

All dimensions are in mm; tolerances according to ISO 2768 m-H
Y = Part number has to be accomplished by codification

Interface

According to ISO 20860-1; DIN 72594-1

Documents

Assembly instruction MA_59V115

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RF_35/09;14/6.2

Material and plating

Connector parts

	Material	Plating
Center contact 1	Bronze	Interface only: Gold, min. 0.8 µm, over nickel
Center contact 2	Bronze	Gold, min. 0.1 µm, over nickel
Contact sleeve	Bronze	Nickel, 3-6 µm
Body	Brass	Nickel, 3-6 µm
Dielectric 1	PBT-GB20	Colour: blue
Dielectric 2	PBT-I-GF30	Colour: blue
Crimping ferrule	Bronze	Tin, 1.5-3 µm
Housing	PBT-I-GF30	
Sealing ring	Silicone	Colour: green
Sealing cap	PBT-I-GF30	Colour: black
Cable seal	Silicone	Colour: blue

Electrical data

Impedance	50 Ω
Frequency	DC to 9 GHz
Return loss	≥ 25 dB, DC to 1 GHz ≥ 17 dB, DC to 3 GHz ≥ 14 dB, DC to 6 GHz ≥ 11 dB, DC to 9 GHz
Insertion loss	≤ 0.1x √f(GHz) dB
Insulation resistance	≥ 1x10 ³ MΩ
Center contact resistance	≤ 15 mΩ
Outer contact resistance	≤ 5 mΩ
Test voltage	750 V rms
Working voltage	335 V rms
Power current	≤ 1 A DC
RF-leakage	≥ 65 dB up to 1 GHz

- Limitations are possible due to the used cable type -

Mechanical data

Mating cycles	min. 5
Engagement force	≤ 45 N*
*Male connector must meet dimension according to USCAR 18-4 Fig. 2B and 2D or Mercedes-Benz A006 000 51 99 or BMW 6 901 697	
Disengagement force	≥ 2 N
Retention force latch	≥ 110 N
Coding efficiency	≥ 40 N

Technical Data Sheet

Rosenberger

FAKRA - HF

RIGHT ANGLE JACK
WATERPROOF

59K2RK-1M4A4-Y

Environmental data

Temperature range	-40°C to +105°C
Thermal shock	DIN 72594-2 clause 8.2
Temperature and humidity	DIN 72594-2 clause 8.3
Vibration and mechanical shock	DIN 72594-2 clause 8.1
Dry heat	DIN 72594-2 clause 8.4
Watertightness	IPX7 & IPX9K
RoHS	compliant

- Limitations are possible due to the used cable type -

Tooling

Crimping tool	11W150-000
Crimp insert	11W150-104
Crimpapplicator 59K24K-1M4/21E	951-07312-301-001
Crimpapplicator 59K24K-1M4/40Z	951-07339-301-001

Suitable cables








Cable type	RTK 031
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Packing

Standard	250 pcs in box
Weight	4.2 g/pce

Coding

Part Number has to be accomplished by codification

Coding	Colour	RAL	Part-Number
 A	black	sim. 9005	59K2RK-1M4A4-A
 B	white	sim. 9001	59K2RK-1M4A4-B
 C	blue	sim. 5005	59K2RK-1M4A4-C
 D	bordeauxviolet	sim. 4004	59K2RK-1M4A4-D
 E	green	sim. 6002	59K2RK-1M4A4-E
 F	brown	sim. 8011	59K2RK-1M4A4-F
 Z	waterblue	sim. 5021	59K2RK-1M4A4-Z

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
M. Volkmar	09.10.15	F. Danzl	22.09.20	a00	20-s179	J. Kinmayer	22.09.20

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