

SIEMENS

GCP5000

GRADE CROSSING PREDICTOR

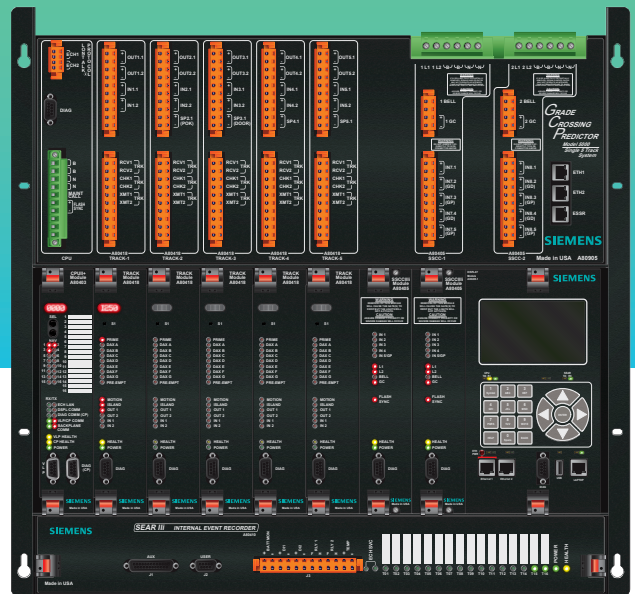
Overview

SIEMENS GCP5000 Grade Crossing Predictor is the rail industry's only fully integrated crossing warning system combining the following features without requiring inter-connected wiring:

- Up to six GCP 5000 track circuits, including Intelligent Processor Island and DAXes
- Two SSCC-3i modules capable of providing up to 40 amps of lamp energy and control up to 4 gates
- Enhanced Display with Integrated Programming of SEAR, Track Monitoring, and Log information
- Ethernet Port on Chassis for eSSR Radio, Vital Communications, and PTC Applications
- One SEAR-2i Event Recorder/Analyzer with automated inspection and reporting capability
- Built-in vital ATCS communication protocol for advanced applications
- Multiple vital timers and vital AND gates
- Digital Terminal Display for configuring, calibrating, diagnostics, and troubleshooting
- Ethernet Ports for connection to Ethernet-based vital communication devices
- USB ECD storage of SEAR and Display parameters
- Built-in support for configuration, calibrating, diagnostics, and troubleshooting

Standard Features

The Model 5000 GCP can have up to 6 Track Modules for train detection, with each Track Module having nine track predictors that are configurable as motion sensors or predictors. The Track Module Prime Predictor is generally used for control of local crossings. The Track Module DAX A through DAX G Predictors generally control remote crossings. The Track Module Preempt Predictor is generally used for interconnection with



*Model A80905 is shown for reference purposes only.
Actual unit selected may vary in mounting and features.*

traffic signal systems. Each track module has two vital inputs and two vital outputs. In addition to predictors, each track module can provide a multi-frequency island circuit.

Using internal crossing controller(s), the GCP can control the bells and gates of a crossing and up to 40 amps of lights. Each SSCC IIIi module has five vital outputs. The GCP can utilize internal PSO Modules that detect train direction on a bi-directional track circuit that allows the control of remote crossings (DAXing). Each PSO Module has three vital outputs and two vital inputs. The GCP can utilize RIO modules to extend I/O capability via the RIO's four vital inputs and four vital outputs. The GCP has redundant Main/Standby operation for CPU, Track, PSO, and RIO modules.

The GCP can perform independent event recording using the SEARIII. The SEARIII options include programmable alarms and automated performance of crossing test functions.

The GCP generates test result reports in several formats. The GCP also interfaces with the Wayside Alarm Management System (WAMS).

The GCP utilizes Echelon communications for vital communications to other locations via Ethernet spread spectrum radio (ESSR) and single-person calibration and monitoring using a VHF communicator.

The GCP has a color display module for configuration, monitoring, and troubleshooting the system.

GCP Case Configurations

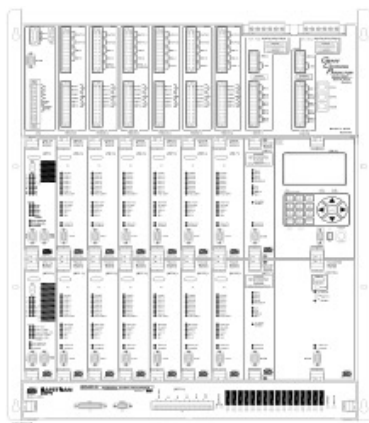
Feature	80900	80902	80905	80907
Track Modules	1 to 6 tracks	1 or 2 tracks	1 to 5 tracks	1 to 3 tracks
Main / Standby Transfer System	Yes	Yes	No	Yes
Internal SSCC3i Crossing Control ¹	0, 1, or 2	0, 1, or 2	0, 1, or 2	No
Internal SEAR2i Recorder	Yes	Yes	Yes	Yes
Internal PSO Module ²	0, 1, 2, or 3	0 or 1	0, 1, 2, or 3	0 or 1
I/O Expansion ³	0, 1, 2, or 3	0 or 1	0, 1, or 2	0, 1, or 2
Echelon LAN Functions	Yes	Yes	Yes	Yes

¹ SSCC3i module controls Gates, Flashing Light Signals and Bells

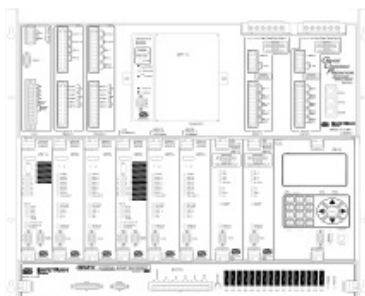
² Phase Shift Overlay (PSO) Module can be used in lieu of Track Module in the 1st, 3rd, and/or 4th track slot

³ Relay Input Output (RIO) Module can be used in lieu of Track Module in the 2nd, 5th and/or 6th track slot

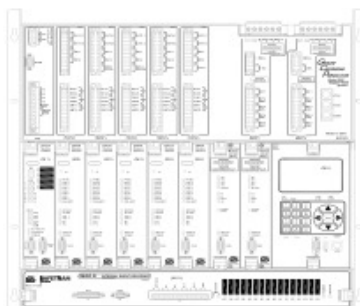
A80900



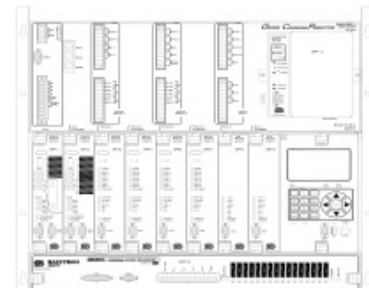
A80902



A80905



A80907



Customer Support

Please contact your local Siemens Customer Service representative for additional information, including demonstrations, presentations, and pricing.

Contact for information:

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