

# Lexium 15 motion control

## Communication buses and networks

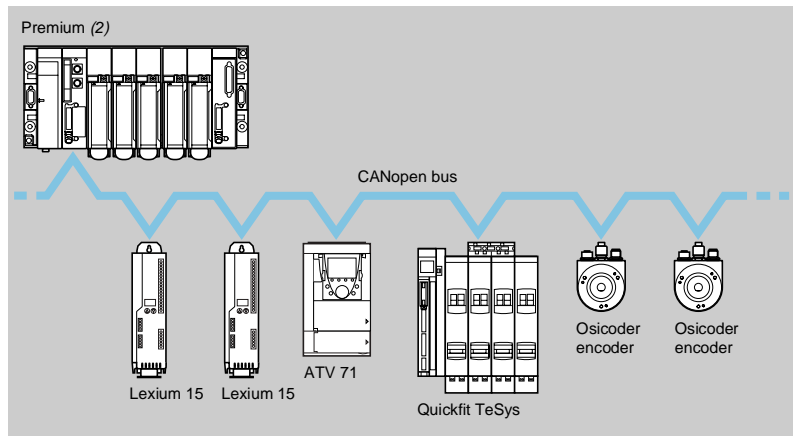
### Presentation

The Lexium 15 servo drive integrates the CANopen communication protocol as standard (1).

By adding one of the communication cards (available as options), the Lexium 15 servo drive can also be connected to the following communication buses and networks:

- Fipio bus
- Profibus DP fieldbus
- Modbus Plus network

### CANopen machine bus



The CANopen machine bus is a fieldbus based on CAN lower layers and components. It complies with standard ISO 11898. With its standard communication profiles, the CANopen bus provides openness and interoperability with various devices (drives, motor starters, smart sensors, etc).

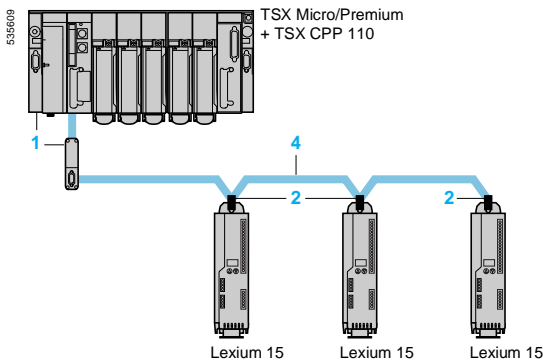
The CANopen bus is a multi-master bus, which provides secure, deterministic access to realtime automation device data. The CSMA/CA type protocol is based on broadcast exchanges, transmitted cyclically or on event, which ensure optimum use of the bandwidth. A messaging channel is also used to set the parameters of the slave devices.

The Lexium 15 servo drive is equipped with a CANopen bus compatible interface as standard.

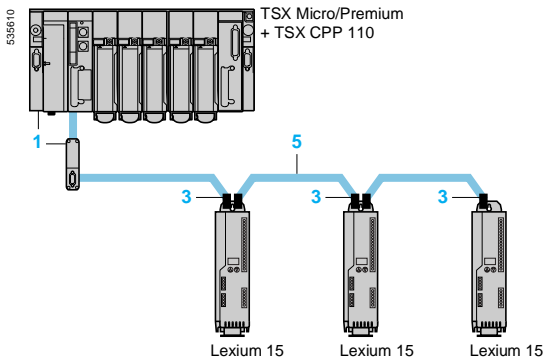
The **AM0 2CA 001V000** adaptor provides a hardware interface which **complies strictly with the CANopen standard**. This adaptor (occupying the slot for the option card) also has a 9-way male SUB-D connector for connecting a PC terminal.

(1) See characteristics page 27.

(2) Please consult our "Automation platform Modicon Premium and Unity - PL7 software" specialist catalogue.



Example of connection to CANopen bus



Example of connection to CANopen bus via adaptor  
AM0 2CA 001V000 3



AM0 2CA 001V000

### CANopen machine bus connection components (1)

Description	Item no.	Length m	Reference	Weight kg
<b>Connection accessories</b>				
<b>CANopen PCMCIA card</b> Type III, supplied with cable and junction box with 9-way male SUB-D connector	1	0.5	TSX CPP 110	0.230
<b>9-way female SUB-D connector</b> not supplied. Provide a 120 Ω - 1/4 W line terminator	2	–	–	–
<b>CANopen bus adaptor for Lexium 15</b> Hardware interface conforming to the CANopen standard + one 9-way male SUB-D connector for connecting PC Includes line terminator	3	–	AM0 2CA 001V000	0.110
<b>Cables</b>				
<b>CANopen cables (1)</b> Standard cables, CE marking Low smoke emission, halogen-free Flame retardant (IEC 60332-1)	4	50	TSX CAN CA 50	4.930
		100	TSX CAN CA 100	8.800
		300	TSX CAN CA 300	24.560
<b>CANopen cables (1)</b> UL certification, CE marking Flame retardant (IEC 60332-2)	4	50	TSX CAN CB 50	3.580
		100	TSX CAN CB 100	7.840
		300	TSX CAN CB 300	21.870
<b>CANopen cables (1)</b> Cable for harsh environments (2) or mobile installations, CE marking Low smoke emission, halogen-free Flame retardant (IEC 60332-1)	4	50	TSX CAN CD 50	3.510
		100	TSX CAN CD 100	7.770
		300	TSX CAN CD 300	21.700
<b>CANopen cables</b> equipped with two 9-way female SUB-D connectors Standard cable, CE marking Low smoke emission, halogen-free Flame retardant (IEC 60332-1)	5	0.3	TSX CAN CADD 03	0.091
		1	TSX CAN CADD 1	0.143
		3	TSX CAN CADD 3	0.295
		5	TSX CAN CADD 5	0.440
<b>CANopen cables</b> equipped with two 9-way female SUB-D connectors UL certification, CE marking Flame retardant (IEC 60332-2)	5	0.3	TSX CAN CBDD 03	0.086
		1	TSX CAN CBDD 1	0.131
		3	TSX CAN CBDD 3	0.268
		5	TSX CAN CBDD 5	0.400

(1) To order other components for connection to the CANopen bus, please consult our "Automation platform Modicon Premium and Unity - PL7 software", "Automation platform Modicon TSX Micro and PL7 software" and "Machines & installations with CANopen" specialist catalogues.

(2) Harsh environment:

- Resistance to hydrocarbons, industrial oils, detergents, solder splashes
- Relative humidity up to 100%
- Saline atmosphere
- Significant temperature variations
- Operating temperature between - 10°C and + 70°C