

Airmaster S1 – A04.1_EN

Identification: S1
Product Family: Airmaster™
Definition: PLC (pre-programmed logic controller)
Function: Compressor / motor control, I/O monitoring and protection device
Part number: Refer to Product guide / price list for specific part number or contact dealer
Software: Pre-programmed application software, configurable via password protected OUI
Supported protocol: Airbus485, Modbus RTU (via gateway), Profibus DP (via gateway) and DeviceNet (via gateway)

Airmaster™ sets the standard for pre-programmed logic controllers in air compressor, vacuum and related applications. Why? For nearly 30 years, Airmaster™ products have pioneered developments in compressed air and vacuum application PLC's, ensuring our customers remain at the forefront in their chosen area of expertise. Our continued commitment to product development has positioned Airmaster™ as the global leader and choice solution for compressed air and vacuum application PLC controls.

By choosing Airmaster™, our customers benefit from time savings, cost savings and faster development cycles, the result of Airmaster™ application hardware and software attributes.



By choosing Airmaster™ our customers don't just get a machine PLC. Airmaster™ is complimented by Metacentre™, a complete range of application system solutions. Metacentre™ products include multiple compressor and vacuum 'system controllers', distributed I/O devices for ancillary control and monitoring and a range of software solutions for networking, monitoring and trending purposes. For more information on the Metacentre™ range of system solutions, visit the Metacentre™ micro site @ www.metacentre.eu.

Like all Airmaster™ products, S1 is designed with a core application focus. This focus positions Airmaster™ S1 as an advanced embedded control solution with features and functionality that enable implementation across a wide scope of applications and control solutions. Using an ST10R272 processor, product features are arranged to ensure a cost effective and feature rich PLC with options that enhance where required. This approach ensures that the incremental cost of lesser used or more exotic features is not levied across all controllers.

A variety of front plate and keypad options exist

Additionally, Airmaster™ S1 is compatible with both XPC (Airmaster™ S1 enclosure mounted I/O) and XPM (35mm DIN rail mounted I/O) input / output option cards, together making Airmaster™ S1 a truly scalable product solution

Airmaster™ S1: scalable I/O options...

XPC:



XPC Di8R4: 8 x digital input, 4 x relay outputs
 XPC Ai4: 4 x analogue inputs

XPM:



XPMDi8R4: 8 x digital input, 4 x relay outputs
 XPM AO2: 2 x Analogue outputs
 XPM Ai4: 4 x analogue inputs

Airmaster™ S1 features a backlit 65mm x 34mm graphic display complimented by an ergonomically engineered membrane switch keypad. Both are conveniently arranged for easy and intuitive access and interrogation of Airmaster™ S1's software menus.

A variety of input and output connections are conveniently arranged to the rear of the controller (see over).

Airmaster™ S1 is assembled in a ruggedized housing with an IP65 rating once installed in the host air compressor or vacuum pump.

Like other Airmaster™ products, S1 carries CE, UL and CSA regulatory approvals.

AirMaster™

Identification: S1
Product family: Airmaster™
Definition: PLC (pre-programmed logic controller) comprising an industrial computer with an ST10R272 family processor, an operator user interface with a background illuminated graphics display, keys, digital and analogue inputs and outputs

Rated voltage: 24VAC +/-15%
Power consumption: 50VA
RAM: 256KB
Flash EPROM: 256KB
Graphic display: Monochrome graphic display, 65mm x 34mm
Backlight: YES
Keypad: 7 tactile key, Membrane switch panel construction
Digital inputs: 8 x digital inputs...
 Common : 24VDC output to remote volt free switching contact(s)
 DI1: Emergency Stop: 140mA, closed < 3ohms (integral output isolation)
 DI2 – 7: Switching: 10mA, closed < 3ohms, open > 750Kohms
 DI8: Switching or PTC: 1.4mA, closed < 750ohms, open > 4000ohms

PTC conformity: IEC 34-11-2, VDE 0660
Analogue inputs: 1 x 4-20mA input (pressure)
 2 x specified 4 – 20mA, KTY, PT100, PT1000 input (pressure and / or temperature)

Analogue output: 4 to 20mA @ 24VDC; 500ohm maximum load
A to D resolution: 10 bit
Relay outputs: Contacts : 250Vac, 8A (cosØ=1) / (5ADC)

Serial interface: 2 x RS485
Serial communication: Airbus485™, MODBUS RTU (via gateway), Profibus DP (via gateway), DeviceNet (via gateway)

Software: Pre programmed application software configurable via OUI
Languages: N/A..., alpha, numeric, symbolic
Display symbols: ISO7000 and custom

Dimensions: 144mm (W) x 96mm (L) x 62mm (D)
Construction: Stainless steel front, polyethylene overlay, IP65
 Steel corrosion protected rear enclosure, IP20

Mounting: 135mm x 86mm rectangle panel aperture
Connections: Rear terminal, Phoenix compatible

Regulatory approvals: CE, UL: UL508, CSA: CAN/CSA C22.2 No. 14-M91
Operating temperature: 0°C ~ 55°C (32°F to 130°F) IEC 68-2-1 A/2 B/3 Ca/14 Nb/30 Db
Storage temperature: -25°C ~ +75°C (-13°F to 167°F) IEC 68-2-1 A/2 B/14 Na
Relative humidity: <95% condensation @ 40°C without condensation
Vibration: IEC 68-2-6 Fc/27 Ea/29 Eb
EMC Immunity: IEC 801-2/3/4/5, EN61000-4-2/3/4/5; CISPR 22, EN55022 class A conducted/radiated

