

# LDM2485A and LDM2485B

## Signal Powered High Speed RS-232 to RS-485 Converters

Dataforth's Model LDM2485A & LDM2485B high speed, RS-232 to RS-485 interface converters can turn your PC, terminal or other RS-232 device into an RS-485 workstation. Operating over 2 to 4 wires, at data rates up to 115.2 kbps, Models LDM2485A & LDM2485B let your RS-232 machine talk with up to 50 addressable devices in a multipoint polling environment. Since multipoint environments can be difficult to work with, these products have five separate configuration parameters (carrier control, RTS/CTS delay, receive impedance, transmit-off impedance and echo) that allow you to fine tune the converters to your particular application. And to keep your application up and running, both models have built in surge protection. The Model LDM2485A has a DB-25 connector for RS-232 environments, while the Model LDM2485B has a DB-9 connector for EIA-574. Both models have several options for twisted pair connection.

### Specifications

| Model                    | LDM2485A/LDM2485B                                                                                                                                                          |       |      |      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------|
| Transmission Format      | Asynchronous                                                                                                                                                               |       |      |      |
| Data Rate Range          | 0-115.2K bps                                                                                                                                                               |       |      |      |
| Data Rate bps            | 115.2K                                                                                                                                                                     | 38.4K | 9.6K | 1.2K |
| Distance mi              | 2.6                                                                                                                                                                        | 2.9   | 4.6  | 9.0  |
| km 4.2                   | 4.7                                                                                                                                                                        | 7.4   | 14.5 |      |
| RS-232/EIA-574 Interface | DB-25/DB-9                                                                                                                                                                 |       |      |      |
| RS-485 Interface Options | RJ-11 or RJ-45 jack or terminal block with strain relief                                                                                                                   |       |      |      |
| Transmit Line            | 2, 4 wire unconditioned twisted pair                                                                                                                                       |       |      |      |
| Transmit Mode            | 4-wire, full or half duplex; 2-wire half duplex                                                                                                                            |       |      |      |
| Control Signals          | DSR turns "ON" immediately after the terminal raises DTR; DCD turns "ON" after recognizing the receive signal from the line; CTS turns "ON" after the terminal raises RTS. |       |      |      |
| RTS/CTS delay            | 0 or 8 msec                                                                                                                                                                |       |      |      |
| Carrier                  | The carrier is switch selected either continuous operation or controlled by RTS                                                                                            |       |      |      |
| Surge Protection         | 600W power dissipation at 1 ms                                                                                                                                             |       |      |      |
| Power                    | Draws operating power from the RS-232 or EIA-574 data and control signals; no AC power or batteries required.                                                              |       |      |      |
| Temperature              | 32° to 122° F (0° to 50° C)                                                                                                                                                |       |      |      |
| Size: 2485A              | 2.66" x 2.10" x 0.73" (68 x 53 x 19 mm)                                                                                                                                    |       |      |      |
| Size: 2485B              | 2.50" x 1.20" x 0.75" (64 x 31 x 19 mm)                                                                                                                                    |       |      |      |
| Weight                   | 2 oz (57 gm)/1.4 oz (40 gm)                                                                                                                                                |       |      |      |



### Features

- AVAILABLE WITH DB-25 (RS-232) OR DB-9 (EIA-574) INTERFACE
- CONFORMS TO THE EIA RS-485 STANDARD
- OPERATES ASYNCHRONOUSLY, POINT-TO-POINT OR MULTIPOINT, OVER 2 OR 4 WIRES
- UP TO 50 TERMINAL DROPS IN A MULTIPOINT POLLING ENVIRONMENT
- DATA RATES TO 115,200 BPS
- RANGE UP TO 9.0 MI (14.5 KM)
- DATA PLUS ONE CONTROL SIGNAL PASSED IN EACH DIRECTION
- SELECTABLE RTS-CTS DELAY
- ABLE TO OPERATE WITH OR WITHOUT "ECHO"
- CARRIER MAY BE CONTINUOUS OR "CONTROLLED BY RTS"
- NO AC POWER OR BATTERIES REQUIRED
- 600 WATTS OF SILICON AVALANCHE DIODE SURGE PROTECTION –STANDARD

Dataforth does not authorize or warrant its products for use in life support/critical applications.

### Ordering Information

|               |                               |
|---------------|-------------------------------|
| LDM2485A-P    | Male DB-25 w/terminal block   |
| LDM2485A-S    | Female DB-25 w/terminal block |
| LDM2485A-PJ1  | Male DB-25 w/RJ-11 jack       |
| LDM2485A-SJ1  | Female DB-25 w/RJ-11 jack     |
| LDM2485A-PJ4  | Male DB-25 w/RJ-45 jack       |
| LDM2485A-SJ4  | Female DB-25 w/RJ-45 jack     |
| LDM2485A-P25S | Male DB-25 w/female DB-25     |
| LDM2485A-S25S | Female DB-25 w/female DB-25   |
| LDM2485B-P    | Male DB-9 w/terminal block    |
| LDM2485B-S    | Female DB-9 w/ terminal block |
| LDM2485B-PJ1  | Male DB-9 w/RJ-11 jack        |
| LDM2485B-SJ1  | Female DB-9 w/RJ-11 jack      |
| LDM2485B-PJ4  | Male DB-9 w/RJ-45 jack        |
| LDM2485B-SJ4  | Female DB-9 w/RJ-45 jack      |

Call 800-444-7644 or Fax (520) 741-0762 for Information and Assistance  
... or visit our web site at [www.dataforth.com](http://www.dataforth.com)

**DATAFORTH**  
A Burr-Brown Company