Network Branch and Termination   AL-2600

1. Module Description

The AL-2600 is part of the AL-2000 series of programmable controllers. It was designed to easy the connection between several controllers and to be used as termination, if it is installed at the end of the network bus. This module is totally passive, with branch connectors and selectable termination resistors. Termination resistors may be selected using dip-switches.
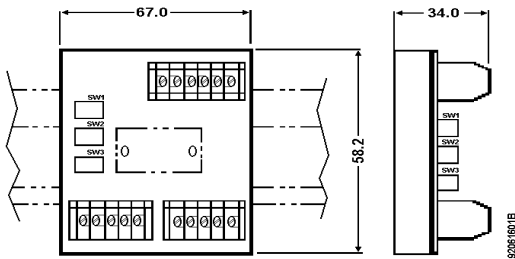
2. Components

This product consists of the AL-2600 Branch and Termination.

3. Functional Features

3.1. General Features

- Connection to the network bus and to the network node by 3 blocks of screw terminals
- Gauge of connection cables: 0.13 to 4 mm^2
- Fixed onto TS-32 or TS-35 rails with quick connection/disconnection, for easy installation in electrical cabinets
- Operating temperature: 0 to 60°C
     exceeds the IEC 1131 standard
- Storage temperature: -25 to 70°C
     according to IEC 1131 standard
- Relative humidity: 5 to 95% non-condensing
     according to IEC 1131standard, level RH2
- Protection index: IP00, non-protected
     according to IEC 529 standard
- Weight:
     unpacked: 70 g
     packed: 170 g

4. Physical Dimensions

5. Installation

The AL-2600 must be installed as follows:

- An AL-2600 module is needed per each node connected to the network.
- The two AL-2600 modules installed at the ends of the bus must be configured as terminators, using dip-switches as described in the following tables.
- The AL-2600 modules not installed at the ends of the bus must be configured as branching, using dip-switches as described in the following tables.
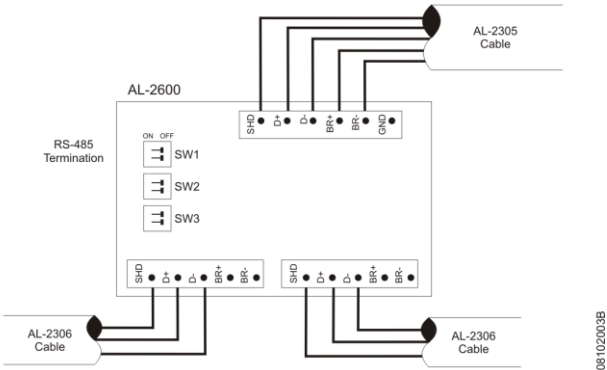
	Branching
SW1	OFF
	OFF
SW2	OFF
	OFF
SW3	OFF
	OFF

	Termination for RS-485 based networks
SW1	OFF
	OFF
SW2	ON
	ON
SW3	ON
	ON

	ALNET II Termination
SW1	ON
	ON
SW2	OFF
	OFF
SW3	OFF
	OFF

The correct cable connection to the terminals must be observed, to avoid damage to equipment drivers or receivers. The branch cable must be connected to the upper terminal with 6 positions. The earth terminal is not used in this case. The net cable must be connected to 5 position terminals at each side of the AL-2600.

The following figure shows how to connect a RS-485 network through AL-2600:

The 6th position is reserved for a earth ground connection, but only one of the AL-2600s in the bus must have this connection done, to avoid ground loop currents. The terminal marked as ground must be connected to the installation ground with a 1 to 1.5 mm^2 gauge.

The AL-2600 can be fixed in TS rails, in compliance with DIN EN 50035, which makes easy its use in electrical cabinets.

The AL-2600 also has a "measurement reference point ". The measurement reference point is a pin placed on the board, which serves as reference if some kind of signal measurement is carried out in the equipment.

6. Purchase Information

6.1. Product

	Name
AL-2600	BRANCH CABLE AND TERMINAL

6.2. Related Items

The following items must be purchased separately:

	Name
AL-2300	ALNET II BRANCH CABLE
AL-2301	RS-485 CABLE FOR RS-485 AND ALNET II NETWORKS
AL-2305	BRANCH CABLE (CMDB9-RS485) FOR RS-485 NETWORKS
AL-2306	Cable for RS485 network