

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **Current Loop to Serial Converter**

Model 232CL9R



www.advantech-bb.com



#### **PRODUCT FEATURES**

- Optically isolated digital current loop to serial conversion
- Baud rates up to 19.2 kbps
- 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 (other values available)

Model 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.

### **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 B+B SmartWorx 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 B+B SmartWorx' 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.

Contact B+B SmartWorx for information on modifications for higher loop currents and voltages.

#### **ORDERING INFORMATION**

MODEL	SERIAL	CURRENT LOOP	POWER SOURCE FOR SERIAL SIDE
NUMBER	CONNECTOR	CONNECTOR	
232CL9R	DB9 Female	Terminal Block	Port-powered or external power supply

#### **ACCESSORIES**

SM16-12-V-ST - Power Supply, 12VDC 500mA, 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	12V DC @ 100 mA		
MECHANICAL			
MTBF	714354		
MTBF Calc. Method	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		
APPROVALS / CERTIFICATIONS			
FCC Part 15, CISPR, EN 55022 + AC:2011 Class A Emissions			
CE			
EN 61000-6-1 Generic Standards for Residential, Commercial and Light-Industrial Environments			
EN 61000-4-2 Electro-Static Discharge (ESD) EN 61000-4-3 +A1 +A2 +IS1 Radiated Field Immunity (RFI) EN 61000-4-4 Electrical Fast Transients-Burst Immunity (EFT) EN 61000-4-6 Conducted Immunity			

All product specifications are subject to change without notice. 232CL9R 3217ds

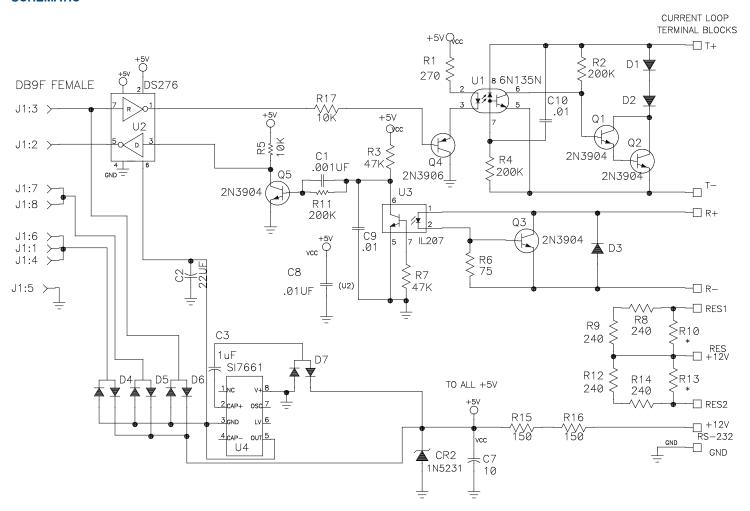


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#### **SCHEMATIC**



\* INDICATES OPTIONAL THROUGH HOLE REPLACEMENT.