

AX600 LON gateway

Esmikko Access control system's AX600 bus controllers can have a LON- gateway module as an extension option. Module gives information using LonWorks® -technology about alarms and events into LON- network devices from access control system. These controls can assist in building automation to control lights, heating and ventilation. Module is based on Echelon chip 55020-10.

Electrical features

Dimensions: 61mm x18 mm x 41 mm
 Processor 3150™ Neuron®
 Clock rate 10MHz
 Bus FTT-10
 Voltage 5 VDC
 (from AX600)
 Power 40 mA during transmit
 Transceiver type transformer isolation
 Cable Twisted pair
 (2x0,65 LONAK)
 Bus length free topology:
 max. 500m

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Mechanical installation

Module is a piggy-pack additional board on CT600 motherboard of AX600.

Functions

LON -gateway module is controlled from AX serial port COM3. LON - gateway module is seen on LON- network side as constant SWITCH- type variables. Wanted devices can be bind to the variables.

Variables are active if Esmikko is controlling them by own configuration. Specific information for configuring LON network which output is controlling which variable must be given to integrator manually.

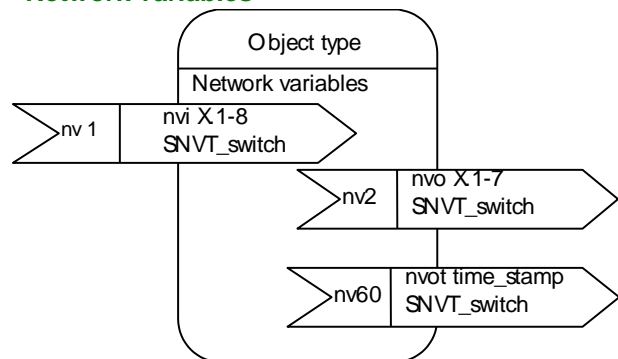
Relay outputs are converted to switch type output variables and input switch type variables into alarms in the access control system.

Input type variables are configured into Esmikko as normal IOU603 inputs. A block of 8 input and 7 outputs are used as one IOU603 Unit. On Esmikko side gateway module only replaces IOU hardware. Module uses addresses 1 to 4 on AX bus.



Bus addresses 1 to 4 must be used for a gateway. These addresses are then reserved for the gateway and cannot be used in normal operation on the bus. Each AX can have only one gateway module installed. Maximum number of inputs is 32 and outputs 28 pieces in one AX. Basically gateway replaces 4 IOU603 units.

Network variables



See next page

Limitation

Address table in each neuron has space for 15 different addresses. So all 60 variables can be bind only to 15 different addresses.

Electrical connection

External LON – cable is connected into AX600 serial port COM3 screw terminals DA and DB. LON –module connects to motherboard via direct pins.

Availability

Standard AX41K supports gateways in both upper or lower AX.. Esmikko.xif file must be used to

provide Lon device profile. Download it from se-technet.fi

network output SNVT_switch nvo33;
network output SNVT_switch nvo34;
network output SNVT_switch nvo35;
network output SNVT_switch nvo36;
network output SNVT_switch nvo37;

Gateway 55020-10 network variables

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Node objects

ESMIKKO AX address 1

network input polled SNVT_switch nvi11;
network input polled SNVT_switch nvi12;
network input polled SNVT_switch nvi13;
network input polled SNVT_switch nvi14;
network input polled SNVT_switch nvi15;
network input polled SNVT_switch nvi16;
network input polled SNVT_switch nvi17;
network input polled SNVT_switch nvi18;

network output SNVT_switch nvo11;
network output SNVT_switch nvo12;
network output SNVT_switch nvo13;
network output SNVT_switch nvo14;
network output SNVT_switch nvo15;
network output SNVT_switch nvo16;
network output SNVT_switch nvo17;

ESMIKKO AX address 2

network input polled SNVT_switch nvi21;
network input polled SNVT_switch nvi22;
network input polled SNVT_switch nvi23;
network input polled SNVT_switch nvi24;
network input polled SNVT_switch nvi25;
network input polled SNVT_switch nvi26;
network input polled SNVT_switch nvi27;
network input polled SNVT_switch nvi28;

network output SNVT_switch nvo21;
network output SNVT_switch nvo22;
network output SNVT_switch nvo23;
network output SNVT_switch nvo24;
network output SNVT_switch nvo25;
network output SNVT_switch nvo26;
network output SNVT_switch nvo27;

ESMIKKO AX address 3

network input polled SNVT_switch nvi31;
network input polled SNVT_switch nvi32;
network input polled SNVT_switch nvi33;
network input polled SNVT_switch nvi34;
network input polled SNVT_switch nvi35;
network input polled SNVT_switch nvi36;
network input polled SNVT_switch nvi37;
network input polled SNVT_switch nvi38;

network output SNVT_switch nvo31;
network output SNVT_switch nvo32;

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ESMIKKO AX address 4

network input polled SNVT_switch nvi41;
network input polled SNVT_switch nvi42;
network input polled SNVT_switch nvi43;
network input polled SNVT_switch nvi44;
network input polled SNVT_switch nvi45;
network input polled SNVT_switch nvi46;
network input polled SNVT_switch nvi47;
network input polled SNVT_switch nvi48;

network output SNVT_switch nvo41;
network output SNVT_switch nvo42;
network output SNVT_switch nvo43;
network output SNVT_switch nvo44;
network output SNVT_switch nvo45;
network output SNVT_switch nvo46;
network output SNVT_switch nvo47;

OTHERS

network variable 60
network output SNVT_time_stamp nvot;