

SMP UHV miniature coaxial feedthrough

SMP feedthroughs are a great choice for high-frequency applications, especially if you are constrained by space. The feedthrough is 50 Ohm, and it is suitable for applications up to 14 GHz. Due to its small footprint multiple feedthroughs can be mounted even on the smallest of flanges, for example 4 SMP on a DN16CF (1.33"). SMP feedthroughs are available from Allectra with "limited detent" (LD) and "smooth detent" SMP feedthroughs welded into standard CF, KF and ISO, but can also supply complete assemblies on custom flanges. To complete the range, standard and custom length in-vacuum cables are available.

| | Specifications | |
|-------------------------------|--|--------------------------------------|
| Туре | SMP male, double sided | |
| Impedance | 50 Ohm | |
| Frequency range | 0 – 14 GHz | |
| Voltage rating | 335 V rms / 500 V DC | |
| Max current | 1 A DC | |
| Standing Wave Ratio (VSWR) | <1.1 (10GHz) / <1.3 (12GHz) / <1.5 (14GHz) | |
| Vacuum | UHV, all metal seal | |
| Temperature | -55 165 °C with connector / 4k 400°C | |
| Vacuum leak rate | < 5x 10 ⁻¹⁰ mbar I / s (He) | |
| Materials | Stainless Steel, Glass, Kovar | |
| Vacuum | UHV, leak rate < 2x 10 ⁻¹⁰ mbar I /s He | |
| Insertion type | Limited Detent (LD) Marked on air side | Smooth Bore / Detent (SD) No mark |
| Insertion force | 45 N max. | 9 N max. |
| Disengagement force | 9 N min. | 2 N min. |



4 SMP on a DN16CF flange, ↑ from air side, and ↓ from vacuum side



Limited Detent feedthrough with mark on air side



SMP connector with 3 GHz cable type 301-KAP50S

All data given in this sheet are carefully checked but subject to change at any time.

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File: 242-SMPD.docx Last revised 2025-05-23

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