



## Technical Catalogue

### MODEL 838-COMPUTATION MODULE

#### Introduction

Pantech's Computation Module, model 838 is designed to accept upto three inputs and provide a computed output of 4 – 20 mA DC capable of driving a load of upto 800 as per the equation  $OUTPUT - (A + BX) * (C + DY) / (E + FZ)$  where A, B, C, D, E & F are constants and X, Y & Z are three inputs. The module accepts 4 – 20 mA DC signal from two wire and not two wire transmitters. The transmitter power supply to feed upto three two wire transmitters is available as option. The module also accepts 1 – 5 V DC signals. The module is available in a wall-mounted housing. The modules can be powered from 110V AC or 230V AC or 24 V DC power sources. Power supply is isolated from rest of the electronics. The modules incorporate low drift operational amplifiers and industrial grade components. Burn in of each module ensures long trouble free operation.

#### Specifications

##### Inputs \* 3

- 1)Current, 4 – 20 mA DC/ 0 – 20 mA DC
- 2)Voltage, 1 – 5 V DC/ 0 – 10 V DC
- 3)Specials

##### Input impedance

200 K for voltage inputs  
250 for current inputs

##### Analog output

- 1)Isolated 4 – 20 mA DC (Computed)
- 2)Non isolated 4 – 20 mA DC (Computed)
- 3)Specials

##### Analog output load capability

800 maximum with 4-20 mA type

##### Output accuracy

+/- 0.15% of span

##### Transmitter powers \* 3

24 V DC for current inputs

##### Power supply

- 1)24 V DC
- 1)110 V AC, 50 Hz, +/- 10%
- 2)230 V AC, 50 Hz, +/- 10%
- 3)90-270 V AC - SMPS
- 4)Specials

##### Power consumption

4 VA max.

##### Ambient temperature

0 – 50 C.

##### Storage temperature

0 – 70 C.

##### Humidity

90% RH (non-condensing)

##### Enclosures

Weatherproof, Flameproof and all other standard types

##### Mounting

Panel / Wall / Field / Dinrail / Eurocard

##### Dimensions

Standard and Specials

#### Ordering Information

Please confirm the availability of the model by cross checking the table mentioned on the backside.

##### Basic Model No.

(Specified by first 3 digits)838 -Computation Module

##### Mounting (Specified by letter following 3 digits)

W-Wall mounted  
R-Din rail type  
P-Panel type  
F-Field  
S-Others / Specials

##### Input (Specified by first digit following the letter)

1-4 – 20 mA DC  
2-0 – 20 mA DC  
3-1 – 5 V DC  
4-0 – 10 V DC  
S-Specials

##### Power Option (Specified by the second digit)

1-24 V DC  
2-110 V AC  
3-230 V AC  
4-90-270 V AC – SMPS  
5-Specials

##### Analog O/P Option (Specified by the third digit)

1-4-20 mA DC isolated  
2-4-20 mA DC non-isolated  
S-Specials

##### No. of O/P Option (Specified by the fourth digit)

1-1no. of output  
2-2no. of output



( Din rail type )



( Din rail type )



**PANTECH INSTRUMENTS**



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