

BETEX

INTERSECTION CONTROLLER



UTMC Integration

- BETEX controller offers full compliance with Urban Traffic Management and Control (UTMC) standards, allowing smooth integration with central traffic management systems. It provides real-time data exchange, adaptive signal optimization, and performance monitoring for efficient citywide coordination.



High-Capacity Control Engine

- BETEX controller handles up to 32 phases, 32 stages, and 8 independent streams. Its control logic supports vehicle-actuated, pedestrian, or fixed-time modes, dynamically adapting to real traffic conditions. Integral Lamp Monitoring. A built-in monitoring system continuously supervises every signal output, detecting lamp faults and electrical anomalies. When needed, it triggers automatic fail-safe responses such as flash or all-off modes.



Multi-Voltage Lamp Drive System

- BETEX supports both Low Voltage (LV 230 V) and Extra Low Voltage (ELV 40–48 V) lamp systems using solid-state Triac/FET drivers. This ensures compatibility with LED and conventional signals, reducing energy use and extending component life.



Reliable, Facility-Rich Software

- BETEX's operating software combines robust control logic with powerful diagnostic and event logging tools. Engineers can analyze performance, apply updates, and verify configurations live, maintaining high reliability. Simplified Installation and Maintenance The modular cabinet and plug-and-play I/O cards make installation quick and service effortless. On-site module replacement and self-diagnostics minimize downtime and simplify upgrades.



Parameter	Specification
General	
Model	BETEX Series
Application	Urban / Smart City Intersections
Electrical	
Supply voltage	220–240 V AC $\pm 4\%$, 50/60 Hz
Power Factor	> 0.9
Max Lamp Load	204
Lamp Drive System	LV (230 V) and ELV (40–48 V) solid-state Triac/FET technology
Output Capacity	Up to 96 outputs / 240 inputs (expandable)
CPU	
Processor Type	High-performance 32-bit microprocessor
Dual CPU (Optional)	Redundant architecture for fault-tolerant operation
Memory	
Control Logic	
Max Phases	32
Max Stages	32
Streams	8 Independent
Programming	
Configuration Tool	PEX TCO-3 Configurator (Windows-based)
Features	Real-time setup, USB/Ethernet transfer, and live validation
Core System	Real-time multitasking
Communication	
Interfaces	RS-485, TCP/IP, GSM/GPS
Environmental	
Temp.	–25 °C to +60 °C
Enclosure IP	IP65
Optional Modules	
UPS Backup	24-hour autonomy
Solar System	Compatible with solar power integration
HMI Display	7" Color Touch Display
Remote Monitoring	SCADA / Web dashboard integration

Housing Models	Light Groups	Pedestrian Inputs	Loop Inputs	Application Type
BETEX 32	32	24	12	Full-capacity controller for complex intersections
BETEX 24	24	12	8	Mid-size controller for medium intersections
BETEX 16	16	4	4	Compact controller for small junctions
BETEX Pedestrian	8	4	2	Pedestrian-only intersections