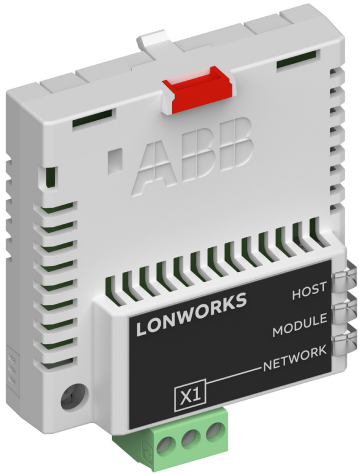
OPTION FOR ABB DRIVES, CONVERTERS AND INVERTERS

LonWorks® FLON-01 adapter module

User's manual



Terms and abbreviations

Term / Abbreviation	Explanation
Command word	See Control word.
Communication module	Communication module is a name for a device (eg, a fieldbus adapter) through which the drive is connected to an external communication network (eg, a fieldbus). The communication with the module is activated with a drive parameter.
Control word	16-bit or 32-bit word from master to slave with bit-coded control signals (sometimes called the Command word).
CRC	Cyclic redundancy check.
FLON-01	A device through which an ABB drive is connected to a FLON-01 LonWorks® network.
Function profile	Functional profiles may contain one or more objects that interact to perform the required profile defined operability. The Variable Speed Motor Drive Profile contains the general LONWORKS® Node Object, application-specific Variable Speed Motor Drive Object, and the Open Loop Sensor and Open Loop Actuator objects.
LonMark®	Products that conform to LonMark® Interoperability Guidelines, defined by the LonMark® Interoperability Association, are eligible to carry the LonMark® logo.
LonTalk®	The communication protocol in LonWorks® networks.
LSB	Least significant bit
MSB	Most significant bit
NCI	Network configuration variable
Neuron® ID	Every LonWorks® device or – as synonym – node must have a unique ID. This is called the Neuron® ID. This ID is, on Neuron® Chip-based nodes, stored in the chip itself and cannot be changed.

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Overview of LonWorks®

Contents of this chapter

This chapter contains a short description of the LonWorks® network and the FLON-01 adapter module.

LonWorks® system

The LonWorks® system is an open serial communication solution that enables data exchange between all kinds of automation components.

A LonWorks® network consists of intelligent devices, called nodes, connected by one or more communications media that communicate with one another using the LonTalk® protocol. A LonWorks® network can consist of up to 32385 nodes divided into 255 subnets (127 nodes/subnet). Nodes are programmed to send messages to one another in response to external events or messages they receive. Each intelligent device, for example a programmable thermostat in a building control system, is a LonWorks® node. A node is connected to other nodes with appropriate communications media, such as twisted pair cable, RF link, or power line circuit.

Each node includes a physical interface, transceiver, that interfaces with the communication media. The adapter module uses the FT-X1 Free Topology Transceiver (compatible with the FTT-10A transceiver) from Echelon Corporation. This commonly used twisted-pair media supports star, bus, and loop wiring. The FT-X1 transceiver connects to a twisted pair

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Mechanical installation

Contents of this chapter

This chapter contains a delivery checklist and instructions to install the adapter module.

Necessary tools and instructions

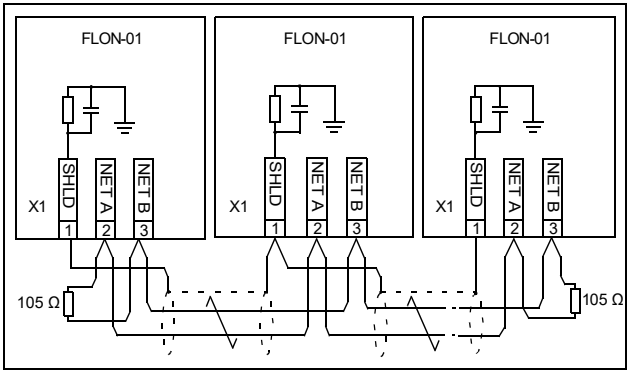
You will need a Torx TX10 screwdriver to secure the FLON adapter module to the drive. See also, the applicable drive hardware manual.

Unpacking and examining the delivery

1. Open the option package.
2. Make sure that the package contains:
   - LonWorks® adapter module, type FLON-01
   - this manual.
3. Make sure that there are no signs of damage.

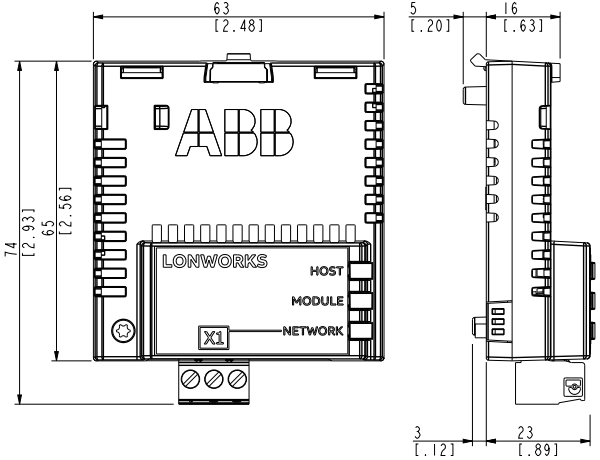
Earthing of the LonWorks® cable screens

The LonWorks® cable screen can be directly earthed at one station only. At other stations the screen should be earthed via RC filter. See the below figure on the network cable connection for the bus topology.



FLON-01

The below figure shows the enclosure of the adapter module from the front and side.



Mounting	Into the option slot of the drive
Degree of protection	IP20
Ambient conditions	Applicable ambient conditions specified for the drive in its manuals are in effect.
Indicators	Three bicolor LEDs (HOST, MODULE, NETWORK)
Connectors	20-pin connector to the drive (X2) 3-pole detachable screw terminal block (X1)
Power supply	Input voltage: From the drive: +3.3 V DC (+/- 5%)
General	Complies with EMC standard EN 61000-6-4:2001 and EN 61800-3:2004. Bus interface functionally isolated from the drive.