

SlotServer ControlLogix -- LonWorks Communications Interface Module

Part #: FS-RA-CLX-LON-000 (Generic SNVTs)
 Part #: FS-RA-CLX-LON-001 (Configurable SNVTs)
 Module Version: 1.00

Product Description

The SlotServer LonWorks Open Interface allows an Allen Bradley ControlLogix platform to pass data between a ControlLogix CPU and a standard LonWorks communications network. The SlotServer Module provides a standard generic profile in LonWorks that allows most of the more common Standard Network Variable Types (SNVT's) to be bound to the SlotServer for data transfer.

Physically configured to plug into a standard ControlLogix rack, the SlotServer Module is configured using standard RSLogix message block reads to allow for efficient transfer of large blocks of data.

SlotServer provides serial and Ethernet ports to enable ControlLogix interface to any of the many protocols available in the FieldServer driver library including BACnet, Metasys, and a wide range of proprietary and legacy protocols used in the building automation, fire alarm panels and process control industries.

LonWorks and Profiling

Inherent to the design of LonWorks is the intention that all nodes residing on a LonWorks possess a profile which accurately describes the network variables (tags) available to the LonWorks network. This profile is declared to the LonWorks network by means of an External Interface File (XIF). This XIF remains unchanged for any particular profile. In other words, a change in the XIF is by definition a new profile.

The FS-RA-CLX-LON-000 Open Interface profile for SlotServer provides a generic list of SNVT's that can be used to bind the most common LonWorks data types to the SlotServer for data transfer. This document describes the fixed Open Interface profile for the SlotServer. The FS-RA-CLX-LON-001 is a LonMark compatible product, enabling the SlotServer platform to support other profiles. For further information, please contact FieldServer Technologies and enquire about available Specific Profiles and other SlotServer Profiling Services.



Technical Specifications

Slot width	Single
BackPlane Current Load	600 mA @ 5V
Operating Temperature	0° to 60° C (32° to 140° F)
Storage Temperature	-40° to 85° C (-40° to 185° F)
Humidity	5 – 95% (non-condensing)
Allen Bradley Platform:	ControlLogix 1756 Rack
Connections	TP/FT-10 (LonWorks) RS-485 (2-wire) Ethernet (10/100BaseT)
LED Indicators	Module Status Backplane Transfer Status Communications status Configuration Error System Error Serial Activity Ethernet Activity 10/100BaseT indicator
Display	Scrolling display of card messages
Service Pin	For LonWorks commissioning
Mounting	Local rack
Approval	UL60950
Configuration	Configuration data is contained in the configuration CSV file downloaded to the module. Sample configuration file is included. Configuration file development service available from FieldServer Technologies or approved system integrators
Connections:	TP/FT-10 (LonWorks) RS-485 (2-wire) Ethernet (10/100BaseT)
LonWorks Connection Capability	As an implicitly bound object in LonWorks, the LonWorks protocol supports the binding of this device to no more than 15 other nodes. Note: A LonWorks Network Management Tool (e.g.: LonMaker, Rover, LonWatcher etc) is required to commission a LonWorks network. This tool is used for creating the variable bindings on the network.



Functional Specification:

The following Tags are available in the SlotServer LonWorks Open Interface Profile (FS-RA-CLX-LON-000)

Input Tags from LonWorks to CPU (Data Table Read):

Tag Name	Tag Qty	LonWorks SNVT Type	SNVT Qty
amp_in	60	SNVT_amp	60
chiller_sts_in	45	SNVT_chlr_status	15
count_in	60	SNVT_count_f	60
count_inc_in	60	SNVT_count_inc_f	60
flow_in	30	SNVT_flow_f	30
freq_in	30	SNVT_freq_hz	30
hvac_mode_in	30	SNVT_hvac_mode	30
hvac_sts_in	105	SNVT_hvac_status	15
lev_disc_in	30	SNVT_lev_disc	30
obj_sts_in	60	SNVT_obj_status	30
occupancy_in	60	SNVT_occupancy	60
percent_in	180	SNVT_lev_percent	180
ppm_in	30	SNVT_ppm	30
press_in	60	SNVT_press	60
setpoint_in	180	SNVT_setpoint	30
state_in	90	SNVT_state	90
switch_in	360	SNVT_switch	180
temp_in	180	SNVT_temp_p	180
tod_event_in	45	SNVT_tod_event	15
volt_ac_in	60	SNVT_volt_ac	60
volt_in	60	SNVT_volt	60

Output Tags from CPU to LonWorks (Data Table Write):

Tag Name	Tag Qty	LonWorks SNVT Type	SNVT Qty
amp_out	60	SNVT_amp	60
chiller_sts_out	45	SNVT_chlr_sts	15
count_out	60	SNVT_count_f	60
count_outc_out	60	SNVT_count_inc_f	60
flow_out	30	SNVT_flow_f	30
freq_out	30	SNVT_freq_hz	30
hvac_mode_out	30	SNVT_hvac_mode	30
hvac_sts_out	105	SNVT_hvac_status	15
lev_disc_out	30	SNVT_lev_disc	30
obj_sts_out	60	SNVT_obj_status	30
occupancy_out	60	SNVT_occupancy	60
percent_out	180	SNVT_lev_percent	180
ppm_out	30	SNVT_ppm	30
press_out	60	SNVT_press	60
setpoint_out	180	SNVT_setpoint	30
state_out	90	SNVT_state	90
switch_out	360	SNVT_switch	180
temp_out	180	SNVT_temp_p	180
tod_event_out	45	SNVT_tod_event	15
volt_ac_out	60	SNVT_volt_ac	60
volt_out	60	SNVT_volt	60

Doc Rev 0