

# SoftPLC®-500

(Catalog Numbers SNS5-x)

## Applications

The SoftPLC-500 controllers (Cat No SNS5-x) are designed to reside in a SLC-500 rack, communicating to I/O modules in the rack. Applications include:

- ◆ SLC-500 CPU Upgrades - Automated conversion of SLC logic/documentation is built into SoftPLC programming software
- ◆ RIO Scanner for SLC-500 I/O (*alternative to the A-B 1747-SN*)

## General Description

The SoftPLC-500 is one of a family of open architecture Programmable Automation Controllers (PAC's) that provide scalable solutions for a wide range of applications. SoftPLC's are priced to meet the needs of small I/O machine control applications, yet have more than enough power and capacity for large process control applications.

The SoftPLC-500 includes the functions and features of all SoftPLC controllers including:

- ◆ Deterministic, high speed program execution
- ◆ "Unlimited" user logic and data table memory
- ◆ Ladder logic and data table addressing similar to Allen-Bradley PLC-5/SLC-500
- ◆ Fully documented applications, all documentation resides in the controller
- ◆ Data logging to local/remote drives and databases
- ◆ Industry standard protocols for communications and I/O including ModbusTCP, Ethernet/IP™, DF1, Modbus RTU, and others
- ◆ Supports user functions written in C++
- ◆ Compatible with all HMI/SCADA products
- ◆ Embedded email and web server options

SoftPLC-500's are programmed and maintained with TOPDOC® NexGen via Ethernet. TOPDOC NexGen is available for the Windows and Linux operating systems.



## Hardware Features

- Powerful CPU – 64-bit quad-core ARM® processor
- 512MB RAM
- Storage - 8GB on-board flash
- GB Ethernet port
- (2) configurable communication ports
- (2) USB 2.0 host ports
- Embedded Wireless (*option*)
- Mounts in SLC-500 rack (A-B 1746-Ax)

## Communication and I/O Ports

The SoftPLC-500, in addition to the local 1746 I/O interface, can communicate to devices from hundreds of vendors including I/O, instruments, drives, HMI/SCADA, and more.

### A-B "BlueHose" Ports!

Up to 2 optional "bluehose" ports allow the SoftPLC-500 to communicate on Allen-Bradley Data Highway Plus (DH+) or Remote I/O (RIO) networks.

SPECIFICATIONS		
<b>Processor</b>	64-bit quad-core ARM® processor	
<b>User Memory</b>	512 MB RAM, 8GB onboard eMMC flash	
<b>Removable Memory</b>	MicroSD ( <i>optional - no card included</i> )	
<b>Operating Temp</b>	0~60°C, -20~70°C option (storage -40~85°C)	
<b>Humidity</b>	0~95%, non-condensing	
<b>Input Voltage Range</b>	Powered by SLC-500 power supply	
<b>Power Requirements</b>	Based on options selected	
<b>Communication Ports</b>	(1) GB Ethernet port (10/100/1000) (2) independent USB 2.0 Host ports (1) MicroUSB serial console ( <i>for troubleshooting</i> )	
<b>Option Ports (2)</b>	A-B Bluehose, DH+ or RIO Scanner / Adapter RS-485, 2-wire, isolated Other (future) eg: RS-232, CAN...	
<b>Protocols</b>	<b>Serial</b>	Modbus Master/Slave, DF1, ASCII
	<b>Ethernet</b>	ModbusTCP, DF1 Ethernet (PCCC), Ethernet/IP™
<b>Remote I/O Interfaces</b>	Ethernet, USB, serial option ports A-B RIO via SPO-BH option	
<b>Dimensions (HxWxD)</b>	27 x 17 x 13 cm (10.6 x 6.7 x 5.1 inches)	
<b>Packaging</b>	Fanless/Diskless system, metal faceplate	
<b>Time</b>	NTP Client, update via internet or NTP Server on local LAN	
<b>Security</b>	Embedded Gatecraft™ Firewall/VPN option SSH server for encrypted data transfer	
<b>LED's</b>	(2) System Status, (2) Option Port Status, (2) Ethernet	

ORDERING INFORMATION	
Part Number	Description
SNS5-x *	SoftPLC-500 CPU
SPO-BH	BlueHose Option Port
SPO-485	RS-485 Option Port
SPO-WIFIMOD	Wifi Antenna Extension
SPO-EXTMP	Expands operating temp
SPZ-WEB	Embedded Web Server Option
SPZ-EML	Send Email Option

\* x is license size from table below

Runtime License Sizes				
Catalog Number Suffix	ModbusTCP Servers	Ethernet/IP Connection Bytes	Discrete Inputs / Logical A-B RIO Racks	Discrete Outputs / Logical A-B RIO Racks
LT	2	64	128 / 1	128 / 1
1K	16	256	up to 1024 / 8	up to 1024 / 8
2K	32	1024	up to 2048 / 16	up to 2048 / 16
8K	127	4096	up to 8192 / 64	up to 8192 / 64