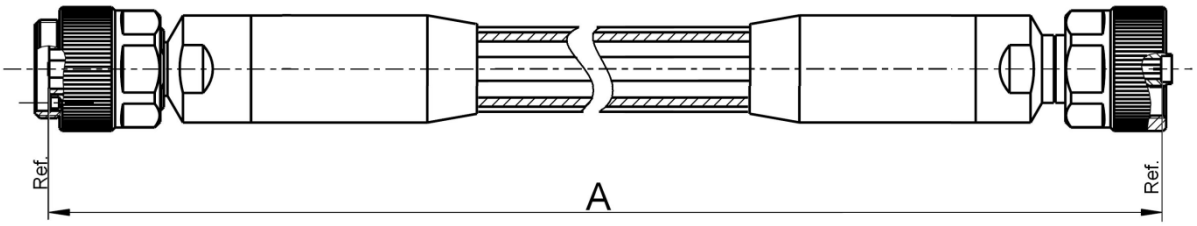
Technical Data Sheet

Rosenberger

Cable assembly
RPC-7 / RPC-3.50 jack – RTK 162
VA Armour

LU7-031-XXX



All dimensions are in mm; tolerances: ± 3mm for A ≤ 300 mm; ± 1% for A > 300 mm

Available variants

Type	Insertion loss at max. Frequency	Weight (g) / pce
LU7-031-XXX	≤ 0.00164 dB/mm * A mm + 0.35 dB	0,25 g/mm * A mm + 131 g

XXX – length in mm = A
- Standard lengths are 600, 800 and 1000mm. The smallest possible length is 400mm. -

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

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

Documents

Technical data sheet connector left	RPC-7	07P123-2U7S3
Technical data sheet connector right	RPC-3.50 ruggedized jack	03KR123-2U7S3
Technical data sheet cable	RTK 162	
Calibration of measuring equipment for electrical quantities - Characterisation of HF measuring cables	VDI/VDE/DGQ/DKD 2622 Part 19	

Assembly parts

Connector left	RPC-7	07P123-2U7S3
Connector right	RPC-3.50 ruggedized jack	03KR123-2U7S3
Cable	RTK 162	
Armour	Metal tubing with fixed bending rate and protection braid	

Electrical data

Impedance	50 Ω
Frequency	DC to 18 GHz
Return loss[1]	≥ 28 dB, DC to 4 GHz
	≥ 20 dB, 4 GHz to 18 GHz
Insertion loss[1]	see table “Available variants”
RF-leakage	≥ 100 dB up to 1 GHz

[1] *Return Loss and Insertion Loss includes the measurement adaptor*

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Stability data (acc. VDI/VDE/DGQ/DKD 2622 part 19)

Insertion loss stability:

After 90° bending	≤ 0.03 dB, DC to 4 GHz ≤ 0.05 dB, 4 GHz to 18 GHz
	≤ 0.5°, DC to 4 GHz ≤ 2.0°, 4 GHz to 18 GHz
Straight after 3x90° bending	≤ 0.5°, DC to 4 GHz ≤ 1.5°, 4 GHz to 18 GHz

Return loss stability:

After 90° bending	≥ 48 dB, DC to 4 GHz ≥ 40 dB, 4 GHz to 18 GHz

Individual testing and documentation:

Stability data is tested according to the specification.
Measurement plot with all 4 S-Parameters (S11; S22; S21; S12) and the care and handling instruction are included with the cable assembly. Auxiliary adaptors used are mentioned in the commentary field.

Mechanical data

Minimum bend radius:	60 mm

Environmental data

Operating temperature range[2]	+20 °C to +26 °C
Rated temperature range of use[3]	0 °C to +50 °C
Storage temperature range	-40 °C to +85 °C
RoHS	compliant

2 Temperature range over which these specification are valid.
3 This range is underneath and above the operating temperature range, within the cable assembly is fully functional and could be used without damage.

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