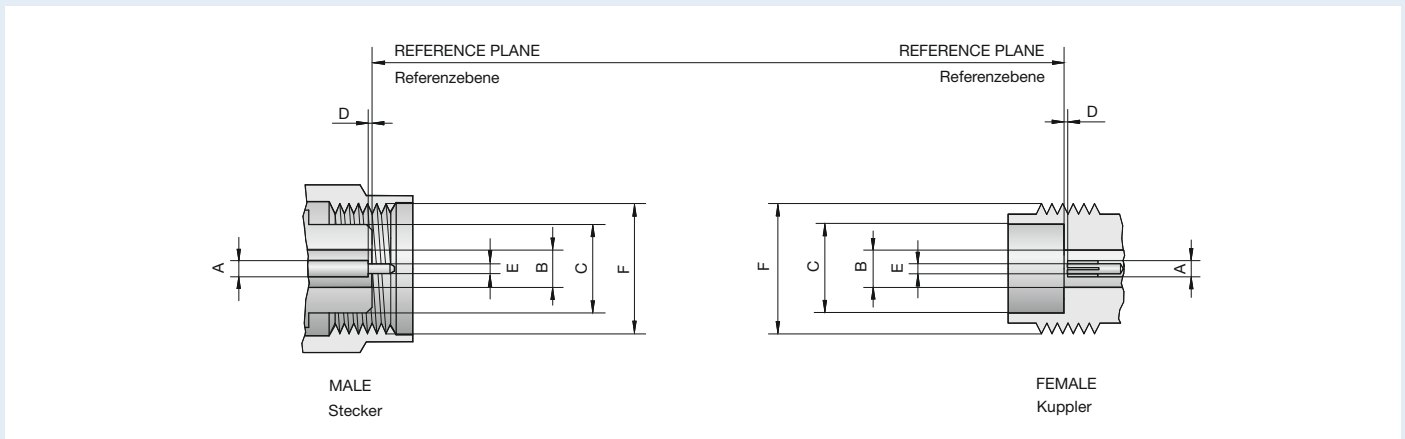


Interface Dimensions Series RPC-1.85 (code 08)



Series RPC-1.85

| dimension | Male Stecker | | Female Kuppler | |
|-----------|----------------|-------|------------------|-------|
| | min. | max. | min. | max. |
| A | 0.799 | 0.809 | 0.799 | 0.809 |
| B | 1.84 | 1.86 | 1.84 | 1.86 |
| C | 4.725 | 4.750 | 4.770 | 4.795 |
| D | 0.00 | 0.05 | 0.00 | 0.05 |
| E | 0.505 | 0.52 | 0.54 | 0.56 |
| F | M7 x 0.75 - 6H | | M7 x 0.75 - 6g | |

Technical Data Series RPC-1.85

| Applicable standards Anwendbare Standards | |
|--|--|
| Interface according to <i>Interface gemäß</i> | IEC 61169-32 |
| Mechanically compatible with <i>Mechanisch kompatibel mit</i> | RPC-2.40 |
| Electrical data Elektrische Daten | |
| Impedance <i>Wellenwiderstand</i> | 50 Ω |
| Frequency range <i>Frequenzbereich</i> | DC to 65 GHz |
| Return loss (cable connector straight) <i>Rückflußdämpfung (Kabelsteckverbinder, gerade)</i> | ≥ 20 dB, DC to 65 GHz |
| Insertion loss (cable connector straight) <i>Dämpfung (Kabelsteckverbinder, gerade)</i> | ≤ 0.05 dB x $\lfloor f[\text{GHz}]$ |
| Insulation resistance <i>Isolationswiderstand</i> | ≥ 5 G Ω |
| Center contact resistance <i>Übergangswiderstand Innenleiter</i> | ≤ 4.0 m Ω |
| Outer contact resistance <i>Übergangswiderstand Außenleiter</i> | ≤ 2.5 m Ω |
| Test voltage <i>Prüfspannung</i> | 500 V rms |
| Working voltage <i>Betriebsspannung</i> | 150 V rms |
| RF-leakage <i>Schirmdämpfung</i> | ≥ 100 dB up to 1 GHz |
| Mechanical data Mechanische Daten | |
| Mating cycles <i>Steckzyklen</i> | ≥ 500 |
| Center contact captivation <i>Innenleiter Haltekraft</i> | ≥ 20 N |
| Coupling torque recommended <i>Anzugsdrehmoment empfohlen</i> | 0.80 Nm to 1.10 Nm |
| Coupling test torque <i>Prüfdrehmoment</i> | 1.65 Nm |
| Environmental data Umweltdaten | |
| Temperature range <i>Temperaturbereich</i> | -40 °C to +85 °C |
| Thermal shock <i>Temperaturzyklen</i> | IEC 61169-1, Subclause 9.4.4 |
| Corrosion resistance <i>Korrosionsbeständigkeit</i> | IEC 61169-1, Subclause 9.4.6 |
| Vibration <i>Vibration</i> | IEC 61169-1, Subclause 9.3.3 |
| Shock <i>Schock</i> | IEC 61169-1, Subclause 9.3.14 |
| Moisture resistance <i>Feuchtigkeitsbeständigkeit</i> | IEC 61169-1, Subclause 9.4.3 |
| Max. soldering temperature <i>Maximale Löttemperatur</i> | IEC 61760-1, +260 °C for 10 sec. |
| Materials Materialien | |
| Center contact <i>Innenleiter</i> | Beryllium copper, gold-plated |
| Outer contact <i>Außenleiter</i> | Stainless steel, passivated |
| Dielectric <i>Dielektrikum</i> | PEEK |

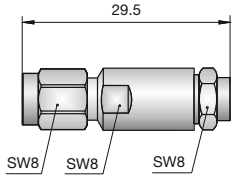
Rosenberger-connectors fulfill in principle the indicated data of the Technical Data. Individual values of connectors may deviate depending upon application, design, type of cable, assembly method and execution. Specific data sheets for particular products can be provided on request from your Rosenberger sales partner.

Rosenberger-Steckverbinder erfüllen grundsätzlich die in den Technischen Daten angegebenen Daten. Je nach Anwendung, Bauart, Kabeltyp, Montageart und -ausführung können einzelne Werte von Steckverbindern hiervon abweichen. Spezifische Datenblätter zu einzelnen Produkten erhalten Sie auf Anfrage von Ihrem Rosenberger-Ansprechpartner.

Cable Connectors Semi-Rigid Cable

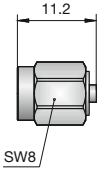
Straight Plug, solder

Semi-Rigid

| Ordering Number | Return Loss | Cable Group | Assembly Instruction | |
|-----------------|------------------------|-------------|----------------------|---|
| 08 S 121-270 S3 | ≥ 20 dB @ DC to 65 GHz | 70 | 02 A6 |  |
| 08 S 121-271 S3 | ≥ 20 dB @ DC to 65 GHz | 71 | 02 A3 | |
| 08 S 121-2W7 S3 | ≥ 20 dB @ DC to 65 GHz | W7 | 02 A3 | |

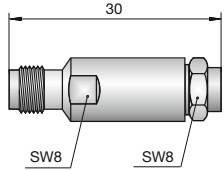
Straight Plug, solder, without pin, without dielectric

Semi-Rigid

| Ordering Number | Return Loss | Cable Group | Assembly Instruction | |
|-----------------|------------------------|-------------|----------------------|---|
| 08 S 101-271 D | ≥ 20 dB @ DC to 65 GHz | 71 | 08 A1 |  |

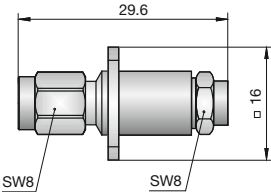
Straight Jack, solder

Semi-Rigid

| Ordering Number | Return Loss | Cable Group | Assembly Instruction | |
|-----------------|------------------------|-------------|----------------------|---|
| 08 K 121-270 S3 | ≥ 20 dB @ DC to 65 GHz | 70 | 02 A6 |  |
| 08 K 121-271 S3 | ≥ 20 dB @ DC to 65 GHz | 71 | 02 A3 | |
| 08 K 121-2W7 S3 | ≥ 20 dB @ DC to 65 GHz | W7 | 02 A3 | |

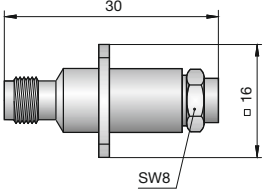
Panel Plug, 4-hole flange

Semi-Rigid

| Ordering Number | Return Loss | Cable Group | Assembly Instruction | Panel Piercing / PCB Layout | |
|-----------------|------------------------|-------------|----------------------|-----------------------------|---|
| 08 S 421-270 S3 | ≥ 20 dB @ DC to 65 GHz | 70 | 02 A6 | MB 71 |  |
| 08 S 421-271 S3 | ≥ 20 dB @ DC to 65 GHz | 71 | 02 A3 | MB 71 | |
| 08 S 421-2W7 S3 | ≥ 20 dB @ DC to 65 GHz | W7 | 02 A3 | MB 71 | |

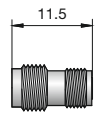
Panel Jack, 4-hole flange

Semi-Rigid

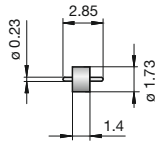
| Ordering Number | Return Loss | Cable Group | Assembly Instruction | Panel Piercing / PCB Layout | |
|-----------------|------------------------|-------------|----------------------|-----------------------------|---|
| 08 K 421-270 S3 | ≥ 20 dB @ DC to 65 GHz | 70 | 02 A6 | MB 71 |  |
| 08 K 421-271 S3 | ≥ 20 dB @ DC to 65 GHz | 71 | 02 A3 | MB 71 | |
| 08 K 421-2W7 S3 | ≥ 20 dB @ DC to 65 GHz | W7 | 02 A3 | MB 71 | |

Panel Connectors

Panel Jack

| Ordering Number | Remarks | Return Loss | Packing Unit | |
|-----------------|---|-----------------------------|--------------|---|
| 08 K 521-800 S3 | without glass bead, for hermetic sealed glass bead pin 0,24 mm 08 Z 101-000 | ≥ 15 dB @ DC to 65 GHz | 100 |  |

Glass Bead

| Ordering Number | Remarks | Return Loss | |
|-----------------|-----------------|-----------------------------|---|
| 08 Z 101-000 | hermetic sealed | ≥ 17 dB @ DC to 65 GHz |  extended scale |

Adaptors

Adaptor (In Series)

| Ordering Number | Version | Remarks | Return Loss | Panel Piercing / PCB Layout | |
|-----------------|----------|--|--|-----------------------------|--|
| 08 S 121-S00 S3 | straight | RPC-1,85 male - male | ≥ 17 dB @ DC to 65 GHz | | |
| 08 S 121-S20 S3 | straight | RPC-1,85 male - male, calibration adaptor | ≥ 28 dB @ DC to 4 GHz ≥ 17 dB @ 4 GHz to 65 GHz | | |
| 08 S 121-K00 S3 | straight | RPC-1,85 male - female | ≥ 17 dB @ DC to 65 GHz | | |
| 08 S 121-K20 S3 | straight | RPC-1,85 male - female, calibration adaptor | ≥ 28 dB @ DC to 4 GHz ≥ 17 dB @ 4 GHz to 65 GHz | | |
| 08 K 121-K00 S3 | straight | RPC-1,85 female - female | ≥ 17 dB @ DC to 65 GHz | | |
| 08 K 121-K20 S3 | straight | RPC-1,85 female - female, calibration adaptor | ≥ 28 dB @ DC to 4 GHz ≥ 17 dB @ 4 GHz to 65 GHz | | |
| 08 K 641-KH0 S3 | straight | RPC-1,85 male - male, panel mount, round flange, hermetic sealed | ≥ 12 dB @ DC to 65 GHz | MB 58 | |

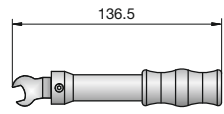
Adaptor (Inter Series)

| Ordering Number | Version | Remarks | Return Loss | |
|-----------------|----------|-----------------------------------|---|--|
| 08 S 118-S00 S3 | straight | RPC-1.85 male - Mini-SMP male | ≥ 30 dB @ DC to 12 GHz ≥ 18 dB @ 12 to 50 GHz ≥ 15 dB @ 50 to 65 GHz | |
| 08 S 118-K00 S3 | straight | RPC-1.85 male - Mini-SMP female | ≥ 30 dB @ DC to 12 GHz ≥ 18 dB @ 12 to 50 GHz ≥ 15 dB @ 50 to 65 GHz | |
| 08 K 118-S00 S3 | straight | RPC-1.85 female - Mini-SMP male | ≥ 30 dB @ DC to 12 GHz ≥ 18 dB @ 12 to 50 GHz ≥ 15 dB @ 50 to 65 GHz | |
| 08 K 118-K00 S3 | straight | RPC-1.85 female - Mini-SMP female | ≥ 30 dB @ DC to 12 GHz ≥ 18 dB @ 12 to 50 GHz ≥ 15 dB @ 50 to 65 GHz | |
| 01 S 108-S00 D3 | straight | RPC-1.00 male - RPC-1.85 male | ≥ 19 dB @ DC to 20 GHz ≥ 17 dB @ 20 to 50 GHz ≥ 14 dB @ 50 to 65 GHz | |
| 01 S 108-K00 D3 | straight | RPC-1.00 male - RPC-1.85 female | ≥ 19 dB @ DC to 20 GHz ≥ 17 dB @ 20 to 50 GHz ≥ 14 dB @ 50 to 65 GHz | |
| 01 K 108-S00 D3 | straight | RPC-1.00 female - RPC-1.85 male | ≥ 19 dB @ DC to 20 GHz ≥ 17 dB @ 20 to 50 GHz ≥ 14 dB @ 50 to 65 GHz | |
| 01 K 108-K00 D3 | straight | RPC-1.00 female - RPC-1.85 female | ≥ 19 dB @ DC to 20 GHz ≥ 17 dB @ 20 to 50 GHz ≥ 14 dB @ 50 to 65 GHz | |

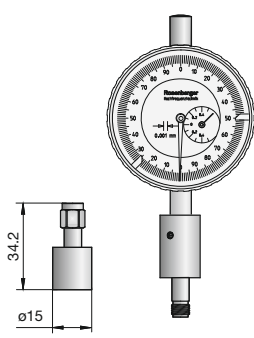
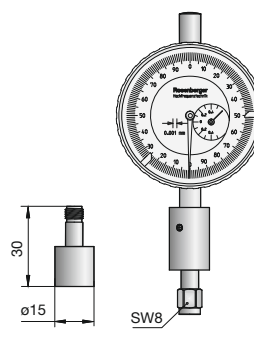
| Ordering Number | Version | Remarks | Return Loss | |
|-----------------|----------|-----------------------------------|-----------------------------|--|
| 02 S 108-S00 S3 | straight | RPC-2.92 male - RPC-1.85 male | ≥ 19 dB @ DC to 40 GHz | |
| 02 S 108-K00 S3 | straight | RPC-2.92 male - RPC-1.85 female | ≥ 19 dB @ DC to 40 GHz | |
| 02 K 108-S00 S3 | straight | RPC-2.92 female - RPC-1.85 male | ≥ 19 dB @ DC to 40 GHz | |
| 02 K 108-K00 S3 | straight | RPC-2.92 female - RPC-1.85 female | ≥ 19 dB @ DC to 40 GHz | |

Tools

Torque Wrench

| Ordering Number | Remarks | |
|-----------------|--|---|
| 03 W 021-000 | flat 8 mm - 0.9 Nm torque for RPC-3.50 , RPC- 2.92, RPC-2.40, RPC-1.85 |  |

Gauge

| Ordering Number | Remarks | |
|-----------------|---|--|
| 08 W 00S-000 | compatible to male connectors for RPC-2.40, RPC-1.85 incl. gauge block |  |
| 08 W 00K-000 | compatible to female connectors for RPC-2.40, RPC-1.85 incl. gauge block |  |