

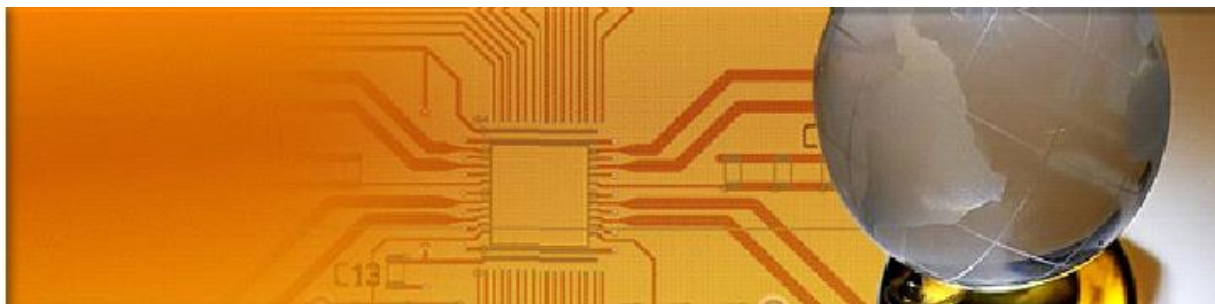
G.G.Tronics India Private Limited

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-G39**

Versatile Axle Counting System Configurable as 2DP, 3DP, 3DP-2S(IBS), 3DP-3S and AS

Overview

- G39 is a fail-safe, reliable and user-friendly 2oo2 architecture based axle counting system
- RDSO functional testing completed, approval process pending. Built on RDSO approved SSDAC-G36 system
- Complies with RDSO/SPN/177/2012 Ver 3.0
- Designed to Meet CENELEC SIL-4 standards
- Communication protocol meets CENELEC 50159 Part 1 and Part 2

Configuration

- 2DP-1S — Single Section block proving
- 3DP-1S — Point Zone working
- 3DP-2S — IBS working
- 3DP-3S — IBS working with additional Separate station to station Status

Strength

- TP circuit not required for trolley with spoke wheel
- Scalable to higher configuration with same hardware and software

Features

- Communication using V.23 FSK modem with cable loss of 30dB, RF and OFC
- Built-in event-logger logs up to 14000 events
- Train detection up to 250Kmph
- 24VDC working with reduced power consumption of 15 watts per DP
- Protected against lightning surges
- Stable operation at -10 to 70oC and RE area

Reset

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



System

- Microprocessor based fail-safe embedded system
- Complete SMT technology, miniaturized 3U card frame
- Detection of axles and direction of train movement
- Fixed pair communication, CRC check with AES128
- Cryptography algorithm. 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
- Supports Axles above 330mm and 550mm (buyer selectable)



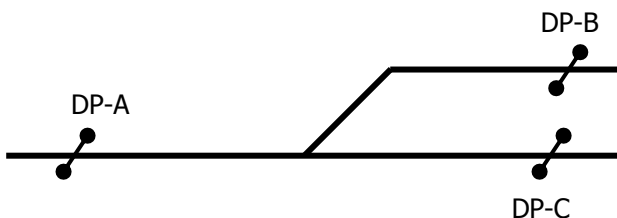
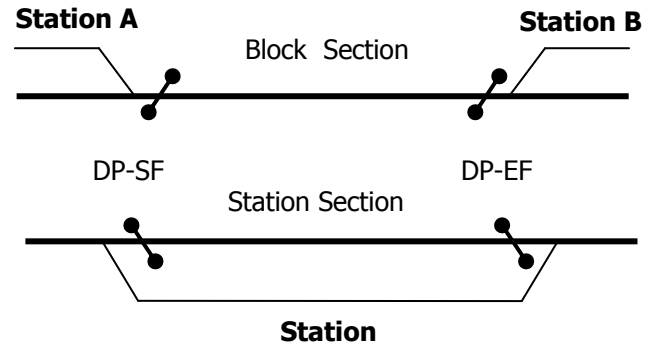
Reset Box

- Amended as per RDSO Ver 3.0 Specification
- Interactive RESET Box with LCD for live status display of
- DP Status (2DP, 3DP, 3DP-2S, 3DP-3S and AS)
- Section Status (Reset/Preparatory, Section Occupied/Clear)
- Wheel Counts (Local and Remote DP)

Configurations of SSDAC-G39

2DP Configuration

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

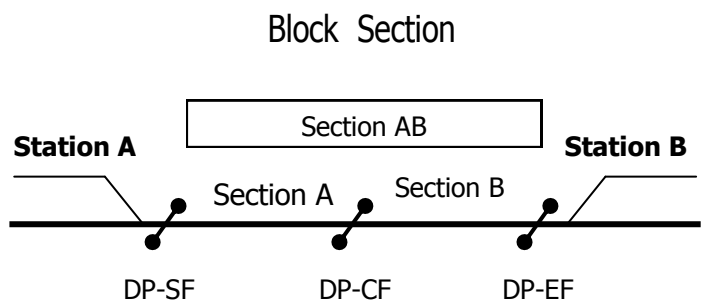


3DP Configuration

- Operation on point Zones / Set points
- Communication using one pair quad cable
- Detection and clearing at any points
- Preparatory Reset with **LV**
- **VR** contacts at all detection points

3DP-2S and 3DP-3S Configuration

- Operation on two consecutive sections on a straight line (IBS configuration)
- DP-SF to EF forms 1 section, DP-SF to CF forms 2 section and DP-CF to EF forms 3rd section
- Communication using one pair quad cable for each section
- Preparatory Reset configurable either with or without piloting
- Separate **PR** and **VR** contacts at detection points for all 3 sections



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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