Bulletin 900 — Interface Converter

- Enables RS-232 or USB ✶ (ser. B or later converter) to RS-485 Communications between a Personal Computer (PC) using 900BuilderLite™ (900-TC8/ 900-TC16) or 900Builder™ (900-TC32) Software and up to 31 Bulletin 900-TCx Controllers — Ideal for Industrial Applications
- All Signal Lines have 1500V AC Insulation at the RS-232C (USB: 500 V AC) and RS-485 Sides Using Opto-Couples; Power Supply Lines have 1500V AC Insulation Using a Transformer
- Diagnostic LEDs Indicate Power Available and Active Data Transmission
- On-Board Wiring and Data Configuration Diagrams Simplify Startup
- DIN Rail or Panel Mountable
- cURus, CE

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✶ To use the USB mode requires the download of free software onto your PC. This software can be found at the Bulletin 900 Temperature Controller website: http://www.ab.com/industrialcontrols/products/relays_timers_and_temp_controllers/single_loop_temp-heater_controllers/900tc.html
Once at this site, go to "Get Software" (upper right of screen) and click on "Virtual Communications Port USB Driver" and follow the instructions.

Product Selection

Standard Models

Bulletin No.	Size	Power Supply Voltage	Cat. No.
900-CONV❄	30 mm (W) x 80 mm (H) x 78 mm (D)	100…240V AC	**900-CONVZ25**
		24V AC/DC	**900-CONVU25**

❄ Converts personal computer RS-232/USB communications to RS-485. Use for interface with a single Bulletin 900-TCx, or multiple (up to 31) controllers with RS-485 communications.

Specifications

Technical/Control Ratings				
Communications Method	Master Device (PC)		RS-232C	
	Slave Device (900-TCx Controller)		RS-485 (2-wire, half duplex) (selectable)	
Synchronization Method			Start-stop synchronization	
Master Device (PC)	RS-232C Interface	Max. transmission distance	15 m	
		Max. number of connectable units	1 unit	
	USB Interface	Max. transmission distance	5 m or when the total time (hub delay time plus the cable delay time) is less than or equal to 70 ns	
		Max. number of connectable slave units	1 unit	
		USB Standard	V1.1	
Slave Device (900-TCx) RS-485 Interface		Max. transmission distance	500 m	
		Max. number of connectable slave units	31 units (for multi-drop connection)	
Baud Rate			1200/2400/4800/9600/19 200/38 400 bps (Default setting: 9600)	
Data Bit Length			7 or 8 bits (Default setting: 7)	
Stop Bit Length			1 or 2 bits (Default setting: 2)	
Communications Parity			None, even, odd (Default setting: Even)	
Echoback Selection			Echoback: With/without (Default setting: Without)	
Selection Switch Response Delay			Approx. 30 ms	
General/Environmental Ratings				
Supply Voltage			100…240V AC, 50/60 Hz	24 V AC, 50/60 Hz or 24 V DC
Operating Voltage Range			85…110% of rated supply voltage	
Power Consumption			5 VA max.	24 V AC: 3 VA max., 24 V DC: 3 W max.
Ambient Temperature		RS-232C	–10…+55 °C (with no icing)	
		USB	0...+55 °C (with no icing)	
Ambient Humidity			25…85% (with no condensation)	
Storage Temperature			–20…+65 °C	

Specifications, Continued

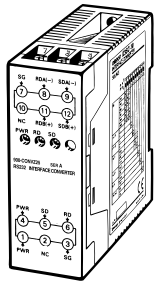
General/Environmental Ratings			
Insulation Resistance			20 MΩ min. measured at 500V DC between the following: External terminals ↔ casing RS-232C terminals ↔ RS-485 terminals power supply terminals
	Isolation Method	Communications	Phototransistor coupler
		Power supply	Isolating transformer
Dielectric Strength			1,500 V AC for 1 min. between the external terminal and case, and between the RS-232C RS-485 block power supply terminal
Noise Immunity			500 V AC for 1 min. between the RS-232C/USB block and RS-485 block
Vibration (Max.)			10…55 Hz, 0.5 mm single amplitude for 10 min. each in X, Y, and Z directions (1 G)
Shock (Max.)			98 m/s² (10 G), 3 times each in X, Y, and Z directions
Weight			Approx. 150 g
Enclosure Rating	Front Panel Operation Parts		Conforms to IEC standards, equivalent to IP20 (when terminal cover mounted) ∗
	Terminals		Equivalent to VDE 0106/100 (when terminal cover mounted) ∗
Memory Protection			No protective functions (communications data is not protected for power interruptions during communications)
EMC	Radiated Emission		EN61326 class A
	Conducted Emission		EN61326 class A
	Immunity ESD		EN61000-4-2: 4 kV contact discharge (level 2); 8 kV air discharge (level 3)
	Immunity RF-Interference		EN61000-4-3: 10V/m (amplitude modulated, 80 MHz…1 GHz) (level 3) 10V/m (pulse modulated, 900 MHz)
	Immunity Conducted Disturbance		EN61000-4-6: 10V (0.15…80 MHz) (level 3)
	Immunity Burst		EN61000-4-3: 2 kV power-line (level 3); 2 kV I/O signal-line (level 4)
Conformity to Standards			UL508, CSA C22.2 No. 14-95 Conforms to EN50081-2, EN50082-2, EN61010-1 (IEC 61010-1) Conforms to VDE 0106/part 100 (Finger Protection), when the terminal cover is mounted.

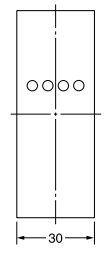
∗ When USB communication is used, the cover must be removed

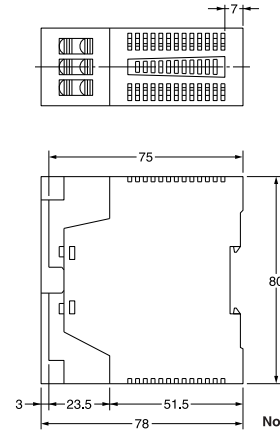
Approximate Dimensions

Approximate dimensions are shown in millimeters unless otherwise indicated (to convert to inches, multiply by 0.0394). Dimensions are not to be used for manufacturing purposes.

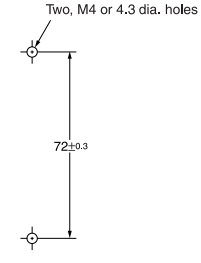
Cat. No. 900-CONVZ25







Mounting Hole Dimensions (For Direct Mounting)



Note: DIN rail mounting is also possible.