



All dimensions are in mm; tolerances:  $\pm 3\text{mm}$  for  $A \leq 300\text{ mm}$ ;  $\pm 1\%$  for  $A > 300\text{ mm}$

**Available variants**

Type	max. Insertion loss at 50 GHz	Weight (g) / pce
LU8-006-XXX	$\leq 0.00397\text{ dB/mm} * A\text{ mm} + 0.7\text{ dB}$	$0.206\text{ g/mm} * A\text{ mm} + 153\text{ g}$

XXX – length in mm = A

Note: max. Insertion Loss:  
First constant = Cable attenuation in dB /mm; Second Constant = Connector left and Connector right +needed Adaptor

Weight:  
First constant = Cable- and Armour- weight per mm; Second Constant = Connector left and Connector right weight per pce

**Assembly parts**

Connector left	RPC-2.40 ruggedized jack	09KR123-2U8S3
Connector right	RPC-2.40 jack	09K123-2U8S3
Cable	RTK 125	
Armour	Metal tubing with fixed bending rate and protection braid	

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RF\_35/09.14/6.2

# Technical Data Sheet

# Rosenberger

## Cable assembly

RPC-2.40 Jack / Jack – RTK 125 - VA Armour

## LU8-006-XXX

### Electrical data

Impedance	50 $\Omega$
Frequency	DC to 50 GHz
Return loss <sup>1</sup>	$\geq 26$ dB, DC to 4 GHz $\geq 17$ dB, 4 GHz to 50 GHz
Insertion loss <sup>1</sup>	see table available variants
Phase deviation: After 90° bending	$\leq 1.3^\circ$ , DC to 4 GHz $\leq 7.0^\circ$ , 4 GHz to 50 GHz
Straight after 3x90° bending	$\leq 1.0^\circ$ , DC to 4 GHz $\leq 4.5^\circ$ , 4 GHz to 50 GHz
Amplitude stability	$\leq 0.03$ dB, DC to 4 GHz $\leq 0.08$ dB, 4 GHz to 50 GHz
Return loss stability	$\geq 45$ dB, DC to 4 GHz $\geq 35$ dB, 4 GHz to 50 GHz
RF-leakage	$\geq 100$ dB up to 1 GHz

Individual testing and documentation:

Phase deviation, Amplitude stability and Return Loss stability is testes according to the specification. Measurement plot with all 4 S-Parameters (S11; S22; S21; S12) is included with the cable assembly and on the backside the care and handling instruction is printed. Measurement adaptors used are mentioned in the commentary field.

<sup>1</sup> Return Loss and Insertion Loss includes the measurement adaptor

### Mechanical data

Minimum bend radius:	60 mm
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### Environmental data

Temperature range	-40°C to +85°C
RoHS	compliant

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
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