

# EX series

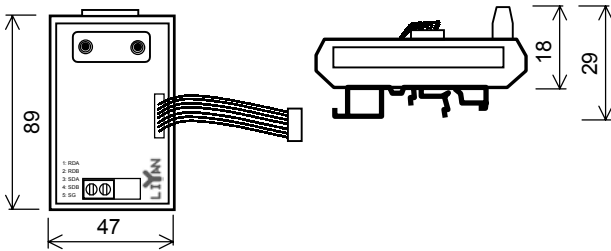
## EX-485BD USER'S GUIDE

➤ This manual contains text, diagrams and explanations which will guide the reader in the correct installation and operation of the EX-485BD communication adapters.

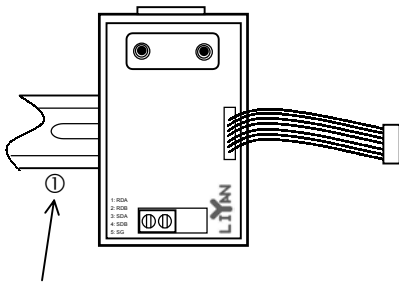
### \*\*\* Introduction \*\*\*

#### <External dimensions>

EX-485BD Dimensions unit: mm



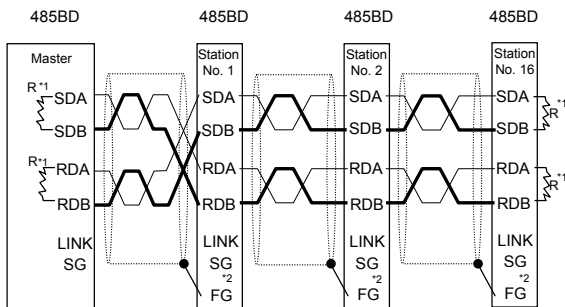
### \*\*\* Installation \*\*\*



◆ it can assembly to ① (35mm).

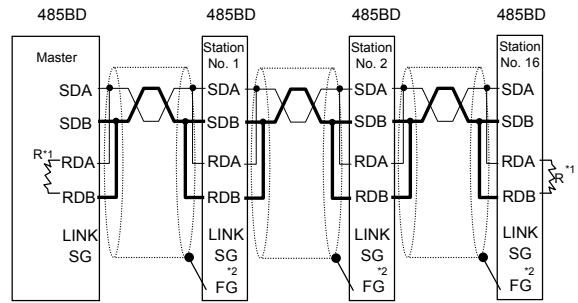
### \*\*\* Wiring \*\*\*

#### Examples of two-pair wiring (for RS422 circuit)



- \*1 R is the terminating resistance. Connect the terminating resistance (330Ω) between terminals **SDA** and **SDB**, and terminals **RDA** and **RDB**.
- \*2 Connect terminal **FG** to earth terminal of the PC main body grounded with resistance of 100Ω or less.
- \*3 The 24V DC power requirement can be taken from the service power supply of the PLC main unit.

#### Examples of one-pair wiring (for RS485 circuit)



- \*1 R is the terminating resistance. Connect the terminating resistance (110Ω) between terminals **RDA** and **RDB**.
- \*2 Connect terminal **FG** to earth terminal of the PC main body grounded with resistance of 100Ω or less.
- \*3 The 24V DC power requirement can be taken from the service power supply of the PLC main unit.

### \*\*\* Specifications \*\*\*

#### <Environmental specifications>

Operating ambient temperature	0 to 55°C, storage temperature -20 to 70°C	
Humidity no condensation	35 to 85% RH (No condensation)	
Noise immunity	Noise voltage 1000V p-p, noise width 1 μ sec	
Dielectric withstand voltage	1500V AC, 1 min	Between all terminals in batch and FG terminal
Insulation resistance	500V DC / 5M Ω	
Ground	Grounding resistance of 100 Ω or less (class 3)	
Operating ambience	Free from corrosive gases, minimal dust.	

#### <Power source specification and type of isolation>

Current consumption	External power supply: 24V DC, max. 50 mA Internal power supply from PLC: 5V DC, max. 30mA
Type of isolation	Power source is isolated by transformer; PLC main unit and communication signal lines are isolated by photo coupler.

#### <Performance specification>

Item	Specifications
Interface	Conforming to RS422/485
Circuit configuration	1:1 or 1:n (n=1 to 16, max. 16 stations)
Transfer distance	Total extension within 50m
Station numbers	1 to 16 (set by Special D8121)

## LIYAN ELECTRIC INDUSTRIAL LTD.

No.8, Alley 32, Lane 667, Chung Shan Rd.,  
Sheng Kang Hsiang, Taichung Hsien, Taiwan

TEL: 886-4-25613700

FAX: 886-4-25613408

WEBSITE: <http://www.liyanplc.com>

E-MAIL: [twliyan@ms16.hinet.net](mailto:twliyan@ms16.hinet.net)