

# Compact RS232/422/485 Serial to Fiber Converter

## SC201

### Industrial 2-port Serial to Fiber Media Converter

The SC201 is a converter that facilitates the connection of a remote terminal unit (RTU) with a HOST or SCADA controller by converting RS-232/485/422 signals to 100M Single Mode Fiber. It has flexible port options, allowing the user to mix and match RS-232, RS-485, or RS-422 ports, and supports 2 wires (half-duplex) RS-485 and 4 wires (full-duplex) RS-485 and 4 wires (full-duplex) RS-422 mode.

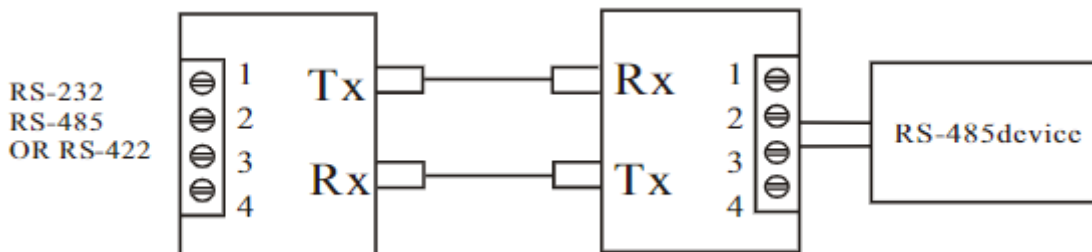
The transmission rates for RS-232 can reach up to 115.2Kbps, and for RS-485/422 can reach up to 460Kbps, making it a high-speed converter. The SC201 supports mixed and matched ports with different electronic standards and apply single core/ single mode fiber with WDM technology to reduce the fiber transmission cost.



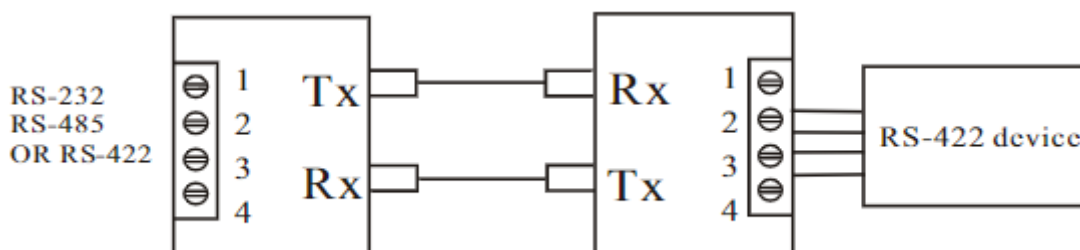
### Features & Benefit

- Supports point to point connection
- Supports RS-232,RS-422,RS-485 protocol
- Simultaneous RS-232, RS-485/422 Communications
- Auto Adaptive Serial parameters without configuration
- Serial Baud Rate up to 115200bps
- Seamless Zero delay
- Single-Mode Fiber, Single-Core Transmission
- Interface: Simplex SC, Applies WDM Technology / RS232 DB9 /RS485, RS422 Terminal Connector

#### Point to Point Half Duplex

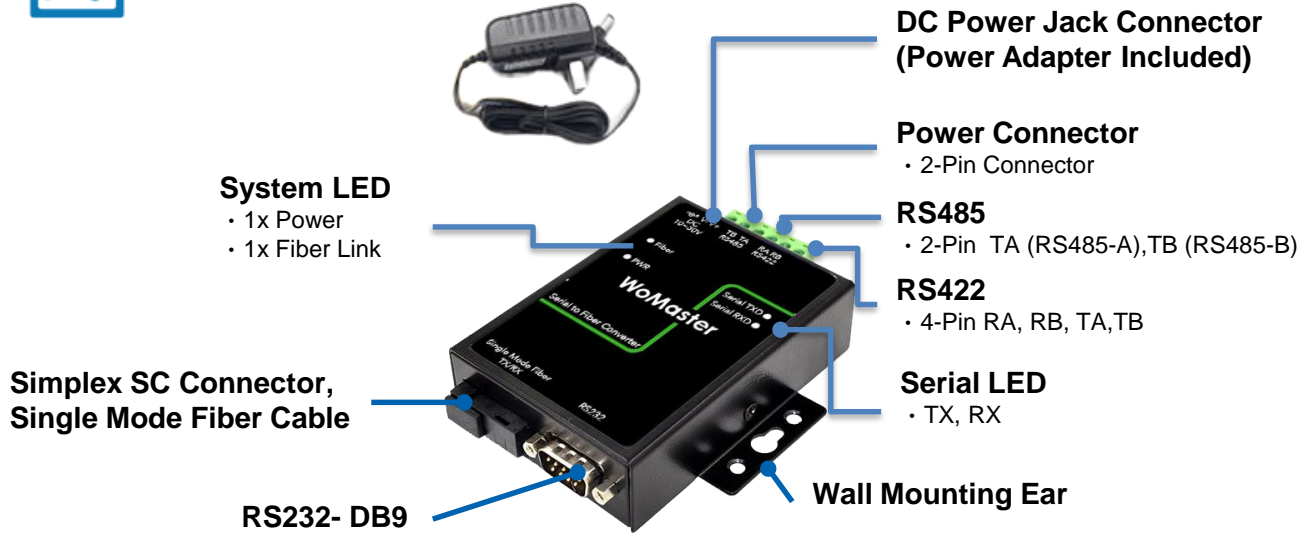


#### Point to Point Full Duplex

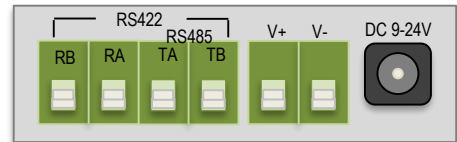




## Interfaces



RS-232 (DB9 Male) Pin	Definition
#2	Rx Data
#3	Tx Data
#5	Ground
#7	RTS
#8	CTS

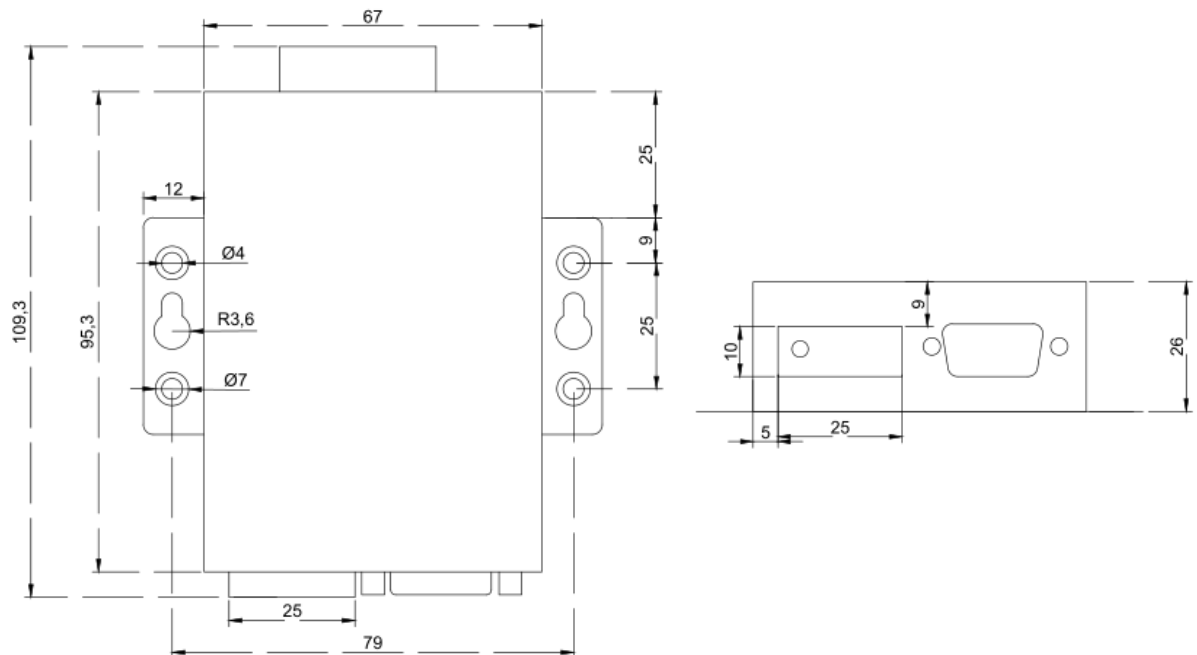


Terminal Connector	Function
V+ / V-	Power Input
RS485 TA/TB	RS485-A/ RS485-B
RS422 RA, RB	RS422 RxA, RxB
RS485 TA, TB	RS422 TxA, TxB



## Dimensions

Unit: mm



Interface																					
<b>Serial Port</b>	RS232/RS422/RS485 Line Driver support 8/15KV ESD <b>Interface Connector:</b> RS232: DB9 Male, RxD, TxD, CTS, RTS, Ground RS422/485: Terminal Connector <b>Serial Configuration:</b> Auto adaptive without configuration Baud Rate: 115200bps Parity Check: None, Odd, Even, Mark, Space Data Size: 5-9 bit Flow Control : None <b>Transmission Latency:</b> Seamless Zero Delay																				
<b>Optical Fiber Port</b>	Fiber Cable: Single Mode Fiber Cable, one fiber core transmission Interface: Simplex SC with WDM Technology SC201-S-SC-WDM13-20: TX 1310nm, RX 1550nm, 20KM distance, SC Simplex Connector SC201-S-SC-WDM15-20: TX 1550nm, RX 1310nm, 20KM distance, SC Simplex Connector SC201-S-SC-WDM13-40: TX 1310nm, RX 1550nm, 40KM distance, SC Simplex Connector SC201-S-SC-WDM15-40: TX 1550nm, RX 1310nm, 40KM distance, SC Simplex Connector																				
<b>Transceiver Parameters</b>	<table border="1"> <thead> <tr> <th>Model (SC201-S-SC-)</th> <th>TX (dBm)/ Wavelength (nm)</th> <th>RX (dBm)/Wavelength(nm)</th> <th>Link Budget (dB) / KM</th> </tr> </thead> <tbody> <tr> <td>WDM13-20</td> <td>-14~-3 / 1310</td> <td>-31 ~-3 / 1550</td> <td>17 / 20KM</td> </tr> <tr> <td>WDM15-20</td> <td>-14~-3 / 1550</td> <td>-31 ~ -3 / 1310</td> <td>17 / 20KM</td> </tr> <tr> <td>WDM13-40</td> <td>-8~ -3 / 1310</td> <td>-34 ~-3 / 1550</td> <td>26 / 40KM</td> </tr> <tr> <td>WDM15-40</td> <td>-8~ -3 / 1550</td> <td>-34~-3 / 1310</td> <td>26 / 40KM</td> </tr> </tbody> </table>	Model (SC201-S-SC-)	TX (dBm)/ Wavelength (nm)	RX (dBm)/Wavelength(nm)	Link Budget (dB) / KM	WDM13-20	-14~-3 / 1310	-31 ~-3 / 1550	17 / 20KM	WDM15-20	-14~-3 / 1550	-31 ~ -3 / 1310	17 / 20KM	WDM13-40	-8~ -3 / 1310	-34 ~-3 / 1550	26 / 40KM	WDM15-40	-8~ -3 / 1550	-34~-3 / 1310	26 / 40KM
	Model (SC201-S-SC-)	TX (dBm)/ Wavelength (nm)	RX (dBm)/Wavelength(nm)	Link Budget (dB) / KM																	
	WDM13-20	-14~-3 / 1310	-31 ~-3 / 1550	17 / 20KM																	
	WDM15-20	-14~-3 / 1550	-31 ~ -3 / 1310	17 / 20KM																	
	WDM13-40	-8~ -3 / 1310	-34 ~-3 / 1550	26 / 40KM																	
WDM15-40	-8~ -3 / 1550	-34~-3 / 1310	26 / 40KM																		
<b>LED Indication</b>	System: Power, Fiber Link Serial: TX, RX																				
<b>Power input</b>	DC Jack: 12V AC/DC Power Adapter Input , Terminal Connector for open wire power input																				
Power Requirement																					
<b>Input Voltage</b>	DC 12V : AC/DC Power Adapter output 12V Terminal Connector: 10~30V Input with polarity reverse protection																				
Mechanical																					
<b>Installation</b>	Wall Mounting or DIN Rail (with DIN Clip)																				
<b>Enclosure Material</b>	Steel Metal																				
<b>Dimension</b>	109.3 mm (H) x 91mm (W) x 26mm (D) with wall mount ear																				
<b>Ingress Protection</b>	IP30																				
<b>Weight</b>	0.3kg without package																				
Environmental																					
<b>Operating Temperature &amp; Humidity</b>	-40°C~70°C, 5%~95% Non-Condensing																				
<b>Storage Temperature</b>	-40°C~80°C																				
<b>Warranty</b>	1 year																				


**Ordering Information**

Model Name	Description
<b>SC201-S-SC-WDM13-20</b>	Industrial Serial to Fiber Media Converter, single-mode, 20km/ TX1310nm, RX1550nm, SC
<b>SC201-S-SC-WDM15-20</b>	Industrial Serial to Fiber Media Converter, single-mode, 20km/ TX1550nm, RX 1310nm, SC
<b>SC201-S-SC-WDM13-40</b>	Industrial Serial to Fiber Media Converter, single-mode, 40km/ TX1310nm, RX1550nm, SC
<b>SC201-S-SC-WDM15-40</b>	Industrial Serial to Fiber Media Converter, single-mode, 40km/ TX1550nm, RX1310nm, SC
	<b>Package List</b>
	1 x Product Unit
	1 x AC to DC Power Adapter
	1 x DIN Rail Clip Set with screws
	1 x Quick Installation Guide