

## INTERNAL CTs

### DESCRIPTION

The model ESP1 Watthour meter is used to measure energy at the input to electrical load centers or branch circuits. The unit displays energy (kWh), is DIN-rail mounted, and has optional indoor and outdoor enclosures.

The ESP1 includes integrated current transformers (CTs), all self-contained in a compact meter enclosure. Wires to be metered pass through the meter enclosure and the internal CTs. Integral insulation-piercing screws make the meter voltage connection to the wires passing through the meter enclosure. Included centering sleeves automatically align voltage wires for best accuracy.

### FEATURES

- Easy-to-install DIN-rail package
- integrated CTs
- Indoor or outdoor package options
- Easy “no-cut” voltage wire installation

### APPLICATIONS

- Input to electrical load centers
- Branch circuits



**18 MONTH WARRANTY**



## MODEL SELECTION

SYSTEM CONFIGURATION	VOLTAGE INPUT (Vac)	MODEL ESP1-
1-Phase 2-Wire	120	15IDS
1-Phase 3-Wire	120/240	25IDS

### ENCLOSURE OPTIONS

DESCRIPTION	ENCLOSURE MODEL
Indoor, Surface Mount	ENC-ISM
Indoor, Flange Mount	ENC-IFM
Outdoor, Surface Mount	ENC-OSM

### ORDERING INFORMATION

Example: 1Φ3W Watthour Meter with 120/240Vac and 100Aac Input, with internal CTs in Outdoor Surface-mount Enclosure

**ESP1-25IDS with ENC-OSM**

## SPECIFICATIONS

### INPUT

Current Range  
 ESP1-15IDS.....0 - 50Aac  
 ESP1-25IDS.....0 - 100Aac  
 Over-range without damage.....125% F.S.  
 Voltage..... Nominal by Model..... 120, 240V<sub>L-L</sub>  
 Operating Range.....Nominal ±30%  
 Power Factor..... any  
 Frequency Range..... 47-63Hz  
 Power Consumption..... <1VA

### DIELECTRIC TEST

Input/Output/Case..... 2250Vac

### OUTPUT

Pulse Value..... 1.25Wh/Pulse, polarity sensitive  
 Contact Closure (Low-impedance)..... low<3Ω, high>1MΩ  
 Duration..... 50% duty cycle or 80ms, whichever is greater

ACCURACY..... Class 1.0

### DISPLAYED VALUES

Energy (kWh)..... Resolution XXXXX.XX

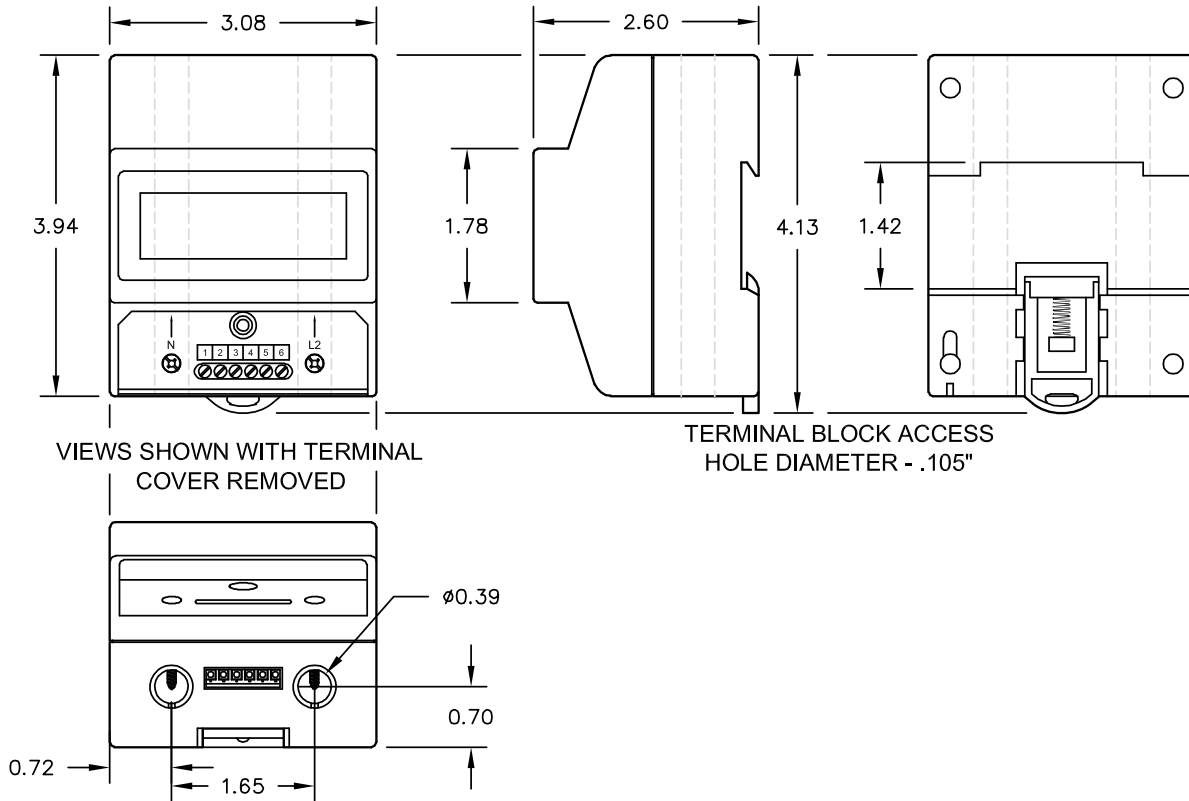
### PHYSICAL & ENVIRONMENTAL

Operating Range.....-20° to 60°C  
 Storage Range.....-30° to 70°C  
 Operating Humidity..... 0-85% non-condensing  
 Weight.....11.3 oz  
 Termination (Screw Compression).....20-14 AWG  
 Conductor Window (12-2 AWG).....0.37 in. dia.

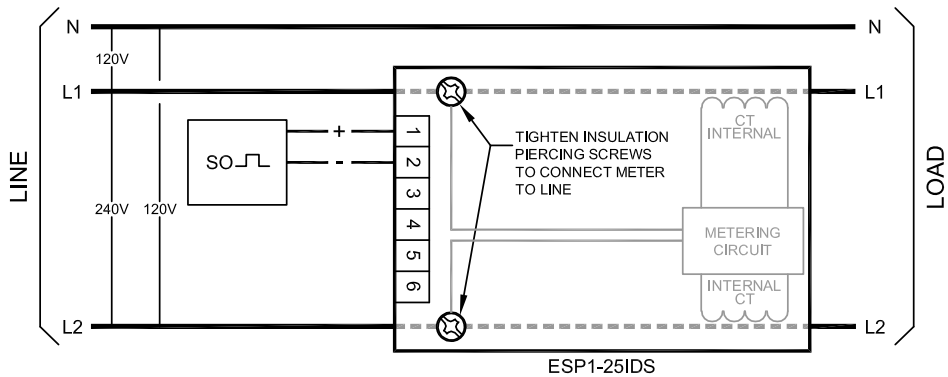
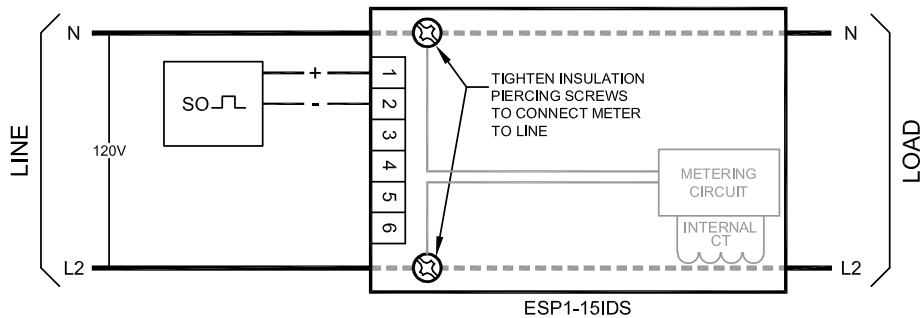
*NOTE: insulation-piercing screws are recommended for use on stranded wire only.*

Enclosure Material.....ABS

**CASE DIMENSIONS**



**CONNECTION DIAGRAMS**



Dwg# 0902-00846-B