



# CesCom

**N400**  
ACA approved



## CE0719 RS485/422 – RS485/422 REPEATER ISOLATOR

*Isolates, corrects, regenerates and extends RS485/422 buses*

### Features

- Triple Isolated
- Automatic data/protocol handling
- Selectable back to back error correcting mode
- 3KV **optical isolation** barrier
- Full/half duplex operation to 2M baud
- >1200 metres transmission capability
- Wide supply range **single** DC power
- Efficient **switch-mode** regulation
- RS422/485 **lightning protection** + self-resetting **polyfuses**
- Fast 1.5bit RS485 **line turn-around**
- Compact steel casing with vertical DIN rail mounting option
- Pluggable **Combicon** terminal connections
- LED indicators



### Overview

RS485 lines can typically run hundreds of metres or more. One side effect of such long line lengths can be harmful transients and ground-loop currents which can introduce errors or disrupt communications or even damage the host.

The CE0719 electrically isolates RS485 buses from other RS485 buses through an optical isolation barrier rated at over 3,000 volts. Not only does this prevent harmful voltages being coupled through to the each side but it also isolates grounds from side which otherwise could affect the inherent common-mode voltage rejection, a problem on many balanced networks.

RS-485 networks are half-duplex and normally require a transmit enable signal, something akin to the "press to talk" on 2-way radios. Cescom's range of converters feature Automatic Transmit Enable (ATE) processing based upon precise timing related to each character sent so that the transmit enable automatically engages on the reception of a character from either side. This transmit enable stays asserted for the length of the character and de-asserts if no other characters have been detected within 1.5 bits after the stop bit.

This makes the CE0719 the perfect candidate for RS-485 networks which require isolation and repeater functions to improve the range and reliability of the network.



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#### Specifications

<b>Current</b>	55ma @12VDC, 24ma @30VDC
<b>Physical</b>	80mm x 26mm x 100mm (HWD)
<b>Weight</b>	200 grams (approx)
<b>Weight</b>	200g
<b>Case Material</b>	1mm Steel
<b>Environment</b>	0 to +105'C operating

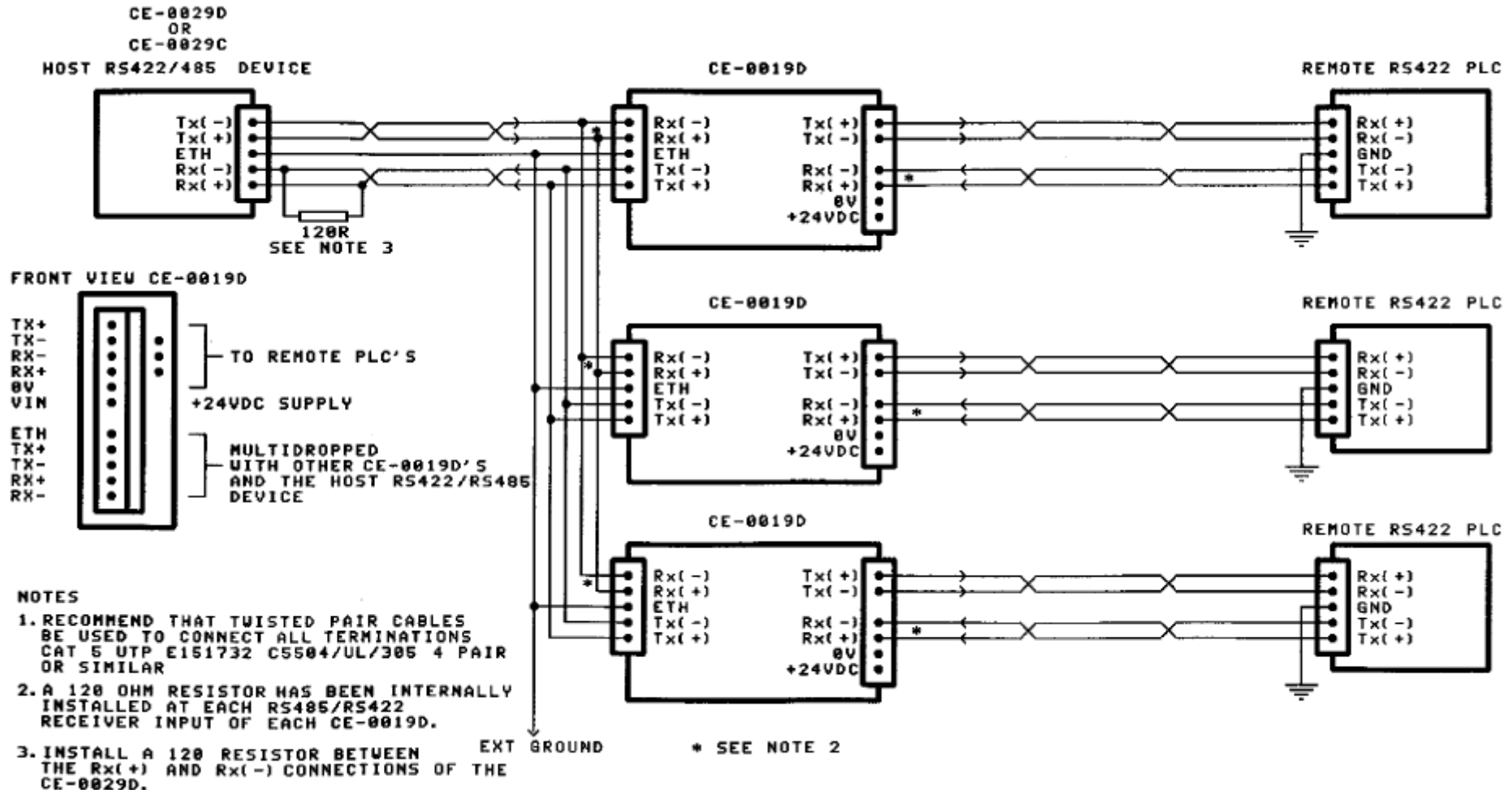
<b>RS485/422 Speed</b>	RAW to 1Mbaud
<b>TX/RX Control</b>	Auto
<b>ATE turnon</b>	Simultaneous TE with delayed glitch rejection
<b>ATE turnoff</b>	1.5 character bits
<b>Indicators</b>	Local & Remote Rxd, Txd, TE, Status

#### CONNECTIONS (left to right front view)

	NAME	CH	RS422	RS485
1	EARTH		PROTECTION GROUND	
2	RT1A	H1	HOST TX+	HOST TX/RX+
3	RT1B	H1	HOST TX-	HOST TX/RX-
4	RT0A	H2	HOST RX+	SEC HOST TX/RX+
5	RT0B	H2	HOST RX-	SEC HOST TX/RX-
1	+VDC		Power supply +	
2	GND		Power supply -	
1	EARTH		PROTECTION GROUND	
2	RT2A	S1	LINE TX+	LINE TX/RX+
3	RT2B	S1	LINE TX-	LINE TX/RX-
4	RT3A	S2	LINE RX+	SEC LINE TX/RX+
5	RT3B	S2	LINE RX-	SEC LINE TX/RX-



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