

# BB-232CL9R

## Current Loop to Serial Converter



### Introduction

Model BB-232CL9R is a port-powered RS-232 to current loop converter. No external power required for passive loop installations, but a power supply is required to generate an active loop (power supply sold separately).

### Current Loop Explained

Current loop devices use Current On or Current Off to transmit binary digits. Current loop signals can often transmit over circuits that serial signals can't traverse reliably, due to distance, marginal conductors and electrical noise.

Current loop converters from Advantech interface RS-232 to the most common current loop ports – 20mA with open circuit voltages up to 30 V – at a maximum baud rate of 19.2 kbps. High speed optical isolators couple and isolate Transmit and Receive data. All Advantech current loop converters have a transmit (T+ and T-) loop and a Receive (R+ and R-) loop. Each loop may be operated as an active or passive loop. When the converter needs to provide the loop current, a 12 VDC power supply is required for the current loop side.

### Features

- Optically isolated digital current loop to serial conversion
- Baud rates up to 19.2 kbps
- Inline installation
- Transmit (T+ and T-) loop and Receive (R+ and R-) loop
- Each current loop may be operated active or passive
- Designed for 20mA digital current loop
- Power supply required, not included, sold separately

### Ordering Information

Model No.	Serial Connector	Current Loop Connector	Power Source for Serial Side
BB-232CL9R	DB9 Female	Terminal Block	Port-powered or external power supply (sold separately)

### Accessories – Sold Separately

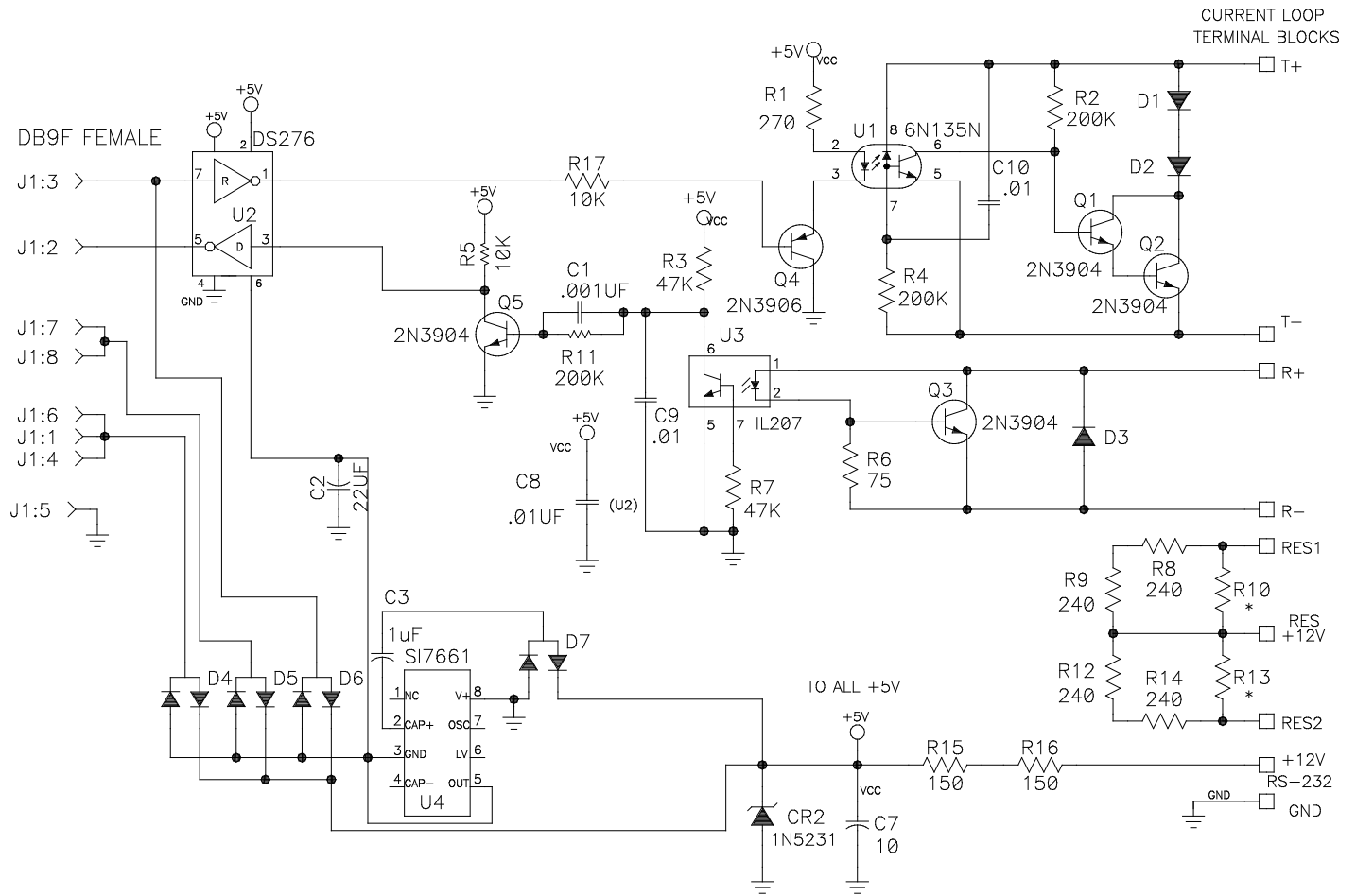
BB-SMI6-12-V-ST - Power Supply, 12Vdc, 500 mA, stripped and tinned leads, Level VI

### Specifications

Serial Technology	
Data Rate	19.2 kbps, maximum
RS-232	
Connector	DB9 female
Signals	TD, RD, GND
Current Loop	
Connector	Terminal block
Signals	T+, T-, R+, R-, GND
Power	
Source	Terminal block
Input Voltage	12Vdc @ 100 mA
Meantime Between Failures (MTBF)	
MTBF	714354 hours
MTBF Calc. Method	MIL 217F Parts Count Reliability Prediction
Environmental	
Operating Temperature	0 to +70 °C (+32 to +185 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0 to 95%, non-condensing
Regulatory – Approvals / Standards / Directives	
FCC Part 15, EN 55032 Class A Emissions	
2011/65/EU amended by (EU) 2015/863 Reduction of Hazardous Substances Directive (RoHS)	



Dimensions – BB-232CL9R



\* INDICATES OPTIONAL THROUGH HOLE REPLACEMENT.