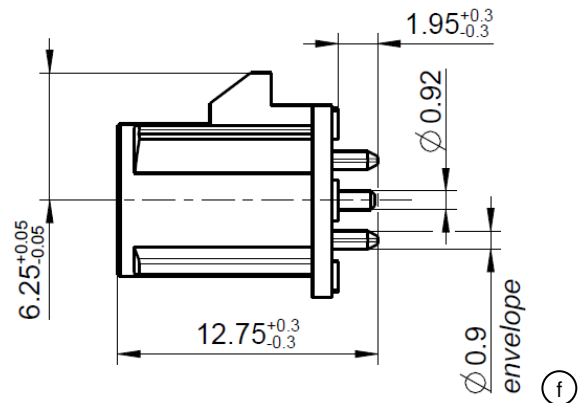
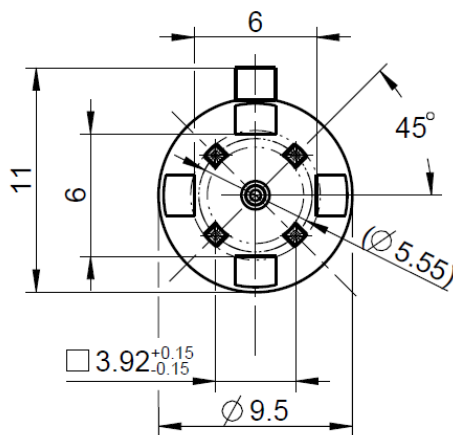


All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to

DIN 72594-1, ISO 20860-1

Documents

PCB layout
Tape & reel packaging

MB_597 (MB_286)* (g)
VG129.42500 (h)

Material and plating

Connector parts

Center contact
Outer contact
Housing / Dielectric

Material

Brass
Brass
HTN (f)

Plating

AuroDur®, gold plated (f)
Tin, 3 µm min. (f)

*do not use for new applications

Electrical data

Impedance	50 Ω
Frequency	DC to 6 GHz
Return loss measured on 50Ω footprint	≥ 23 dB (DC to 4 GHz) ≥ 20 dB (4 GHz to 6 GHz)
Insertion loss	≤ 0.1 x $\sqrt{f(\text{GHz})}$ dB
Insulation resistance	≥ 1x10 ³ MΩ ^(f)
Center contact resistance	≤ 5 mΩ ^(f)
Outer contact resistance	≤ 5 mΩ
Test voltage	750 V rms
Working voltage	≤ 60 V DC ^(g)
Power current	≤ 1 A DC

- Connector only, VSWR in application depends decisive on PCB layout

Mechanical data

Mating cycles	≥ 25
Engagement force	≤ 25 N
Disengagement force	≥ 2 N
Retention force latch	≥ 110 N
Coding efficiency	≥ 40 N
Mechanical Pull Test and Sideload Test	acc. to SAE-USCAR-17

Environmental data

Temperature range	-40 °C to +105 °C
Thermal shock	ISO 20860-2 clause 9.2
Temperature and humidity	ISO 20860-2 clause 9.3
Vibration and mechanical shock	ISO 20860-2 clause 9.1 ^(f)
Dry heat	ISO 20860-2 clause 9.4
Resistance to soldering heat	acc. IEC 60068-2-58 group 3&4 (250 °C / 30 s) ^(f)
RoHS	compliant

Packing

Standard	5525 pcs (13 reels / carton); 425 pcs in tape and reel (15") ^(h)
Weight	0.87 g

Coding

Part Number has to be accomplished by codification

Technical Data Sheet

Rosenberger

FAKRA-
HF

STRAIGHT PLUG PCB

59S10K-40MT5-Y

Coding		Color	RAL	Part-Number
	A	black	sim. 9005	59S10K-40MT5-A
	B	white	sim. 9001	59S10K-40MT5-B
	C	blue	sim. 5005	59S10K-40MT5-C
	D	claret violet	sim. 4004	59S10K-40MT5-D
	E	green	sim. 6002	59S10K-40MT5-E
	F	brown	sim. 8011	59S10K-40MT5-F
	G	grey	sim. 7031	59S10K-40MT5-G
	H	violet	sim. 4003	59S10K-40MT5-H
	I	beige	sim. 1001	59S10K-40MT5-I
	K	curry	sim. 1027	59S10K-40MT5-K
	L	carmine red	sim. 3002	59S10K-40MT5-L
	M	pastel orange	sim. 2003	59S10K-40MT5-M
	N	pastel green	sim. 6019	59S10K-40MT5-N
	Z	waterblue	sim. 5021	59S10K-40MT5-Z

(g)

(g)

(g)

Change History

Rev.	Date	Change
f00	22.08.19	Added "envelope" to drawing Added Interface according to ISO 20860-1 Environmental data specification changed from DIN 72594-2 clause 8.1-8.4 to ISO 20860-2 clause 9.1-9.4; Center/Outer contact plating changed from "Gold, min. 0.15 µm, over nickel" to AuroDur®, gold plated/"Tin, 3-6µm" to "Tin, 3µm min." Material Housing/Dielectric changed from "PA 6T/77" to "HTN" Insulation resistance changed from "1000MΩ" to "1x10³ MΩ" Center contact resistance changed from "≤ 15 mΩ" to "≤ 5 mΩ" Working voltage changed from "335V rms" to "60V rms"
g00	18.12.19	Added MB_597 Working voltage changed from "60V rms" to "≤60 V DC" Corrected color names (no change in RAL color) and small editorial changes
h00	20.03.2024	"VG129.30000" and "3300pcs (11 reels / cartoon); 300 pcs in tape and reel (13")" removed.

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
T. Höfling	21.06.07	R. Fang	20.03.24	h00	24-0478	M. Unterhuber	20.03.24
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