

Features:

HMI

- Size: 3.5", 4.3", 7"
- High quality touchscreen
- Multi-language display
- Built-in Alarm Screens

PLC

- I/O options including digital, analog, and high speed
- Auto-tune PID, up to 2 independent loops
- Recipe programs and data logging via data tables
- Function Blocks

Communication

Built-in ports:

- 1 Mini USB for programming for 4.3" & 7"models, 1 RS232 for 3.5" model
- 2 ports may be added: 1 Serial/Ethernet and CANbus

Protocols:

- MODBUS TCP
- SNMP*
- CANopen, UniCAN, CANlayer2
- BACnet, KNX and M-Bus via gateway
- FB Protocol: for any 3rd party protocol

General Features:

- E-mail & SMS
- 3G Modem support
- Remote access utilities

* SNMP V1 Trap, SNMP community Name

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



SAMBA 3.5"



SAMBA 4.3"



SAMBA 7"

	SAMBA		
Article Number	SAMBA 3.5	SAMBA 4.3	SAMBA 7
I/O Options			
Total supported I/Os	22		
Built-in	According to model (See Built-in I/Os table below)		
I/O Expansion	-		
Remote I/O Expansion	Use EX-RC1 adapters to further extend the number of I/Os ¹		
COM Modules	Fit up to 1 CANbus, 1 RS232/RS485 ³ or 1 Ethernet		
Program			
Application Memory	Application Logic: 80KB • Images: 1.5 MB • Fonts: 320 KB	Application Logic: 192KB • Images: 3 MB • Fonts: 320 KB	Application Logic: 192KB • Images: 8 MB • Fonts: 512 KB
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 (32-bits unsigned)		
HMI Panel			
Touch screen	Resistive, Analog		
Cut Out Height x Width (mm)	92 X 92	122.5 X 91.5	193 X 125
Resolution	320 X 240 (QVGA)	480 X 272	800 x 480 (WVGA)
Keys	Displays virtual keyboard when the application requires data entry		
Environment			
Protection	NEMA4X/IP66/IP65 (when panel mounted)		
Operating Temperature	0 to 50°C		
Standards	CE, UL Many of our products are also UL Class 1 Div 2 and GOST - please contact Unitronics		
General			
Battery	7 years typical at 25°C, battery back-up for RTC and system data, including variable data		
Clock	Real-time clock functions (date and time)		
Power Supply	24VDC		

¹ EX-RC1: via CANbus, integrate standard Unitronics' I/O modules at distances of up to 1000m. Refer to website for more information.

Samba™ models - Built-in 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	—	—	—	8	—	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	—	8 pnp	7 0.5kHz	—	—	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	—	—	8	2 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	—	0-10V, 4-20mA, 12-bit	24VDC

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.