



Technical Catalogue

MODEL 836 - SQUARE ROOT EXTRACTORS

Introduction

Pantech's Square Root Extractor Module, model 836 is designed to provide linear output for the non-linear flow / equivalent type signal. It provides an output of 4 – 20 mA DC capable of driving a load of upto 800. The input-output relationship can be defined as $OUTPUT = \sqrt{INPUT}$.

The module accepts 4 – 20 mA DC signal from two wire and non two wire transmitters. The module also accepts 1 – 5 V DC signals. Output is a square root of the input. The instrument has a facility of TPS 24 V DC to power up two wire transmitters. In general version, the instrument is available in DIN RAIL version.

The module is also available in Euro card format of 3U height and alternatively in a wall mounted housing. 20 Euro card modules can be housed in a 19" Euro card cage. The Euro card modules can be powered from 24V DC power supply whereas wall mounted modules can be powered from 110V AC or 230V AC too. 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

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

Input impedance

200 K for voltage inputs
250 for current inputs

Analog output – Maximum 4 possible

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

Analog output load capability

800 maximum with 4-20 mA type

Output accuracy

+/- 0.15% of span

Transmitter powers

24 V DC for current inputs

Power supply

- 1) 24 V DC
- 2) 110 V AC, 50 Hz, +/- 10%
- 3) 230 V AC, 50 Hz, +/- 10%
- 4) 90-270 V AC - SMPS
- 5) 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

| Model | Mounting & Dimension in mm (H * W * D) | | Inputs | Power | Analog output 4–20 mA DC | |
|-------|--|------------|--------|---------|--------------------------|--------------|
| | | | | | Isolated | Non isolated |
| 836 | Euro | 130*20*170 | All | 24 V DC | Yes | Yes |
| | Wall | 195*70*115 | All | All | Yes | Yes |
| | Din | 70*100*110 | All | All | Yes | Yes |



(Din rail type)



(Din rail type)



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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) 836 836
Sq. root Extractor Module

Mounting (Specified by letter following 3 digits)
E-Euro card
W-Wall mounted
R-Din rail
F-Field
S-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
S-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)
1-1 nos. of output
2-2 nos. of output
3-3 nos. of output
4-4 nos. of output



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