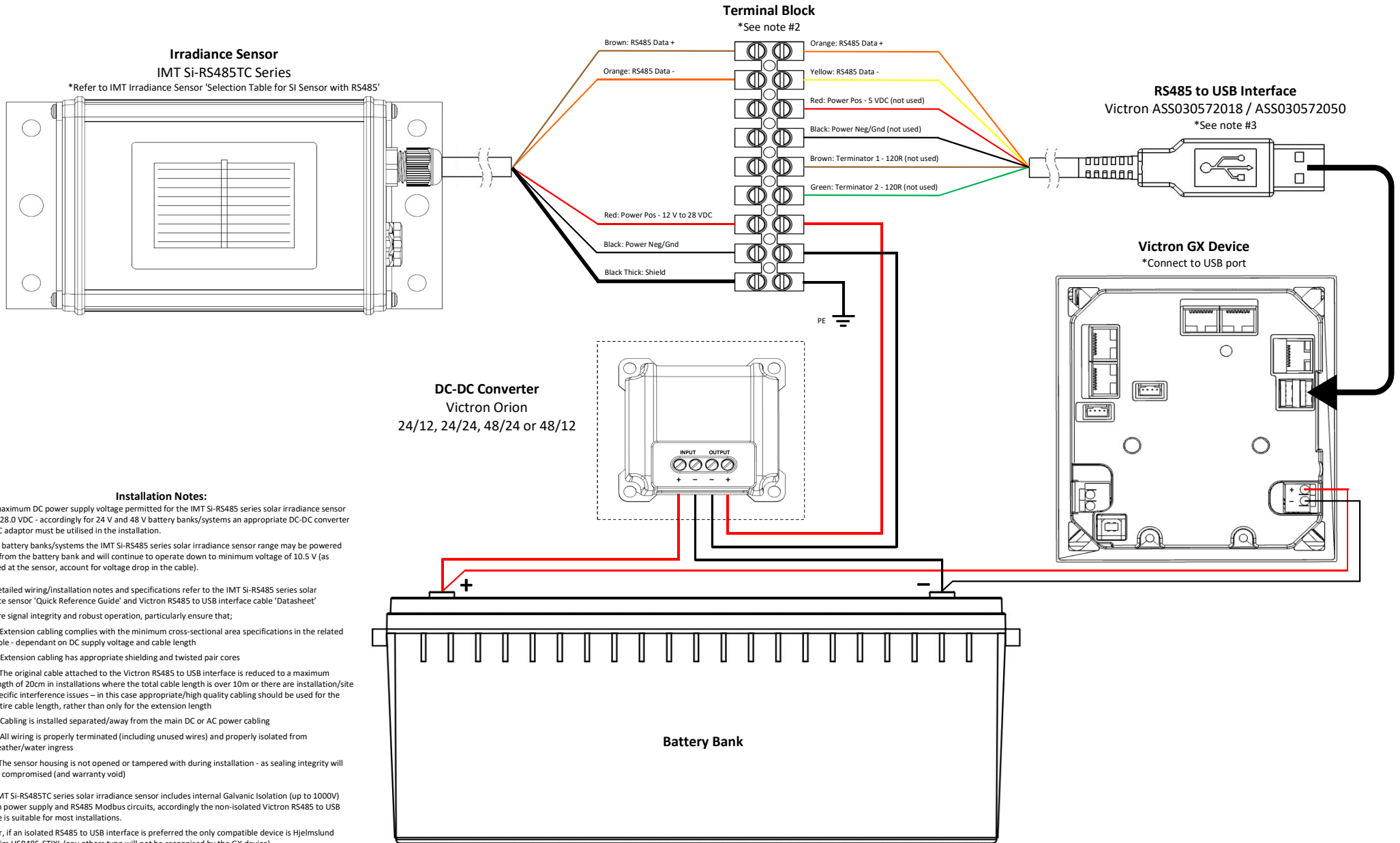


# IMT Si-RS485TC Series Solar Irradiance Sensor - Victron Installation Guide



## Installation Notes:

1- The maximum DC power supply voltage permitted for the IMT Si-RS485 series solar irradiance sensor range is 28.0 VDC - accordingly for 24 V and 48 V battery banks/systems an appropriate DC-DC converter or AC-DC adaptor must be utilised in the installation.

For 12 V battery banks/systems the IMT Si-RS485 series solar irradiance sensor range may be powered directly from the battery bank and will continue to operate down to minimum voltage of 10.5 V (as measured at the sensor, account for voltage drop in the cable).

2- For detailed wiring/installation notes and specifications refer to the IMT Si-RS485 series solar irradiance sensor 'Quick Reference Guide' and Victron RS485 to USB interface cable 'Datasheet'

To ensure signal integrity and robust operation, particularly ensure that;

- Extension cabling complies with the minimum cross-sectional area specifications in the related table - dependant on DC supply voltage and cable length
- Extension cabling has appropriate shielding and twisted pair cores
- The original cable attached to the Victron RS485 to USB interface is reduced to a maximum length of 20cm in installations where the total cable length is over 10m or there are installation/site specific interference issues - in this case appropriate/high quality cabling should be used for the entire cable length, rather than only for the extension length
- Cabling is installed separated/away from the main DC or AC power cabling
- All wiring is properly terminated (including unused wires) and properly isolated from weather/water ingress
- The sensor housing is not opened or tampered with during installation - as sealing integrity will be compromised (and warranty void)

3- The IMT Si-RS485TC series solar irradiance sensor includes internal Galvanic Isolation (up to 1000V) between power supply and RS485 Modbus circuits, accordingly the non-isolated Victron RS485 to USB interface is suitable for most installations.

However, if an isolated RS485 to USB interface is preferred the only compatible device is Hjelmstund Electronics USB485-STIXL (any others type will not be recognised by the GX device).