



Model: ECD485ic

RS-232 to RS-485 isolated converter

The ECD485ic safely connects RS-232 devices to 2 or 4-wire RS-485 devices without danger of ground loops and damaging surges. The data signals have 5kV optical isolation. Internally isolated DC supply provides 2-port galvanic isolation, or full 3-port isolation can be ordered so both the RS-232 and RS-485 signals float with respect to the power supply ground. Jumpers select internal 120 Ohm terminating resistor and 2 or 4-wire communication mode.

600w transient (spike) suppressor diodes are standard on isolated ports; 9-pin D-sub shell or removable 5-pin compression terminal block; DC supply of 5, or 8 to 56v; 2 or 3-port galvanic isolation; custom terminating resistor values.

Isolation, industrial design, small size, DIN rail mount, user indication, and DC supply make the ECD485ic a very engineer-friendly device for your industrial data communication system.

Specification

Ports	RS-232	RS-485
Signal Type	: EIA/RS-232E	: EIA/RS-422A & RS-485A
Voltage Level	: +/- 9 Vdc	: -7 to +12Vdc
Permitted Surge	: +/- 25Vdc	: +/- 25Vdc

Power Supply:

8v to 56Vdc,	1.5 watt (24v about 65mA)
5Vdc +/- 5%,	150mA

LEDs (green) indicate isolated power status

Isolation (ISO/IEC 9549)

RS-232 to RS-485	: 5000 v (optical, 5kV test)
Supply to RS-485	: 2500 v (galvanic, 3kV test)
Supply to RS-232	: 2-port = none; 3-port = 2500v

Communication:

Max Speed	: at least 115Kbps at standard distances
Character Setting	: transparent, no configuration required
User Indications	: Each receive signal has LED (yellow)
Standard Distance	: 15m for EIA/RS-232; 1000m for EIA/RS-485
Practical Distance	: less than 50m for RS-232, 3000m for RS-485 (requires quality,

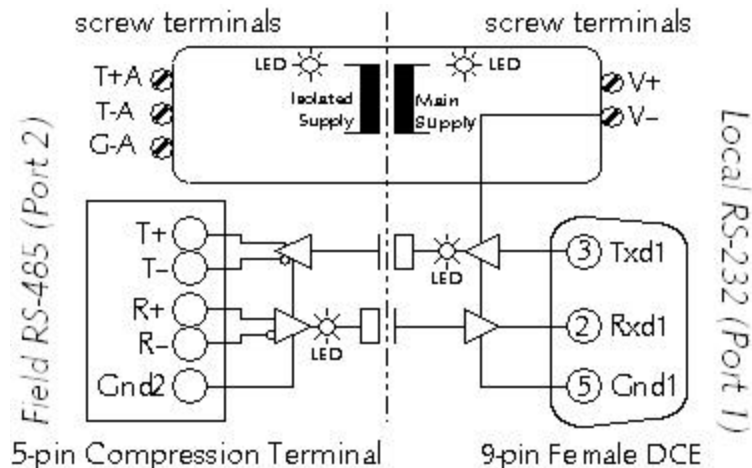


low-cap cable < 50 pf/m)

Mechanical / Environment

- Operating Range : -40C to +65C
- Storage Range : -40C to +100C
- Relative Humidity : 10 to 90% RH, non-condensing
- Terminals : wire up to 2.5mm (12 AWG)
- D-shell connector : 9-pin, 30µ gold pins/sockets rated 500 cycles
- Case Material : nylon polyimide, fungus and termite resistant self-extinguishing
- Weight : approx 130g
- Mounting Rail : DIN EN 50 022 or DIN EN 50 035

Block Diagram



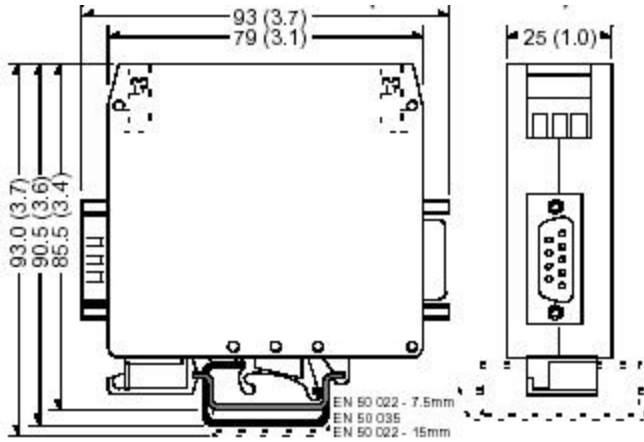
Note: Connector type is configurable when ordered (option 'cd' shown)
 Note: When ordered field RS-485 can be protected by 600w transient voltage suppressor diodes (see note below)

Order Information

ECD485ic			RS-232 to RS-484 Isolated Converter
	-5v		5v +/-5% Regulated DC Power
	-dv		8v to 56v Unregulated DC Power
		-2p	Two ports isolated, Local ground = Power ground
		-3p	Three ports isolated (fully isolated)
		-cc	Both ports compression terminal (C-Term)
		-cd	Field port C-Term, local port DB9 female connector
		-dd	Both ports DB9 female connector



Dimensions in mm (and inches)



Specifications subject to change without notice.