RxF SERIES

R2F / R4F

Contents

RXF

SECTION 8 TABLE OF CONTENTS

RXF

Introduction

RXF: RADIALL OUTDOOR FIBER OPTIC CONNECTOR

Dedicated to outdoor optical connections, RXF is designed and manufactured by Radiall. RXF connectors are available with 2 and 4 channels, in MultiMode or SingleMode UPC versions.

RXF can be provided as a complete cable assembly or connector kit depending on customer needs. A quick-locking device with IP68 sealing and low loss insertion allows this connector to be used in severe outdoor connections and harsh environments.

APPLICATIONS
• Wireless communications
• Energy
• Transportation
• Monitoring display

International Standard Document Compliance

- IEC 61300 Fiber optic interconnecting devices and passive components
- Telcordia GR-326-CORE optical connectors and jumper assemblies
- IEC 60529 Degrees of protection provided by enclosures (IP code)
- EN 50125 Railway applications - environmental conditions for equipment
- MIL-PRF-39012 Standard N type mechanical interface
- RoHS compliant

Features and Benefits

• *Robust connection*
   - Fully protected ceramic ferrules and alignment sleeves: no risk to damage the optical faces during mounting/dismounting operations
   - Standard mechanical interface: N type screwing according to MIL-PRF-39012
   - Use of standard optical ferrules 1.25mm

• *Easy installation*
   - Qualified with other compatible outdoor fiber optic N type connectors
   - Screwed locking mechanism: easy to install (U-19mm wrench/1 N.m torque)
   - Fast and easy connection: one-hand blind mate coupling

• *Suitable for harsh environments (adapted for outdoor use)*
   - Waterproof connection
   - Dust proof
   - Corrosion resistant

• *High level of performance*
   - Full compliance to IEC 61300 standard
   - High tensile strength
   - EMI immunity

Characteristics

OPTICAL CHARACTERISTICS

Insertion loss (IEC 61300-3-4)	Typical≤0.2 dB (max≤0.5 dB)
Return loss	≥50 dB

Insertion loss against a reference patchcord: IEC 61300-3-4 Method B

Return loss: IEC 61300-3-6

Note: The optical performance also depends on the fiber or cable qualities.

MECHANICAL CHARACTERISTICS

Mating endurance	IEC 61300-2-2	500 mating cycles minimum
Tensile resistance	RXF Plug	800 N (with field cable)*
	RXF Socket	30 N (with field cable)*
Vibrations	IEC 61300-2-1	Passed
Shocks	IEC 61300-2-9	Passed

*Depending on cable type

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	IEC 61300-2-22	-40°C/+85°C
Salt spray	IEC 61300-2-26	Passed
Ingress protection class	IEC 60529	IP 68 (with screwed cap or when mated)

MATERIALS

Housing	Brass
Plating	Nickel

RXF Product Range

RXF PLUG KITS
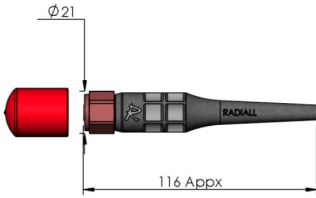
Fig. 1
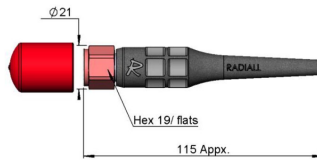
Fig. 2

Part number	Fiber type	Fig.	Dimensions (mm)	Channels
RXF2 130 500	Multi	1	5-5.6	2
RXF2 130 600	Multi	1	6	2
RXF2 130 700	Multi	1	7	2
RXF2 131 500	Single	1	5-5.6	2
RXF2 131 510	Single	1	5-5.6	2
RXF2 131 600	Single	1	6	2
RXF2 131 700	Single	1	7	2
RXF4 130 500	Multi	2	5-5.6	4
RXF4 130 700	Multi	2	7	4
RXF4 131 500	Single	2	5-5.6	4

RXF Product Range

RXF SOCKETS
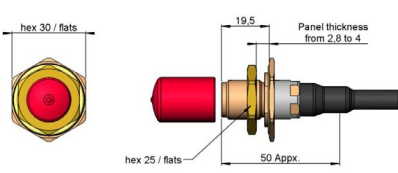
Fig. 1
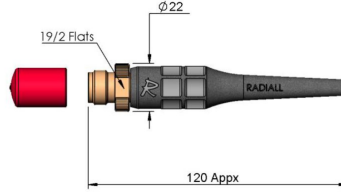
Fig. 2
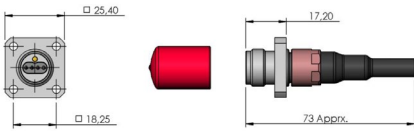
Fig. 3

Part number		Fiber type	Fig.	Dimensions (mm)	Channels
RXF2 330 500		Multi mode	2	5-5.6	2
RXF2 331 500		Single mode			
RXF2 430 200		Multi mode	3	25.4 x 25.4	
RXF2 431 200		Single mode			
RXF4 230 200		Multi mode	1	30 on flats	4
RXF4 231 200		Single mode			
RXF4 330 500		Multi mode		5-5.6	
RXF4 330 700		Multi mode	2	7	
RXF4 331 500		Single mode		5-5.6	
RXF4 430 200		Multi mode	3	25.4 x 25.4	
RXF4 431 200		Single mode			

RXF

RXF PLUG KITS

Radiall can accommodate different types of cables (simplex or field cables) and various diameters. The cable assemblies will be customized to fit with particular appliction requirements (specific labeling, length, etc.) and will be tested before shipment. Radiall's assembly plants have mass production capacity and can adapt to low and high volume demands.

DEFINE YOUR CABLE ASSEMBLIES:
1 - Number of channels: R2F or R4F
2 - Connector end 1 + protective cap
3 - Connector end 2 + protective cap
4 - Fiber type and cable type
5 - Length

SELECT A CABLE ASSEMBLY AMONG STANDARD PART NUMBERS:
Radiall designs, manufacturers and supplies standard outdoor cable assemblies. A standard configuration combines standard fiber optic connectors and cables with standard length and tolerances. Standard outdoor cable assemblies are catalog items with short lead times due to the direct availability of the components.
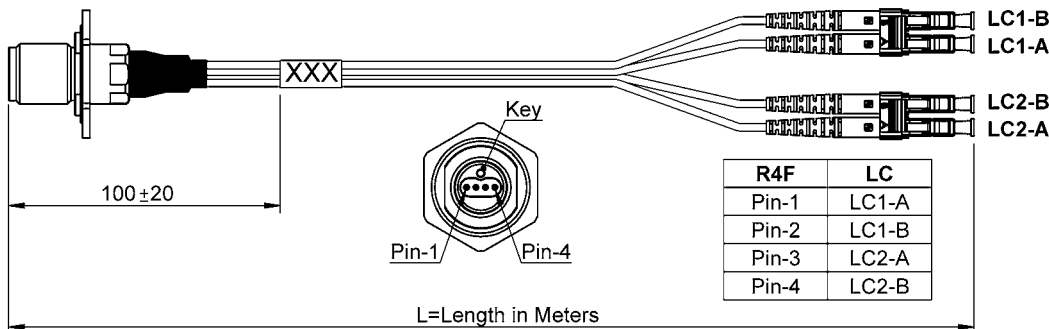
R2F Socket Square Flange to LC Duplex – Indoor Simplex Cable Ø2 mm
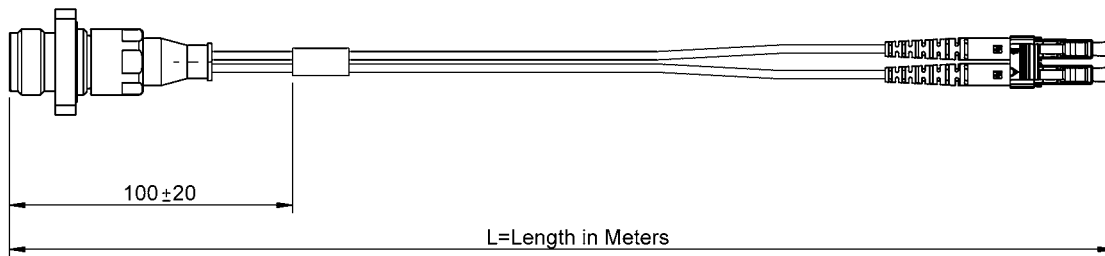
Fiber type	Part number	Length
SM 9/125 µm G652	F760 855 220	L=1 m
MM 50/125 µm OM2	F760 858 220	L=1 m

Note: Other lengths are available upon request.

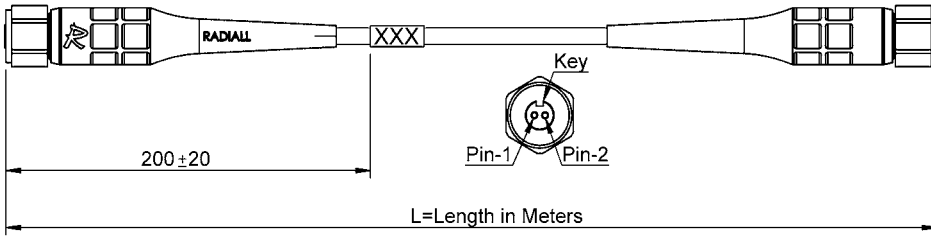### R4F Socket Hexagonal to 2 x LC Duplex – Indoor Simplex Cable Ø2 mm

R4F	LC
Pin-1	LC1-A
Pin-2	LC1-B
Pin-3	LC2-A
Pin-4	LC2-B

Fiber type	Part number	Length
SM 9/125 µm G652	F760 855 240	L=1 m
MM 50/125 µm OM2	F760 858 240	L=1 m

Note: Other lengths are available upon request.

RXF Product Range
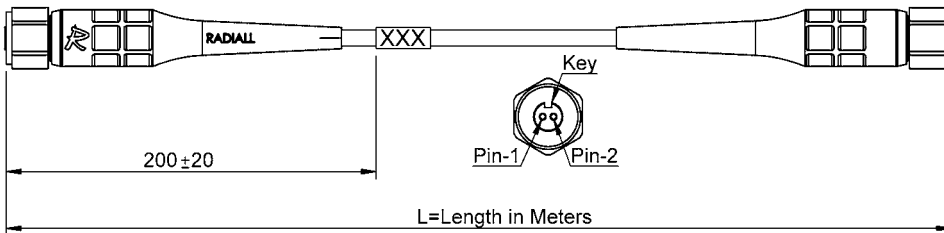
R2F Plug to LC Duplex – Outdoor Field Cable Ø5 mm

200 ±20

Key

Pin-1 / Pin-2

L=Length in Meters

Fiber type	Part number (*)
SM 9/125 µm G652	F760 855 620-XX
MM 50/125 µm OM2	F760 858 620-XX

(*): replace "XX" by the length in meters
Standard length: 5 m and 50 m
Ex: F760 855 620-05 for 5 m
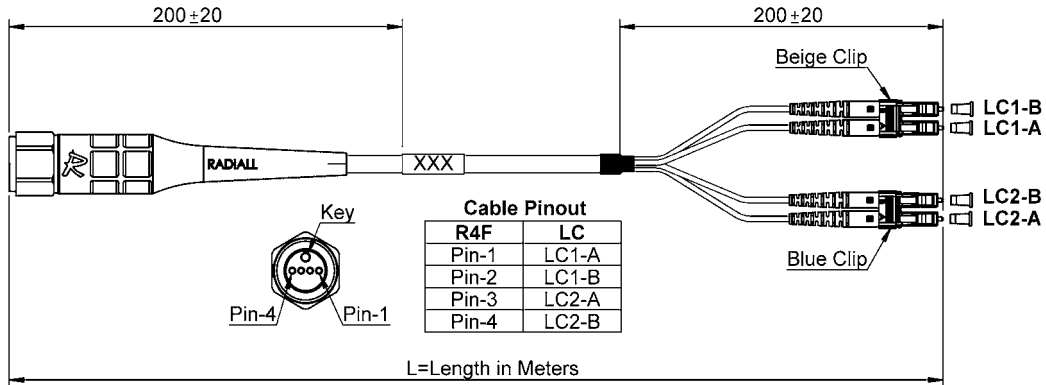
R2F Plug to R2F Plug – Outdoor Field Cable Ø5 mm

200 ±20

Key

Pin-1 / Pin-2

L=Length in Meters

Fiber type	Part number (*)
SM 9/125 µm G652	F760 885 620-XX
MM 50/125 µm OM2	F760 888 620-XX

(*): Replace "XX" by the length in meters
Standard length: 5 m and 50 m
Ex: F760 885 620-05 for 5 m

RXF

RXF Product Range

R4F Plug to 2 x LC Duplex – Outdoor Field Cable Ø5 mm

Cable Pinout

R4F	LC
Pin-1	LC1-A
Pin-2	LC1-B
Pin-3	LC2-A
Pin-4	LC2-B

Fiber type	Part number (*)
SM 9/125 µm G652	F760 855 640-XX
MM 50/125 µm OM2	F760 858 640-XX

(*): Replace "XX" by the length in meters
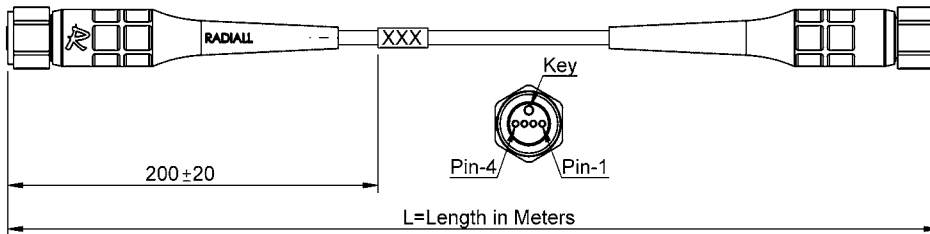Standard length: 5 m and 50 m
Ex: F760 855 640-05 for 5 m

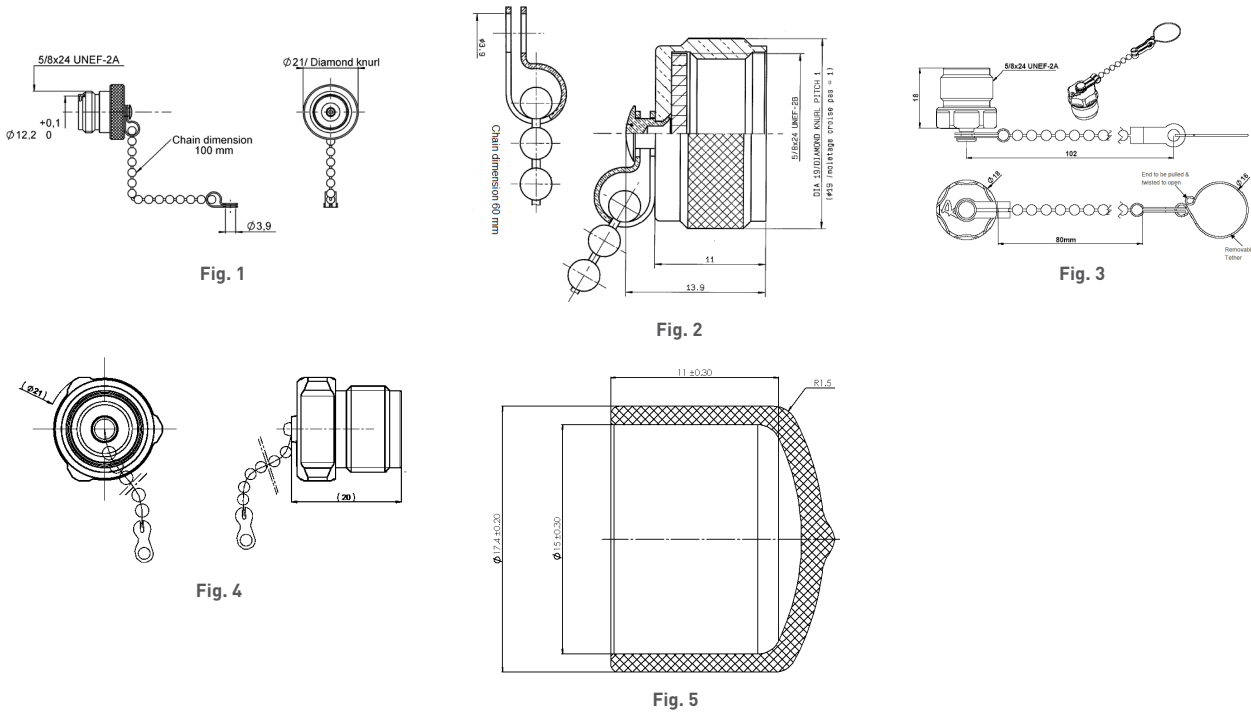### R4F Plug to R4F Plug – Outdoor Field Cable Ø5 mm

Fiber type	Part number (*)
SM 9/125 µm G652	F760 885 640-XX
MM 50/125 µm OM2	F760 888 640-XX

(*): Replace "XX" by the length in meters
Standard length: 5 m and 50 m
Ex: F760 885 640-05 for 5 m

Accessories and Tools

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Part number		Description	Fig.
R161 841 010		Metal female protective cap with chain	1
R161 853 000		Metal male protective cap with chain	2
RXF0 129 500		Plug plastic cap with chain and removable tether	3
243 25 810		Plug plastic cap with chain	4
240 92 675		Vinyl plastic cap	5

Accessories and Tools

The mechanical cleaning tool to clean RXF optical end-faces. The tool uses a dry cleaning strand to gently sweep and lift away dust and residue from the connector end-face.

Part number	Description	Packaging
F780 906 001	RXF cleaning tool	Unitary