

Full-function PLC with built-in high resolution full-color touch-screen, & onboard I/O configuration. Great look, incredible price.

Features:

HMI

- Display: Color touch-screen
3.5" - 320 x 240, 4.3" - 480 x 272, 7" - 800 x 480
- 24 user-designed screens and 500 images per application
- HMI graphs - color-code Trends
- Built-in alarm screens
- Text String Library - easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options: Digital, Analog, including High-speed
- Auto-tune PID, 2 independent loops
- Recipe programs and data logging via Data Tables
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol supported
- BACnet, KNX, M-bus – via 3rd-party converter
- CANbus: CANopen, UniCAN, SAE J1939, and more
- DF1 Slave
- Programming Port: RS232 for 3.5" model, USB for 4.3" & 7"
- 2 ports may be added: 1 Serial (RS232/RS485)/ Ethernet & 1 CANbus



SAMBA 3.5"



SAMBA 4.3"



SAMBA 7"



“It really enhanced our product’s look and flexibility.”

Ralph Hannmann,
President of Alyan Pump Company

CE/UL

Samba™ models - Onboard I/Os

Article	summary	Inputs ¹				Outputs				Operating voltage
		Digital ²	HSC/Shaft-encoder ²	Analog	Temperature Measurement	Transistor ³	PWM/HSO ³	Relay	Analog	
SM35-J-R20 SM43-J-R20 SM70-J-R20	10 Digital, 2 D/A Inputs ⁴ , 8 Relay Outputs	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	None	None	8	None	24VDC
SM35-J-T20 SM43-J-T20 SM70-J-T20	10 Digital, 2 D/A Inputs, 8 Transistor Outputs	12	3 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 10-bit	None	8 pnp	7 0.5kHz	None	None	24VDC
SM35-J-RA22 SM43-J-RA22 SM70-J-RA22*	12 Digital, 1 HSC/Shaft- encoder, 2 AI, 2 PT100/TC, 8 Relay, 2 AO	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 12/14-bit	2 PT100/TC	None	None	8	0-10V, 4-20mA, 12-bit	24VDC
SM35-J-TA22 SM43-J-TA22* SM70-J-TA22*	12 Digital, 1 HSC/Shaft- encoder, 2 AI, 2 PT100/TC, 8 Transistor, 2 AO	12	1 30kHz, 32-bit	2 0-10V, 0-20mA, 4-20mA 12/14-bit	2 PT100/TC	8 pnp	5 0.5kHz	None	0-10V, 4-20mA, 12-bit	24VDC

Product Details

I/O Expansion	
	Remote I/Os via CANbus
Program	
Application Memory	SM35: Application Logic: 112kb • Images: 1.5 MB • Fonts: 512 k SM43: Application Logic: 112kb • Images: 3 MB • Fonts: 512 k SM70: Application Logic: 112kb • Images: 8 MB • Fonts: 512 k
Scan Time	15µS per 1K of typical application
Memory Operands	512 coils, 256 registers, 32 long integers (32-bit), 32 double words (32-bit unsigned), 24 floats, 32 timers (32-bit), 16 counters. Additional non-retainable operands: 64 X-bits, 32 X-integers, 16 X-long integers, 16 X-double words
Data Tables	32K dynamic RAM data (recipe parameters, datalogs, etc.), up to 16K fixed data
SD Card	None
Enhanced Features	Trends: graph any value and display on HMI • String Library: instantly switch HMI language
Operator Panel	
Type & Colors	TFT LCD • 65,536 colors • 16 bit resolution • Brightness - Adjustable via touchscreen or software
Display	Resolution: 320 x 240 pixels • Size: 3.5" (QVGA) Resolution: 480 x 272 pixels • Size: 4.3" Resolution: 800 x 480 pixels • Size: 7"
Touchscreen	Resistive, Analog
Keys	Displays virtual keyboard when the application requires data entry
General	
Power Supply	24VDC
Battery	7 years typical at 77°F, battery back-up for RTC and system data, including variable data
Clock	Real-time clock functions (date and time)
Environment	NEMA4X/IP66/IP65 (when panel mounted)
Standard	CE, UL Many of our products are also UL Class 1 Div 2 and GOST certified - please contact Unitronics

¹ In some models certain inputs are adaptable via wiring and software settings, and can function as digital or analog. Adapting requires input pins. This reduces the number of digital inputs.

Pin requirements:

• Each analog input requires 1 pin.

Example: SM35-J-R20 offers 12 digital inputs. Implementing 2 analog inputs requires 2 pins, leaving 10 pins free.

² The total number of digital inputs listed includes high-speed and adaptable inputs.

³ The total number of digital outputs listed includes high-speed outputs.

⁴ When selecting NPN for the digital inputs, the 2 Analog inputs cannot be used.

*Not yet UL certified