



Translator Solo Series – Technical Specification

This SBS Translator Solo Series Technical Specification encompasses the following products:

Models	Description
RT-Sxx	RS232/RS485 Converter – Slave.
RT-Mxx	RS232/RS485 Converter – Master.
MT-Sxx	Modbus Solo (End of line – Modbus Duo recommended for new installations)

Conformity

EMC:	AS/NZS CISPR 22:2009 Class B Radiated AS/NZS CISPR 22:2009 Class B Conducted Comms
RoHS:	No, Available on special request. (RoHS planned for all production V2.20+)

Absolute Maximum Ratings

Parameter	Rating			Unit
	Min	Typ	Max	
Storage Temperature	-20.0		80.0	Deg C
Supply Voltage (Vcc)	-0.3		20.0	V
RS232 TX Voltage	-13.2		13.2	V
RS232 RX Voltage	-25		25	V
RS485 Driver/Receiver	-9		+14	V
ESD Protection (external pins)	+/- 15			kV

Stresses above those listed in Absolute Maximum Ratings may cause permanent damage to the device. Exposure to Absolute Maximum Ratings for extended periods is not recommended. These are stress ratings only. See specifications listed under Operating Conditions for functional operating limits.



Translator Solo Series – Technical Specification

Operating Conditions

Parameter	Rating			Unit	Notes/Conditions
	Min	Typ	Max		
Temperature	0		60	Deg C	
Supply Voltage (Vcc)	5.8		18.0	V	Normal operating mode.
Supply Voltage - Program	4.5		20.0	V	For user configuration over RS232 only.
Operating Power		0.3 0.45		W	@ 12V, average use @ 18V, average use
Operating Current	- 150	24 -		mA mA	@ 12V Idle Recommended minimum rated supply.
RS485 Driver					
Diff. Output Voltage (Vod)	- 2 1.5		5 5 5	V	R = Infinite. R = 50 Ω R = 27 Ω
Comm. Output Voltage (Voc)			3	V	
Short Circuit Current			+/- 200	mA	-7V < Vout < +12V
RS485 Receiver					
Diff. Input Threshold	-0.2	-0.13	-0.03	mV	-7V < Voc < +12V
Input Hysteresis		20		mV	-7V < Voc < +12V
Input Resistance	96	150		kΩ	-7V < Voc < +12V
RS232					
TX Voltage	+/- 5.0	+/- 5.4		V	Load > 3 KΩ
TX Short Circuit Current		+/- 35	+/- 60	mA	Vout = 0V
RX Voltage	-25		+25	V	
RX Threshold Low	0.6	1.2		V	
RX Threshold High		1.5	2.4		
RX Hysteresis		300		mV	
RX Input Resistance	3	5	7	kΩ	



Translator Solo Series – Technical Specification

Mechanical Specification

Parameter	Rating			Unit	Notes/Conditions
	Min	Typ	Max		
Enclosure					
Colour	Black or White(Gray)				Coloured by functionality: Black = Direct connect to RS232 Meter. White = Direct connect to Modem / Concentrator.
Enclosure Material	Plastic, ABS				
Dimensions	80mm x 40mm x 20mm				
Environmental Protection	Not Rated				
Connectors					
Type	RJ45 Jacks, 8p8c				
Housing	Polyester, Glass Filled				
Contacts	15µin Gold Finish. Copper Alloy				
Durability	250			Connect Cycles	
Mating Force			35.0	N	
Retention Force	22.5			N	
Contact Resistance			0.02	Ω	