

Kapsch TrafficCom

EcoTrafIX Controller.

16 Series.

The EcoTrafIX™ Controller is the high performing result of an evolved generation of traffic controllers for an efficient, safe and sustainable mobility. Our long-term experience in traffic projects and in manufacturing modular electronic equipment makes this product the optimal solution for highly reliable signals management.

EcoTrafIX™ Controller provides advanced performance control strategies both local and centralized, able to be adapted to the local regulations to prioritize the public transportation, emergency vehicles, bicycles or pedestrians. EcoTrafIX™ is capable to operate with different protocols (UNE, NTCIP, UTM) with ability to operate in isolated mode, under centralized control strategy or with adaptive traffic control systems (optional).

Controller's Architecture.

EcoTrafIX™ Controller is the most compact device on the segment. It has evolved to provide the most advanced communication channels to enable easy operation tasks using serial port, Ethernet, USB, optional Bluetooth/WiFi for local accessing and the possibility of installing GPS antennas in the equipment.

EcoTrafIX™ Controller cabinet can be customized to be adapted to any design

regulations, offering a wide range of combinations.

Efficient and Sustainable.

EcoTrafIX™ Controller electronic makes feasible reaching up to 300 kg CO₂ emissions savings per junction per year. The controller has been designed to manage LED type lamps, providing very low nominal power consumption (15W). EcoTrafIX™ controller is an equipment rated as low greenhouse gas emissions.

Easy Installation and Maintenance.

EcoTrafIX™ Controller presents a modular architecture that enables the field tasks. In addition to the possibility of onsite configuring the controller provides a remote configuration tool based on web access designed to simplify the configuration tasks, commissioning and maintenance.



Safe.

The dual processor system of the controller offers a higher level of security in the equipment's performance. Its smart output cards allow controller's control unit to perform a check about its state, providing the equipment with an additional security level.

Technical features.

Groups

- > Group maximum capacity: 16
- > Number of groups per card: 4
- > Type of exit for lamps control: Triac
- > Maximum load:
 - > Per output: 2A
 - > Per group: 4A
 - > Per card: 8A
 - > Per controller: 15A
- > Lamp voltage: power supply voltage, low power option
- > Dimming option

Communications and interface

- > Ethernet
- > RS232 line
- > USB
- > Wifi/Bluetooth are optional

Electrical characteristics

- > Internal consumption: 15W to 50W depending on configuration
- > Power supply: 115Vac – 230Vac (-20%, +15%)
- > Network frequency: 50/60Hz +/-5%

Mechanical features

- > Different options of metallic and polyester resin cabinet
- > Protection scale: – IK10/IP55
- > C4H level resistance against corrosion
- > Dimensions: 700 x 500 x 250mm
- > Self-supported chassis: 600 x 480 x 200mm
- > Control rack: 270 x 250 x 170mm

Security

- > Independent control and Supervision tasks
- > Monitoring of all outputs
- > Output current measurement
- > Differential power supply
- > Overvoltage and overcurrent output lamps protection
- > Protection against electrical current and overvoltage
- > Independent control of green and red/amber tension
- > Automatic switch against residual power

Environmental conditions

- > Designed to meet with: EN50293, EN50556, EN12675
- > Temperature range: -40 °C to +85 °C
- > Humidity: 95%

Inputs and outputs

- > Optisolated digital inputs: up to 56
- > Digital outputs: up to 8

Protocols

- > NTCIP 1201 and 1202
- > UNE 135401-4
- > UM/008- UTC MIB UTMC full Compliant

Other functionalities

- > Operation mode: flashing, manual, adaptive (optional), centralized, fully and semi actuated, fixed times, standalone, coordinated, micro-regulated, emergencies priority, tramway advanced management, bus priority system
- > Other functionalities:
 - > Configurable startup, failure and off mode output state
 - > Autonomous flashing mode
- > User web interface and functions of integrated test USB and series port for maintenance terminal

Network features.

UTMC supported features

- > Phases: 16 in total
- > Streams: up to 4
- > Stages: up to 127 including all-red
- > Traffic plans: up to 127
- > Safety monitoring: green/green conflict, unwanted signals, absent signals, red lamp monitor, power supply, safety timings, detector fault, internal state
- > Non-volatile fault log

UTMC control mechanisms

- > Manual control
- > Fixed Time (FT)
- > Part-time operation
- > Cableless Linking Facility (CLF)
- > Semi-Vehicle Actuated
- > Coordinated (SVA)
- > Full-Vehicle Actuated (VA)
- > Emergency
- > Hurry Call
- > Public Service Vehicle Priority
- > Urban Traffic Control (UTC)

NTCIP supported features

- > Phases: up to 16 for vehicle and pedestrian.
- > Rings: up to 4
- > Traffic plans: up to 127
- > Overlaps: up to 16
- > Group Separation:
 - > Vehicle
 - > Pedestrian
 - > Overlap

NTCIP control mechanisms

- > Concurrent ring control
- > Phase sequence per ring
- > Vehicle and pedestrian cycle length
- > Sequential traffic plans per phase
- > Volume and occupation weight
- > Full Vehicle Actuated (VA)
- > Fixed Time (FT)
- > Public Service Vehicle Priority
- > Emergency Vehicle Priority

UNE supported features

- > phases: up to 127 for vehicle/pedestrian
- > Positions per transition: up to 127
- > Transitions: up to 127
- > Traffic plans: up to 127
- > Flexibility on control mode: built upon stable phases controlling, color lamp states or traffic plan regulation
- > Group separation: traffic groups, direct command groups, mixed groups
- > Adaptive intelligent control embedded

UNE control mechanisms

- > Independent operation/supervision control
- > Fixed Time (FT)
- > Local and Remote forced actuation
- > Emergency preemption
- > Public Service Vehicle Priority (bus, tram, etc)
- > Push button, crosswalk time demand and blind pedestrian demand
- > Micro-regulation
- > Sub controllers management: up to 4
- > Detectors logic selection to demand
- > Demand association to actions setEsectiur erferuptae