

CFSFL01

Eaton's cooper single mode LON to fibre optic adapter



The CFSFL01 Single Channel LON to Fibre Optic Adapter allows connection of Eaton's system network (LonWorks) devices through optical fibre, and to allow both Point-to-Point or Multi-drop topology.

Using only Single-mode fibre optic, the CFSFL 01 adapter allows extension of the Eaton system network to a maximum distance of 15km with a transmission speed of up to 78kbit/s or 1.25Mbit/s.

Connection is made using SC type fibre optic connectors. In comparison with conventional twisted pair cable, the fibre optic usage in a LonWorks network has many advantages: it is reliable and fast in long-distance network transmission even in difficult industrial environments (with transients, surges or electromagnetic interference etc.) without requiring any additional transient protection.

Benefits

- Simple to install
- Easy to use
- Extends Eaton's panel network
- Fast response



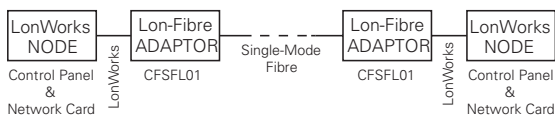
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Technical specification

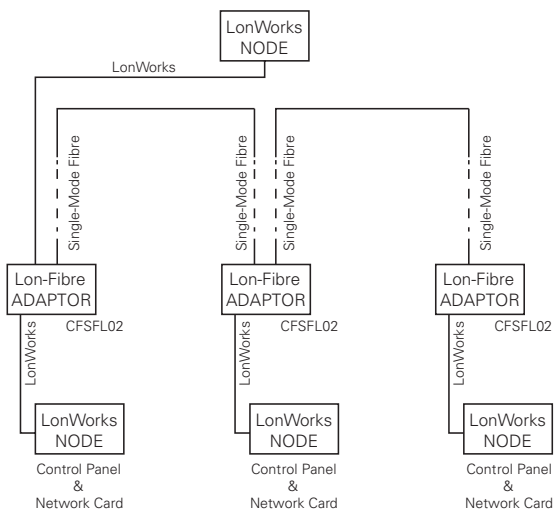
Code	CFSFL01
Description	Single mode LON to fibre optic adaptor
Specification	
Operating voltage	24V dc
Communication protocol	LonWorks
LonWorks connectors	Screw terminal block
LonWorks rate	78 Kbps / 1.25 Mbps
Bit error rate	10e-9
Wavelength	1310nm
Fibre type	Single mode fibre
Fibre diameter	9/125 micron
Fibre connector	SC type (optional ST type)
Link distance	15km
Environmental	
Operating temperature	-30°C to +70°C
Humidity (Non condensing)	20 to 90% RH
Physical	
Dimensions (H x W x D)	116mm x 136 mm x 34mm

Typical system architecture

Fibre Optic Point to Point Link



Fibre Optic Star Topology Link



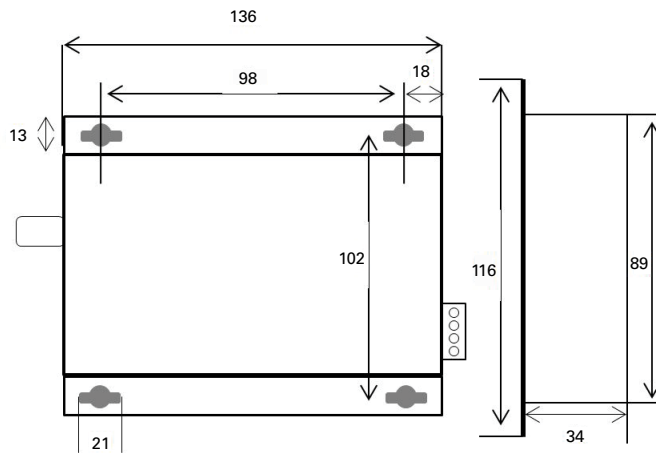
Catalogue numbers

Description	Code
Single Mode LON to Fibre Optic Adaptor	CFSFL01

Eaton
 EMEA Headquarters
 Route de la Longeraie 7
 1110 Morges, Switzerland
 Eaton.eu

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Dimensions

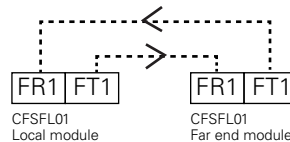


Measurements in mm

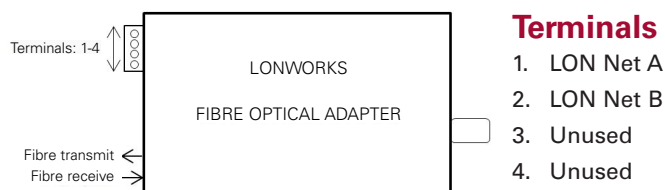
H (mm)	W (mm)	D (mm)
116	136	34

Installation

1. Ensure that the power supply is switched off during installation.
2. Take care when inserting the fibre optic connector to avoid damage
3. Please note the following:-
 - a) The 'FR1' connector in the local module's port should connect to the 'FT1' connector in the far end module's port.
 - b) The 'FT1' connector in the local module's port should connect to the 'FR1' connector in the far end module's port.
4. LonA connects to Net_A of the LonWorks Bus (network card), LonB connects Net_B.



Mechanical layout and connections



Terminals

1. LON Net A
2. LON Net B
3. Unused
4. Unused

LED Indication

POW	Power on indication	'On' means power on
NA	Not applicable	
DT	Fibre transmitting	'Flashing' means working
FT1	Fibre port 1 Transmitting data	'Flashing' means working
FR1	Fibre port 1 Receiving data	'Flashing' means working