

WIRELESS TRANSRECEIVER (GPRS)

(Technical Support Viola Systems Limited, Finland & eSENZA Germany)

ISO-9001 : 2000 CERTIFIED

w.e.f. Nov, 2010

INTRODUCTION:

Wireless Transceiver(GPRS)-550GP belong to the family of series 550 and effectively integrate ethernet, serial modbus devices to IP management system via EDGE or GPRS network. It is mobile operator independent system & is a powerful reliable tool for communication of modbus based field mounted Instruments. Many industrial devices like PLC, I/O, Data Loggers etc. support RS485 modbus protocol. 550GP can integrate unlimited number of serial devices to IP Network.

Wireless Transceiver(GPRS)-550GP provide flexible solution for industrial application for monitoring & control of process parameters. 550GP is designed to operate in harsh environment and its enclosure is of aluminium alloy & suitable for weather proof, explosion proof & dust proof applications. This consist of ethernet port, serial port along with SIM Card holder. Being a standalone device, this plug & play solution is easy to install in a short time.

The application of 550GP is to measure various process parameters like level, temperature, pressure & flow etc & also electrical parameters like Voltage, Current, KW, KWH, frequency, Power Factor KVA & KVAH. There is also a provision to operate control valve, disconnecter, solenoid valve etc. from specially designed SCADA software. The analog data from process Instrument is converted to digital data which is connected to serial-port of wireless transceiver(GPRS) – 550GP



Transceiver 550 GP



Remote Antenna 551

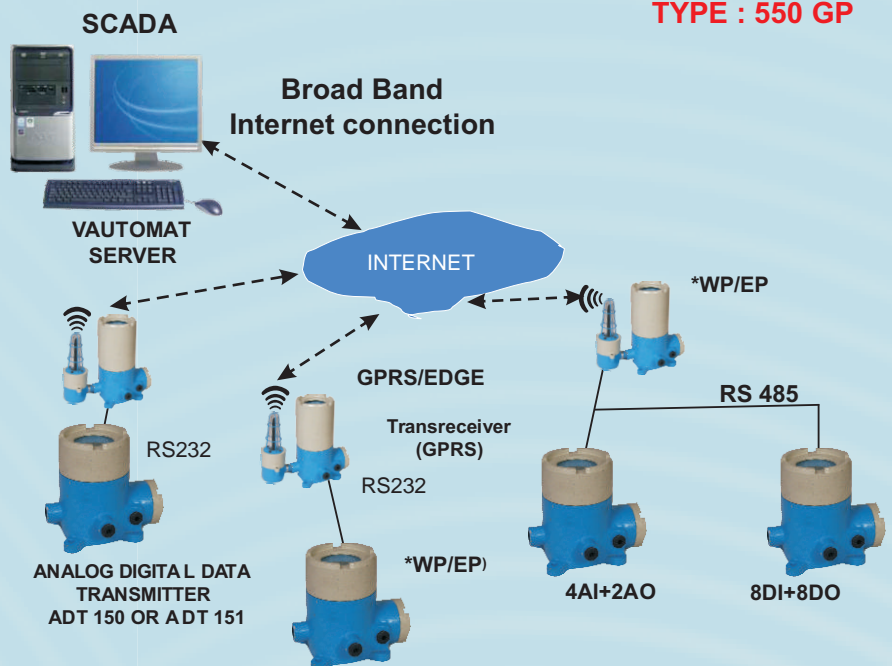


Analog Digital Transmitter ADT 150 / ADT 151

FEATURES : WIRELESS TRANSRECEIVER(GPRS)-550 GP

- 550 GP is equipped with GPRS/EDGE enabled GSM SIM card
- Digital data transmitter receives analog/digital signal from process Instrument, convert to digital data and communicate to serial-port of 550GP through internet & pushes the data to the server.
- Broadband internet connectivity is required at server side.
- In case of mal-functioning, communication is re-established automatically.
- End to end security is achieved by using private server which provides virtual private network(VPN).
- 550GP transceiver has got firewall and VPN for secure communication.
- Internet service provider(ISP) independent static IP address for private server is more secure.
- Housing of 550GP, Digital Data Transmitter & Remote Antenna are weather proof IP66 & explosion proof certified for Group IIA & IIB.
- Remote antenna can be provided in locations where network is weak.
- Communication from analog digital Transmitter to Transceiver can be done by RS232 OR RS485 cable.

TYPE : 550 GP



*WP – Weather Proof
EP – Explosion Proof



SPECIFICATIONS:

DIGITAL DATA TRANSMITTER (Receives analog signal from process instruments)

<p>A) Analog digital data transmitter Model ADT 150 Input 1) 4-20mA 2) 0-100mV/0-50mV 3) RTD(PT 100) 4) Thermocouple(Type B R S E J K N T) Output: 1) 4-20mA 2) 4-20mA</p>	<p>B) Discrete Digital (ON/OFF) data transmitter Model ADT 151 Input : 8 Nos DI (Digital Input) Output : 8 Nos. DO with 1 Amp rating 30VDC/230VAC</p> <p>C) Digital Data Transmitter for Electrical parameters ADT 1400: 2AI (4-20mA) V, I, & Frequency ADT 3100: KW,KWH & Power Factor ADT 3120: Dual KW, KWH & PF (Generator & PowerSupply)</p>
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WIRELESS TRANSRECEIVER(GPRS)-550 GP

A) General

- 1) Input voltage : 6 – 26VDC
- 2) Power consumption : 1 – 5W
- 3) External supply : 230VAC adopter
- 4) Temperature : - 20 to 55°C
- 5) Humidity : 5 to 85% RH
- 6) Frequency : EGSM 900 (2W) & GSM 1800 GPRS
- 7) Response time : 1 – 20 seconds depending upon network speed
- 8) Accuracy : Less than ± 0.5%.
- 9) Electrical connection : ½" NPT (dual cable entry)
- 10) Electrical classification : a) Weather proof IP 66(to be designated as W)
b) Explosion proof IIA, IIB(To be designated as E)
- 11) Mounting : Wall / 2" Pipe
- 12) Approvals : CE

B) Modbus serial port

- 1) Protocols : Modbus RTU, Modbus ASCII
- 2) Speed : 300-460 800bps
- 3) Number of digital data transmitter (ADT) : Unlimited
- 4) Number of messages : Unlimited

C) Modbus Network

- 1) Protocols : Modbus TCP, Modbus RTU/ ASCII over TCP/UDP
- 2) Speed : 21.4Kbps GPRS uplink & 85.6Kbps GPRS downlink
- 3) Number of wireless Transreceiver 550GP : 32 Nos. maximum

D) Server

Installed at Premises of M/s V.Automat or customer premises. Static IP provided by Internet service provider(ISP)

FEATURES OF SCADA SOFTWARE

- Periodic based data capture from devices and communication.
- Analyze/secure collected data
- Communicate information via SMS, e-mail & Voice mail
- Generate alerts in case of alarm conditions
- Send reminder alerts
- Data, historical data and graph representation
- Data Logger facility
- Time setting facility

ORDERING INFORMATION

Wireless Transreceiver (GPRS)	550GP				
ANALOG DIGITAL DATA TRANSMITTER					
ADT150A (Input, 4~20mA)	D				
ADT150B (Input, 100/0-50mV)	E				
ADT150C (Input, RTD, PT-100)	F				
ADT150D (Input, Thermocouple)					
B, R, S, E, J, K, N, T)	G				
ADT150E (Output, 4~20mA)	H				
ADT151 (8DI+8DO)	J				
ADT1400 (Input 2AI, V, I & Frequency)	K				
ADT 3100 (Input Kw,KwH & PF)	L				
ADT 3120 (Input Dual Kw & KwH & PF)	M				
REMOTE ANTENNA (Series 551)					
Provided		X			
Not Provided		Y			
SCADA SOFTWARE					
Provided			P		
Not Provided			D		
MOUNTING BRACKET					
Without Mounting Bracket (Wall Mounting)				A	
Bracket for 2 inch pipe				B	
PROTECTION					
Weather proof					W
Explosion proof					E

MODEL DESCRIPTION

Wireless Transreceiver with 4 No. inputs of 4~20mA & 2 nos. Output of 4~20mA with Remote Antena and Wall Mounting and Explosion Proof Housing. 550GP-4D2H-X-A-E

NOTE :

ADT150 ANALOG Digital Transmitter is available in four different inputs. It is also possible to obtain same input in four Channels. Specify Code, e.g. 4D denote 4 No. INPUT of 4~20mA.

INPUT CHANNELS ARE FACTORY SET.

MILESTONE ACHIEVED DURING 10YRS. PERIOD

- Wireless Monitoring of process parameters of Egyptian Natural Gas Pipeline Monitoring Project (GASCO) 16,800 Km Oil/Gas Pipeline with maximum capacity of 160 MMSCM/D
- Wireless Monitoring of process parameters of on-shore/off-shore Gas Transportation and distribution alongwith Compressor Monitoring in Thailand in several thousand Kilometers.
- Wireless Monitoring and control of electrical distribution to a distance of 3000 kms in association with M/s. ABB

Other Wireless Products of M/s V Automat (Based on 2.4 GHz & GSM Communication). PCB / Subassembly imported from Germany

SMS BASED COMMUNICATION SOLUTION

Integral I/O wireless Transceiver(SMS)

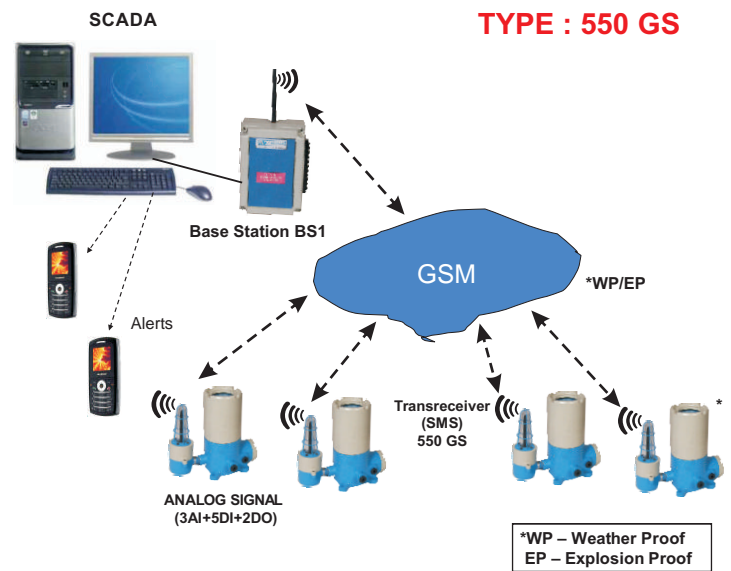
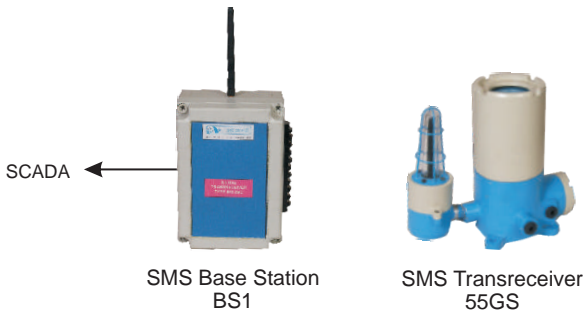
Type – 550 GS

Distance : Unlimited

PROCESS INPUT

Integral Port

10 Nos.I/O ports i.e.3 analog input (0-2V/4-20mA)
+ 5 digital input + 2 digital output



2.4 GHz BASED COMMUNICATION SOLUTION

Integral I/O wireless Transceiver

Type -550ZB/550ZBV

Distance : 1 KM or Multiple (Line of Sight)

Type 550ZB : Battery Operated, AI (4-20mA) - 2/4 Nos.

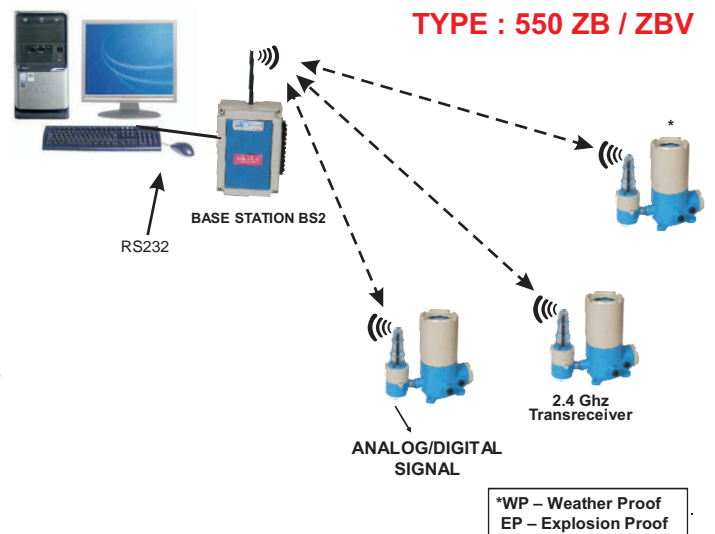
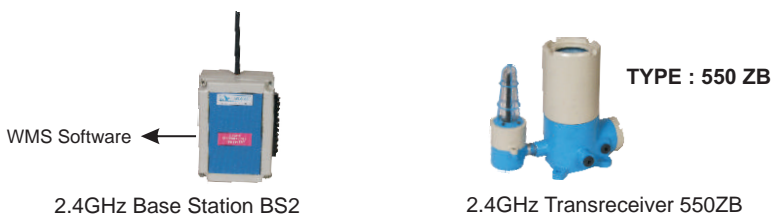
WMS Software AO (4-20mA) - 2 Nos.

DO - 2/4 Nos.

Type 550ZBV : 230V AC Operated, AI (0-2V/4-20mA)- 2 Nos.

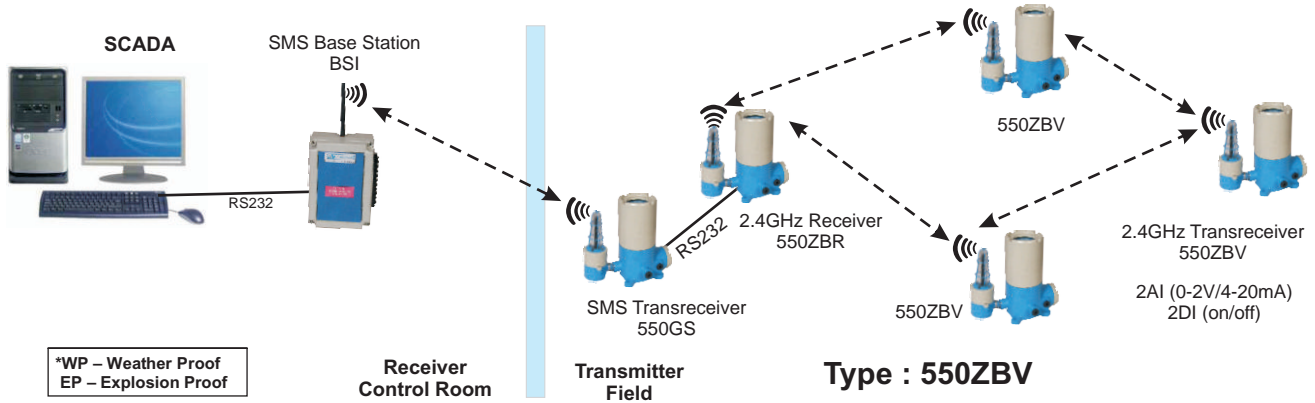
SCADA Software

DI - 2 Nos.





2.4 GHZ BASED COMMUNICATION WITH SMS BASED COMMUNICATION (2.4GHz + SMS)



*WP – Weather Proof
EP – Explosion Proof

Type : 550ZBV

2.4 GHZ BASED COMMUNICATION WITH SMS BASED COMMUNICATION (2.4GHz + SMS)

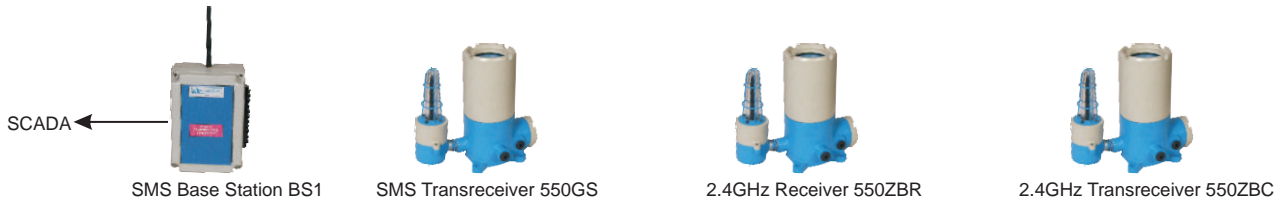
230 V AC OPERATED, Distance : Unlimited, Type - 550ZBS

550ZBS consist of following

- (1) 550ZBC (2.4GHz Transceiver) (2) 550ZBR (2.4GHz Receiver)
(3) 550GS (SMS Transceiver) (4) BS1 (SMS Base Station)

PROCESS INPUT (Each Transmitter)

- 2 Nos. Analog Input 0-2V/4-20mA
2 Nos. Digital Input



SMS BASED COMMUNICATION SOLUTION INTEGRAL (Mobile operated)

Type -550 M

Distance : Unlimited

PROCESS INPUT:

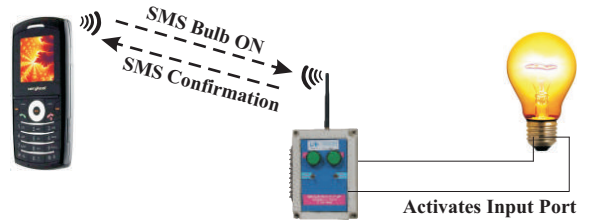
- 550M-10 = 1 digital output (relay) + 2 digital input
550M-20 = 2 digital output (relay) + 4 digital input
550M-30 = 2 digital output (relay) + 5 digital input +
3 Analog input (0-2volt)



Mobile



SMS Transceiver 550M



TYPE : 550M

SMS Transceiver 550M

SMS BASED COMMUNICATION SOLUTION OPERATION FROM SMS TRANSRECEIVER 550MP FOR 2 NOS. TUBEWELLS.

FACILITY FOR FEEDBACK at 550MP SMS Transceiver and Mobile

Type : 550MP

Distance : Unlimited

Other Application

- * Disconnector * Street Light
- * Control Valves * Solenoid Valves



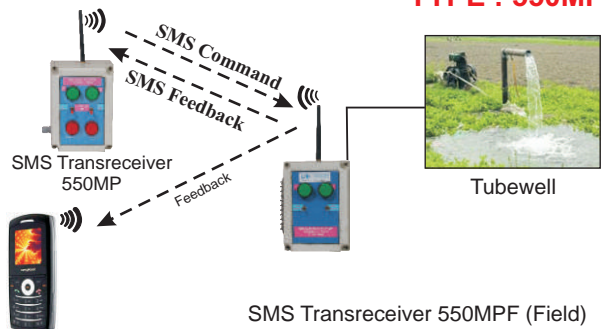
Mobile



SMS Transceiver 550MP



SMS Transceiver 550MPF (Field)



TYPE : 550MP

SMS Transceiver 550MPF (Field)

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BRANCHES IN BARODA, MUMBAI, KOLKATA, JAMSHEDPUR, SECUNDERABAD & CHENNAI

See Website for address (Specifications can change without prior notice)