



## CROSS RS 4

The CROSS RS 4 traffic light controller is an essential component of the up-to-date traffic control system in urban areas according to the latest performance and safety standards.

### KEY FEATURES

- Fullfills requirements of EN 12675, EN 50556
- Fixed tone control
- Traffic-actuated control (fixed and flexible stage order and structure, free creation of stages, and free creation of signal plan based on predefined criteria)
- Public transport preference (active, passive, preconditional, absolute)
- Integrated emergency system (IES) preference in 13 preset routes
- All red night mode" - a mode in which the "Free" signal is only used for the signal group where the detector request has been registered
- Special logic programming possibility via user defined code (user defined special functions)
- Multi-system programming
  - Switch point basis
  - Parametrical definition
  - Stage transition definition system

### PROGRAMMING POSSIBILITIES

- CROSS PTC: efficient programming tool for the parametrical definition of controller logic
- LISA+: traffic engineering SW with the possibility to use defined parameters and logic for uploading of controller with OML support
- VD server: possibility of direct uploading of the transport solution via a standardized OCIT platform

### KEY BENEFITS

- "Intelligence inside the controller"
- Adaptive and traffic actuated control
- User defined special functions
- OCIT<sup>®</sup> compatible
- TÜV certified
- Programmable with LISA+ and CROSS PTC
- Decentralized philosophy
- SIL 3
- Display 2x20 or 4,3" touch screen LCD
- C-ITS compliant

### CONNECTIVITY CONTROLLER - CONTROLLER

- CROSS protocol
- BEFA 8
- AŽD protocol
- Parallel bus protocols based on a defined voltage level combination

### CONNECTIVITY CONTROLLER - UTMIC

- OCIT<sup>®</sup> protocol
- DIASER

## KEY TECHNICAL PARAMETERS

<b>Controller nominal supply voltage</b>	230 V AC -13 to +10 %, 50 Hz
<b>PCB nominal supply voltage</b>	12 V DC
<b>Controller circuits power consumption</b>	max. 300 VA
<b>Maximum power rating of plug</b>	max. 500 VA
<b>Output circuit load capacity</b>	2–500 VA, SW adjustable, max. 2 A per output
<b>Minimum detected load output</b>	2 W
<b>Insulation resistance between wires</b>	min. 50 MΩ
<b>Output circuit voltage</b>	230 V AC / 110 V AC for bulbs or LEDs 40 V AC OCIT for LEDs transformer 500 or 1 000 VA 42 V / 31 V ASTRIN for dimming LEDs, transformer 500 or 1 000 VA, 10 V AC
<b>Dimmer module for LED outputs</b>	Normal mode output voltage 42 V AC Dimmed mode output voltage 31 V AC Maximum output load capacity 1 000 VA (LED)
<b>Operational temperature range</b>	-40 to + 60 °C
<b>Overvoltage protection</b>	Class 1 to 3
<b>Degree of protection</b>	IP 54
<b>Resistance to vibrations</b>	3,5 mm / [1–9 Hz]; 10 m/s <sup>2</sup> / [9–150 Hz]
<b>Resistance to impacts</b>	150 m/s <sup>2</sup> / 11 ms
<b>Interface</b>	3 x RS 232, 1 x Ethernet, 2 x USB optionally: GSM, 2x Ethernet, opto-isolated RS 232, RS 485, DSL
<b>Weight</b>	<0,8 kg (40V / 42V AC) <1,1 kg (230V AC)
<b>Compatibility with signal heads</b>	Manufacturer independent LED or bulbs

## KEY FUNCTIONAL PARAMETERS

<b>Number of signal groups</b>	max. 64
<b>Number of signal head outputs</b>	max. 288
<b>Output circuit monitoring</b>	Each output circuit
<b>Number of internal detectors induction loops</b>	max. 128
<b>Number of usable external inputs</b>	max. 248
<b>Number of usable external outputs</b>	max. 111
<b>Maximum number of all signal plans</b>	max. 68
<b>Number of traffic stages in each signal plan</b>	max. 16
<b>Number of stages of manual control</b>	max. 6 + all red
<b>Number of predefined routes for ambulances and fire brigades</b>	max. 13
<b>Number of controllers connected in coordination without the traffic control center</b>	max. 256 (limited by line capacity)
<b>Number of controllers connected in coordination with the urban traffic management center</b>	1500