

## IAC Series

### AC Input Module

 File E29244

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

#### Features

- Industry standard package and pin-out.
- Color coded by function.
- 4000V rms optical isolation.
- High immunity to false operation.
- Series compatible.
- Compatible with 2IO series mounting boards.

#### Engineering Data

**Switch Form:** 1 Form A (SPST-NO)

**Duty:** Continuous.

**Operating Temperature:** -30°C to +80°C.

**Storage Temperature:** -30°C to 100°C.

**Potting Compound Flammability:** UL94V-0.

**Approximate Weight:** 1.38 oz. (35g).

#### Ordering Information

Typical Part Number >

**IAC**

**-5**

**A**

**1. Basic Series:** IAC = AC input module - yellow case

**2. Logic Voltage:** 5 = 5VDC  
15 = 15VDC  
24 = 24VDC

**3. Input:** Blank = 120VAC input (90-140VAC) \*\*  
A = 240VAC input (180-280VAC) \*\*  
E = 18-36VAC input \*\*

\*\* Is not polarity sensitive.

**Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.**

IAC-5  
IAC-5A  
IAC-5E  
IAC-15  
IAC-24

#### Input Specifications

| Parameter                          | Conditions       | Units | IAC-5<br>IAC-15 IAC-24 |       |      | IAC-5A<br>IAC-15A IAC-24A |       |      | IAC-5E<br>IAC-15E IAC-24E |           |      |
|------------------------------------|------------------|-------|------------------------|-------|------|---------------------------|-------|------|---------------------------|-----------|------|
|                                    |                  |       | Min.                   | Typ.  | Max. | Min.                      | Typ.  | Max. | Min.                      | Typ.      | Max. |
| Control Voltage Range $V_{IN}$     |                  | VAC   | 90                     | 120   | 140  | 180                       | 240   | 280  | 18                        | 24        | 36   |
| Must Operate Voltage $V_{IN(OP)}$  |                  | VAC   |                        |       | 90   |                           |       | 180  |                           |           | 18   |
| Must Release Voltage $V_{IN(REL)}$ |                  | VAC   | 60                     |       |      | 60                        |       |      | 10                        |           |      |
| Max. Input Current                 | @ $V_{IN}$ =Max. | mA    |                        | 1 - 5 |      |                           | 1 - 8 |      |                           | 0.2 - 2.0 |      |
| Input Resistance                   |                  | Ohms  | Current Regulator      |       |      |                           |       |      |                           |           |      |

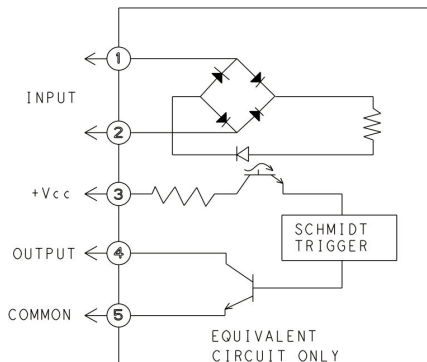
## IAC Series(Continued)

### AC Input Module

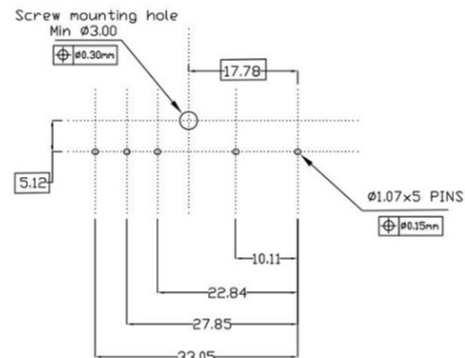
#### Output Specifications (@ +25°C unless otherwise specified)

| Parameter                      | Conditions      | Units | IAC-5                          |        |     | IAC-15                         |         |     | IAC-24                         |         |     |
|--------------------------------|-----------------|-------|--------------------------------|--------|-----|--------------------------------|---------|-----|--------------------------------|---------|-----|
|                                |                 |       | IAC-5A                         | IAC-5E |     | IAC-15A                        | IAC-15E |     | IAC-24A                        | IAC-24E |     |
| Maximum Output Voltage         |                 | VDC   |                                |        | 30  |                                |         | 30  |                                |         | 30  |
| Maximum Output Current         |                 | mADC  |                                |        | 50  |                                |         | 50  |                                |         | 50  |
| Maximum Output Leakage Current | $V_{OUT}=Max.$  | mA    |                                |        | 10  |                                |         | 10  |                                |         | 10  |
| Maximum Output Voltage Drop    | $I_{SINK}=50mA$ | VDC   |                                |        | 0.2 |                                |         | 0.2 |                                |         | 0.2 |
| Logic Supply Voltage $V_{CC}$  |                 | VDC   | 3                              | 5      | 6   | 12                             | 15      | 18  | 20                             | 24      | 30  |
| Logic Supply Current           | $V_{CC}=Max.$   | mADC  |                                |        | 15  |                                |         | 15  |                                |         | 15  |
| Turn-On Time (Nominal)         | $I_{SINK}=25mA$ | ms    |                                |        | 20  |                                |         | 20  |                                |         | 20  |
| Turn-Off Time (Nominal)        | $I_{SINK}=25mA$ | ms    |                                |        | 30  |                                |         | 30  |                                |         | 30  |
| Output Type (Open Collector)   |                 |       | Normally Open( $I_{SINKING}$ ) |        |     | Normally Open( $I_{SINKING}$ ) |         |     | Normally Open( $I_{SINKING}$ ) |         |     |

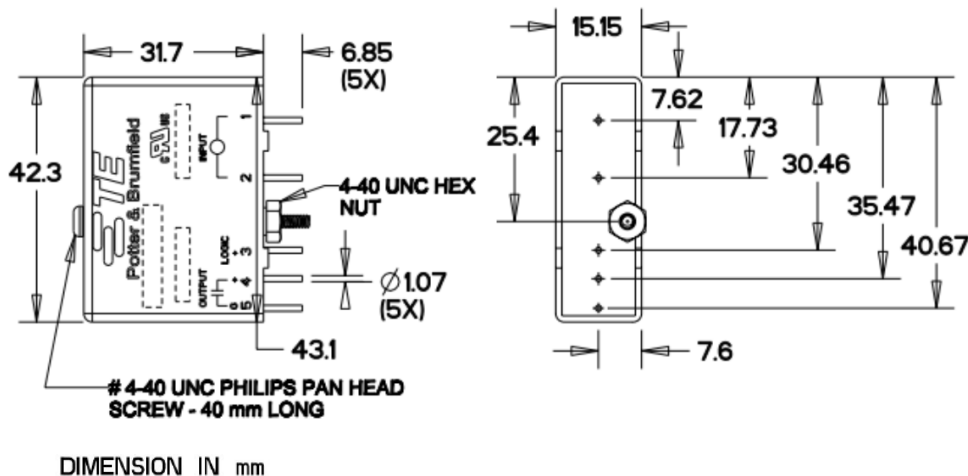
#### IAC Operating Diagram



#### PCB Layout



#### Outline Dimensions



**Note :** Extra nut and washer will be provided on the screw, which will goes under PCB to fix the relay.  
Hex Nut S= 6.35 (width across flats), Thickness = 2.40  
Washer = OD :  $\Phi 4.85 \pm 0.25$ , ID:  $\Phi 2.75 \pm 0.15$ , Thickness = 0.55

# Mouser Electronics

Authorized Distributor

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[IAC-24](#)