

# Genrakode 3 with integrated WIU

## PTC Wayside Interface Solution



Next generation of proven Genrakode product (vital block signaling controller) integrating vital Wayside Interface Unit.

Capable of providing location signaling status (signal aspects, track status, hazard detectors, etc.) to the PTC network, as well as driving signals, track codes, cab signal, and other vital location-specific equipment (e.g. electric lock mechanisms).

### APPLICATIONS

- Block signaling locations in CTC or ABS territory (e.g. intermediate signal locations, electric lock locations, etc.) where PTC capability is required.
- Broken rail detection in dark territory.

**Coded track circuit capability with integrated WIU for block line applications.**

**Provides high level of vital monitoring/control capability with WIU capability integrated, low-cost configuration.**

### FEATURES

- Complete Coded Track Circuit/Block Signaling Solution with integrated WIU.
- Supports single or dual-frequency cab signaling for electrified and non-electrified territory.
- Simultaneous AAR ITC and ACSES protocol operation.
- Can support external touch-screen for WIU control/status display if requested.

### ADVANTAGES

- Combines full block signaling capabilities including track circuits/broken rail protection with WIU control/status interface that is common to all Alstom WIU products.
- Ease of application.
- Common user-friendly design tool for defining configuration data and boolean application logic. Same design tool as other Alstom WIU products.

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## APPLICATIONS COMPARISON TABLE

|                                  | microWIU | iWIU i | VPI | Genrakode 3 |
|----------------------------------|----------|--------|-----|-------------|
| Optimized for Solar Applications | X        |        |     |             |
| Hand Throw Switch Monitoring     | X        | X      | X   | X           |
| Signal Aspect Monitoring         | X        | X      | X   | X           |
| Signal Aspect Control            |          |        | X   | X           |
| Hazard Detection Monitoring      | X        | X      | X   | X           |
| Broken Rail Detection            |          | X      | X   | X           |
| Interlocking Control             |          |        | X   |             |
| Coded Track Circuit              |          | X      | X   | X           |
| Power Switch Controlling         |          |        | X   |             |

## FEATURES COMPARISON TABLE

|  | Standalone |          | Integrated |             |
|--|------------|----------|------------|-------------|
|  | microWIU   | iWIU     | iVPI       | Genrakode 3 |
| Optimized for small applications       | X          |          |            |             |
| Based upon iVPI hardware platform      |            | X        | X          |             |
| Low power consumption                  | X          |          |            |             |
| Vital inputs per unit                  | 16         | 48       | 320        | 8           |
| Voltage and Current detection          | X          | X        | X          |             |
| Stackable                              | X          | X        | X          |             |
| Integrated touch screen user interface | X          | Optional | Optional   | Optional    |
| Wall mounting                          | X          | X        | X          | X           |
| Shelf mounting                         | X          | X        |            | X           |
| 19" rack mounting                      |            |          | X          | X           |
| Integrated Terminal Block I/O          | X          | X        |            | X           |

## FEATURES COMMON TO ALL UNITS

- Features meet AREMA and AAR specifications for WIU's
- Integrated web server
- Simultaneous support for ITC and ACSES protocols
- Site specific storage device (USB)
- 4 WIU Ethernet Ports
- 2 WIU USB Host Ports
- EMP Class C/D protocols
- ITP protocols
- TCP/UDP/IP
- Remote Configuration and Diagnostics
- Remote Systems Management
- Embedded Data Logging
- Integrated Temperature Alarm/Monitoring
- Built-in Status/Report Generator