## MODEL 831-MULTIPLE INPUT SIGNAL ISOLATOR

## Technical Catalogue

ntroduction
Pantech's Multiple Input Signal Isolator, model 831 is an ideal instrument for accepting various types of inputs from field and feed the converted signals to a control room instruments, thus accepting upto three standard inputs at a time. Input to the Isolator can be from thermocouple, RTD, two-wire transmitter, non two-wire transmitter, mV or a voltage source. The instrument accepts upto three inputs in any combination and range, and provides corresponding isolated outputs of $4-$ $20 \mathrm{~mA} \mathrm{DC/} 1-5 \mathrm{~V}$ DC or like. All the three inputs are isolated with each other and outputs. Inputs are isolated from the outputs. And all the outputs are isolated from each other.
Low drift precession components are used for long term accuracy of the instruments. All instruments undergo a burn-in for better reliability. The instrument can be mounted on a wall or back of panel, its terminations are provided in front.

( $3 \mathrm{i} / \mathrm{p}, 3 \mathrm{o} / \mathrm{p}$, Wall / panel mount )

## Specifications

## Inputs per channel (Max. 3 nos.)

1)Current, $4-20 \mathrm{~mA} \mathrm{DC/} 0-20 \mathrm{~mA}$ DC 0-1 Amp. / 0-5 Amp. / others
2)Voltage, $1-5 \mathrm{VDC} / 0-10 \mathrm{~V} \mathrm{DC} /$ others
3)RTD Pt 100 / Resistances
4)T/C Type J, K, R, S, T
5)0-1 / 0-5 Ampere
6)Specials ( on factory confirmations )

## Input impedance

200 K for Voltage, mV \& T/C inputs
250 for current inputs
Cold junction compensation
Built in for T/C input.
Corresponding outputs per channel (Max. 3 nos.)
1)Isolated / Non Isolated 4-20 mA DC
2)Isolated / Non Isolated 0-10 V DC
3)Other types on factory confirmations

Isolation type
Opto and Galvanic .. @ 1500 V DC minimum
Analog output load capability
800 maximum
Output fine tune
By on PCB potentiometers

## Output accuracy

+/- $0.1 \%$ of span

## Transmitter power

3*24 V DC for current inputs

## Power supply

1) 24 V DC
2) $110 \mathrm{~V} \mathrm{AC}, 50 \mathrm{~Hz},+/-10 \%$
3) $230 \mathrm{~V} \mathrm{AC}, 50 \mathrm{~Hz},+/-10 \%$
4) $90-270 \mathrm{~V} \mathrm{AC} \mathrm{-} \mathrm{SMPS}$
1)Specials on factory confirmations

## Power consumption

6 VA max.
Ambient temperature $0-50 \mathrm{C}$.

## Storage temperature

$0-70 \mathrm{C}$.

## Humidity

90\% RH (non-condensing)

## Enclosures

Weatherproof Panel mounted
Field mounted - WP/IP65/Flameproof

## Mounting

Panel / Wall / Field / Dinrail / Eurocard
-Following table describes the availability of several models with the company right now. A general preview is only presented to the user. The dimensional and display sizes are the relational virtues of each other and hence the user is always requested to clarify the specifications of instrument with the factory prior to placement of the order.
$\bullet$ On confirmation with factory, changes of all types in all specifications is possible.

| Model | Mounting \& Dimension in mm (H * W * D) |  | Inputs | Power | Type of o/p | No. of i/p and o/p |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 831 | Panel | 96*96*150 | All | All | All | Max. 3 |
|  | DIN | 70*100*110 | All | All | All | Max. 2 |
|  | Wall | 195*70*115 | All | All | All | Max. 3 |
|  | Euro | $130 * 20 * 120$ | All | 24 V DC | All | Max. 2 |

Ordering Information for each of channel
Please confirm the availability of the model by cross checking the table mentioned on the backside.

Basic Model No. (Specified by first 3 digits) 831 -Multiple Input Signal Isolator

Enclosure / Mounting
(Specified by letter following 3 digits)
P-Weatherproof - Panel
R-Weatherproof -Din Rail
E-Weatherproof - Euro card
W-Weatherproof - Wall
F-Flame proof - Wall / Field
I-IP65 grades - Wall / Field
S-Specials
Input 1 (Specified by first digit after the letter)
1-4-20 mA DC
2-1 - 5 V DC 3-RTD Pt. 100
4-T/C J type
5-T/C K type
6-T/C R type
7-T/C S type
8- T/C T type
S- Specials / Others
Input 2 (Specified by second digit after the letter)
1-4 - 20 mADC
2-1 - 5 V DC
3-RTD Pt. 100
4-T/C J type
5-T/C K type
6-T/C R type
7-T/C S type
8- T/C T type
S- Specials / Others

Input 3 (Specified by third digit after the letter)
1-4 - 20 mA DC
2-1 - 5 V DC
3-RTD Pt. 100
4-T/C J type
5-T/C K type
6-T/C R type
7-T/C S type
8- T/C T type
S- Special
0-None
NOTE: Please specify the i/p ranges for T/C \& RTD.
Power option (Specified by the fourth digit)
1-24 V DC
2-110 V AC
3-230 V AC
4-90-270 V AC
S-Specials
Type of output option (Specified by the fifth digit) ( No. of outputs = No. of inputs )
1-4-20 mA DC
2-0 - 20 mADC
3-1 - 5 V DC
4-0 - 10 V DC
5-Special
Option ( Specified by the last digit )
0-None

## PARTECH InSTRUMERTS

