Surya Insts

Surya Instruments & Control Engineers

SHORT FORM CATALOGUE

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Thyristor Power Regulators

Thyristor Power Regulators

TPRG-3P

Thyristor Power Regulato-3 Phase

- Current Limit and Current Trip
- Soft Start (15 seconds)
- Ramp Up & Ramp Down
- Maximum Output Limit Settable
- Unit Enable/Disable Selection
- Auto/Manual Selection
- Power ON LED
- R-Y-B Current Limit LEDs
- R-Y-B Current Trip LEDs
- Temperature High Trip & LED Indication
- Unit Healthy Relay

Short Form Catalogue

Thyristor Power Regulators

TPRG-3P ≤ 20 A

TPRG-3P ≤ 40 A

TPRG-3P ≤ 70 A

TPRG-3P ≤ 100 A

100 A to 500 A

SURYA INSTRUMENTS & CONTROL ENGINEERS
www.suryainsts.in

Data Acquisition Systems (sDAQS)

Data Acquisition Systems (sDAQS)

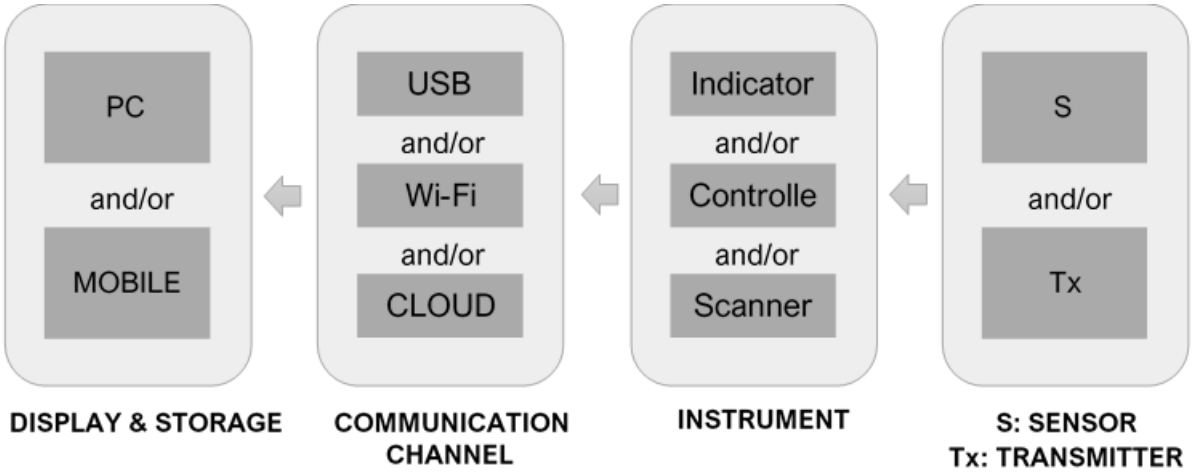
INTRODUCTION

We at Surya Instruments & Control Engineers have developed Industry compliant Data Acquisition Systems (DAQS) which meet the demand for reliability, accuracy and speed.

The **Surya DAQS (sDAQS)** is a robust end-to-end solution covering all aspects of hardware & software. Our wide range of instrumentation products are built-in with technology that ensures smooth and easy interfacing with our sDAQS software.

Ergonomic Design, clean and placid UI, comprehensive data representations and exhaustive data saving options describe our well thought-out, simple and user-friendly sDAQS software.

WHAT CONSTITUES A DAQS?



DAQS is broadly classified into 4 stages:

- Sensors and/or Transmitters for:
  - Process Parameters: Temperature, Pressure, Flow, Level, %rH, etc.
  - Electrical Parameters: AC/DC Voltage, AC/DC Current, Power, etc.
- Instruments: Indicators, Controllers and/or Scanners.
- Communication Channels: RS-485 to USB, RS-485 to Wifi and/or Cloud.
- Display & Storage: PC, Android Mobile, SD card and/or Pen Drive.

Short Form Catalogue

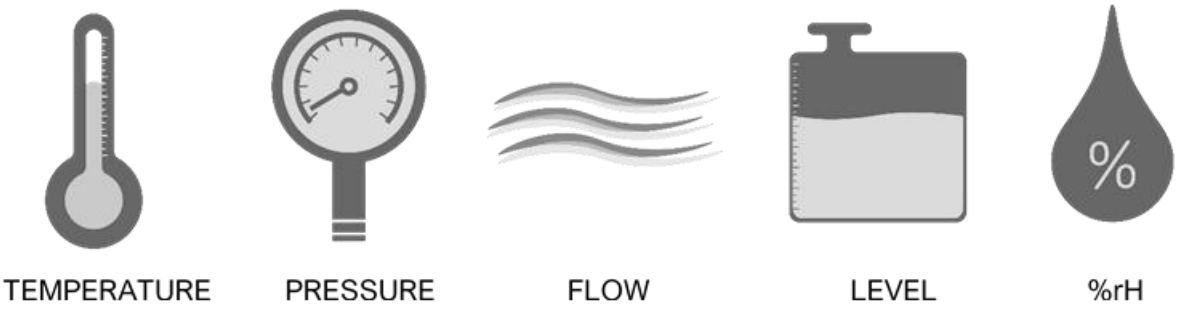
Data Acquisition Systems (sDAQS)

What We Offer:

sDAQS is designed upon a flexible framework, hence it is highly customizable to any or all of your requirements.

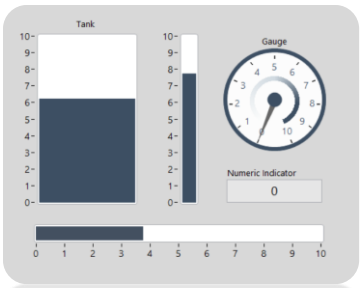
sDAQS endures the same performance irrespective of the parameter:

(Process Parameters examples shown below)

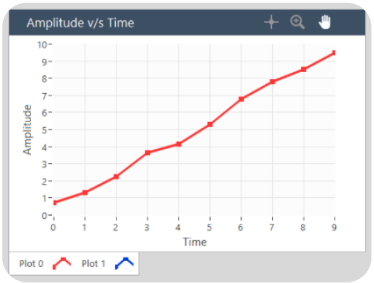


sDAQS Software Features

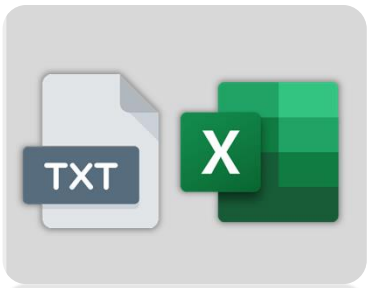
Indicators



Graphs



Storage



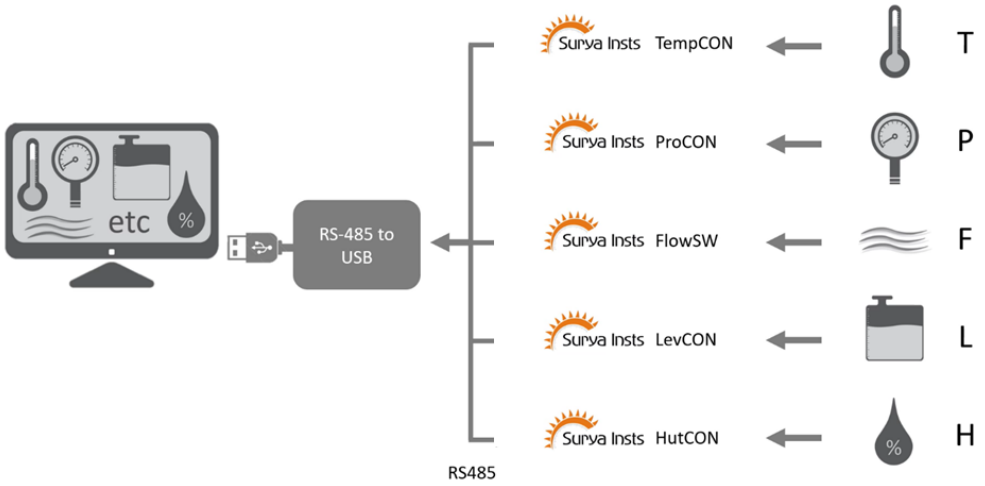
sDAQS has one of the best ergonomic designs as we understand that the UI (user-interface) is one of the key components of any DAQS.

sDAQS has a wide range of numerical, graphical and widget like (Eg: gauges, tanks, progress bars, etc) indicators best suited for the application.

sDAQS also boasts of an exhaustive data storage & file saving options (Eg: .xlsx, .txt, etc).

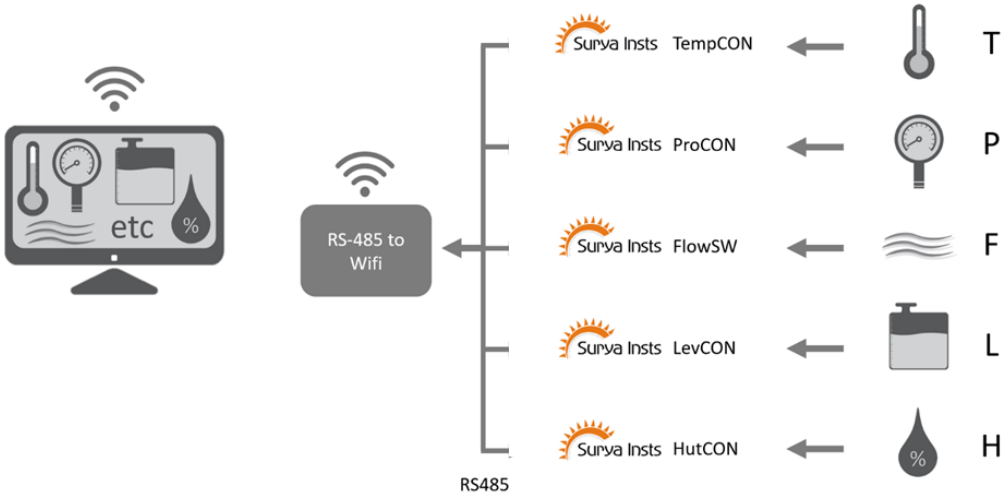
Data Acquisition Systems (sDAQS)

RS-485 to USB Interface based sDAQS



The Sensors data can be obtained at a pre-set rate (1 min by default) from the Instruments through the RS-485 to USB Interface which is used as the communication channel here. The acquired data can be represented numerically, graphically or with the use of any appropriate widgets suitable for the application. This data can also be dynamically saved, updated & viewed in runtime on any authorized device either a PC/Phone with the sDAQS software.

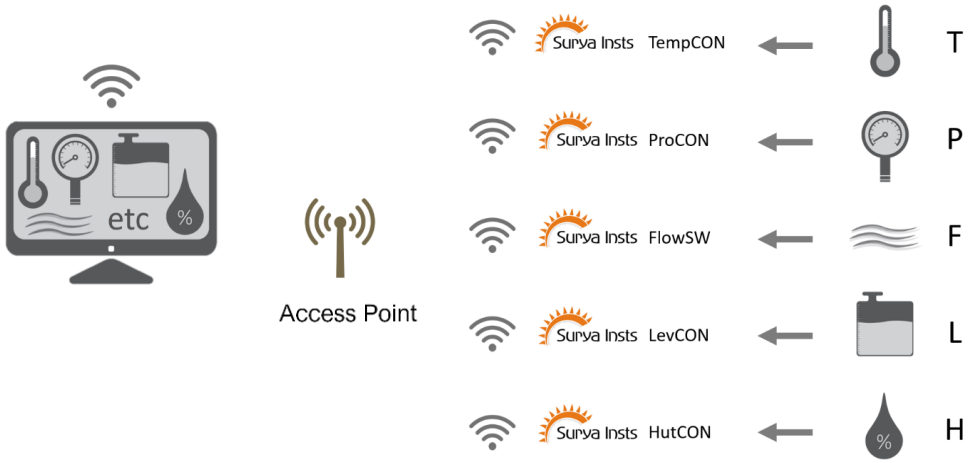
RS-485 to Wi-Fi Interface based sDAQS



The communication channel is the only change in contrast to the previous system. The RS485 to Wi-Fi Interface hosts a hotspot using Wi-Fi Direct. Any authorized device with the sDAQS software either PC/Android Phone can be seamlessly connected to the hotspot to save, update & view the data in runtime.

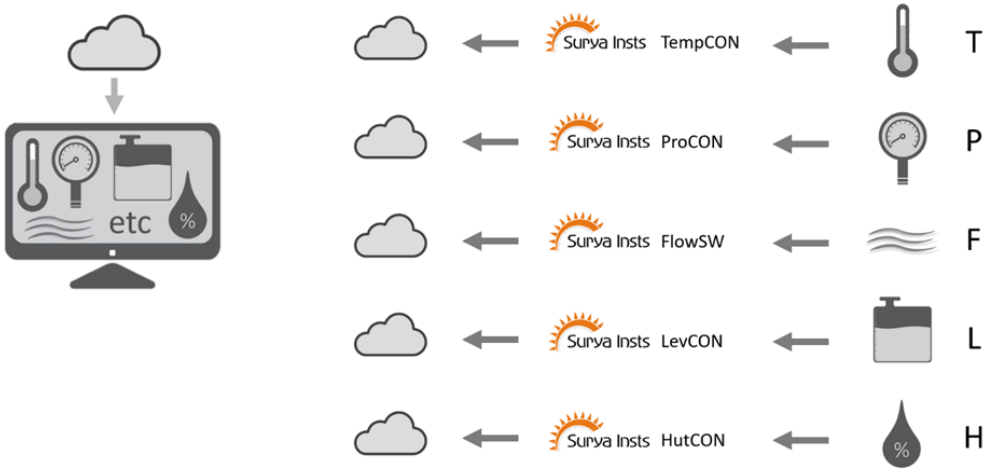
Data Acquisition Systems (sDAQS)

Wi-Fi AP (Access Point) based sDAQS



The dependency on RS-485 to Wi-Fi Interface is overcome by providing Wi-Fi capability to each of the instruments. These instruments will connect to the nearest Access Point of the Industry's Wi-Fi network. Hence, the range of this sDAQS is only limited by the Industry's WLAN. The data from any of these instruments can be seamlessly accessed by any authorized device either on a PC/Android Phone equipped with sDAQS software. This method allows for faster commissioning of the system by preventing the hassle of extensive wiring.

Cloud based sDAQS



In the previous method the range of the sDAQS is limited by the Industry's WLAN network. The Cloud based sDAQS overcomes this limitation by connecting to the cloud through the Industry's WLAN with internet accessibility. This allows for an authorized device from anywhere in the world to seamlessly access any instrument's data by just connecting to the cloud through the sDAQS either on PC/Android Phone.

Industrial Communication Products

rsCON

Serial Converter

- Galvanic & Optical Isolation
- Din Rail Mount
- LED Indication for Power, Rx & Tx Status
- Host Side: USB, RS-232, RS-485, TTL, Wi-Fi
- Field Instrument Side: RS-232, RS-485, RS-422, TTL

Ordering Information:

rsCON - P H F - I

POWER SUPPLY	
230	90-265 VAC/DC
USB	USB Powered (only for models with USB host without Isolation)

HOST INTERFACE TYPE	
R	RS-232
T	TTL
U	USB
W	Wifi

FIELD INSTRUMENT INTERFACE TYPE	
1	TTL
2	RS-232
3	RS-422
4	RS-485
5	All of the above

ISOLATION	
X	No Isolation
I	Isolation

Industrial Communication Products

Quick Selection Guide:

Power Supply	Host Interface Type	Field Instrument Interface Type	Model Number	
			With Isolation	Without Isolation
230 V	RS-232	TTL	*rsCON-230R1-I*	*rsCON-230R1-X*
		RS-422	*rsCON-230R3-I*	*rsCON-230R3-X*
		RS-485	*rsCON-230R4-I*	*rsCON-230R4-X*
		All types	*rsCON-230R5-I*	*rsCON-230R5-X*
	TTL	RS-232	*rsCON-230T2-I*	*rsCON-230T2-X*
		RS-422	*rsCON-230T3-I*	*rsCON-230T3-X*
		RS-485	*rsCON-230T4-I*	*rsCON-230T4-X*
		All types	*rsCON-230T5-I*	*rsCON-230T5-X*
	USB	TTL	*rsCON-230U1-I*	*rsCON-230U1-X*
		RS-232	*rsCON-230U2-I*	*rsCON-230U2-X*
		RS-422	*rsCON-230U3-I*	*rsCON-230U3-X*
		RS-485	*rsCON-230U4-I*	*rsCON-230U4-X*
		All types	*rsCON-230U5-I*	*rsCON-230U5-X*
	Wifi	TTL	*rsCON-230W1-I*	*rsCON-230W1-X*
		RS-232	*rsCON-230W2-I*	*rsCON-230W2-X*
		RS-422	*rsCON-230W3-I*	*rsCON-230W3-X*
		RS-485	*rsCON-230W4-I*	*rsCON-230W4-X*
		All types	*rsCON-230W5-I*	*rsCON-230W5-X*
USB Powered	USB	TTL	-	*rsCON-USBU1-X*
		RS-232	-	*rsCON-USBU2-X*
		RS-422	-	*rsCON-USBU3-X*
		RS-485	-	*rsCON-USBU4-X*
		All types	-	*rsCON-USBU5-X*

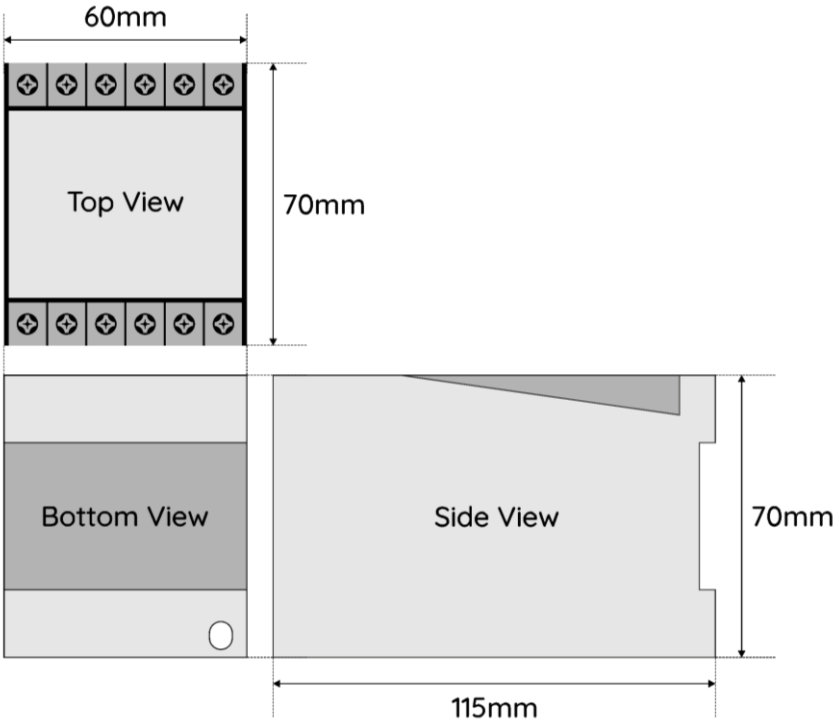
Signal Converters & Isolators

Signal Converters & Isolators

SSC-101

Signal Converter/Isolator

- Wide Range of Inputs Available
- Up-to 3 Outputs
- Power Supply Isolation
- Input-Output Isolation
- Easy Calibration using Keys
- Din Rail Mounting



Signal Converters & Isolators

Ordering Code:

Model	Enclosure	Inputs		Outputs			Isolation	Description
				1	2	3		
SSC								Surya Signal Isolator
	101							DIN Rail Enclosure 60x70x115
		Current	I1					4-20 mA
			I2					0-20 mA
		Voltage	V1					0-75 mV DC
			V2					0-100 mV DC
			V3					0-1 VDC
			V4					0-5 VDC
			V5					1-5 VDC
			V6					0-10 VDC
			V7					2-10 VDC
		Frequency	F1					DC Pulses
			F2					AC Pulses
		AC Signal	AV					AC Voltage
			AI1					AC Current (0-1A)
			AI2					AC Current (0-5A)
		Temperature RTD	PT50					RTD PT-50, 3 wire
			PT100					RTD PT-100, 3 wire
			PT200					RTD PT-200, 3 wire
			PT500					RTD PT-500, 3 wire
			PT1000					RTD PT-100, 3 wire
		Temperature Thermocouple	B					Thermocouple B Type
			E					Thermocouple E Type
			J					Thermocouple J Type
			K					Thermocouple K Type
			N					Thermocouple N Type
			R					Thermocouple R Type
			S					Thermocouple S Type
			T					Thermocouple T Type
			W					Thermocouple W Type
		Resistance	10k NTC					10k Thermistor
			10k POT					10k Potentiometer
				Blank	Blank	Blank		No Output
				A	A	A		4-20 mA
				B	B	B		0-20 mA
				C	C	C		20-4 mA
				D	D	D		0-1 VDC
				E	E	E		0-5 VDC
				F	F	F		1-5 VDC
				G	G	G		0-10 VDC
				H	H	H		2-10 VDC
				I	I	I		DC Pulses
							X	Non-Isolated
							I	Isolated

Loop Powered Indicators

Loop Powered Indicators

LPI-L

Loop Powered Indicator-L

- <5V drop @ 20mA
- Accuracy of +/-0.1% of FSD
- IP65 Enclosure
- Mounting Bracket available
- 105 (H) * 134 (W) * 62 (D)

LPI-M

Loop Powered Indicator-M

- <5V drop @ 20mA
- Accuracy of +/-0.1% of FSD
- IP65 Enclosure
- Mounting Bracket available
- 80 (H) * 111 (W) * 55 (D)

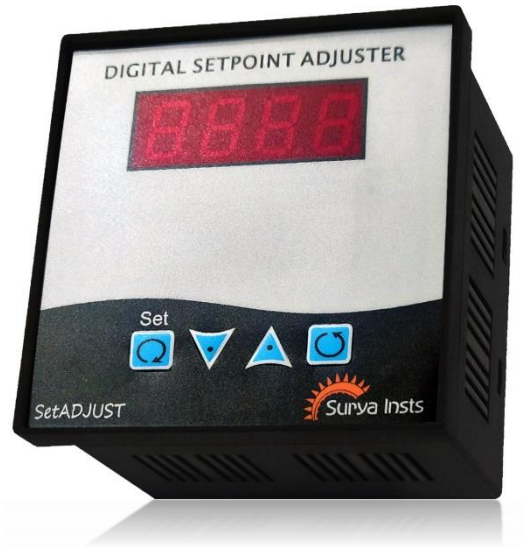
Source & Digital Set Point Adjuster (DSA)

Source & Digital Set Point Adjuster

SetADJUST

Digital Set Point Adjuster

- Excellent substitute of Potentiometer for Manual Adjustment in Panels
- Precise control of output with 4 Digit LED Display
- All types of outputs and ranges are available
- RS-485 Communication MODBUS RTU Protocol
- Panel & Wall Mount
- Weatherproof or IP-65 Enclosure
- Size 96x96x75



Vi-SOURCE

Voltage & Current Source

- Designed for Ease of Use
- Fine and Course Adjustment
- Current or Voltage or mV Output Selectable
- 8 Output Ranges Selectable
- RS-485 Communication MODBUS RTU Protocol
- Panel & Wall Mount
- Weatherproof or IP-65 Enclosure
- Size 96x96x75

Timers & Counters

Timers & Counters

UniTIMER-2920

Universal Timer

- 12 Functions
- 9 Time Ranges
- 1 or 2 Relay Outputs
- Internal and External Start & Reset
- Selectable External Input Type (open-to-close or close-to-open)
- RS-485 Communication, MODBUS RTU Protocol
- Panel & Wall Mount
- Weatherproof or IP-65 or Flameproof Enclosure
- Size: 96x96x75

UniTIMER-2910

Universal Timer

- 12 Functions
- 9 Time Ranges
- 1 or 2 Relay Outputs
- Internal and External Start & Reset
- Selectable External Input Type (open-to-close or close-to-open)
- RS-485 Communication, MODBUS RTU Protocol
- Panel & Wall Mount
- Weatherproof or IP-65 or Flameproof Enclosure
- Size: 96x96x75

Timers & Counters

AnalogTIMER

Potentiometer Based Timer

- Timer Range as per Requirement
- 1 Relay Output
- Power ON Indication LED
- Output Status LED
- Wall & Panel Mounting
- Size: 48x96x75

EcoTIMER

Economical Analog Timer

- Suitable for most types of Sensors
- 1 sec to 120 min Time Range
- Sec/Min Selection
- High/Low Trigger Input Selection
- Time Adjustment Trimpot
- 1 Relay Output
- 1 Multifunction Status LED
- Size: 58x35x18

Timers & Counters

UniTIMER mini

Universal Timer

- 12 Functions
- 9 Time Ranges
- 1 or 2 Relay Outputs
- Internal and External Start & Reset
- Selectable External Input Type (open-to-close or close-to-open)
- RS-485 Communication, MODBUS RTU Protocol
- Panel & Wall Mount
- Weatherproof or IP-65 or Flameproof Enclosure
- Size: 48x96x75

ClockTIMER

Real Time Clock based Timer

- 12 ON & OFF Time Set Points
- Selectable Time Format: 24 or 12 Hrs
- 4 Relay Outputs
- RS-485 Communication MODBUS RTU Protocol
- Panel & Wall Mount
- Weatherproof or IP-65 or Flameproof Enclosure
- Size: 96x96x75

Flow Instruments

Flow Instruments

FlowSW

Flow Rate Switch

- Wide range of flow rate Units available:
  - L/sec
  - L/min
  - Gallons/hr
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Panel/Wall Mount/IP65/Flameproof Enclosure
- Size 96x96x75

FlowTOTAL

Flow Totalizer

- Totalization Value 99,99,999.99 litres
- Context based Key for Start/Reset
- Simple & Easy Parameter Setting
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Panel/Wall Mount/IP65/Flameproof Enclosure
- Size 96x96x75

FlowBATCH

Flow Batcher

- Indication Options Selectable:
  - Batch Value & Batch Set Value
  - Batch Value & Totalizer Value
  - Flow Rate & Batch Value
- Totalization Value 99,99,999.99 litres
- Context based Key for Start/Reset
- Simple & Easy Parameter Setting
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Panel/Wall Mount/IP65/Flameproof Enclosure
- Size 96x96x75

Valve Positioner

Valve Positioner

ValPO

Valve Positioner

- 2 Inputs: 4-20 mA or Potential Free Contacts (PF)
- 2 Relay Outputs: Open & Close outputs
- 3 Modes: Auto, Local & Manual
- User Selectable Signal Failure Position
- Panel & Wall Mount

Introduction:

ValPO is a Surya Instruments make Valve Positioner designed for precise control of Electrically Actuated Control Valves. It is an Instrument that is designed keeping the operator's convenience as the main priority. The Instrument fundamentally has two signals- Set Point (SP) and Feedback (FB).

- Set Point is usually a 4-20 mA signal from a process controller.
- Feedback is a potentiometer or a 4-20 mA signal taken from the Electrical Actuated Control Valve.

Working:

The main function of the instrument is to set the position of the valve according to the SP. This is done by controlling the two relay outputs in such a way that the Feedback matches the Set Point. The Instrument has 3 Modes:

- Auto: SP is obtained from a process controller.
- Local: SP can be set in the instrument.
- Manual: The two relays can be manually controlled by the operator from the front panel increment & decrement keys in order to open or close the valve.

Stroke Length Digital Setting:

This is probably the most interesting feature of our Valve Positioner. We have all seen how cumbersome and glitchy the limit switches in these valves can be after wear and tear over a few years. To address this problem, two user settable parameters are added- High Limit and Low Limit. These limits ensure that the Valve does not exceed them even if the Set Point from the process controller goes beyond these limits, which replicates the function of the physical limit switches in the valves.

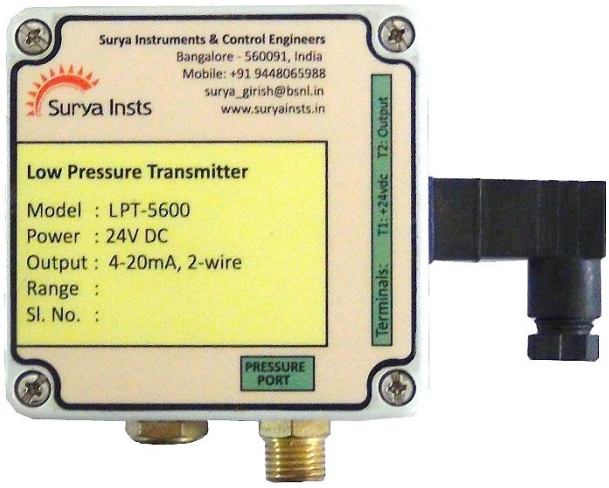
Pressure Transmitters

Pressure Transmitters

LPT-5600

Low Pressure Transmitter

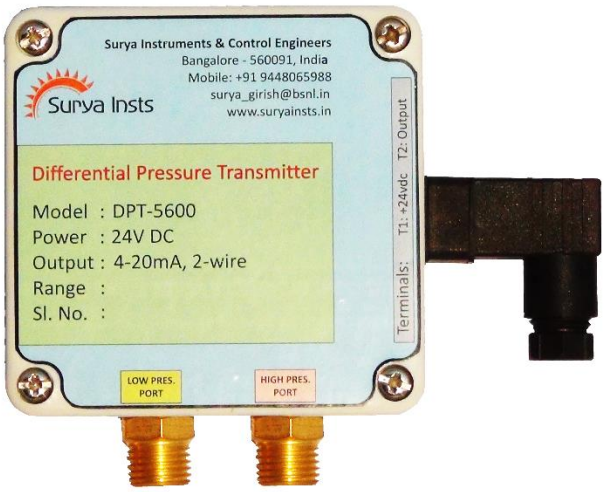
- Voltage Output Type & Current Output Type available
- Wide Sensing Ranges available:
  - +/- 200 mmWC,
  - +/- 550 mmWC,
  - +/- 1,050 mmWC,
  - +/- 2,100 mmWC,
  - +/- 4,200 mmWC,
  - +/- 7,000 mmWC
- Accuracy: +/- 0.5% @ FS.
- Sampling Rate: 10 samples/sec
- Mounting Bracket available
- IP65 Enclosure, Size 80(H)*82(W)*55(D)



DPT-5600

Differential Pressure Transmitter

- Voltage Output Type & Current Output Type available
- Wide Sensing Ranges available:
  - +/- 200 mmWC,
  - +/- 550 mmWC,
  - +/- 1,050 mmWC,
  - +/- 2,100 mmWC,
- Accuracy: +/- 0.5% @ FS.
- Sampling Rate: 10 samples/sec
- Mounting Bracket available
- IP65 Enclosure, Size 80(H)*82(W)*55(D)



Process Controllers

Process Controllers

ProCON ALPHA

ON-OFF Process Controller – 2 Line

- 2 Line Display
- Up-to 4 Relay Outputs
- LED Indication for Output Relay Status
- Transmitter Supply
- Retransmission Output
- RS-485 Communication, MODBUS RTU Protocol
- Flame Proof Enclosure, IP65 available
- Panel & Wall Mount

ProCON-2910

ON-OFF Process Controller – 1 Line

- 1 Line Display
- Up-to 4 Relay Outputs
- LED Indication for Output Relay Status
- Transmitter Supply
- Retransmission Output
- RS-485 Communication, MODBUS RTU Protocol
- Flame Proof Enclosure, IP65 available
- Panel & Wall Mount

Process Controllers

ProCON mini

ON-OFF Process Controller – 48x96

- 1 Line Display
- Up-to 4 Relay Outputs
- LED Indication for Output Relay Status
- Transmitter Supply
- Retransmission Output
- RS-485 Communication, MODBUS RTU Protocol
- Flame Proof Enclosure, IP65 available
- Panel & Wall Mount
- Size: 48x96x75

Humidity & Temperature Instruments

Humidity & Temperature Instruments

HutCON

Humidity & Temperature Controller

- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Outputs for Humidity & Temperature
- Size 96*96

HumiCON

Humidity Controller

- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 96*96

SRHTx-2000

Humidity & Temperature Transmitter

- 4-20 mA or 0-10 V outputs available
- Probe type or Filter type sensor connection
- IP65 Enclosure
- Range Factory Calibrated
- Mounting bracket for wall mounting available

Temperature Instruments

Temperature Instruments

TemSCAN

Temperature Scanner

- Up-to 16 Input Channels
- PT-100 RTD, B, E, J, K, N, R, S, T Thermocouple Inputs Selectable
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 96*96

TemCON-HOTCO

Hot & Cold Difference Temperature Controller

- Two Inputs
- Set Points are with respect to difference of the two inputs
- PT-100 RTD, B, E, J, K, N, R, S, T Thermocouple Inputs Selectable
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 96*96

Temperature Instruments

TemCON-2920

ON-OFF Temperature Controller

- Dual Line Display
- PT-100 RTD, B, E, J, K, N, R, S, T Thermocouple Inputs Selectable
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 96*96

TemCON-2910

ON-OFF Temperature Controller

- Single Line Display
- PT-100 RTD, B, E, J, K, N, R, S, T Thermocouple Inputs Selectable
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 96*96

Temperature Instruments

TemCON mini

ON-OFF Temperature Controller

- Single Line Display
- PT-100 RTD, B, E, J, K, N, R, S, T Thermocouple Inputs Selectable
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 48*96

STTX-102

Programmable Temperature Transmitter

- 12-30 VDC, 2-wire, 4-20 mA
- Universal Input: PT-100 RTD, B, E, J, K, N, R, S, T Thermocouple
- Load 500 Ω at 24 VDC
- Power ON LED Indication
- Internal Cold junction Compensation
- Input selection and Range Adjustment from software
- Free PC Software Provided (Programmer to be purchased)

-

Temperature Sensors

Temperature Sensors

Thermowells

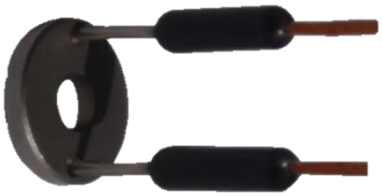
Screw Type

Flange Type

Temperature Sensors

Plain Type

Duplex Washer Type



Head Type

Handheld Type

Washer Type

Bolt Fixed Type

Holder Type

Bolt Loose Type

Level Controllers & Transmitters

Level Controllers

LVCON

Level & Volume Controller

- Horizontal Cylindrical Tank Volume Calculation without chart entry
- 24 VDC Transmitter Supply
- Up-to 4 Relay Outputs (selectable for volume/level)
- LED Indication for Output Relay Status
- RS-485 Communication, MODBUS RTU Protocol
- Panel & Wall Mount
- Flameproof or IP65 available
- Size 96x96x75

CapTx

Capcitance Based Level Transmitter

- Optical Isolation is provided to protect the costly equipment such as PLC or DCS systems from field.
- Teflon Probes for Level Sensing for below 2-meter, Teflon rope type probes for above 2-meter tanks.
- Status LEDs for Power, Normal Operation and High & Low calibration.
- 2 Keys Calibration Procedure for On-Field High & Low calibration.

PROBE TYPE

ROPE TYPE

Automatic Pump Controllers - APC

As the liquids obtained from natural resources like water, diesel, petrol, etc., are very precious in our day to day activities, the optimum utilization of these resources and effective controlling of pumping equipment used in these feeding systems has become a key factor for profitability of the organizations/individuals.

Understanding this fact and as a contribution to save our natural resources, We, at Surya Instruments, have developed a very compact and economical level controller which will monitor the tank level continuously and control the pump/pumps for various applications.

As the product is developed by adopting the latest state-of-art technology, it gives our customer a one time economical investment for enjoying dependability, durability and reliability.

We have designed a Smart & Innovative feature called Pump-Up & Pump-Down:

Pump-Up: the unit switches-On the pump when it receives Low-Level input signal and switches-OFF when it receives High-Level input signal.

Pump-Down: the unit switches-On the pump when it receives High-Level input signal and switches-OFF when it receives Low-Level input signal.

APC Series:

APC-101: Single Tank & Single Pump Controller.

APC-102: Single Tank & Dual Pump Controller (Pump-1 & Pump-2 Alternate Pumping Feature).

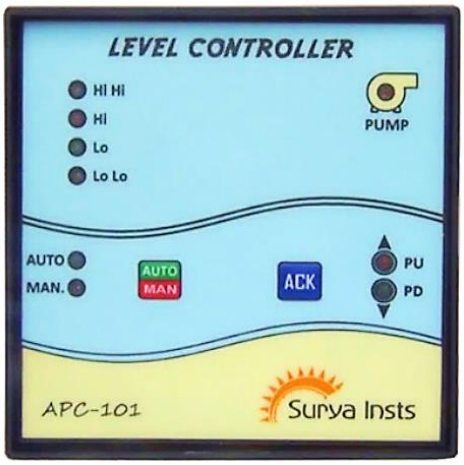
APC-201: Two tanks & Single Pump Controller.

APC-202: Two Tanks & Dual Pump Controller (Pump-1 & Pump-2 Alternate Pumping Feature).

Level Controllers

APC-101:

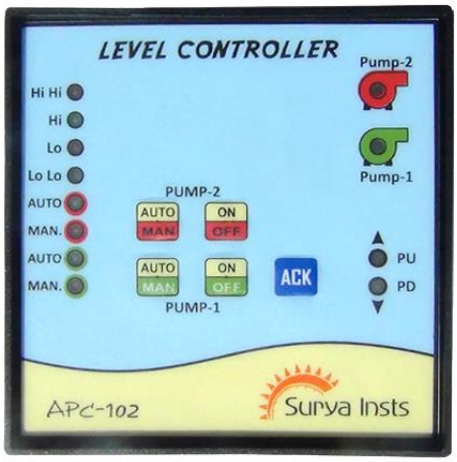
The model APC-101 has four inputs viz. “Very Low, Low, High and Very High Level” to receive from the level sensor. Low and high set points are used normally for controlling the On / Off sequence of the pump respectively, whereas Very Low and Very High set points are used for audio / visual alarm activation to alert the operator.



APC-102:

When the process has two pumps (Pump-1 & Pump-2), it may give rise to any one of the 3 situations as follows:

- Pump-1 is used as the main pump and Pump-2 as stand-by to meet emergency situations.
- Pump-2 is used as the main pump and Pump-1 as stand-by to meet emergency situations.
- Pump-1 & Pump-2 are used alternatively.



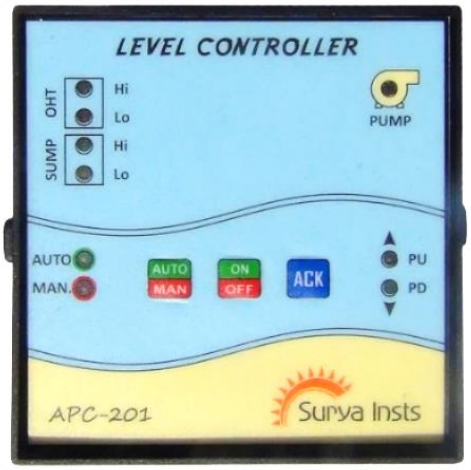
APC-102 has four inputs viz. “Very Low, Low, High and Very High Level” to receive from the level sensor. Low and high input signals are used for controlling the pumps. Whereas, Very Low and Very High input signals are used for audio/visual alarm activation to alert the operator.

Any of the above situations can be met by keeping the pumps in Auto mode or Manual mode. All combinations are made possible for the application and the customer can be assured of the effective operation of the process.

Level Controllers

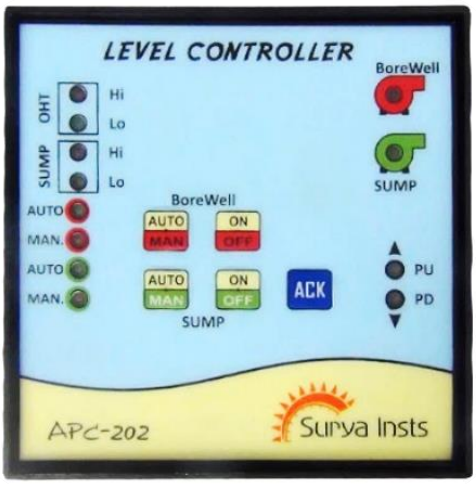
APC-201:

It has four inputs viz. “OHT Low & High, Sump Low & High” for monitoring each tank separately and sending the status to the controller. OHT Low & high are used for controlling the On/Off sequence of the pump, whereas, Sump Low & High are used for audio/visual alarm activation to alert the operator and to trip the pump in case of Sump Low.



APC-202:

The APC-202 incorporates both the features of APC-102 & APC-201, which ensures Sump Low & High input signals are monitored in order to provide audio/visual alarm activation to alert the operator and to trip the pump in case of Sump Low.



Electrical Meters

Electrical Meters

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ViMR e-mtr

Voltage & Current Monitor Relay

- AC or DC types available
- Over Voltage & Under Voltage Relay Outputs
- Current Alarm & Current Trip Relay Outputs
- LED Indication for Output Status
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Panel & Wall Mount
- Size 96x96x75

VMR e-mtr

Voltage Monitor Relay

- AC or DC types available
- Over Voltage & Under Voltage Relay Outputs
- LED Indication for Output Status
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Panel & Wall Mount
- Size 96x96x75

Electrical Meters

AMR e-mtr

Current Monitor Relay

- AC or DC types available
- High & Low Alarm Relay Outputs
- LED Indication for Output Status
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Panel & Wall Mount
- Size 96x96x75

VAF-3P e-mtr

Voltage, Current, Frequency for 3 Phase AC Mains

- R, Y, B Simultaneous Indication
- Scroll Time Adjustment
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 96x96x75

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VAF-1P e-mtr

Voltage, Current, Frequency for 1 Phase AC Mains

- V, I and F Simultaneous Indication
- Scroll Time Adjustment
- Up-to 4 Relay/SSR Outputs
- RS-485 Communication, MODBUS RTU Protocol
- Retransmission Output
- Size 96x96x75

Diesel Generator Instruments

Diesel Generator Instruments

AMF: EXCEL-101

Automatic Transfer on Mains Failure

- Field Programmable Digital Timers
- Field Selectable STOP Solenoid Function
- Supports Low Voltage Operation during Cranking
- Auto & Manual Operation
- Wide Range of Fault Detection
- Size 96x96x75

AMF+: EXCEL-102

Automatic Transfer on Mains Failure with Mains Failure Detection

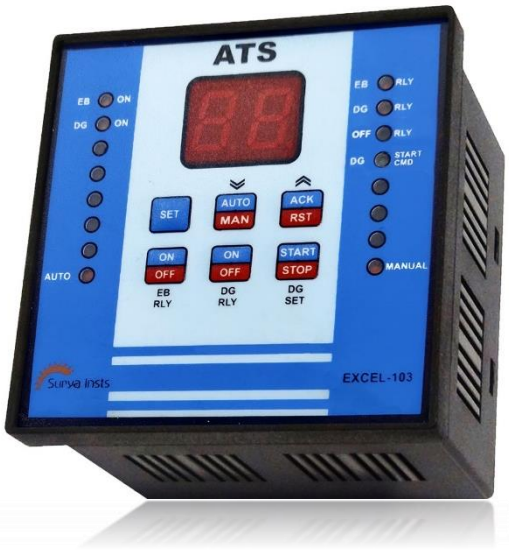
- **Phase Failure Detection – 1 Phase/3 Phase**
- Supports Low Voltage Operation during Cranking
- Field Programmable Digital Timers
- Field Selectable STOP Solenoid Function
- Generator Fault Detection
- Auto & Manual Operation
- Size 96x96x75

Diesel Generator Instruments

ATS: EXCEL-103

Automatic Transfer Switch

- Field Programmable Digital Timers
- Field Selectable Switching Function for Contactor/Motorised Change-Over Switch
- 3 Phase/1 Phase Failure Detection
- Auto & Manual Operation
- Simple and Easy to use
- Size 96x96x75



FpCON

Fire Pump Controller

- Microcontroller Based Unit
- Field Programmable Digital Timers
- Field Selectable STOP Solenoid Function
- Auto & Manual Operation
- Wide Range of Fault Detection
- Auto & Manual Operation
- Size 96x96x75

Hooters

Hooters

ABUZ-1S (85dB)

Alarm Buzzer – 1 Input

- 4-Tones & Silence Key

Power-ON type:

- Alarm is triggered when it is powered.
- Power supply is the input to the buzzer.

Input-ON type:

- Power should be continuously supplied. Input is potential free contact. Alarm is triggered when input is closed.

ABUZ-2S (85dB)

Alarm Buzzer – 2 Input

- 4-Tones & Silence Key
- Inputs are Potential Free Contacts
- Alarm is triggered when any of the inputs are closed & the respective indicating LED glows along with the Hooter Sound Alarm.

ABUZ-3S (85dB)

Alarm Buzzer – 3 Input

- 4-Tones & Silence Key
- Inputs are Potential Free Contacts
- Alarm is triggered when any of the inputs are closed & the respective indicating LED glows along with the Hooter Sound Alarm.

*SILENCE KEY: When any input is closed, the alarm is triggered. This produces Hooter Sound Alarm & also causes the LED of the corresponding input to blink simultaneously. If the operator wishes to silence the sound alarm, the silence key can be pressed. This silences the sound alarm, however the LED keeps glowing as long as the input causing the alarm is present. Once the input is no longer present, the Buzzer automatically resets & is ready for the next alarm.

Hooters

HiBUZ-1S (100dB)

Alarm Buzzer – 1 Input

- 4-Tones & *Silence Key

Power-ON type:

- Alarm is triggered when it is powered.
- Power supply is the input to the buzzer.

Input-ON type:

- Power should be continuously supplied. Input is potential free contact. Alarm is triggered when input is closed.

HiBUZ-2S (100dB)

Alarm Buzzer – 2 Input

- 4-Tones & *Silence Key
- Inputs are Potential Free Contacts
- Alarm is triggered when any of the inputs are closed & the respective indicating LED glows along with the Hooter Sound Alarm.

HiBUZ-3S (100dB)

Alarm Buzzer – 3 Input

- 4-Tones & *Silence Key
- Inputs are Potential Free Contacts
- Alarm is triggered when any of the inputs are closed & the respective indicating LED glows along with the Hooter Sound Alarm.

*SILENCE KEY: When any input is closed, the alarm is triggered. This produces Hooter Sound Alarm & also causes the LED of the corresponding input to blink simultaneously. If the operator wishes to silence the sound alarm, the silence key can be pressed. This silences the sound alarm, however the LED keeps glowing as long as the input causing the alarm is present. Once the input is no longer present, the Buzzer automatically resets & is ready for the next alarm.

Hooters

ABUZ-M

Mains Failure & Resume Hooter

- Panel Houses Battery & Battery Charger.
- Battery Specifications: 6 V, 4.5 AH
- Indicates the status of the mains power and provides alarms for power failure & power resume.

Equipped with 2 Alarms:

- Mains Present: Alarm on Power Resume
- Mains Fail: Alarm on Power Failure

Battery Back-Up

- Panel Houses Battery & Battery Charger.
- Battery Specifications: 6 V, 4.5 AH
- Any of our buzzers- ABUZ-1S/2S/3S or HBUZ-1S/2S/3S can be provided with battery back-up for critical applications where buzzer should be functional even when there is a Power Failure.

Hooters

ABUZ-IP65

IP65 Hooter

- Silence Key

Power-ON type:

- Alarm is triggered when it is powered.
- Power supply is the input to the buzzer.

Input-ON type:

- Power should be continuously supplied. Input is potential free contact. Alarm is triggered when input is closed.

ABUZ-FLP

Flameproof Hooter

Power-ON type:

- Alarm is triggered when it is powered.
- Power supply is the input to the buzzer.

Input-ON type:

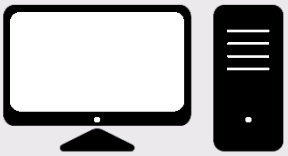
- Power should be continuously supplied. Input is potential free contact. Alarm is triggered when input is closed.

Hooters

Alarm Buzzers – RS-485 Triggered

RS-485 INTERFACE
Any of our Alarm Buzzers can be triggered from PC through RS-485 Interface, MODBUS RTU Protocol.

RS-485



PC

USB

RS-485 to USB Converter

Alarm Buzzers – Wi-Fi Triggered

PC

Wi-Fi INTERFACE
Any of our Alarm Buzzers with Wi-Fi connectivity can be triggered from PC or Mobile using our App.

MOBILE

Hooters

VBUZ-1S

Voice Hooter

- Recording & Playback
- Built-in Microphone
- Up-to 8 seconds
- 80 dB
- Repeat & One Time Play
- Size 96x96x75

VOLUME CONTROL

- Any of our buzzers- ABUZ-1S/2S/3S or HBUZ-1S/2S/3S can be provided with volume control feature for adjusting the sound to the desired intensity.

Hooters

FLASHER

- Alarm Buzzer with Flasher for Visual Indication
- Any of our buzzers- ABUZ-1S/2S/3S or HBUZ-1S/2S/3S can be provided with a flasher
- The following colours for the flasher are available: RED, ORANGE, GREEN, BLUE

WALL MOUNTING PANEL BOX

- Alarm Buzzer with Panel Box
- Any of our buzzers- ABUZ-1S/2S/3S or HBUZ-1S/2S/3S can be provided with a Panel Box for easy wall mounting installation

Jumbo Displays

Jumbo Displays

JBD2
Jumbo Display 2”

JBD4
Jumbo Display 4”

JBD8
Jumbo Display 8”