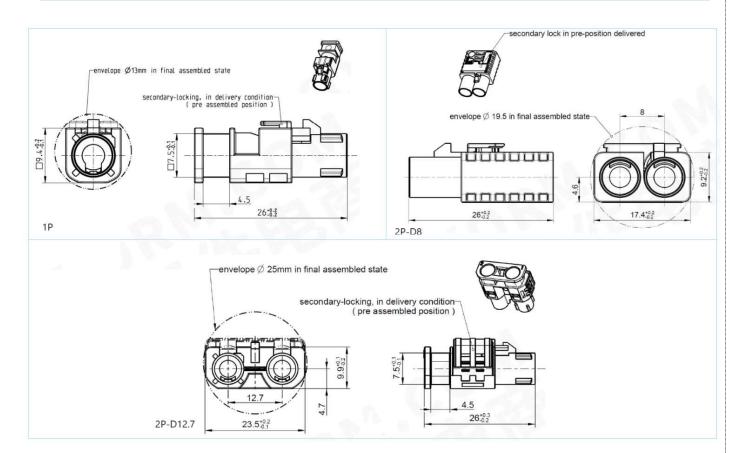


General Information of Cable Assembly

General Information of Ca	idle Assembly
	-Primary and secondary locking systems for increased assembly security
	-13 mechanical and colored coding with one neutral coding, refer to FAKRA coding
Feature/Speed	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	≥100MΩ
Contact Resistance	≤5Ω
Operation Temperature	-40℃ ~+105℃
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
Rentention Force Latch	≥ 110 N
Doutoution Force Lock	≥80N (Primary)
Rentention Force Lock	≥60N (Secondary)
Compliant to Standard	Per ISO20860-1 and -2, USCAR17 and 18
Water Resistance Level	No/IPX7/IPX9K in locked condition options
	Driving modules, Camera, Antenna, GPS, Gateway/Switch modules, 4K displays,
Application	High-speed cable networking, Sensor-device connectivity, surround view cameras,
	Infotainment devices



♦ Dimensions of Related Components (Unit is mm)



Housing Plug,







♦ 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)

Coc	ling	Jack		Plug		Color / RAL-No.	
		Single	Double	Single	Double	(Similar)	
A	Radio without phantom supply			Ö	O IO	Black/ 9005	
3	Radio with phantom supply			Ö	O	White/ 9001	
0	GPS: telematics or navigation			Ö		Blue/ 5005	
)	GSM Cellular phone			Ö		Bordeaux/ 4004	
	TV1	6		Ö		Green/ 6002	
-	TV2			ā	Q IO	Brown/ 8011	
à	Remote control keyless entry			Ö	D IO	Grey/ 7031	
4	GPS: telematics and navigation			a	Q	Violet/ 4003	
	Radio controlled parking heating			Ö		Beige/ 1001	
(Radio with IF		\square	۵	$\mathbf{Q}^{\underline{\mathbb{I}}}$	Curry/ 1027	
	Not defined			۵		Camine red/ 3002	
1	Not defined			Ö		Pastel orange/ 2003	
1	Not defined			Ö	O ^H O	Pastel green/ 6019	
	Neutral coding			Ö	OIO	Waterblue/ 5021	



◆ SKU Table

SKU No.	Poles	Conn. Type	Туре	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.



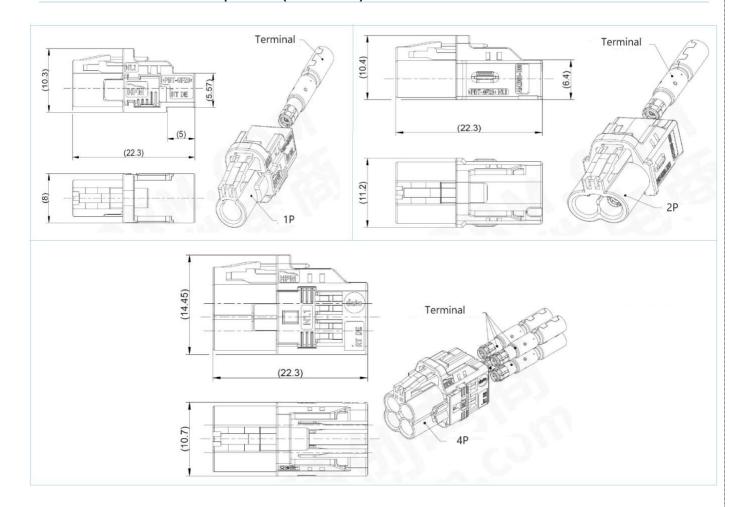
(E RoHS

General Information of Cable Assembly

-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 options20 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 ≥100MΩ Contact Resistance ≤5Ω Operation Temperature -40°C ~+105°C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥110 N >80N (Primary)	Central information of Gusto Assembly					
Feature/Speed 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 ≥100MΩ Contact Resistance ≤5Ω Operation Temperature -40° ~+105°C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥110 N		-Primary and secondary locking systems for increased assembly security				
-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 ≥100MΩ Contact Resistance ≤5Ω Operation Temperature -40°C ~+105°C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥110 N		-Multiple color-coded enclosures provide visual guidance during assembly and				
camera, lidar or sensor applications Rated Current 1A Max Rated Voltage 60V AC/DC Insulation Resistance ≥100MΩ Contact Resistance ≤5Ω Operation Temperature -40°C ~+105°C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥ 110 N	Feature/Speed	prevent connectors from mismatching with different keyway options.				
Rated Current 1A Max Rated Voltage 60V AC/DC Insulation Resistance ≥100MΩ Contact Resistance ≤5Ω Operation Temperature -40 °C ~+105 °C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥ 110 N		-20 Gbps of data speed for the connected vehicle, supporting any modern radar,				
Rated Voltage 60V AC/DC Insulation Resistance ≥100MΩ Contact Resistance ≤5Ω Operation Temperature -40 °C ~+105 °C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥ 110 N		camera, lidar or sensor applications				
Insulation Resistance ≥100MΩ Contact Resistance ≤5Ω Operation Temperature -40 °C ~+105 °C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥ 110 N	Rated Current	1A Max				
Contact Resistance ≤5Ω Operation Temperature -40 °C ~+105 °C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥ 110 N	Rated Voltage	60V AC/DC				
Operation Temperature -40 °C ~+105 °C Poles 1,2,4 Poles are available (Refer to SKU table) Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥ 110 N	Insulation Resistance	≥100MΩ				
Poles1,2,4 Poles are available (Refer to SKU table)CableRG 174, RTK 031, RTK044 etc. (50/75 Ohm) optionsRentention Force Latch≥ 110 N	Contact Resistance	≤5Ω				
Cable RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options Rentention Force Latch ≥ 110 N	Operation Temperature	-40℃ ~+105℃				
Rentention Force Latch ≥ 110 N	Poles	1,2,4 Poles are available (Refer to SKU table)				
	Cable	RG 174, RTK 031, RTK044 etc. (50/75 Ohm) options				
>80N (Primary)	Rentention Force Latch	≥ 110 N				
Pontentian Force Lock	Doutoution Force Look	≥80N (Primary)				
Rentention Force Lock ≥60N (Secondary)	Kentention Force Lock	≥60N (Secondary)				



◆ Dimensions of Related Components (Unit is mm)



◆ General Information of Connector

Frequency Range:	DC-15GHz	Insulation Resistance:	1000M Ω 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 contac	t: PBT-GF

Return Loss: \geq 25 dB@DC-3GHz, (\geq -20db@3-6GHz, \geq -12db@6-9GHz)



FAKRA Coding (A-Z)

Coc	ling	Jack		Plug		Color / RAL-No.	
		Single	Double	Single	Double	(Similar)	
A	Radio without phantom supply			Ö		Black/ 9005	
В	Radio with phantom supply			Ö	O	White/ 9001	
С	GPS: telematics or navigation			Ö		Blue/ 5005	
D	GSM Cellular phone			Ö		Bordeaux/ 4004	
E	TV1			Ö	O HO	Green/ 6002	
F	TV2			ā	O E	Brown/ 8011	
G	Remote control keyless entry			Ö	D IO	Grey/ 7031	
Н	GPS: telematics and navigation			a	Q HO	Violet/ 4003	
	Radio controlled parking heating			Ö		Beige/ 1001	
<	Radio with IF			۵		Curry/ 1027	
	Not defined			Ö		Camine red/ 3002	
M	Not defined			Ö		Pastel orange/ 2003	
V	Not defined			Ö	O _H O	Pastel green/ 6019	
2	Neutral coding			Ö	OHO	Waterblue/ 5021	

	4P KEY CODE CHART										
Keying											
Code	А	В	С	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	Туре	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