

# FALCON - 1600



## Features

- ☞ Ruggedised, State-of-the-art Micro-controller based system.
- ☞ Horizontal or Vertical version as per your panel design
- ☞ Universal input mA / RTD / Volt / Thermocouples for each channel (factory set).
- ☞ Control Output for each channel, indication on front.
- ☞ User configurable span for mA / Volt inputs.
- ☞ Communication on isolated RS485 / Ethernet port with MODBUS / MODBUS TCP protocol.
- ☞ Ideal for SCADA applications.
- ☞ Flameproof enclosure - Optional.

## Application

**Falcon 1600** is a highly versatile and economical module having Analog Inputs with RS485 / Ethernet port for online communication. It is an ideal solution for SCADA applications in Process Industries. Falcon 1600 can be used along with PLC's thus reducing project cost substantially. Analog input to Falcon can be mA / RTD (PT100, 3 wire) / Thermocouple or Voltage different for each channel.

The unit has seven segment LED display for displaying process value, thus providing local indication to the operator. The Alarm / Control status of each channel is indicated on front LEDs.

Serial port RS485 - 2 wire with Modbus RTU protocol or Ethernet with MODBUS TCP is provided. This feature makes Falcon compatible with all the standard SCADA software and PLC's used in Industry

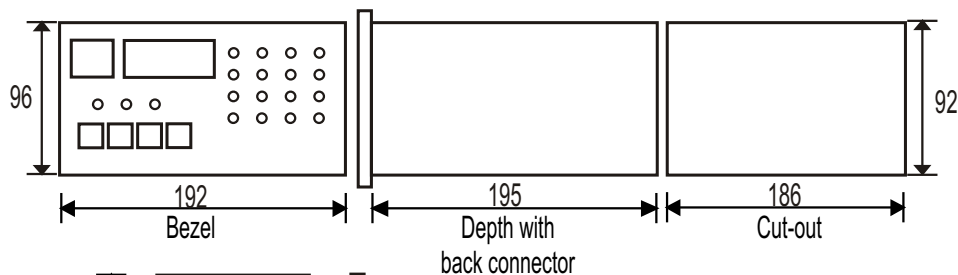
### Optional -

- Internal relay output 1 or 2 for common alarm.
- External relay output 8 or 16 for Individual alarm / Alarm & Trip / Control.
- Ethernet communication facility with MODBUS TCP protocol.

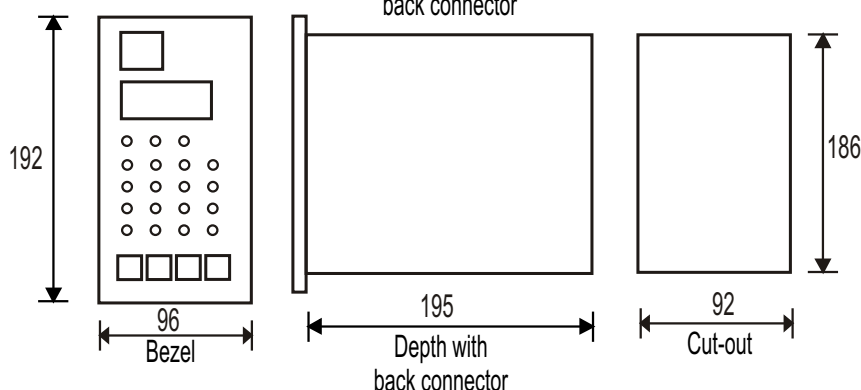
## Dimensional drawing

All dimensions are in mm

### Horizontal Unit



### Vertical Unit



# FALCON - 1600

## TECHNICAL SPECIFICATIONS

<b>Input</b>	RTD Pt100 (3wire), 0 - 20 mADC, 4-20mA, Thermocouples J,K,R,S,T,B,E 0-1VDC and 0-4VDC for each channel. (Combination factory set)								
<b>Channels</b>	Max 16 Channels in step of 4 Channels.								
<b>Display</b>	7 Segment RED LED, 2 - Digit Channel no. 5 - Digit Process Value with sign.								
<b>Keyboard</b>	4 Keys tactile keyboard.								
<b>Resolution</b>	12 Bit. RTD PT100- 0.1°C T/C J,K,R,S,B,E- 1°C;T type 0.1°C; Volt 0.001; mA- 0.01								
<b>Scan Rate</b>	125 msec per channel (16 channels in 2 seconds)								
<b>Accuracy</b>	± 0.5% of FSR ±1 LSD, ± 1°C for CJC								
<b>Scaling</b>	Scaling for mA and Voltage inputs through keyboard.								
<b>Display Update Rate</b>	Display Update rate and Display scroll mode programable through keyboard.								
<b>LED Indications</b>	LED indications for Control output status and Serial communication.								
<b>Serial Port</b>	Optically isolated RS485 - 2 wire port with MODBUS RTU protocol. Ethernet port optional.								
<b>Alarm Output ( Optional )</b>	1 or 2 common alarm relay output, contact rating 230 VAC,1 Amp. Confirm relay logic at the time of ordering.								
<b>Control Output ( Optional )</b>	8 or 16 nos external relay outputs used as a) 1 Relay per channel with Alarm / Control logic b) 2 Relay per channel (max 8 channels) with alarm-trip logic. External relays can be operated from SCADA also. Confirm relay logic at the time of ordering.								
<b>Supply</b>	230 VAC / 110 VAC ±10 %, 50 Hz								
<b>Connections</b>	Screw type connectors on back panel. Male / Female connection for supply & RS485.								
<b>Cabinet</b>	Panel mounting instrument as per dimensions given below: <table border="0"> <tr> <td><b>Horizontal Unit</b></td> <td><b>Vertical Unit</b></td> </tr> <tr> <td>Bezel: 96 x 192mm (H x W)</td> <td>Bezel: 192 x 96mm (H x W)</td> </tr> <tr> <td>Depth: 195 mm</td> <td>Depth: 195 mm</td> </tr> <tr> <td>Cutout: 92 x 186 mm (H x W)</td> <td>Cutout: 186 x 92 mm (H x W)</td> </tr> </table>	<b>Horizontal Unit</b>	<b>Vertical Unit</b>	Bezel: 96 x 192mm (H x W)	Bezel: 192 x 96mm (H x W)	Depth: 195 mm	Depth: 195 mm	Cutout: 92 x 186 mm (H x W)	Cutout: 186 x 92 mm (H x W)
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## ORDERING INFORMATION

**Falcon-1600- Tx- Sx- Nxx- IAx- IBx- ICx- IDx- Cx- Px- Oxx- Ex**

**T = Type;** 0= Horizontal; 1= Vertical

**S = Supply;** 0= 230VAC; 1= 110VAC

**N = No.of.channels;** 04=4; 08=8; 12=12; 16=16

**IA = Input ch.1-4; \***

**IB = Input ch.5-8; \***

**IC = Input ch.9-12; \***

**ID = Input ch.13-16; \***

**C = Communication;** 0= RS485; 1= Ethernet

**P = Protocol;** 0= MODBUS RTU; 1= MODBUS TCP; 3= ASCII

**O = Relay output;** 01= 1; 02= 2; 08= 8; 16= 16

**E = Enclosure;** 0= Panel Mounting; 1= Flameproof

\* Pt100 ; 0-20 mA; 4 - 20 mA; DCVolt - 1V, 4V; TC J, K, R, S, T, B, E

**Note :** Due to continuous development specifications may change without prior notice



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