FibrePlus SC Fibre Optic Connector

Datasheet: GD102431v2

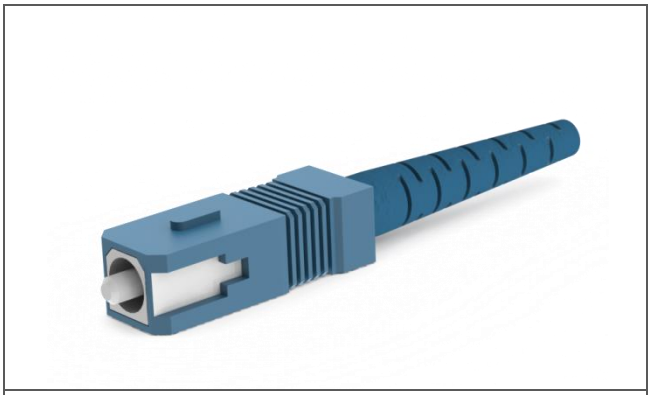
APPLICATION

The Brand-Rex SC-compatible connector is comprised of a polymer inner and outer body and a ceramic ferrule/spring/crimp barrel assembly plus a crimp over-sleeve and rubber boot. These connectors are suitable for both 900µm and 2mm cables or 900µm and 2.4-3.0mm cables. Refer to the diagram for nominal dimensional information.

The connector is precision made and manufactured to demanding specifications. The combination of a ceramic ferrule and precision polymer housing provides consistent long-term mechanical and optical performance.

FEATURES

- Strong and robust design
- Reliable performance
- Consistent optical and mechanical performance
- Singlemode and multimode options available
- Simplex and duplex options available

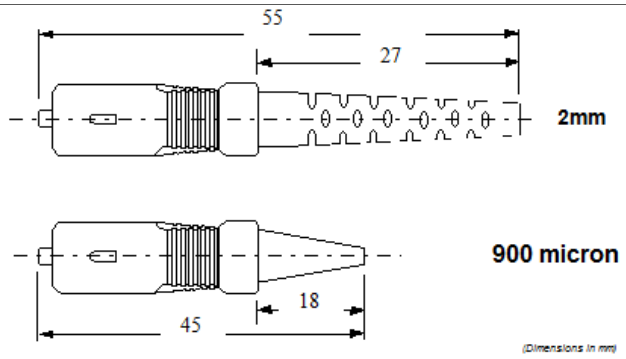


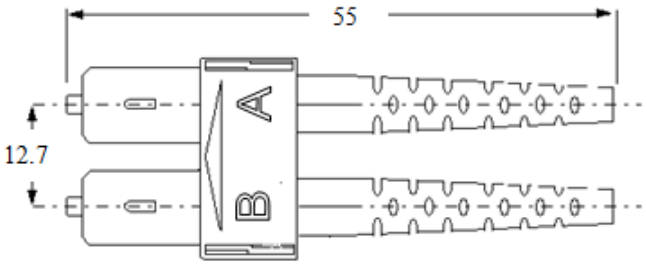
FOCxCEPxM00x

ORDER INFO

Brand-Rex Part Number	Item Description	Colour	Qty per Pack
FOCSCEPSM001	SC Singlemode Simplex Connector c/w dust caps for 900µm and 2.4-3.0mm cables	Blue	1
FOCSCEPMM001	SC Multimode Simplex Connector c/w dust caps for 900µm and 2.4-3.0mm cables	Beige	1
FOCSCEPSM002	SC Singlemode Simplex Connector c/w dust caps for 900µm and 2.0mm cables	Blue	1
FOCSCEPMM002	SC Multimode Simplex Connector c/w dust caps for 900µm and 2.0mm cables	Beige	1
FOCACEPSM001	SC APC Singlemode Simplex Connector c/w dust caps for 900µm and 2.4-3.0mm cables	Green	1
FOCDCEPSM001	SC Singlemode Duplex Connector c/w dust caps for 900µm and 2.4-3.0mm cables	Blue	1
FOCDCEPMM001	SC Multimode Duplex Connector c/w dust caps for 900µm and 2.4-3.0mm cables	Beige	1
FOCDCEPSM002	SC Singlemode Duplex Connector c/w dust caps for 900µm and 2.0mm cables	Blue	1
FOCDCEPMM002	SC Multimode Duplex Connector c/w dust caps for 900µm and 2.0mm cables	Beige	1

PHYSICAL CHARACTERISTICS





MECHANICAL SPECIFICATION

- Singlemode:
  - Capillary diameter tolerance: 126 +1/-0 µm
  - Ferrule Diameter: 2.499mm ±0.0005
  - PC - Pre-radiused, PC-end finish for Physical Contact ferrule to ferrule R 10 to 25
- Multimode:
  - Capillary diameter tolerance: 127 +3/-0 µm
  - Ferrule Diameter: 2.499mm ±0.001
  - PC - Pre-radiused, PC-end finish for Physical Contact ferrule to ferrule R 10 to 25
- APC:
  - Capillary diameter tolerance: 126 +1/-0 µm
  - Ferrule Diameter: 2.499mm ±0.0005
  - 8°APC for Physical Contact ferrule to ferrule

BACK SHELL

- Cable Acceptance:
  - Max. Diameter for P/N finishing 001: 3.0mm Tight Buffer Cable
  - Max. Diameter for P/N finishing 002: 2.0mm Tight Buffer Cable
  - Min. Diameter: 0.9mm Buffered Fibre
  - Tensile Strength: >10 kg before pull out for 2.0mm or 2.4 - 3.0mm Cable

ENVIRONMENTAL (WHEN TERMINATED)

- Temperature Cycling: (IEC 874-1 sec.4.5.22) — -40 to +75°C, 40 cycles; ≤ 0.2dB Change
- High Temperature: (IEC 874-1 sec.4.5.18) — 75°C for 96 hours
  (IEC 874-1 sec.4.5.19) — 60°C at 95% RH, 96 hours; ≤ 0.2dB Change
- Vibration (Mated Pair): (IEC 874-1 sec.4.5.1) — 10-55 Hz, 1.5mm P to P; ≤ 0.3dB Change
- Mating Durability: (IEC 874-1 sec.4.5.32) — 1000 mating cycles; Clean every 25; < 0.2dB Change

2.499mm ±0.0005

OPERATING TEMPERATURE

- -40°C to +85°C (Check cable temp performance)

OPTICAL PERFORMANCE

- Singlemode:
  - Insertion loss: Max. 0.3 dB Typical 0.15 dB (IEC 874-1 method 7)
  - Return loss: < -45dB
- Multimode:
  - Insertion loss: Max. 0.5 dB Typical 0.3 dB (IEC 874-1 method 7)

INTERMATEABILITY

- Optically and mechanically compatible with all SC equivalent connectors compliant with ANSI/TIA604-3-B: 2004 (FOCIS-3)

CRIMP TOOL

- Standard .178 Hex Die hand tool

PRODUCT PACKAGING

- Each connector is packaged individually
- Each pack contains:
  - Simplex - SC connector & housing, dust cap, crimp ring, 3 boots
  - Duplex – double of above with a duplex clip set
- Bulk packaging also available

TERMINATION PROCEDURE

- Prep cable end, Epoxy-Crimp-Polish

CONNECTOR-TO-CONNECTOR ASSEMBLY

- The SC-type connector offers simple connects and disconnects requiring only a push/ pull of the outer housing. The pulling of the cable will not unseat the connector without pulling on the outer shell.