

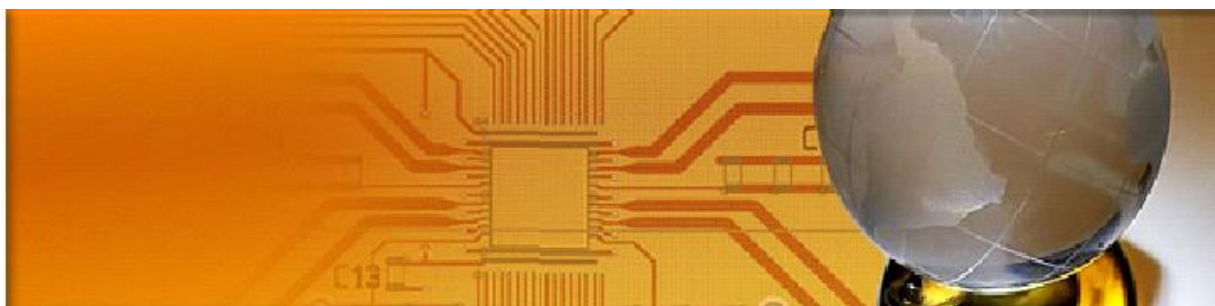
G.G.Tronics India Private Limited

Safety Signaling Solutions!

Innovating High-End Designs — Venturing a Jungle...!



G.G.Tronics
VISUALISING SAFETY SYSTEMS
AN ISO 9001 CERTIFIED



Single Section Digital Axle Counter **SSDAC-G36R**

Versatile High Availability Dual Redundant Axle Counting System 2x2oo2 Architecture

Overview

- G36R is a fail-safe, reliable and user-friendly 2x2oo2 architecture based axle counting system
- RDSO approved
- Complies with RDSO/SPN/177/2012 Ver 3.0
- Meets CENELEC SIL-4 standards

Configuration

- 2DP-1SR — Single Section Block proving

Strength

- No TP circuit required for push trolley with spoke wheel
- Scalable to higher configuration with same hardware and software
- Protection against wrong configuration at site

Features

- Communication using V.23 FSK modem with cable loss of 30dB
- Built-in event-logger logs up to 14000 events
- Train detection up to 250Kmph
- 24VDC working
- Protected against lightning surges
- Stable operation at -10 to 70oC and RE area
- 2 Independent safety electronics in a single card frame for high availability
- 2 separate output Vital Relays for paralleling to achieve highest availability
- Configurable as common wheel sensing detectors for both axle counting electronics

Reset

- Co-operative — Preparatory mode piloting
- Direct — With/without Line Verification



System

- Microprocessor based fail-safe embedded system
- Detection of axles and direction of train movement
- Fixed pair communication, CRC check & unique addressing of units ensures fail-safety
- User friendly GUI aids to download events via RS232 port
- Units are housed in location boxes near the tracks

Axle Detectors

- Web mounted on track, works with 90-R, 52Kg, 60Kg rails
- Phase detection principle employed
- Signals fed at 21Khz and 25Khz to Tx coils at 60V RMS
- Axles above 550mm are detected



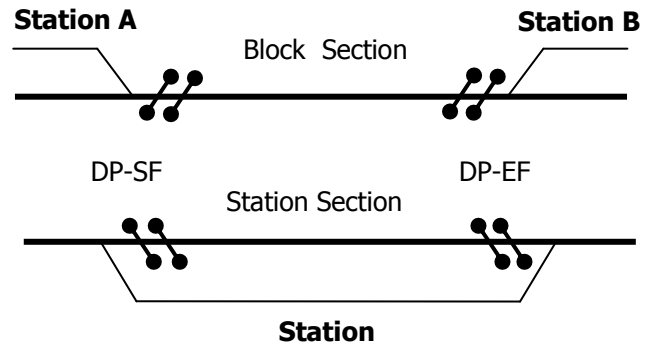
Dual Reset Box

- Amended as per RDSO Ver 3.0 Specification
- Interactive RESET Box with Separate status LCD display for individual axle counting system on single quad cable multidrop mode and common Resetting
- Independent system status and combined parallel Section
- Stores events locally to download at station only

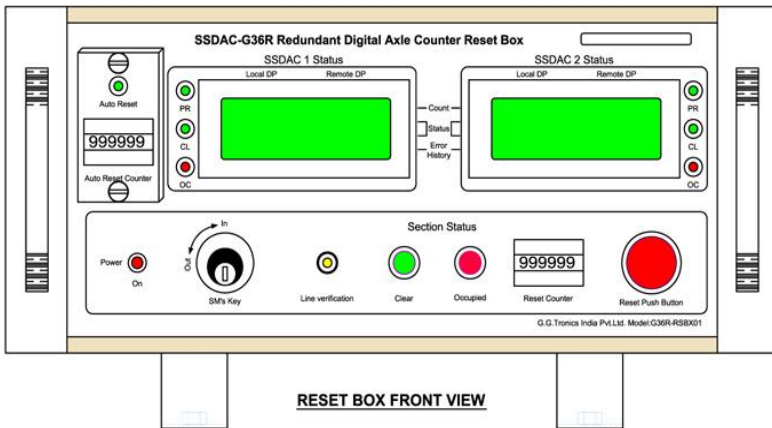
Configurations of SSDAC-G36R

2DP Configuration

- Operation on straight lines - station or block section
- Communication using one pair quad cable per system
- Preparatory Reset configurable either with or without piloting
- **PR** and **VR** contacts at detection points



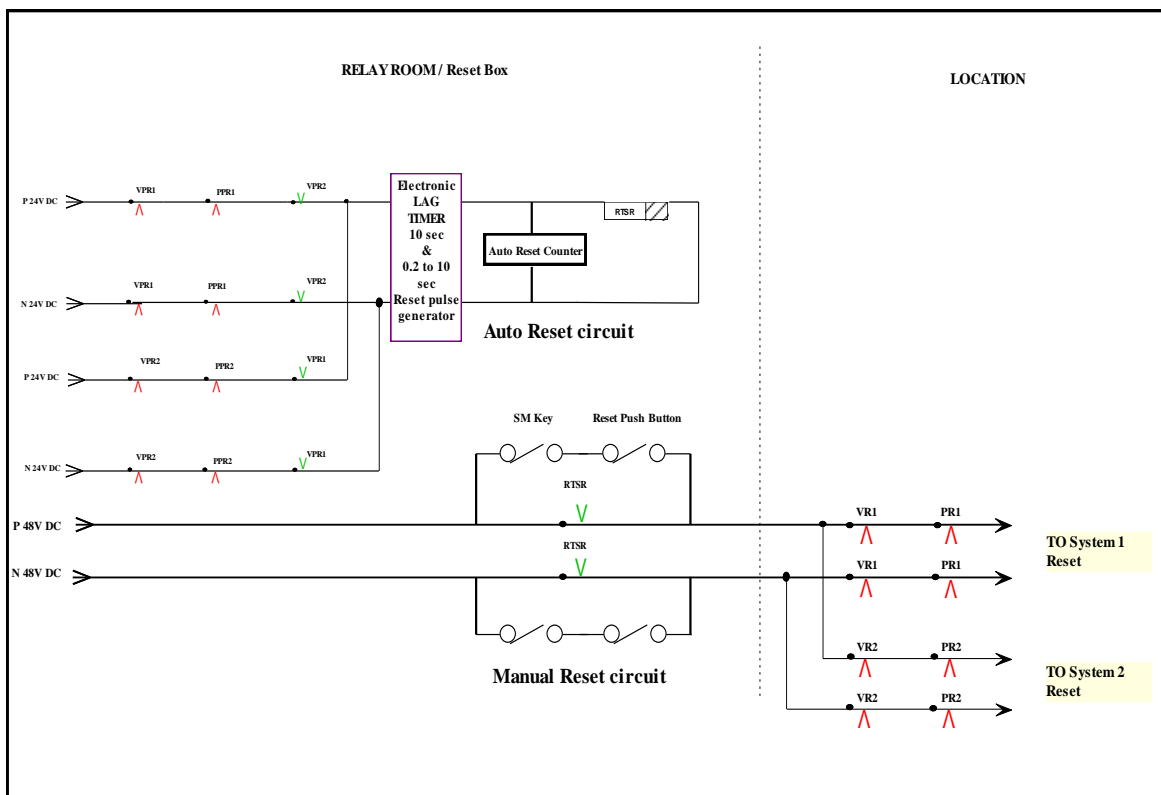
Automatic Reset



Automatic Reset Philosophy

- Any failure of single SSDAC initiates Resetting automatically to normalise the failed SSDAC without affecting system working
- Manual Resetting required only when both SSDAC fails
- Reset configurable either with or without piloting
- Auto Resetting counter for analysis

SSDAC-G36R typical Automatic Resetting circuit



About us

- Established in 1991
- We value Customers, professionalism, quality, safety and ethical business practices
- Meeting challenges is a way of life

Vision

- To be a leading solution provider right from design, development, manufacture, testing and Commissioning in Railway Signaling and Industrial Automation sectors

Mission

- Committed to satisfy customer expectations with a focus on continuous improvement

Our People

- Inherent competency and committed team of professionals in respective domains

Our Strength

- Design, Manufacture, Supply, Installation and Commissioning of Safety Embedded Systems
- In-House Embedded System R&D
- Safety System design capability
- Product Engineering with PCB and mechanical design facility
- Hardware and Software safety validation
- System Hazard Analysis
- Reliability Analysis
- Incoming and Outgoing Quality Assurance
- In-House Automatic Testing of PCB's using In-Circuit Tester
- In-House Environmental Stress Screening
- Antistatic protected SMD and Leaded components production line
- In-House mechanical fabrication and Panel building

Quality policy of the company

"To provide value added products and services to the automation and transport control Sectors by continuously upgrading technology quality and reliability"

Total commitment by management for Quality Assurance right from Design, Development, Production, Supply, Installation and Commissioning Products meet environmental specifications laid by customers



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