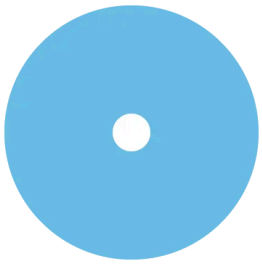
SMC-460-1-68/18TC-xxx

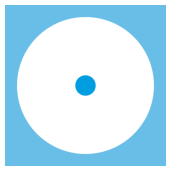
SMC-460-3.5-NA013-1-E2000-APC/APC.TI-C-xxx
Single-mode fiber cable



FEATURES

Single-mode fiber cable with Gaussian intensity distribution and low-stress fiber connectors.

- Cut-off wavelength: 450 nm
- Max. wavelength: 600 nm
- Effective fiber NAe^2: 0.085 (± 0.005) @ 450 nm
- Cable: 900 µm buffer
- Connector Type (customer-specified): E2000 APC (8 deg), FC APC (8 deg, amagnetic, core-centered)



DESCRIPTION

The main features of the fiber cable type SMC-460-1-68/18TC-xxx (also known as SMC-460-3.5-NA013-1-E2000-APC/APC.TI-C-xxx) include

Fiber

The fiber is a single-mode fiber, defined by its NA and its cut-off wavelength. The nominal NA is 0.13 and is specified by the fiber manufacturer. Additionally the effective numerical aperture NAe^2 is measured for each fiber batch by Schäfter + Kirchhoff. The fiber has an effective numerical aperture NAe^2 of 0.085 and a cut-off wavelength λ_{co} of 450 nm. Maximum wavelength is 600 nm. Besides the nominal cut-off wavelength λ_{co}, Schäfter + Kirchhoff also offers measured data for the cut-off wavelength for each individual fiber cable.

Fiber cable

The fiber cable has a 900 µm buffer in black and a length of xx cm.

Fiber Connectors
The fiber cable is equipped with a fiber connector of type E2000 APC (8 deg polish) at the one end and a fiber connector of type FC APC (8 deg polish, amagnetic, core-centered, wide key) at the other end. All of the fiber connectors of type FC have an alignment index (key). The wide key (type "N") fiber connector has an alignment index (key) of 2.14 mm width.

The fiber has at least one core-centered connector to avoid misalignment of mechanical and optical axes, that might occur due to manufacturing tolerances.

Amagnetic fiber connectors
Amagnetic fiber connectors are completely made of titanium and have a ceramic ferrule. This ensures that the relative permeability μ_r of the connector is near 1 ($\chi = 5 \cdot 10^{-5}$, $\mu_r = 1.00005$), making it transparent to magnetic fields.

TECHNICAL DATA

SMC-460-1-68/18TC-xxx

Order Code	SMC-460-1-68/18TC-xxx	
Also known as	SMC-460-3.5-NA013-1-E2000-APC/APC.TI-C-xxx	
Fiber type	Single-mode	
Cut-off	< 450 nm	
Wavelength max.	600 nm	
Nominal Fiber NA	0.13	
Nominal MFD (@450 nm)	3.5 ± 0.5 µm	
Effective fiber NAe^2	0.085 (@450 nm) ± 0.005	
Core attenuation [dB/km]	30 (@515 nm)	
Cable	Ø 900 µm buffer ()	
Cable length	xxx cm	
Min. bend radius	15 mm	
Connector type	E2000	FC
Polish	8 deg	8 deg
End cap	no	no
amagnetic	no	yes
Key width		wide key
Core centered	no	yes
Core centering		yes
Bend protection		Polymer

Temperature range	-40 °C - 85 °C

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NAe2_KS5-02.pdf

RELATED PRODUCTS

FIBER CABLES PMC	Polarization-maintaining fiber cables
FIBER COUPLERS SINGLE-MODE/PM	Fiber Couplers for coupling into single-mode and polarization-maintaining fiber cables
FIBER COLLIMATORS SINGLE-MODE/PM	Fiber Collimators for collimating light exiting a single-mode or polarization-maintaining fiber cable

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