

Based on the highly successful ST800 family of Siemens high performance traffic controllers, the ST700SE is a very cost-effective solution to the efficient control of small intersections. Despite its small size, the ST700SE provides the full range of control and signal sequence options found within the ST800 family, and is fully compatible with the Siemens SCOOT UTC, DUSC and Remote Monitoring systems.

Variety of construction options

Recognising the need for installation flexibility, the ST700SE provides two alternative housing solutions:

- **Standard outercase:**
A highly space-efficient enclosure accommodating a range of additional equipment such as integral OTUs, OMUs and loop detector cards.
- **Universal upgrade module:**
A self-contained module, containing all essential controller electronics within a single unit. This option allows the controller to be installed in existing cabinets, providing a particularly cost-effective route to intersection modernisation, as well as in custom enclosures to meet specific customer demand.

Enhanced safety features

Two independent microprocessors and comprehensive hardware 'self-check' features provide exceptional levels of controller safety. Safety is further enhanced by full equivalence-monitoring on all aspect drives (red, amber, green), ensuring that incorrect display of any signal colour is prevented.

The controller's response to fault conditions is programmable and may be set to either safely switch the signals off, or to enter a hardware controlled fail flash mode. This offers selectable 'off' or flash red/yellow for each phase, with programmable mark/space and flash rate.



- Sophisticated traffic control features, ideal for small intersections in the international market
- Dual processor safety system - all colour outputs checked for incorrect operation
- Inbuilt hardware fail flash facilities
- Very small cabinet footprint minimising impact on pedestrian footway
- Easy configuration using Windows-based data generation package (IC4) with optional emulator
- Extensive self-test facility for rapid system validation
- Optional lamp monitoring of all phases and signal colours including wait lamps
- Optional signal dimming for night time operation

ST700SE intersection controller

Traffic Controls

SIEMENS

User configurable

ST700SE configuration data sets are prepared using the highly acclaimed and easy to use IC4 configurator, with data being directly downloaded into the controller via the handset port.

The configuration process is further simplified by the provision of prepared 'read only' default files which may be modified to adjust all site-dependent variables prior to downloading, minimising the need for on-street changes. Where required however, specific timings and other parameters such as detector allocations and SDE parameters may be adjusted on site using a standard controller handset. The use of an on-street configuration option allows a wider range of parameters, such as phase and stage allocations, to also be modified using the handset.

The optional emulator is a feature-rich tool, which links seamlessly with IC4 to provide an advanced environment for de-bugging and proving ST700, ST800 and ST900 family configurations. Using the same software source files as the controller firmware, it ensures a highly accurate representation of the controller operation on a PC.

Technical specification

Modes of operation

Manual, Vehicle Actuated, Pedestrian Fixed Vehicle Period, Urban Traffic Control, Bus/Light Rail Transit, Part-Time, Fixed-Time, Cableless Linking, Pedestrian Vehicle Actuated, Hurry Call, Emergency Priority

Phases and stages

- No. of hardware phases: 1-6
- No. of software phases: 0-32
- Programmable phase sequences
- 6 independent streams
- 32 stages
- 8 max. green time sets
- 120 phase delays
- 8 call timers
- 8 cancel timers
- 7 all red extension units
- 8 hurry calls
- 8 emergency/priority units

High-speed vehicle detection

- Speed discriminations and speed assessment built in 16 assessors

Cableless linking facilities

- 16 plans
- 32 groups per plan
- 64 time switch settings
- 16 plan influence tables
- 10 group influences
- Timing sources: 50/60Hz mains, internal crystal

Other facilities

- Standby mode: Signals off or software flash
 - Failure mode: Signals off or hardware flash
 - Hardware flash - selectable flash red or yellow per phase
 - Mark/space and flash rate selectable for whole controller
 - Signal dimming: 120V, 140V, 160V
 - High-speed handset port: 1200, 9600 and 19200 baud
- Port is auto bauding to match incoming data

Electrical

- Power supply:
 - 115V -20% +15%
 - 230V -20% +15%
- Supply frequency: 50/60Hz
- Lamp switching type: Solid state
- Max. load per phase aspect: 4A
- Max. controller lamp load: 8A

Environmental

- Designed to meet: EU prEN12675, EU prEN50278, EU EN50293
- Supply interruption: Continuous operation up to 50ms break
- Supply failure: Automatic restart without operator intervention
- Operating temperature range: -25°C to +65°C

Dimensions

- Standard outercase:
 - 1170mm (H) x 465mm (W) x 370mm (D)

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