

# SERTEL GOOSE ANNUNCIATION SYSTEM – T-AA-300-GSE-XX

## General Description:

Goose Annunciator is SAS based Substation Annunciator which is capable of sniffing GOOSE packets across LAN network and the critical alarm packets are specifically captured & displayed in real time onto the annunciation FACIA Window. This will help in constant monitoring and diagnosis, analysis of these alarm indication of abnormal events by catching immediate attention of the Substation Operator. Our Sertel GOOSE Annunciator is pertinently designed for absolutely reliability and quick response with high real time capabilities.



Goose Annunciator is Facia type with adequate visibility preferably 48mm x 72mm or 30mm x 50mm window with visible backlit LED. Window facia would be translucent plastic window for each alarm point. Annunciator Facia plates will be engraved in black lettering with respective alarm inscriptions, this will be furnished to the Vendor by the Purchaser. Alarm inscriptions shall be engraved on each window in not more than three lines and size of the lettering shall be 3 mm high (max) for easy visibility and clarity.

Inscriptions will be visible only when the respective Facia light is lighted. Light of the one window should not reflect on the other window. Multicolour Windows are possible with Trip Window facia -RED colour and Non-Trip Window -Amber Colour.

Sertel Annunciator Configurator Software would grab all details from the plant ICD files. Based on this configuration, the Annunciator would sniff the corresponding alarms for FACIA and alarm events.

Annunciator will have only Ethernet interface (or Fiber Optic) to collect GOOSE packets. This saves long cabling from different Field inputs to Annunciator End, as only through Ethernet layers all alarm information can be sniffed accordingly.

Entire System will be controlled from single Main Computer Station with a customized HMI. This system will avoid complex cabling and reduce multiple number of wiring and the catastrophe created from complex wiring systems. Connectivity could be through LAN/OFC and unit can be easily controlled from a Single Computer Station with single HMI Enterprise S/W for easy maintenance. Proper training on handling of the Software features, configuration of the unit can be provided by Sertel for easy usage and management.



Annunciator’s Features

**GOOSE BASED ALARM ANNUNCIATOR**  
T-AA-300-GSE-48

**48 CHANNEL GOOSE ANNUNCIATOR**

**FRONT VIEW**

**SIDE VIEW**

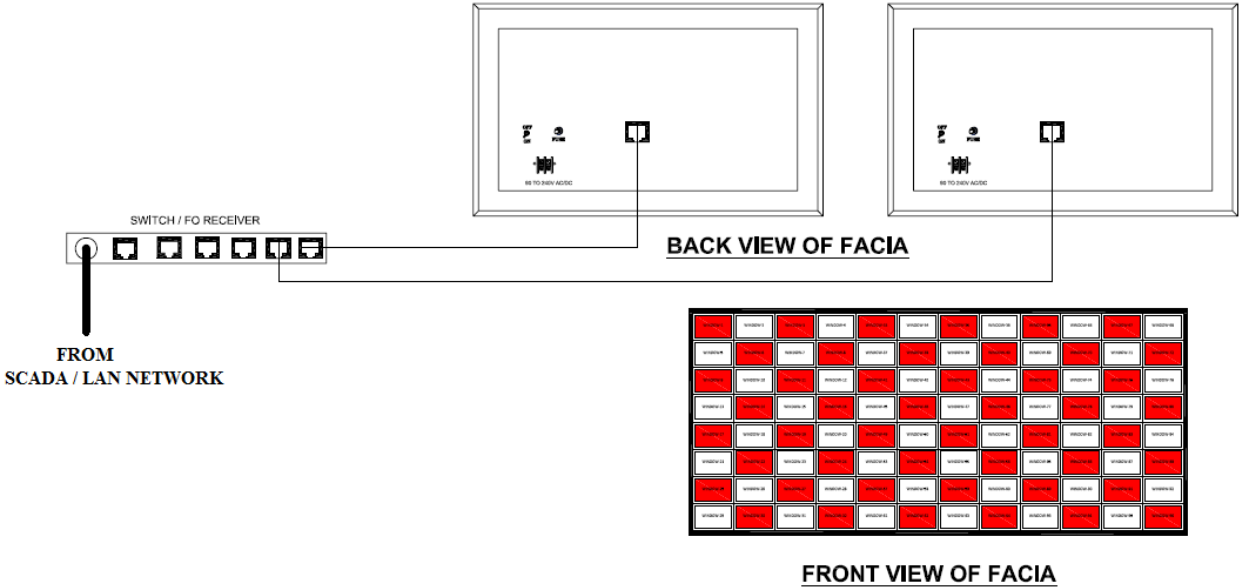
48 CHANNEL ANNUNCIATOR MODEL NO: T-AA-300-GSE-48

Supply Voltage	: 90 TO 260V AC & 90 TO 260V DC
Overall Dimension	: 570(W) x 420(H) x 60(D) mm ±10mm
Cut Out Size	: 520(W) x 370(H) mm ±5mm
Each Window Size	: 50(W) x 30(H)
No. of Rows	: 8
No. of Columns	: 8
Operating Temp	: -10 TO 85 °C
Humidity	: 0-95% RH, Non condensing
Interface	: OVER LAN NETWORK
Input Source - 1	: Port - 1: LAN - RJ45 Connector
Input Source - 2	: Port - 2: LAN - RJ45 Connector
Monitor	: HMI INTERFACE - LED MONITOR

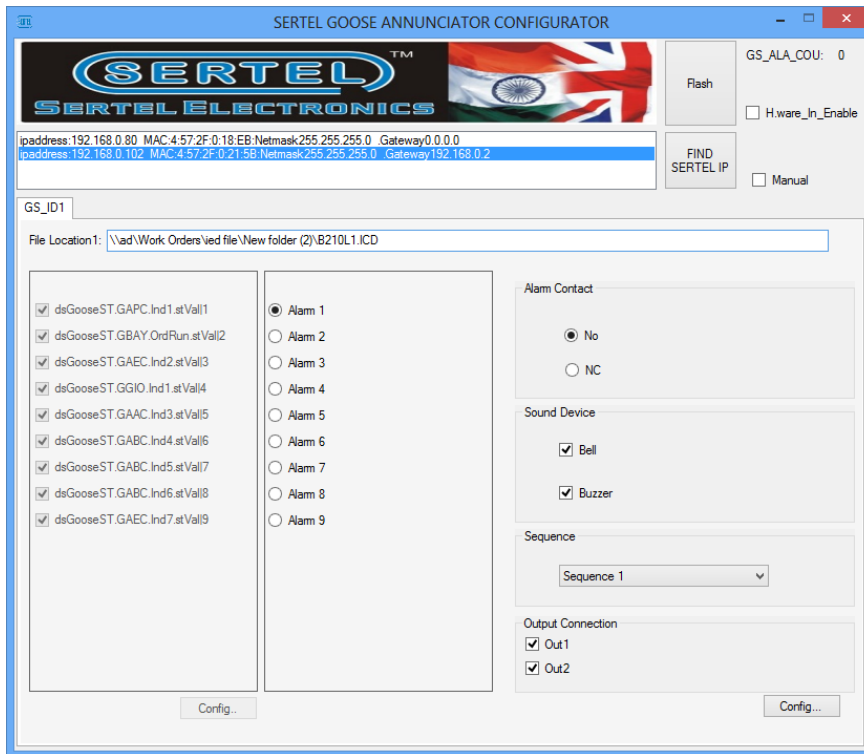
- a) Goose Tags from different IEDs such as feeders and bus bar data can be displayed in any monitor
- b) HMI interface of 10.5-inch Monitor can be provided for displaying other process parameters from bus bars.
- c) Monitor can be placed along with GOOSE Annunciator module
- d) Monitor Screen can legibly display parameters in a periodic time interval configurable by the purchaser.
- e) Purchaser may display the live reports in a big screen on later date for which HDMI provision will be made available in the unit.
- f) Annunciator can have redundant power supply provision to work on both 90 to 260VDC and 90 to 260VAC 1Ph, 50Hz connected in parallel sharing the load. Upon failure of any one power supply, healthy power supply will supply full load current.
- g) GOOSE tags from multiple Subnets over PRP network can also be sniffed and annunciated accordingly.

# T-AA-300-GSE-XX

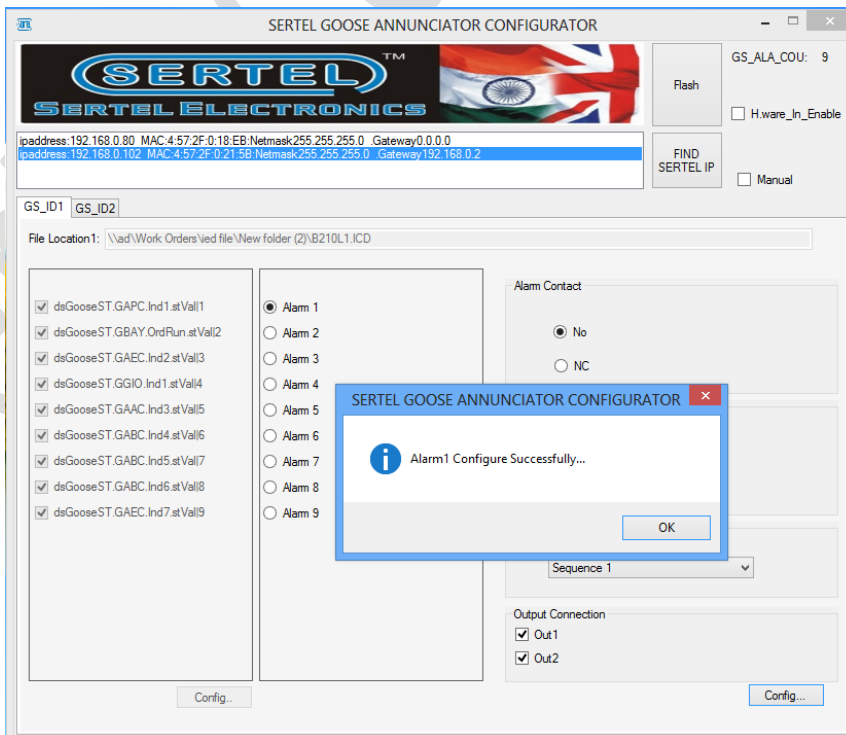
General Arrangement of Goose Annunciator with HMI Interface:



SERTEL Goose Annunciator Configurator



This UI helps to parse the ICD files and detect the GOOSE tags between the various IEDs in 61850 Substation. This allows the user to select the required goose tags and assign it to the corresponding ALARM Window FACIA for Annunciating the fault/ alarm event accordingly.





TECHNICAL SPECIFICATION

Type of annunciation system	GOOSE BASED
No. of Alarm points	48 Window
Sequence	ICD File Normal with Manual reset First-up with Manual reset
Diagnostic features	Features for diagnosing/ trouble shooting of Goose system shall be provided, (Electronic watch dog circuitry shall monitor the function of power supply, controller and each ann. cards continuously and have separate Fault LED annunciators for the same
Initiating contacts	Fault contact (NO/NC) shall be site selectable. Fault signals shall be optically isolated
Communication Protocol	Goose Based – Over Ethernet through Optic Fibre Ports.
No. of LEDS per window	Cluster of super bright LEDS. Red Colour LEDS for Trip windows. Amber colour LEDS for non-trip windows
Window size	Manufacturing Standard (preferably 48mm x 72mm or 30mm x 50mm)
Hooter	One for Trip Alarms & One for Non-Trip Alarms with different sounds.
Response time	Not less than 15ms and not more than 40 msec
Inscription lettering size	3mm High (min)
Inscription Type	Laser Engraving for Each Window
Colour of lettering	Black
Power Supply	Annunciator shall have redundant power supply provision to work on both 90 to 260VDC and 90 to 260VAC 1Ph, 50Hz connected in parallel sharing the load. Upon failure of any one power supply, healthy power supply will supply full load current.

Type Test Standards:

Radiated RF Power Disturbance Test	CISPR 14-1, 2009 Range 30-300 Mhz
Radiated Susceptibility	IEC 61000-4-3, 2010 Range: 80Mhz – 1000 Mhz, 10 V/m, 1kHz, 80% AM
Electrostatic Discharge Immunity Test	IEC 61000-4-2,2008 Range: ±2 kV, ±4 kV, ±6 kV
Electrical Fast Transient Immunity Test	IEC 61000-4-4,2012 Range: Upto ±2 kV
High Energy Surge Immunity Test	IEC 61000-4-5,2014 ±2 kV – Common Mode,

	±1 kV – Differential Mode
Conducted RF Immunity Test	IEC 61000-4-6,2013 Range: 150 kHz – 80MHz, 3Vrms
Power Frequency Magnetic Field Test	IEC 61000-4-8,2009 Range: 30 A/m for continuous 60 Secs
Damped Oscillatory Sinusoidal Immunity Test	IEC 61000-4-18,2011 Range: 1MHz
Voltage Fluctuation and Flicker Emission Test	IEC 61000-3-3,2013 Range: Long Term Flicker, Short Term Flicker
Pulse Magnetic Field Test	IEC 61000-4-9,2016 Range: 330 A/m
Harmonics, Inter Harmonics and Low Frequency Immunity Test	IEC 61000-4-13,2002 Range: Flat Curve, Over Swing, Sweep in frequency, Individual Harmonics
Voltage Dips and Interruption Immunity Test	IEC 61000-4-11 0% of mains voltage for 0.5 cycle 0% of mains voltage for 1 cycle 70% of mains voltage for 25 cycle & 0% of Short Interruption for 250 Cycles
Cold Test	Range: -10 Deg C Duration: 48 Hrs
Damp Heat Steady State Test	Range: Temp: 55 Deg C RH: 95% Duration: 96 Hrs, Energised
Di-Electric Strength Test	Range: 2kV, 50Hz, Duration: 60s
Dry Heat Test	Range: 55 Deg C, Duration: 48 Hrs
Sinusoidal Vibration Test	Range: 10 to 55 Hz Total Duration:2H 15 Min