S43-RS485

RS485 Add-On Board for 4.3" PanelPilotACE Display

S43-RS485 is an add-on board for the SGD 43-A that allows communication using the RS485 serial interface.



SGD 43-A display sold separately

The S43-RS485 is an accessory to the PanelPilotACE range of compatible displays and panel meters and is compatible with the 4.3" PanelPilotACE display module (SGD 43-A). The S43-RS485 mounts on the rear of the SGD 43-A and provides a 3 wire RS485 interface as well as an optional 120Ω terminator.

This device can be connected to via the A (Data+), B (Data-) and GND pins and provides half duplex communication.

The software currently supports ASCII based serial communication as well as the MODBUS (RTU) protocol.
More protocols are being added. Please visit www.lascarelectronics.com/software/panelpilotace for the latest updates.

Specifications

Electrical Specification

	Min	Typical	Max
Receiver Output High Voltage	Vcc-0.6 (4.4V)	-	-
Receiver Output Low Voltage	-	0.17	0.4
Input Current (V = 12V)		80uA	125uA
Input Current (V=-7V)	-100uA	-50uA	
Max Data Rate		20MbpS	

Absolute Maximum

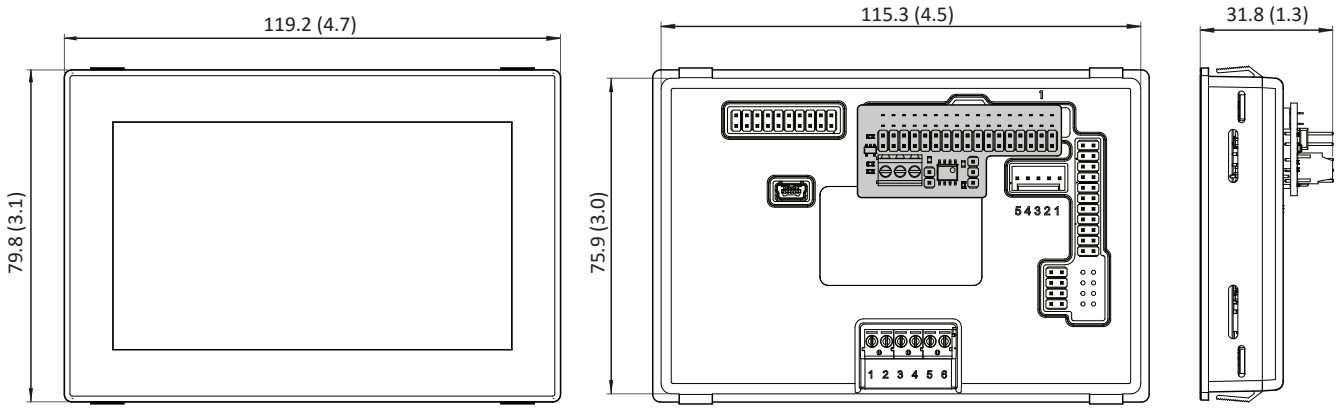
A/B Voltage	-8V - +13V
Temperature Range	0 to 40°C

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Dimensions and Mounting

All dimensions are in mm (in)



The diagram (above-right) indicates which pins on the SGD 43-A that the S43-RS485 should be connected to.

Configuring RS485

When configuring a project to use RS485 on the SGD 43-A you will lose the ability to use PWM1 and PWM2. All other pins on PL4 are brought through onto the header on the S43-RS485. This applies to product marked Issue 4* and later. On older issue product, DIG8 & PWM3 are not available on PL4.

Either DIG8 or PWM3 must be selected as the direction control pin on the S43-RS485 board by fitting the jumper link to DIO or PWM on PL1. NOTE: If DIO is used then DIG8 cannot be used on PL4. If PWM is used then PWM3 cannot be used on PL4.

Finally, you can either fit or remove the jumper on PL2 to add or remove the terminating resistor.



*Issue number marked in the silkscreen on the underside of assembly.