

# Serial Communication Converters



## SCM Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

### Major Features

#### [SCM-US / SCM-USP / SCM-SFL: USB ↔ Serial]

- Both USB1.1 and USB 2.0 HOST controller compatible
- Data transmission / power supply indicating LED
- Easy to connect with PC
- Built-in protection circuit
- Ferrite core cable for noise reduction
- Non-isolation type

#### [SCM-38I: RS232C ↔ RS485]

- Built-in surge protection circuit
- The insulation type of signal line (insulating RS232C and RS485)
- Create Tx-Enable signal automatically

#### [SCM-US48I: USB ↔ RS485]

- Available to transmit signals to max. 1.2km by converting USB signal to RS485 signal
- Realizing electrical insulation (2500VRMS) between USB port and RS485 port through RS485 transceiver
- Improved stability and durability with built-in surge protection circuit
- Easy connections between devices with bus power supplied from USB host controller without external power supply
- Offering USB 2.0 A/B type cable with built-in ferrite core for noise reduction
- User friendly features through compatibility with USB 1.1 and USB 2.0

### Specifications

- There might be some differences depending on PC environment. (Supported OS: Microsoft Windows)

Model	SCM-US	SCM-USP / SCM-SFL
Power supply	5 VDC≒ USB bus power <sup>01)</sup>	
Power consumption	≈ 1 W	
Max. com. speed <sup>02)</sup>	1,200 to 115,200 bps (recommended: 9,600 bps)	
Communication type	Half duplex type	
Available com. distance	1.5 m (not extension)	
Connection type	USB: USB 2.0 A type (male) Earphone jack (4 pole stereo phone plug) 4-pin connector for communication	
Isolation type	Non-isolation	
Indicator	A.C.C (green), O.P.R (red)	
Approval	CE ENEC	CE ENEC
Unit weight (packaged)	≈ 41 g (≈ 80 g)	

Model	SCM-38I	SCM-US48I
Power supply	12 - 24 VDC≒ ±10 %	5 VDC≒ USB bus power <sup>01)</sup>
Power consumption	≈ 1.7 W	≈ 1 W
Max. com. speed <sup>02)</sup>	1,200 to 115,200 bps (recommended: 9,600 bps)	
Communication type	Half duplex type	
Available com. distance	≤ 1.2 km	USB: ≤ 1 m ± 30 %, RS485: ≤ 1.2 km
Multi-drop	≤ 31 Multi-drop	
Protocol <sup>02)</sup>	Data bit: 5bit, 6bit, 7bit, 8bit / Stop bit: 1bit, 2bit / Parity bit: None, Odd, Even	
Connection type	RS232C: D-sub 9-pin RS485: 4-wire screw terminal (2-wire communication type)	USB: USB 2.0 B type (male)
Protection circuit	Surge protection circuit	
Isolation type	Isolation	
Dielectric strength	Between whole terminals and case: 2,000 VAC ~ 50/60 Hz for 1 min Between RS232C and RS485: 2,500 VAC ~ 50/60 Hz for 1 min	Between whole terminals and case: 2,500 VAC ~ 50/60 Hz for 1 min Between RS232C and RS485: 2,500 VAC ~ 50/60 Hz for 1 min
Isolation resistance	≥ 100 MΩ (500 VDC≒ megger)	
Noise immunity	±500 VDC≒ the square wave noise (pulse width: 1μs) by the noise simulator	
Indicator	RUN (red)	
Accessory	-	USB 2.0 AB type cable (length: 1 m, sold separately, model: USB AB CABLE)
Approval	CE ENEC	
Unit weight (packaged)	≈ 46 g (≈ 106 g)	≈ 34.5 g (≈ 197 g)

01) USB bus Power is supplied from PC or USB host controller.

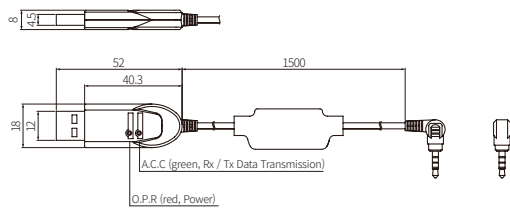
02) They are set by Hyper terminal, DAQMaster, ParaSet, and Modbus Poll.

Vibration	0.75 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 1 hour
Vibration (malfunction)	0.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 min
Shock	300 m/s <sup>2</sup> (≈ 30 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s <sup>2</sup> (≈ 10 G) X, Y, Z in each X, Y, Z direction for 3 times
Ambient temperature	-10 to 55 °C, storage: -20 to 60 °C (no freezing or condensation)
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)

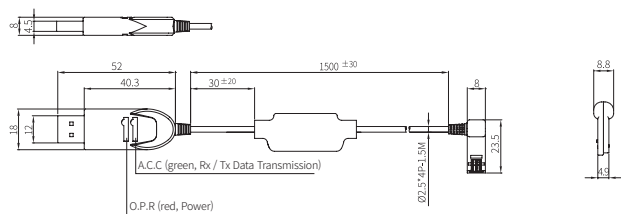
## Dimensions

- Unit: mm, For the detailed drawings, follow the Autonics website.

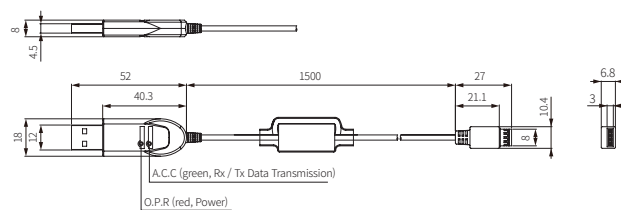
### SCM-US



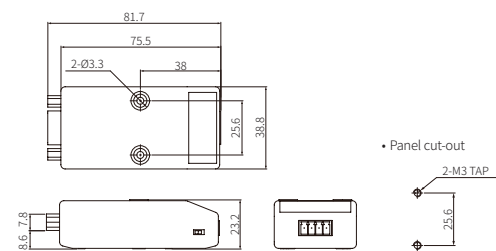
### SCM-USP



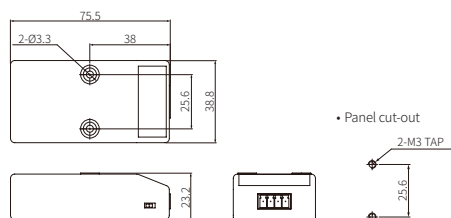
### SCM-SFL



### SCM-38I



### SCM-US48I



### USB AB CABLE

