

AC700-CUA MANUAL

COMMUNICATIONS & FIRMWARE UPDGRADE MODULES

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REVISION 0



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DISCLAIMER

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1 INTRODUCTION

1.1 GENERAL

AC700-CUA is the base model number for the firmware upgrade module and communication modules which can be installed in various products available from Littelfuse.

1.1.1 FIRMWARE UPGRADE MODULE

The AC700-CUA-00 is used to upgrade compatible-relay firmware; It is field-installable. Detailed instructions are included in the help files of the SE-Flash Firmware Upgrade Software.

Field upgrades allow for the addition of new or enhanced features and firmware maintenance. The field upgrade module provides isolation between the unit under service and the computer running SE-Flash.

1.1.2 COMMUNICATION MODULE(S)

AC700-CUA serial-communication modules can be factory installed or purchased separately. An existing device not purchased with the communications option can be upgraded in the field.

1.2 AC700-CUA FEATURES

1.2.1 FIRMWARE UPGRADE MODULE

- RJ45 connector providing TIA232 communication (CA-945 Interface Convertor available separately)
- MiniUSB Connector (with included USB Cable)
- 2,500 Vrms isolation
- Field Upgrade Capability

1.2.2 COMMUNICATIONS MODULE(S)

- Isolated network interface (on applicable modules)
- On-board network status indication according to network standard
- On-board network connectors according to network standard
- Compact size (52 x 50mm, 2" x 1.97")
- Pre-compliance tested for CE
- UL/c-UL Compliant (Documented by UL in file E214107)

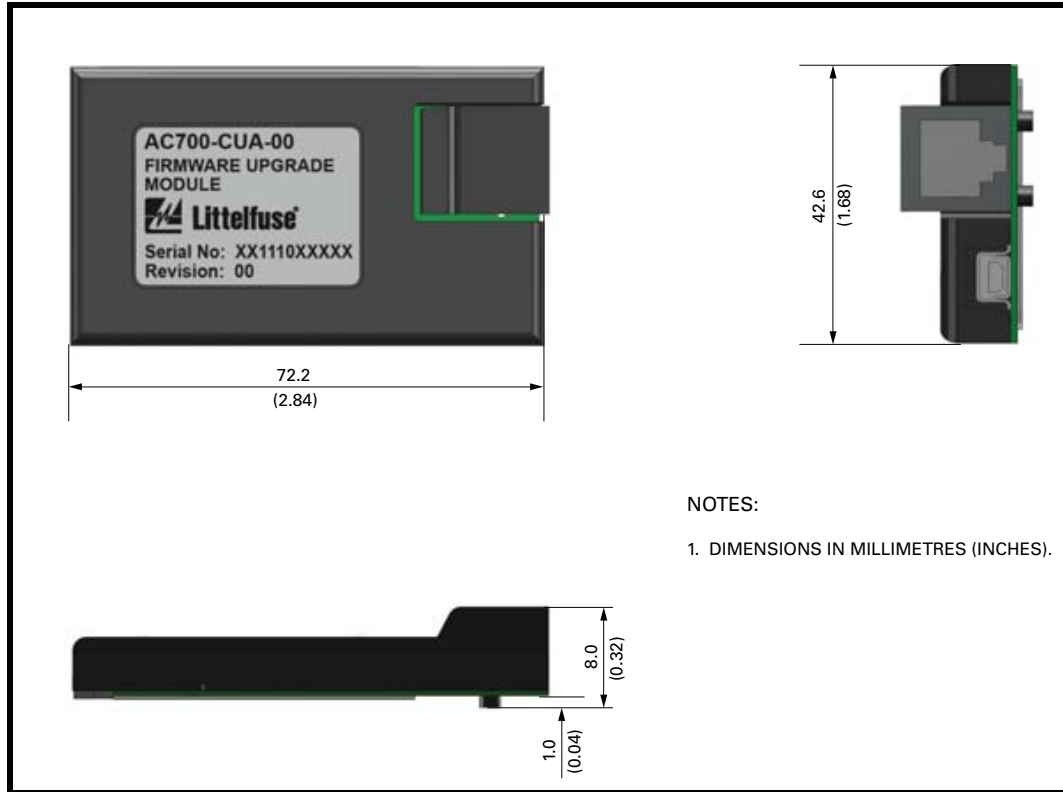


FIGURE 1 Firmwre Upgrade Module (AC700-CUA-00) Outline.

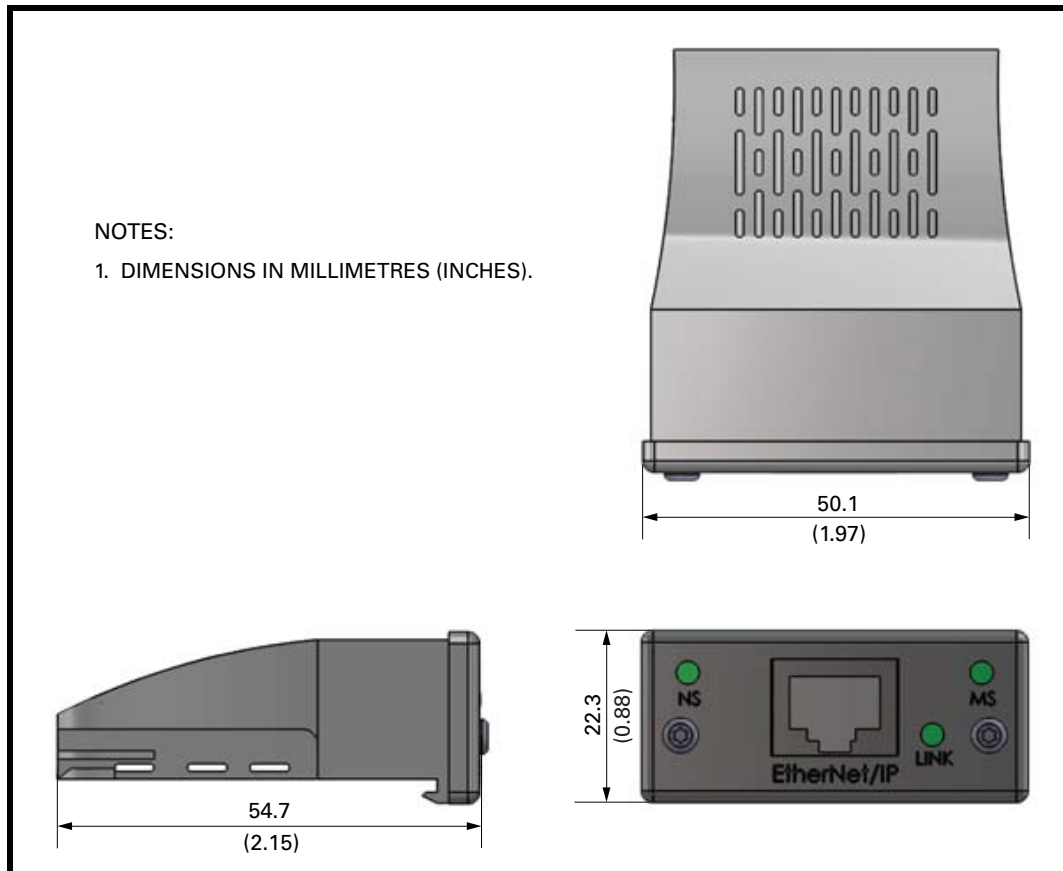


FIGURE 2. Communications (AC700-CUA-03) Module Outline.

2. INSTALLATION

NOTE: Before performing service on product, remove supply and control voltage.

2.1 FIRMWARE UPGRADE MODULE INSTALLATION

- Remove system and control voltage from the device.
- Remove the access panel from device to be upgraded (See Fig.3).
- Slide module into opening, such that the rails on the circuit board slot align with the sides of the firmware upgrade module. See Fig 3.
- Apply pressure to ensure proper connection.
- Connect either a TIA 232 or mini-USB communications cable between the module and a computer.
- Follow the SE-Flash Help instructions for the product to be upgraded, and apply system power.

2.2 COMMUNICATIONS MODULE INSTALLATION

- Remove system and control voltage from the device.
- Remove the access panel from device to be upgraded (See Fig.3).
- Slide module into opening, such that the rails on the circuit board slot align with the sides of the communication module. See Fig 4 and 5.
- Apply pressure to ensure proper connection while aligning clips to circuit board.
- Tighten the installation screws using a Torx screwdriver, size 8 (T8).
- Connect the communications cable as required by the network interface.
- See the manual for the upgraded device for instructions on how to enable the communications module, and definitions of the LED indications.
- Apply system power.



FIGURE 3 Firmware Upgrade Module (AC700-CUA-00) in an EL731.



FIGURE 4. Ethernet/IP Communications (AC700-CUA-03) Module installed in an EL731.

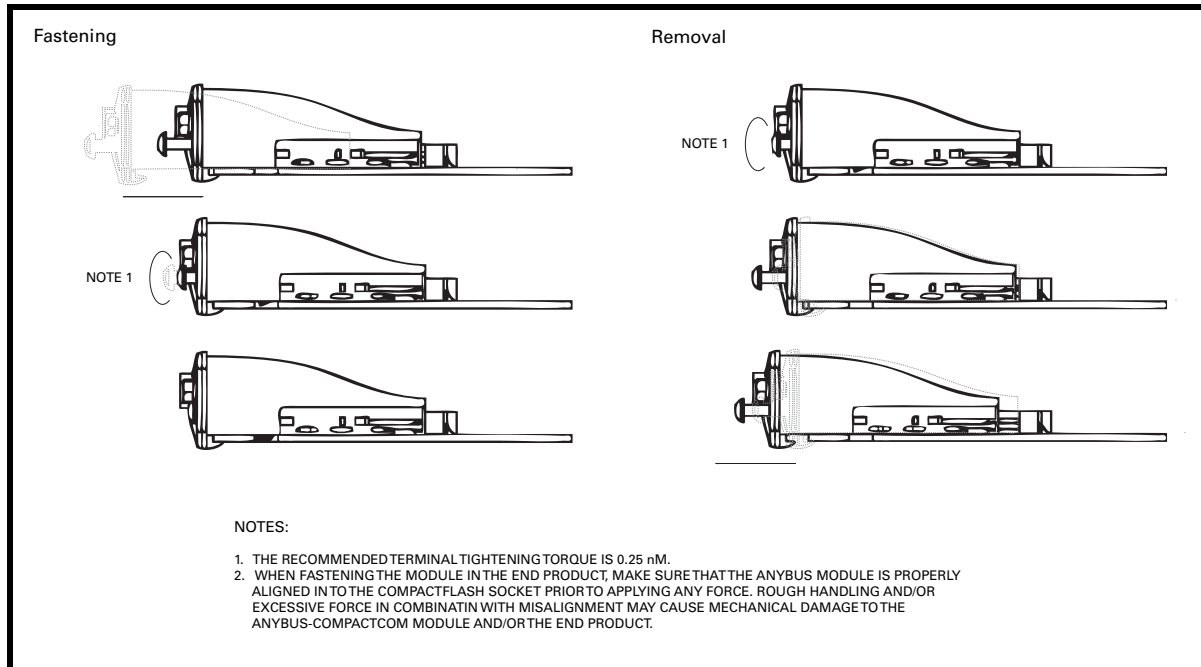


FIGURE 5. Anybus Communications Module Installation

3. TECHNICAL SPECIFICATIONS

3.1 FIRMWARE UPGRADE MODULE

Isolation:

Device to network:

Voltage:2,500 Vrms

Distance:7.62 mm

Computer Interface Terminals:

TIA-232 through RJ45 Connector,
Mini-USB

Dimensions:

Height:0.8 mm (0.03“)

Width:42.6 mm (1.68“)

Depth:72.2 mm (2.84”)

Shipping Weight..... 0.14 kg (0.3 lbs)

Environment:

Operating Temperature: -40 to 60 C

Storage Temperature: -55 to 80 C

Humidity:85% Non-Condensing

3.2 COMMUNICATION MODULE

Isolation:

Device to network:

Voltage:2,500 Vrms

Distance:2.5 mm

Terminals:

Dependent upon communication standard

Dimensions:

Height:22.3 mm (0.88")
Width:50.1 mm (1.97")
Depth:51.8 mm (2.04")

Shipping Weight0.14 kg (0.3 lbs)

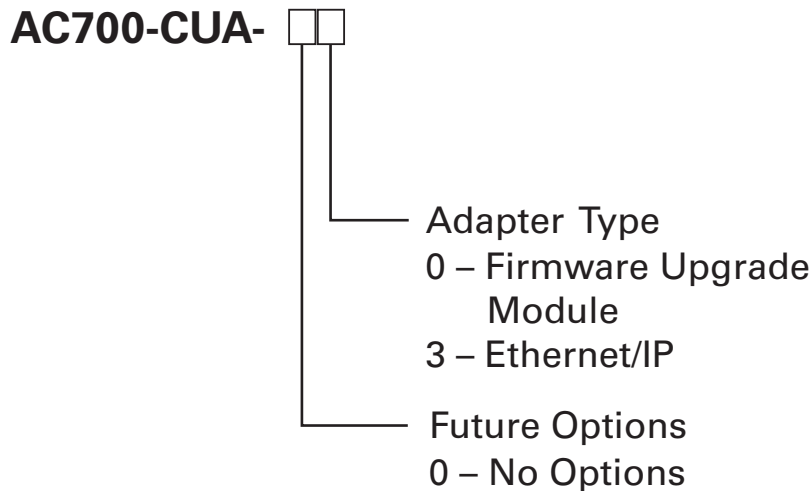
Environment:

Operating Temperature:..... -40 to 60 C
Storage Temperature:.....-40 to 85 C
Humidity:85% Non-Condensing

Shock and Vibration:

Shock Test:Operating IEC 68-2-27 half-sine 30g, 11ms,
3 positive and 3 negative shocks in each of three
mutually-perpendicular directions.
Shock Test:Operating IEC 68-2-27 half-sine 50g, 11ms,
3 positive and 3 negative shocks in each of three
mutually-perpendicular directions.
Sinusoidal Test:Operating IEC 68-2-6
10-500 Hz, 0.35 mm 5g, 1 oct/min., 10 double sweep
in each of three mutually-perpendicular directions.

4. ORDERING INFORMATION



5. WARRANTY

The AC700-CUA Communications & Firmware Upgrade Modules are warranted to be free from defects in material and workmanship for a period of five years from the date of purchase.

Littelfuse Startco will (at Littelfuse Startco’s option) repair, replace, or refund the original purchase price of an AC700-CUA that is determined by Littelfuse Startco to be defective if it is returned to the factory, freight prepaid, within the warranty period. This warranty does not apply to repairs required as a result of misuse, negligence, an accident, improper installation, tampering, or insufficient care. Littelfuse Startco does not warrant products repaired or modified by non-Littelfuse Startco personnel.