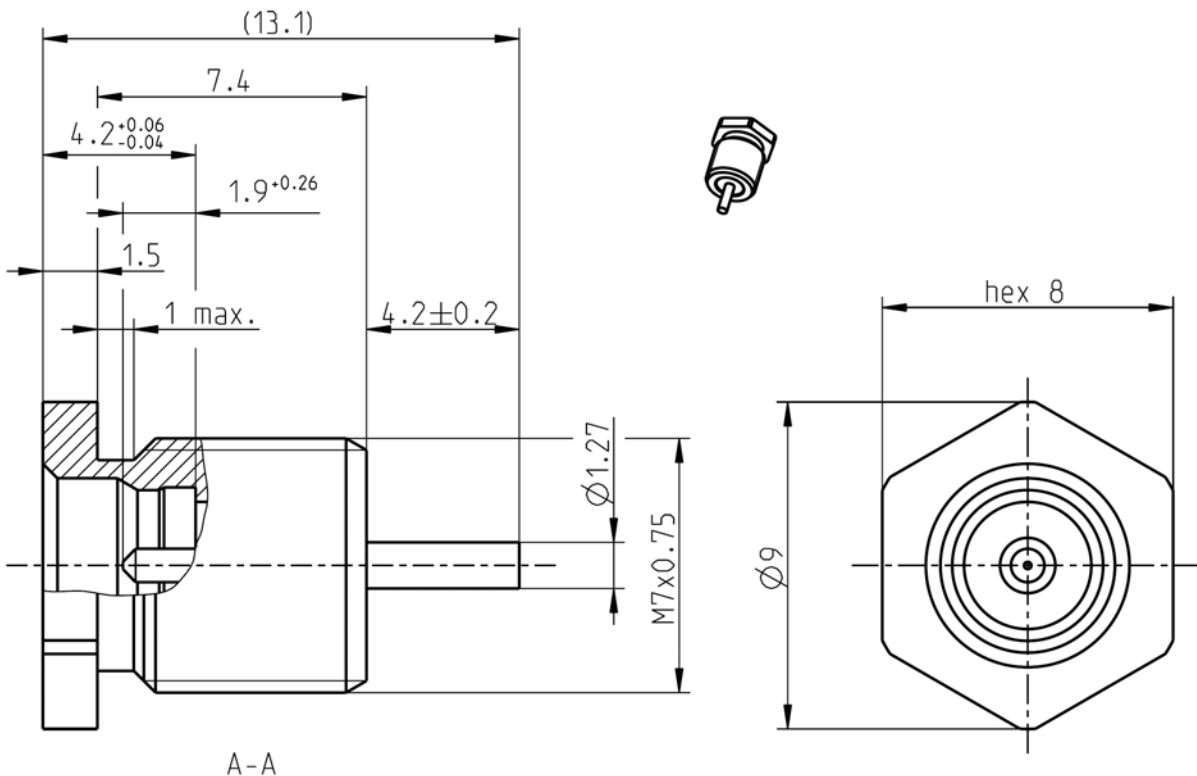


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |                                                                                                                    |               |                 |          |         |                |       |                       |               |       |                                                |            |      |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------|-----------------|----------|---------|----------------|-------|-----------------------|---------------|-------|------------------------------------------------|------------|------|--|
| TECHNICAL DATA SHEET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                 | Rosenberger                                                                                                        |               |                 |          |         |                |       |                       |               |       |                                                |            |      |  |
| P-SMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | BULKHEAD PLUG<br>LIMITED DETENT | 119S601-500N5                                                                                                      |               |                 |          |         |                |       |                       |               |       |                                                |            |      |  |
| <div><div></div><div>All dimensions are in mm; tolerances acc. to ISO 2768 m-H</div><div><div>Interface</div><div>According to</div><div>Rosenberger P-SMP</div></div><div><div>Documents</div><div>N/A</div></div><div><div>Material and plating</div><div><table><tr><td>Connector parts</td><td>Material</td><td>Plating</td></tr><tr><td>Center contact</td><td>Brass</td><td>AuroDur®, gold plated</td></tr><tr><td>Outer contact</td><td>Brass</td><td>Flash white bronze over silver(e.g. Optargen®)</td></tr><tr><td>Dielectric</td><td>PTFE</td><td></td></tr></table></div></div></div> |                                 |                                                                                                                    |               | Connector parts | Material | Plating | Center contact | Brass | AuroDur®, gold plated | Outer contact | Brass | Flash white bronze over silver(e.g. Optargen®) | Dielectric | PTFE |  |
| Connector parts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Material                        | Plating                                                                                                            |               |                 |          |         |                |       |                       |               |       |                                                |            |      |  |
| Center contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Brass                           | AuroDur®, gold plated                                                                                              |               |                 |          |         |                |       |                       |               |       |                                                |            |      |  |
| Outer contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Brass                           | Flash white bronze over silver(e.g. Optargen®)                                                                     |               |                 |          |         |                |       |                       |               |       |                                                |            |      |  |
| Dielectric                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PTFE                            |                                                                                                                    |               |                 |          |         |                |       |                       |               |       |                                                |            |      |  |
| Rosenberger Hochfrequenztechnik GmbH & Co. KG<br>P.O.Box 1260 D-84526 Tittmoning Germany<br><a href="http://www.rosenberger.de">www.rosenberger.de</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 | Tel.: +49 8684 18-0<br>Fax: +49 8684 18-499<br>email: <a href="mailto:info@rosenberger.de">info@rosenberger.de</a> | Page<br>1 / 2 |                 |          |         |                |       |                       |               |       |                                                |            |      |  |

| TECHNICAL DATA SHEET                                                                                                                                                                                                                                                                                                                         |          |                                                 |          | Rosenberger                                                                                                        |                           |           |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------|---------------------------|-----------|---------------|
| P-SMP                                                                                                                                                                                                                                                                                                                                        |          | BULKHEAD PLUG<br>LIMITED DETENT                 |          | 119S601-500N5                                                                                                      |                           |           |               |
| <b>Electrical data</b>                                                                                                                                                                                                                                                                                                                       |          |                                                 |          |                                                                                                                    |                           |           |               |
| Impedance                                                                                                                                                                                                                                                                                                                                    |          | 50 Ω                                            |          |                                                                                                                    |                           |           |               |
| Frequency                                                                                                                                                                                                                                                                                                                                    |          | DC to 10 GHz                                    |          |                                                                                                                    |                           |           |               |
| Return loss                                                                                                                                                                                                                                                                                                                                  |          | ≥ 30 dB, DC to 4 GHz<br>≥ 25 dB, 4 to 6 GHz     |          |                                                                                                                    |                           |           |               |
| Insertion loss                                                                                                                                                                                                                                                                                                                               |          | ≤ 0.03 x √f(GHz) dB                             |          |                                                                                                                    |                           |           |               |
| Insulation resistance                                                                                                                                                                                                                                                                                                                        |          | ≥ 5 GΩ                                          |          |                                                                                                                    |                           |           |               |
| Center contact resistance                                                                                                                                                                                                                                                                                                                    |          | ≤ 3.0 mΩ                                        |          |                                                                                                                    |                           |           |               |
| Outer contact resistance                                                                                                                                                                                                                                                                                                                     |          | ≤ 2.0 mΩ                                        |          |                                                                                                                    |                           |           |               |
| Test voltage (at sea level)                                                                                                                                                                                                                                                                                                                  |          | 1000 V rms                                      |          |                                                                                                                    |                           |           |               |
| Working voltage (at sea level)                                                                                                                                                                                                                                                                                                               |          | 480 V rms                                       |          |                                                                                                                    |                           |           |               |
| Power handling (at 20 °C, sea level, VSWR 1.0)                                                                                                                                                                                                                                                                                               |          | ≤ 200 W @ 2.2 GHz                               |          |                                                                                                                    |                           |           |               |
| Intermodulation (3 <sup>rd</sup> order)                                                                                                                                                                                                                                                                                                      |          | ≥ 160 dBc (2 x 43 dBm)                          |          |                                                                                                                    |                           |           |               |
| <b>Mechanical data</b>                                                                                                                                                                                                                                                                                                                       |          |                                                 |          |                                                                                                                    |                           |           |               |
| Mating cycles                                                                                                                                                                                                                                                                                                                                |          | ≥ 100                                           |          |                                                                                                                    |                           |           |               |
| Center contact captivation                                                                                                                                                                                                                                                                                                                   |          | ≥ 7 N                                           |          |                                                                                                                    |                           |           |               |
| Engagement force                                                                                                                                                                                                                                                                                                                             |          | 45 N max.                                       |          |                                                                                                                    |                           |           |               |
| Disengagement force                                                                                                                                                                                                                                                                                                                          |          | 15 N min.                                       |          |                                                                                                                    |                           |           |               |
| Tightening Torque                                                                                                                                                                                                                                                                                                                            |          | 130 Ncm max.                                    |          |                                                                                                                    |                           |           |               |
| <b>Environmental data</b>                                                                                                                                                                                                                                                                                                                    |          |                                                 |          |                                                                                                                    |                           |           |               |
| Temperature range                                                                                                                                                                                                                                                                                                                            |          | -65°C to +165°C                                 |          |                                                                                                                    |                           |           |               |
| Rapid change of temperature                                                                                                                                                                                                                                                                                                                  |          | IEC 60169-1, Sub-clause 16.4 (-65°C to +165°C)  |          |                                                                                                                    |                           |           |               |
| Vibration                                                                                                                                                                                                                                                                                                                                    |          | IEC 60068-2-64 random                           |          |                                                                                                                    |                           |           |               |
| Shock                                                                                                                                                                                                                                                                                                                                        |          | IEC 60068-2-27 (half-sine)                      |          |                                                                                                                    |                           |           |               |
| High temperature endurance                                                                                                                                                                                                                                                                                                                   |          | IEC 60169-1, Sub-clause 18 (+165°C, 1000 hours) |          |                                                                                                                    |                           |           |               |
| Max. soldering temperature                                                                                                                                                                                                                                                                                                                   |          | IEC 61760-1, +260°C for 10 sec.                 |          |                                                                                                                    |                           |           |               |
| 2002/95/EC (RoHS)                                                                                                                                                                                                                                                                                                                            |          | compliant                                       |          |                                                                                                                    |                           |           |               |
| <b>Tooling</b>                                                                                                                                                                                                                                                                                                                               |          |                                                 |          |                                                                                                                    |                           |           |               |
|                                                                                                                                                                                                                                                                                                                                              |          | N/A                                             |          |                                                                                                                    |                           |           |               |
| <b>Suitable cables</b>                                                                                                                                                                                                                                                                                                                       |          |                                                 |          |                                                                                                                    |                           |           |               |
|                                                                                                                                                                                                                                                                                                                                              |          | N/A                                             |          |                                                                                                                    |                           |           |               |
| <b>Weight</b>                                                                                                                                                                                                                                                                                                                                |          |                                                 |          |                                                                                                                    |                           |           |               |
| Weight                                                                                                                                                                                                                                                                                                                                       |          | 1.8 g/pc                                        |          |                                                                                                                    |                           |           |               |
| 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          |
| Gramsamer Josef                                                                                                                                                                                                                                                                                                                              | 13/01/10 | Sa. Krautenbacher                               | 11.03.14 | d00                                                                                                                | 14-0352                   | T. Krojer | 11.03.14      |
| Rosenberger Hochfrequenztechnik GmbH & Co. KG<br>P.O.Box 1260 D-84526 Tittmoning Germany<br><a href="http://www.rosenberger.de">www.rosenberger.de</a>                                                                                                                                                                                       |          |                                                 |          | Tel.: +49 8684 18-0<br>Fax: +49 8684 18-499<br>email: <a href="mailto:info@rosenberger.de">info@rosenberger.de</a> |                           |           | Page<br>2 / 2 |