

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

Interface

According to TBD

Documents

Assembly instruction 64 A2

Material and plating

Connector parts

Center contact	CuBe
Outer contact	Brass
Body	Brass
Dielectric	PTFE

Plating

Silver, 3-6 µm
 Silver, 3-6 µm
 Flash white bronze over silver(e.g. Optargen®)

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/05.10/6.0

Electrical data

Impedance	50 Ω
Frequency	DC to 6 GHz
Return loss	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
Insertion loss	≤ 0.05 x √ f [GHz] dB
Insulation resistance	≥ 5 GΩ
Center contact resistance	≤ 1.0 mΩ
Outer contact resistance	≤ 1.0 mΩ
Test voltage	2500 V rms
Working voltage	500 V rms
RF-leakage	≥ 90 dB @ DC to 6 GHz for tool-less plugs ≥ 110 dB @ DC to 6 GHz for tool tightened plugs
Power handling (at 90 °C, attitude 3000m)	500 W @ 2.0 GHz
Intermodulation (3 rd order)	≥ 160 dBc (2 x 46 dBm) @ 0.4 – 4.0 GHz ≥ 166 dBc (2 x 43 dBm) @ 0.4 – 4.0 GHz

- Limitations are possible due to the used cable type -
- RL value only valid for the interface -

Mechanical data

Mating cycles	≥ 100
Center contact captivation: axial	25 N
radial	> 5 Ncm
Center contact retention force	1.5 - 20 N
Outer contact retention force	4 - 35 N
Engagement force	≤ 80 N for Push Pull connector
Disengagement force	≤ 60 N for Push Pull connector
Recommended torque	10 Nm for tool tightened plug

Environmental data

Temperature range	-55 °C to +90 °C operating temperature
Thermal shock	IEC 60169-1, Sub-clause 16.4
Corrosion resistance	ISO 21207 method B
Vibration	IEC 61169-1 9.3.3 and IEC 60068-2-64
Shock	IEC 61169-1 9.3.14
Degree of protection (mated pair)	IEC 60529, IP68 1h / 25m
RoHS	compliant

Tooling

N/A

Suitable cables

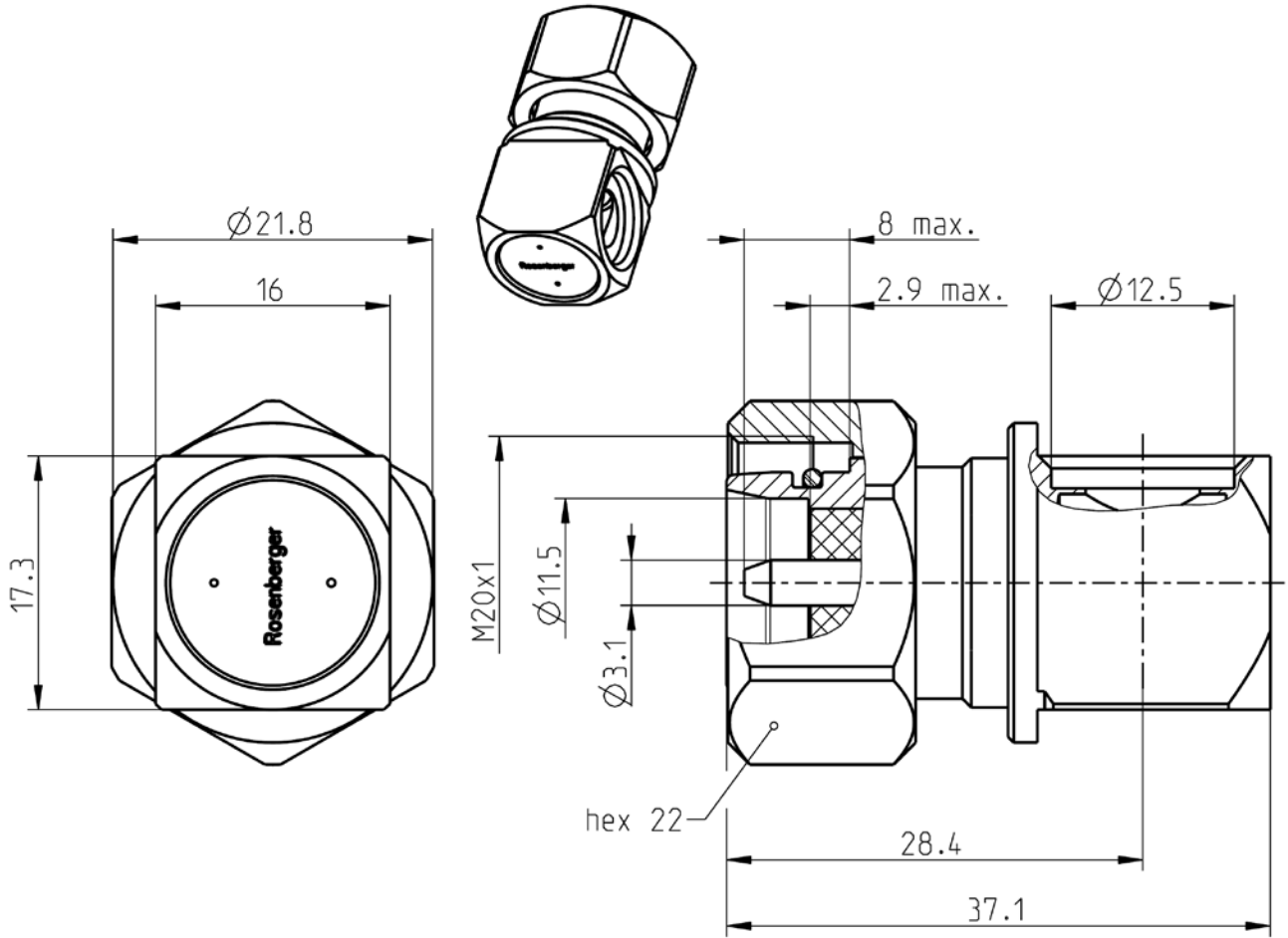
Flexline 1/2"S and similar

Packing

Standard	TBD
Weight	TBD

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
F. Fraunhofer	18.07.2013	S. Gramsamer	18.07.2013	100	13-0005	F. Fraunhofer	18.07.2013
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de						Tel. : +49 8684 18-0 Fax : +49 8684 18-499 Email : info@rosenberger.de	
						Page 2 / 2	



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

Interface

According to IEC 61169-xx

Documents

Assembly instruction 64 B1

Material and plating

Connector parts

Center contact	Brass
Outer contact	Brass
Body	Brass
Dielectric	PTFE
Gasket	Silicone

Plating

Silver, 3-6 µm
Flash white bronze over silver(e.g. Optargen®)
Flash white bronze over silver(e.g. Optargen®)

Electrical data

Impedance	50 Ω
Frequency	DC to 6 GHz
Return loss	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
Insertion loss	≤ 0.05 x √ f [GHz] dB
Insulation resistance	≥ 5 GΩ
Center contact resistance	≤ 1.0 mΩ
Outer contact resistance	≤ 1.0 mΩ
Test voltage	2500 V rms
Working voltage	500 V rms
RF-leakage	≥ 110 dB @ DC to 6 GHz
Power handling (at 90 °C, attitude 3000m)	500 W @ 2.0 GHz
Intermodulation (3 rd order)	≥ 160 dBc (2 x 46 dBm) @ 0.4 – 4.0 GHz ≥ 166 dBc (2 x 43 dBm) @ 0.4 – 4.0 GHz

- Limitations are possible due to the used cable type –
-RL value only valid for the interface-

Mechanical data

Mating cycles	≥ 100
Center contact captivation: axial	25 N
radial	> 5 Ncm
Center contact retention force	1.5 - 20 N
Outer contact retention force	4- 35 N
Recommended torque	10 Nm

Environmental data

Temperature range	-55 °C to +90 °C operating temperature
Thermal shock	IEC 60169-1, Sub-clause 16.4
Corrosion resistance	ISO 21207 method B
Vibration	IEC 61169-1 9.3.3 and IEC 60068-2-64
Shock	IEC 61169-1 9.3.14
Degree of protection (mated pair)	IEC 60529, IP68 1h / 25m
RoHS	compliant

Tooling

N/A

Suitable cables

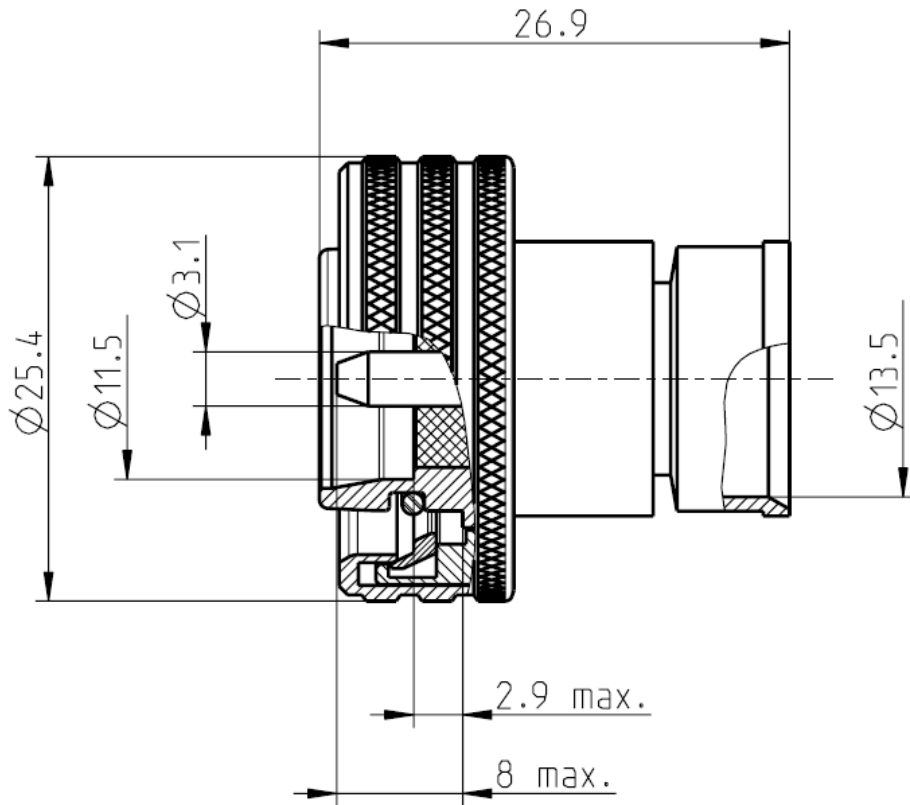
Flexline 1/2"S and similar

Packing

Standard	tbd
Weight	tbd

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
F. Fraunhofer	15.07.2013	F. Fraunhofer	23.07.13	100	13-m326	Tobias Stadler	23.07.13
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de					Tel. : +49 8684 18-0 Fax : +49 8684 18-499 Email : info@rosenberger.de		Page 2 / 2



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

Interface

According to IEC 61169-xx

Documents

Assembly instruction 64A2

Material and plating

Connector parts

Center contact	Brass
Outer contact	Brass
Body	Brass
Dielectric	PTFE
Gasket	Silicone

Plating

Silver, 3-6 µm
Flash white bronze over silver(e.g. Optargen®)
Flash white bronze over silver(e.g. Optargen®)

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/05.10/6.0

Electrical data

Impedance	50 Ω
Frequency	DC to 6 GHz
Return loss	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
Insertion loss	≤ 0.05 x √ f [GHz] dB
Insulation resistance	≥ 5 GΩ
Center contact resistance	≤ 1.0 mΩ
Outer contact resistance	≤ 1.0 mΩ
Test voltage	2500 V rms
Working voltage	500 V rms
RF-leakage	≥ 110 dB @ DC to 6 GHz
Power handling (at 90 °C, attitude 3000m)	500 W @ 2.0 GHz
Intermodulation (3 rd order)	≥ 160 dBc (2 x 46 dBm) @ 0.4 – 4.0 GHz ≥ 166 dBc (2 x 43 dBm) @ 0.4 – 4.0 GHz

- Limitations are possible due to the used cable type –
-RL value only valid for the interface-

Mechanical data

Mating cycles	≥ 100
Center contact captivation: axial	25 N
radial	> 5 Ncm
Center contact retention force	1.5 - 20 N
Outer contact retention force	4 - 35 N
Engagement force	≤ 80 N for Push Pull connector
Disengagement force	≤ 60 N for Push Pull connector

Environmental data

Temperature range	-55 °C to +90 °C operating temperature
Thermal shock	IEC 60169-1, Sub-clause 16.4
Corrosion resistance	ISO 21207 method B
Vibration	IEC 61169-1 9.3.3 and IEC 60068-2-64
Shock	IEC 61169-1 9.3.14
Degree of protection (mated pair)	IEC 60529, IP68 1h / 25m
RoHS	compliant

Tooling

N/A

Suitable cables

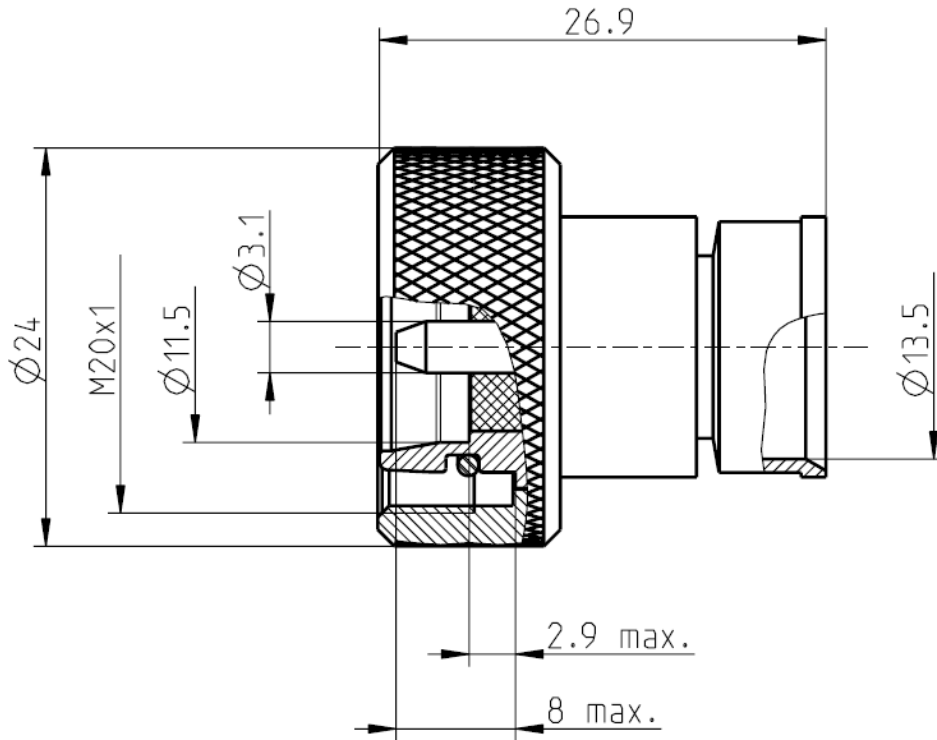
Flexline 1/2"S and similar

Packing

Standard	tbd
Weight	tbd

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
J. Gramsamer	26/06/13	S. Gramsamer	18.07.2013	100	13-0005	F. Fraunhofer	18.07.2013
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de						Tel. : +49 8684 18-0 Fax : +49 8684 18-499 Email : info@rosenberger.de	
						Page 2 / 2	



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

Interface

According to TBD

Documents

Assembly instruction 64A2

Material and plating

Connector parts

Center contact	Brass
Outer contact	Brass
Body	Brass
Dielectric	PTFE
Gasket	Silicone

Plating

Silver, 3-6 µm
Flash white bronze over silver(e.g. Optargen®)
Flash white bronze over silver(e.g. Optargen®)

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/05.10/6.0

Electrical data

Impedance	50 Ω
Frequency	DC to 6 GHz
Return loss	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
Insertion loss	≤ 0.05 x √ f [GHz] dB
Insulation resistance	≥ 5 GΩ
Center contact resistance	≤ 1.0 mΩ
Outer contact resistance	≤ 0.1 mΩ
Test voltage	2500 V rms
Working voltage	500 V rms
RF-leakage	≥ 110 dB @ DC to 6 GHz
Power handling (at 90 °C, attitude 3000m)	500 W @ 2.0 GHz
Intermodulation (3 rd order)	≥ 160 dBc (2 x 46 dBm) @ 0.4 – 4.0 GHz ≥ 166 dBc (2 x 43 dBm) @ 0.4 – 4.0 GHz

- Limitations are possible due to the used cable type –
-RL value only valid for the interface-

Mechanical data

Mating cycles	≥ 100
Center contact captivation: axial	25 N
radial	> 5 Ncm
Center contact retention force	1.5 - 20 N
Outer contact retention force	4 - 35 N
Recommended torque	until stop by hand

Environmental data

Temperature range	-55 °C to +90 °C operating temperature
Thermal shock	IEC 60169-1, Sub-clause 16.4
Corrosion resistance	ISO 21207 method B
Vibration	IEC 61169-1 9.3.3 and IEC 60068-2-64
Shock	IEC 61169-1 9.3.14
Degree of protection (mated pair)	IEC 60529, IP68 1h / 25m
RoHS	compliant

Tooling

N/A

Suitable cables

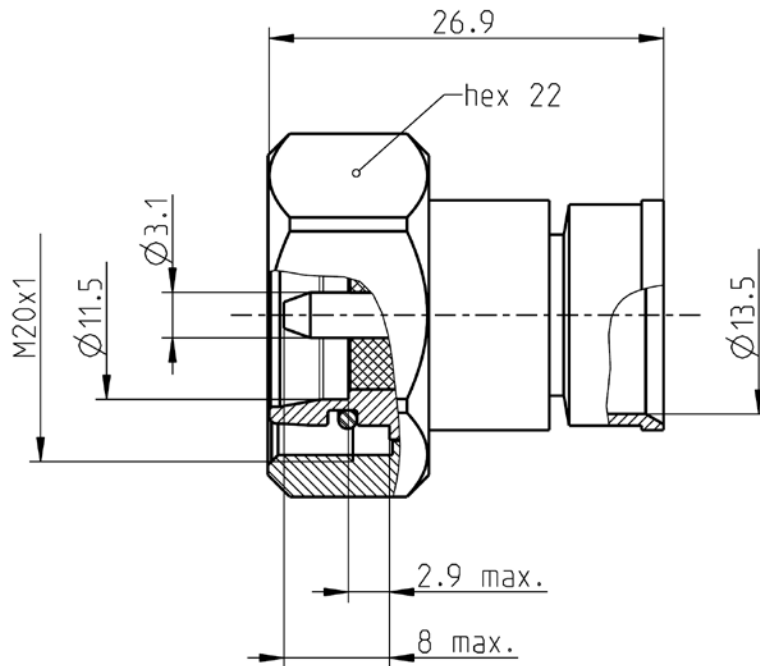
Flexline 1/2"S and similar

Packing

Standard	tbd
Weight	tbd

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
J. Gramsamer	26.06.2013	S. Gramsamer	18.07.2013	100	13-0005	F. Fraunhofer	18.07.2013
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de					Tel. : +49 8684 18-0 Fax : +49 8684 18-499 Email : info@rosenberger.de		Page 2 / 2



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

Interface

According to IEC 61169-xx

Documents

Assembly instruction 64A2

Material and plating

Connector parts

Center contact	Brass
Outer contact	Brass
Body	Brass
Dielectric	PTFE
Gasket	Silicone

Plating

Silver, 3-6 μ m
Flash white bronze over silver(e.g. Optargen®)
Flash white bronze over silver(e.g. Optargen®)

Electrical data

Impedance	50 Ω
Frequency	DC to 6 GHz
Return loss	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
Insertion loss	≤ 0.05 x √ f [GHz] dB
Insulation resistance	≥ 5 GΩ
Center contact resistance	≤ 1.0 mΩ
Outer contact resistance	≤ 1.0 mΩ
Test voltage	2500 V rms
Working voltage	500 V rms
RF-leakage	≥ 110 dB @ DC to 6 GHz
Power handling (at 90 °C, attitude 3000m)	500 W @ 2.0 GHz
Intermodulation (3 rd order)	≥ 160 dBc (2 x 46 dBm) @ 0.4 – 4.0 GHz ≥ 166 dBc (2 x 43 dBm) @ 0.4 – 4.0 GHz

- Limitations are possible due to the used cable type -

Mechanical data

Mating cycles	≥ 100
Center contact captivation: axial	25 N
radial	> 5 Ncm
Center contact retention force	4 - 9 N
Outer contact retention force	8 - 18 N
Recommended torque	10 Nm

Environmental data

Temperature range	-55 °C to +90 °C operating temperature
Thermal shock	IEC 60169-1, Sub-clause 16.4
Corrosion resistance	ISO 21207 method B
Vibration	IEC 61169-1 9.3.3 and IEC 60068-2-64
Shock	IEC 61169-1 9.3.14
Degree of protection (mated pair)	IEC 60529, IP68 1h / 25m
RoHS	compliant

Tooling

N/A

Suitable cables

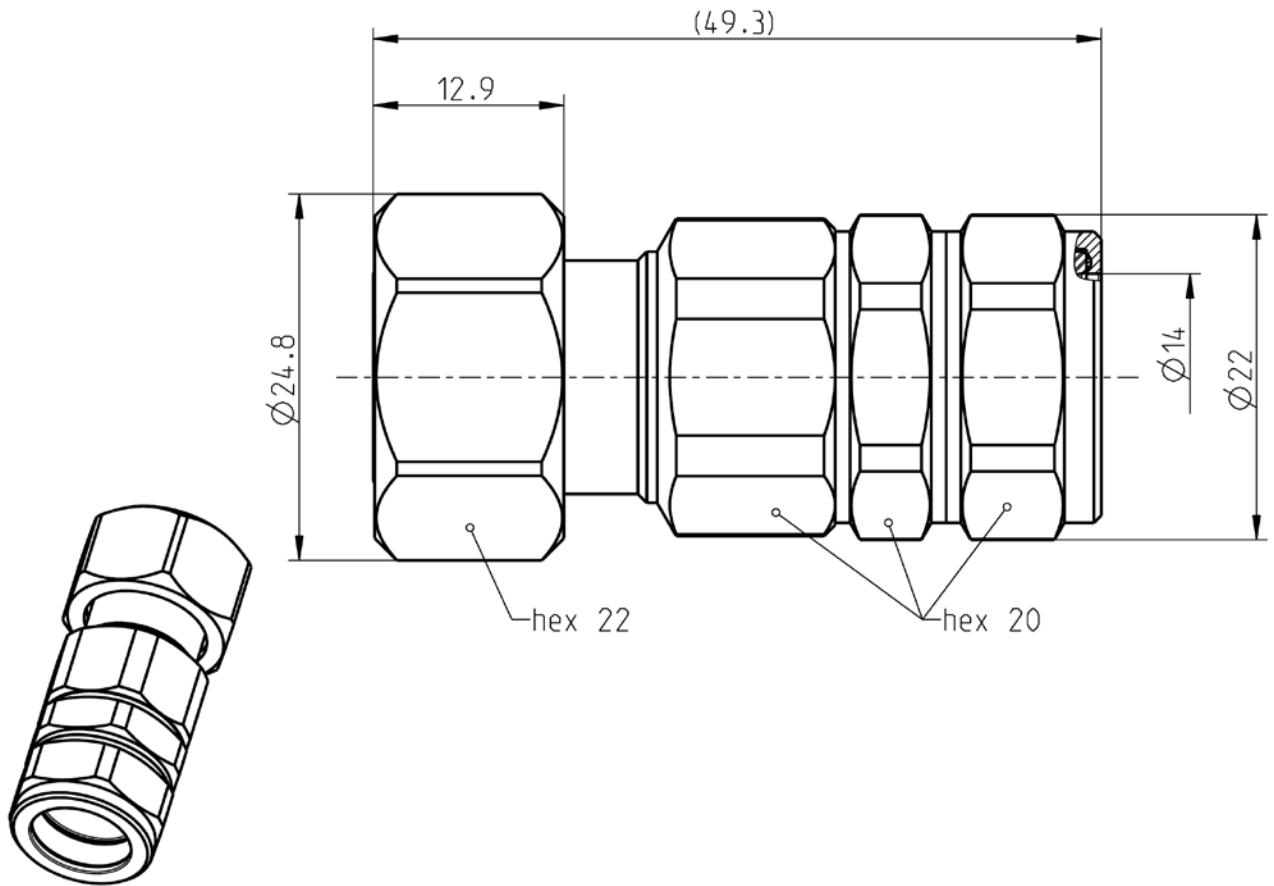
Flexline 1/2"S and similar

Packing

Standard	tbd
Weight	tbd

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
F. Fraunhofer	16/10/12	Gramsamer J.	26/06/13	100	13-m052	Nobis A.	14.03.2013
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de					Tel. : +49 8684 18-0 Fax : +49 8684 18-499 Email : info@rosenberger.de		Page 2 / 2



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

Interface

According to IEC 61169-xx

Documents

Assembly instruction 60 I38 (tbd)

Material and plating

Connector parts

Center contact	Brass
Outer contact	Brass
Body	Brass
Dielectric	PTFE
Gasket	Silicone

Plating

Silver, 3-6 µm
Flash white bronze over silver(e.g. Optargen®)
Flash white bronze over silver(e.g. Optargen®)

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/05.10/6.0

Electrical data

Impedance	50 Ω
Frequency	DC to 6 GHz
Return loss	≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz
Insertion loss	≤ 0.05 x √ f [GHz] dB
Insulation resistance	≥ 5 GΩ
Center contact resistance	≤ 1.0 mΩ
Outer contact resistance	≤ 1.0 mΩ
Test voltage	2500 V rms
Working voltage	500 V rms
RF-leakage	≥ 110 dB @ DC to 6 GHz
Power handling (at 90 °C, attitude 3000m)	500 W @ 2.0 GHz
Intermodulation (3 rd order)	≥ 160 dBc (2 x 46 dBm) @ 0.4 – 4.0 GHz ≥ 166 dBc (2 x 43 dBm) @ 0.4 – 4.0 GHz

- Limitations are possible due to the used cable type –
-RL value only valid for the interface-

Mechanical data

Mating cycles	≥ 100
Center contact captivation: axial	25 N
radial	> 5 Ncm
Center contact retention force	1.5- 20 N
Outer contact retention force	4 - 35 N
Recommended torque	10 Nm

Environmental data

Temperature range	-55 °C to +90 °C operating temperature
Thermal shock	IEC 60169-1, Sub-clause 16.4
Corrosion resistance	ISO 21207 method B
Vibration	IEC 61169-1 9.3.3 and IEC 60068-2-64
Shock	IEC 61169-1 9.3.14
Degree of protection (mated pair)	IEC 60529, IP68 1h / 25m
RoHS	compliant

Tooling

N/A

Suitable cables

Flexline 1/2"S and similar

Packing

Standard	tbd
Weight	tbd

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
F. Fraunhofer	15.07.2013	F. Fraunhofer	16.07.13	100	13-m326	Tobias Stadler	16.07.13
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de					Tel. : +49 8684 18-0 Fax : +49 8684 18-499 Email : info@rosenberger.de		Page 2 / 2