

SMC: monitoring and guiding the traffic

SMC - SWARCO MOTORWAY CONTROLLER

MINIMIZING ACCIDENT RISKS

SWARCO TECHNOLOGY is one of the leading companies worldwide in the development, production and sales of traffic and motorway controllers and communication equipment for traffic management systems. Ever increasing traffic volumes require innovative methods for monitoring and controlling inter-urban traffic. The SWARCO Motorway Controller (SMC) is designed to minimize accident risks by monitoring the traffic flow and automatically closing lanes, reducing speed, and rerouting traffic when an incident is detected.

SMC: SMALL AND POWERFUL

The SMC is a small but powerful outstation unit designed for simple motorway applications, tunnel schemes, variable speed projects and similar traffic control and monitoring tasks. The unit is designed to be easy to use and quick and simple to install. It has been especially developed to meet the high requirements of the European EN standards.

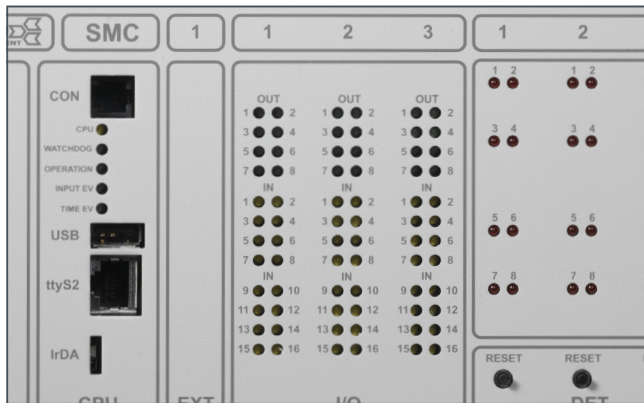


SMC: monitoring and control via the integrated web-server

KEY BENEFITS

- Controls and supervises Variable Message Signs (VMS).
- Monitors other equipment.
- Adapts maximum speed to current traffic and weather situation.
- Warns approaching traffic about queues.
- Collects and stores traffic data.
- Collection and processing of data from different types of traffic detectors
- Autonomous control and supervision of signs from SWARCO FUTURIT and other message sign suppliers.
- Support of different configurable algorithms.
- Communication with "Central Control Systems" via TCP/IP.
- Convenient configuration via web-server

TECHNICAL DETAILS: SMC



SMC OUTSTATION

TECHNICAL DETAILS

Microcontroller	ATMEL ARM920T 200 MIPS at 180MH
Operating system	LINUX (fully pre-emptive kernel 2.6.x to support real-time applications)
Memory	32MB RAM 64MB Flash
Communication ports	1 Ethernet, 1 USB 2.0, 1 IrDA 4 RS232 (1 full modem), 3 RS422 (internal) 1 RS485 (internal)
Basic configuration	0...48 digital inputs 0...24 digital outputs 0...24 detector circuits
Basic configuration	up to 128 digital inputs up to 64 digital outputs up to 64 detector circuits
Additional features	5 status LEDs to monitor operation locally, Hardware and software watchdog, 1.5 W (basic configuration)
Mains voltage	115-230VAC 47-63Hz
Operating ambient temperature	-40°C - +70°C
EMC	CE-approved

YOUR LOCAL CONTACT



SMC OUTSTATION

For easy maintenance, the SMC outstation is a completely self-contained electronic unit based on a standard 19 inch rack. All modules can be exchanged on-site and the unit is easily expanded by inserting new modules. All configuration is done through software eliminating the need for unwieldy wire wraps or easily lost pcb jumpers. Thanks to an integrated battery-backed internal real time clock, the SMC can perform both time based control actions and event based control actions. Outputs can be processed based on any combination of input values or specific detection system functions such as AID (automatic incident detection), wrong-way driver detection, height detection, WIM (weight in motion) and more. The SMC outstation software runs on a LINUX operating system making it suitable for use 24 hours a day, 7 days a week and the hardware platform is suitable for installation in the harsh roadside environment. The unit is delivered with extended temperature range from -40°C to +55°C. For stand-alone applications as well as for integration into larger systems, the SMC outstation offers the possibility of remote configuration, detailed system monitoring and simple control of complex connected devices via an enhanced, password protected web-based user interface.

FEATURES

- Fast ARM based microcontroller CPU board running LINUX operating system to ensure stability and reliability.
- State-of-the-art, surface mounted electronic circuits, resulting in high reliability and low maintenance costs.
- Sealed unit to prevent dangerous situations arising during routine maintenance work.
- Battery backed real time clock (RTC) counting years, months, date, day of week, hours, minutes and seconds.
- Automatic daylight saving time adjustment.
- Clock synchronisation using Network Time Protocol (NTP).
- Central-controlled or stand-alone operation mode.
- Password protected web-based user interface, accessible via Ethernet, IrDA, or RS232/485 with 3 freely configurable security levels.
- External RS232 to RS485 converter available to minimize damage risks during lightning.
- Built-in fault log, accessible through the web-interface.
- Freely configurable control algorithms, time-based and event-based switching.
- XML-based configuration data and communication protocols for flexibility and easy future extension.
- Up to 8 loop detector cards providing 64 loop detectors with vehicle classification function.
- Vehicle counting and classification features with 7 days backup.
- Up to 128 opto-coupled digital inputs with selectable voltages from 5 to 48V.
- Up to 64 digital solid state outputs with a maximum current of 100mA.

SWARCO TECHNOLOGY APS

SWARCO TECHNOLOGY develops and markets traffic and motorway controllers as well as communication equipment for traffic management systems. Thousands of our products have been installed and are now in use in different applications in many countries. As a company of the SWARCO Group we can deliver complete solutions for traffic management systems.

SWARCO TECHNOLOGY APS

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