EuroController EC-2®

Universal Traffic Controller

PEEK traffic solutions

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The Peek EuroController EC-2® is a state-of-the-art traffic controller, rooted in a long tradition of innovation and robustness. On the one hand it has an innovative design which integrates a flexible software architecture on a high power processor with extensive open connectivity. On the other hand it has a safety architecture that complies with European and local directives and electronics that is durable, robust and easy to maintain.

The software architecture opens up many application areas. Not only is a wide range of traffic control algorithms supported, the EC-2® can also act as a universal road-side processor that can be applied to many different tasks.

The extensive open communication options for the EC-2® make it an ideal node in a wider network. The EC-2® offers wired and wireless broadband connectivity in a flexible network topology, and can easily adapt to the rapidly changing world of modern telecommunication.

Benefits

The EC-2® has a number of specific benefits that make it very cost-effective in a large number of applications. The following non-exhaustive list gives some of the benefits of using an EC-2® traffic controller:

- The EC-2® offers a high level of integration and flexibility combined with a durable and robust design and is to maintain;
- IP and TCP/IP connectivity. The EC-2® functions as a node in an open TCP/IP network;
- Other IP-based applications (like intelligent camera systems, payment systems, parking management etc.) can be routed through an EC-2® to connect them to a central or distributed system;
- The EC-2® has ideal support for adaptive traffic network management systems like UTOPIA-SPOT;
- The SPOT control algorithms are efficiently integrated with the controller with minimal hardware and maximal performance;
- The EC-2® supports a large data-storage, which makes traffic analyses easy, and enables an extensive operational log;
- Extensive public transport priority support. The EC-2® directly supports public transport priority through VETAG, VECOM, short distance radio and wireless LAN;
- Extensive suite of Windows® configuration, simulation and test programs.

Applications

The EC-2® is primarily designed for traffic control at junctions and pedestrian crossings. However, the EC-2® is also applicable as a universal roadside system. The EC-2® is freely programmable; it has extensive and diverse I/O modules and a wide range of communications facilities.

As such it is suited for a wide range of applications, including:

- Traffic controller;
- Ramp metering system;
- City Access controller;
- Local queue warning system;
- Tunnel control system.

EC-2® Features

The following is a non-exhaustive list of EC-2® features:

- Web based user interface;
- State-of-the-art, surface mount electronic circuits, resulting in high reliability and low maintenance costs;
- Integrated power unit including mains voltage monitoring, safety filters and separate main contactor for optimum safety;
- Comprehensive fault log and event log facilities Traffic control programs are stored in flash-EPROM with remote maintenance facility;
- The Central Processing Unit (CPU) is the core of the EC-2® controller containing two autonomous processors, one for control and one for supervision;
- Four independent configurations can be stored in the controller;
- Configurations can be updated via Ethernet, Serial port, USB memory stick or wireless;
- Variable data is stored in RAM with a memory backup for multiple months;
- Four signal groups (twelve lamp switches) integrated into one lamp control and monitoring unit, including voltage and current monitoring for each lamp switch;
- Free configuration of lamp switch circuits. Users can configure any function to any lamp switch;
- ED316 loop detector board provides 16 channels on a single card, which can be software configured, eliminating the need for setting jumpers and switches;
- High accuracy integrated speed measurement using ED316;
- Time synchronisation via radio clock, GPS or central computer.

Specificaties

CPU	PowerPC
Operating system	Linux
Interfaces	10 Mbit/s Ethernet 2x USB ports 3x RS485/RS422 interfaces 1x RS232 modem interface 1x RS232 console interface
LCM	4 Signal groups per LCM Lamp monitoring Transient protection
Configuration	0..64 Signal groups 0..256 Detector circuits 0..256 Parallel outputs 0..128 Parallel outputs 1..8 Independent Intersections
Logic voltage	85VAC .. 264VAC 45Hz .. 65Hz
Energy reserve	>= 70ms
Lamp voltage	230V -20% .. +15% 50Hz -4% .. +4%
Optional lamp voltage	42VAC / 50Hz 40VAC / 50Hz 110VAC / 60Hz
Output power	4A per lamp output 16A per installation 32A per installation (optional)
Operating temperature	-40°C .. +55°C (outside the cabinet) -40°C .. +70°C (inside the cabinet)
Approvals	HD638, EN12675, EN50293, NEN3384 RWS requirements 1997 ASTRIN LED class II
Software	SRM-II, CCOL, RWSC, VSPLUS, TRENDS/TRELAN, LHOVRA, RILSA.
Protocols	IVERA 2.0 OCIT 1.1

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