

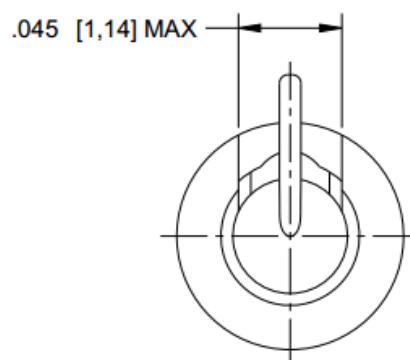
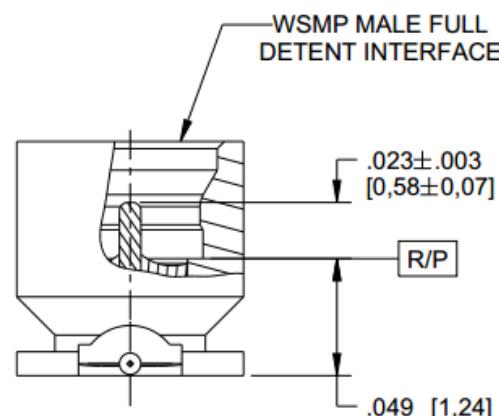
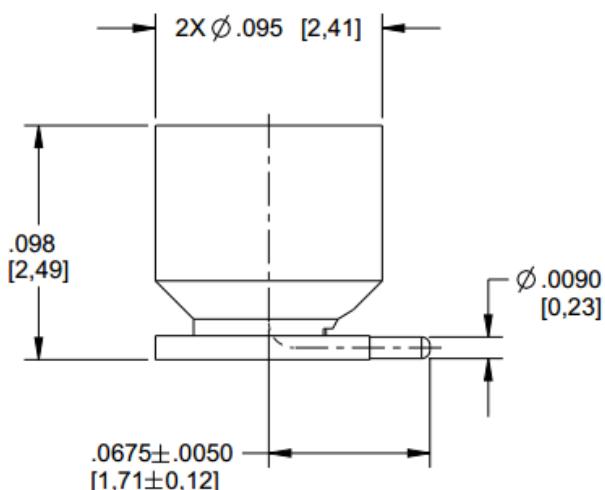
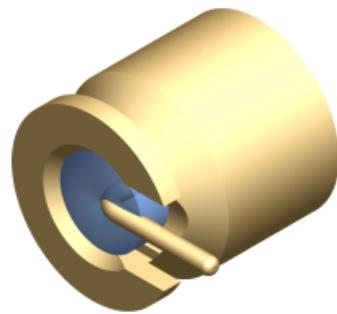
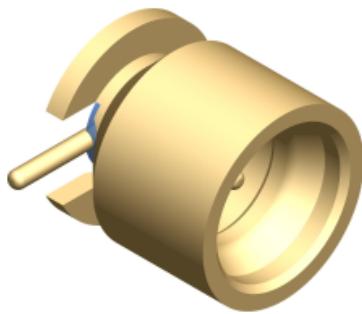
## Technical Data Sheet

# Rosenberger

WSMP

Male Full Detent  
Right Angle Launch

**W1S103-40ML5**



All dimensions are in inches [mm]

### Interface

According to

Rosenberger WSMP™ Interface standards

### Material and plating

#### Connector parts

Body and Contact

#### Material

Kovar® per ASTM F15

#### Plating

Hard gold 6µIN [0,15µm] min, over Nickel, 80µIN [2,0µm] min

Dielectric

7070 Glass

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### Electrical data (@ STP unless otherwise specified)

Impedance	50 Ω
Frequency	DC to 65 GHz
Return loss	≥ 26 dB, DC to 26 GHz ≥ 19 dB, 26 to 40 GHz ≥ 14 dB, 40 to 50 GHz
Insertion loss	≤ 0.12 x $\sqrt{f(\text{GHz})}$ dB
Insulation resistance	≥ 3.5 x 10 <sup>3</sup> MΩ
Center contact resistance	≤ 2.0 mΩ
Outer contact resistance	≤ 6.0 mΩ
Test voltage	250 V rms
RF High Potential	150 V rms @ 5 MHz
RF-leakage	≥ -80 dB (typical mated pair)

\*Connector only, return loss in application depends decisively on PCB layout

### Mechanical data

Mating cycles	
Full Detent	≥ 100
Engagement force	
Full Detent	2.5 lb <sub>f</sub> [11 N]
Disengagement force	
Full Detent	4.5 lb <sub>f</sub> [20 N]

### Environmental data

Temperature range	-55°C to +165°C
Thermal shock	MIL-STD-202 – 107, Condition B
Corrosion	MIL-STD-202 – 101
Vibration	MIL-STD-202 – 204, Condition D
Shock	MIL-STD-202 – 213, Condition I
Moisture resistance	MIL-STD-202 – 106, except Step 7B
Max soldering temperature	IEC 61760-1, +500°F [+260°C] for 10 seconds
2002/95/EC (RoHS)	compliant

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
R. Fisher	6/30/16	R. Hosler	6/30/16	a02	Revised per ECN 23-1039	J. Havener	7/6/2023
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