

# Class 2 Transformers

Basler's magnetic products serve the world's power conversion needs.



At Basler Electric, our Magnetic Product Group specializes in high-performance Class 2 transformers designed specifically for low-voltage control circuits. Whether you need a standard off-the-shelf solution or a fully custom build, we deliver the quality your application demands.

Why Choose Basler Class 2 Transformers?

- Agency Approved & Ready: Eliminate costly engineering fees and approval delays. Our designs are UL Recognized/Listed (5085-1, 5085-3) and CSA Certified.
- Built for Durability: Systems employ UL-approved 130°C or 155°C insulation to withstand demanding environments.
- Flexible Protection: Choose between Inherently Energy Limited (no secondary protection needed) or Non-Inherently Energy Limited models.
- Customization at Core: Need a unique spec? Our expert engineering team can develop custom designs, including CE certification support.

## Technical Specifications

Feature	Capabilities
Input Voltages	Up to 600V (Common Frequencies)
Output: 12V	5VA to 25VA
Output: 24V	5VA to 75VA
Output: 25V	100VA
Terminations	Flexible mounting and termination options available

# Basler Electric Class 2 Transformers

## Typical Market Applications



**Commercial and Residential HVAC Equipment**



**Irrigation**



**Garage Door Controls**



**Commercial Laundry Equipment**



**Home Appliances**



**Beverage Dispensers**








**Vending Machines**


## General Specifications

### Agency Approvals

All Basler Class 2 transformers shown are either listed or component recognized to UL 5085-1, 5085-3, and CSA certified or UL tested to CAN/CSA C22.2 No. 66-1, No. 66.3.

Basler Electric offers a full range of safety testing in its engineering laboratory. Testing is done in conjunction with Underwriters Laboratories, Inc. under its "Data Acceptance Program". Our capability to provide in-house standards compliance for the United States and Canada presents an immense benefit for our customers, reducing costs and lead time.

STANDARD	USE	MARK	DESCRIPTION
UL 5085-1, 5085-3, & CAN/CSA C22.2, No. 66.1, No. 66.3	For use in the United States and Canada		UL Listed Mark
		<b>AND</b>	
			CSA Certification Mark
		<b>OR</b>	
			UL Recognized Component Mark
		<b>AND</b>	
			CSA Component Mark for Canada and United States by CSA International
<b>OR</b>			
	Recognized Component Mark for Canada and United States by Underwriters Laboratories, Inc.		

Basler Electric can supply custom Class 2 transformers designed to customer specifications with any of the above marks. For the European market, Basler Electric offers CE self-declaration and CE certification (approved by third-party Notified Body) that bears the  mark. For international markets, Basler offers various third-party safety agency marks (TUV, VDE, CCC, etc.).

### Agency Approval File Numbers

ULE23366

CSA LR-16094

### Basic Construction

Split bobbin wound coil utilizing approved materials to meet UL 5085-1, 5085-3 and CAN/CSA C22.2, No. 66.1, No. 66.3.

### Overload Protection

Groups A, B, C, and D are inherently limited type, utilizing no protection to meet UL/CSA requirements. Group E offers three protection options: fast acting, time delay, or resettable circuit breaker.

### Insulation System

All Basler Class 2 transformers employ either a UL approved Class B [130° C] or Class F [155° C] insulation system.

### Termination

Basler's standard lead termination length is 6.5"

[165.1mm], stripped .75" [19.1mm]. To avoid confusion during installation, Basler's standard quick connect terminations are .187" primary, .250" secondary.

### Impregnation

Basler's standard impregnation is spray varnish.

### Mechanical Configurations

Standard terminations are shown in drawings on the following pages. Alternative terminating schemes are represented by dotted lines. Combination lead/quick connect schemes are available. All dimensions are for reference, unless otherwise specified.

### Mounting

Both vertical and horizontal mountings are standard. Horizontal mounting is shown.

### Packaging

Basler's standard packaging is bulk. Individual packaging is optional.

## Basler Electric Class 2 Transformers - Group A - 5/8" Frame Size

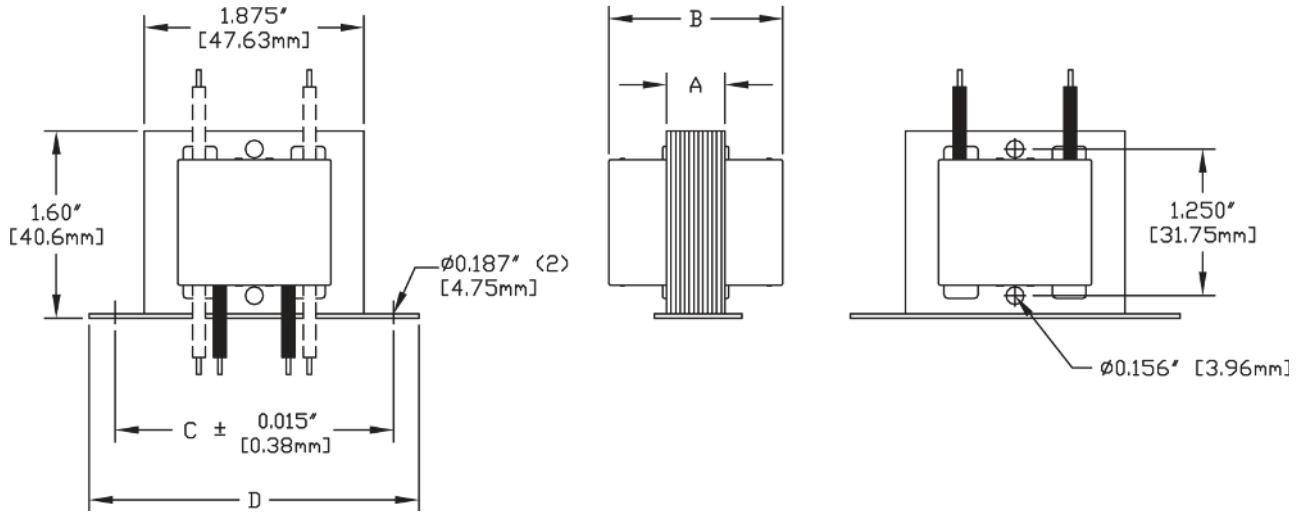
### Voltage Options

VA	Primary Voltage	Frequency [Hz]	Secondary Voltage [RMS]	Dimensions	
				A	B
5	120	60	12	0.375"	1.38"
			24	[9.53mm]	[34.9mm]
10	120	60	12	0.500"	1.50"
			24	[12.7mm]	[38.1mm]
	240	50/60	12	0.625"	1.63"
			24	[15.88mm]	[41.3mm]
15	120	60	12	0.625"	1.63"
			24	[15.88mm]	[41.3mm]
	240	50/60	12	0.750"	1.75"
			24	[19.05mm]	[44.5mm]
20	120	60	12	0.875"	1.88"
			24	[22.23mm]	[47.6mm]
	240	50/60	12	1.000"	2.00"
			24	[25.40mm]	[50.8mm]
25	120	60	24	1.125"	2.13"
	240	50/60	24	[28.58mm]	[54.0mm]
				1.250"	2.25"
				[31.75mm]	[57.2mm]

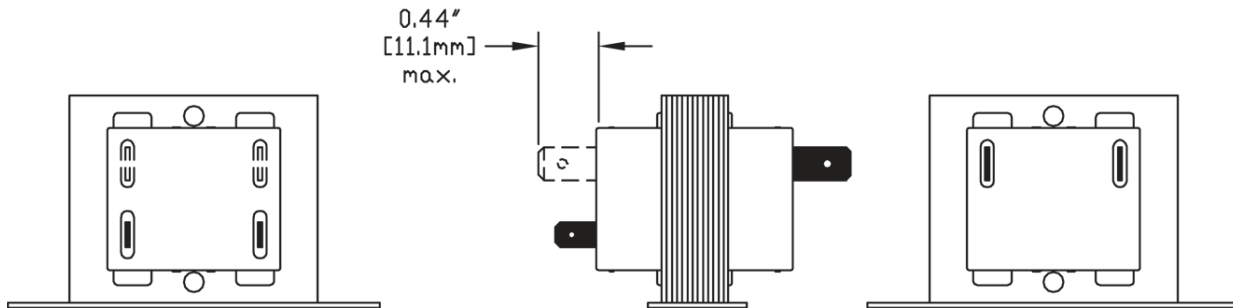
### Mounting Options

Option	Dim. C	Dim. D
1	2.375" [60.33mm]	2.812" [71.42mm]
2	2.812" [71.42mm]	3.250" [82.55mm]
3	No plate	No plate

## Leaded Termination Options



## Quick Connect Termination Options



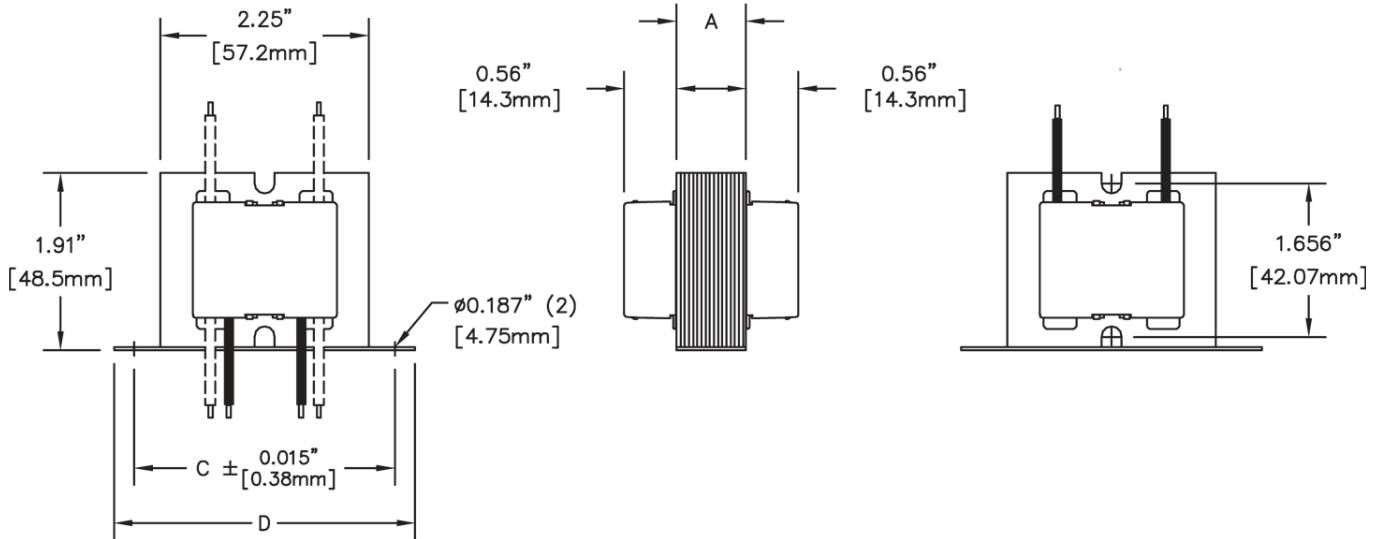
# Basler Electric Class 2 Transformers - Group B - 3/4" Frame Size

## Voltage Options

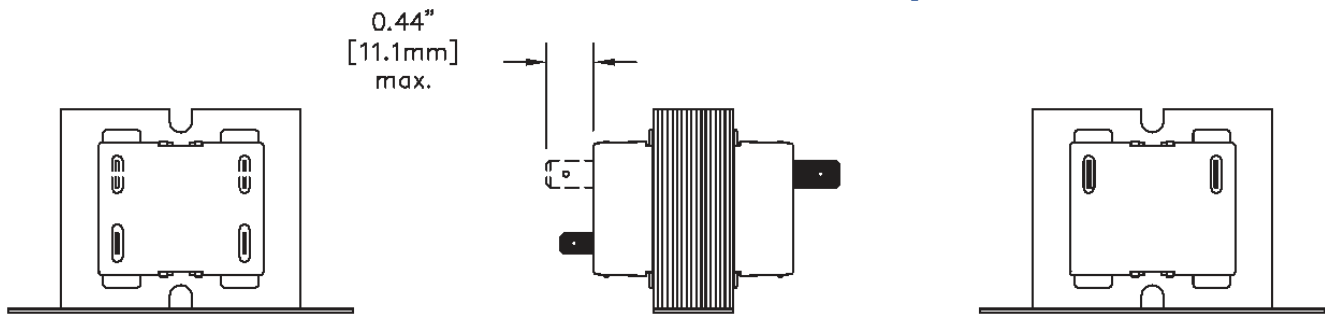
VA	Primary Voltage	Frequency (Hz)	Secondary Voltage (RMS)	Dim. A	Notes
10	120	50/60	12	0.500"	
			24	[12.70mm]	
	240	50/60	12	0.500"	
			24	[12.70mm]	
15	120	50/60	12	0.500"	
			24	[12.70mm]	
	240	50/60	12	0.500"	
			24	[12.70mm]	
20	120	50/60	12	0.625"	
			24	[15.87mm]	
	208/240	50/60	12	0.625"	
			24	[15.87mm]	
	240	50/60	12	0.625"	
			24	[15.87mm]	
25	120	50/60	12	0.875"	
			24	[22.25mm]	
	208/240	50/60	12	0.875"	
			24	[22.25mm]	
	240	50/60	12	0.875"	
			24	[22.25mm]	
30	120	60*	24	0.750"	
	208/240	60*	24	1.000"	Available only with opposite side termination
	240	60*	24	0.750"	
	277	60	24	1.000"	Quick connect termination option only available on opposite sides
35	120	50/60	24	1.125"	
	208/240	50/60	24	1.125"	Available only with opposite side termination
	240	50/60	24	1.125"	
40	120	60*	24	1.000"	
	120	50/60	24CT	1.250"	Available only with opposite side termination
	208/240	60*	24	1.000"	Available only with opposite side termination
	240	60*	24	1.000"	
	460	50/60	24	1.250"	Quick connect termination option only available on opposite sides
45	120	50/60	24	1.375"	
	240	50/60	24	1.375"	
	277	50/60	24	1.375"	Quick connect termination option only available on opposite sides
	480	50/60	24	1.375"	Quick connect termination option only available on opposite sides
50	120	60*	24	1.250"	
	208/240	60*	24	1.500"	Available only with opposite side termination
	240	50/60	24	1.250"	
	277	50/60	24	1.375"	Available only with opposite side termination
	346	50/60	24	1.375"	Available only with opposite side termination
	400	50/60	24	1.375"	Available only with opposite side termination
	480	50/60	24	1.375"	Available only with opposite side termination
	575	50/60	24	1.375"	Available only with opposite side termination

\* Denotes 50/60 Hz also available. Add 0.250" [6.35mm] to dimension A.

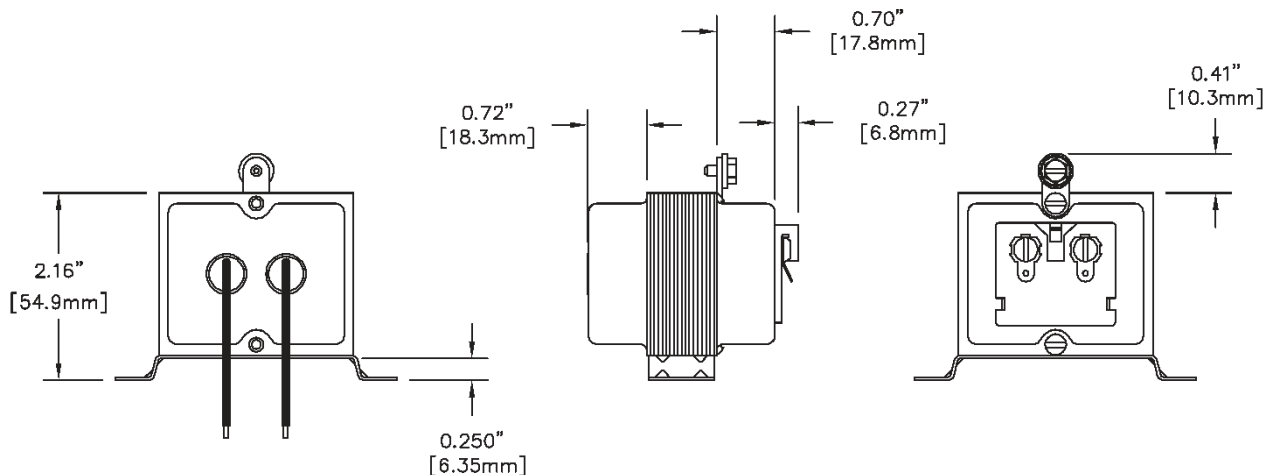
## Leaded Termination Options



## Quick Connect Termination Options



## Enclosed Construction with two hole 1/4" Off Deck Mounting



## Mounting Options

Option	Dim. C	Dim. D
1	2.812" [71.42mm]	3.250" [82.55mm]
2	3.125" [79.38mm]	3.562" [90.47mm]
3	No plate	No plate

(Group B continued on pages 8 and 9)

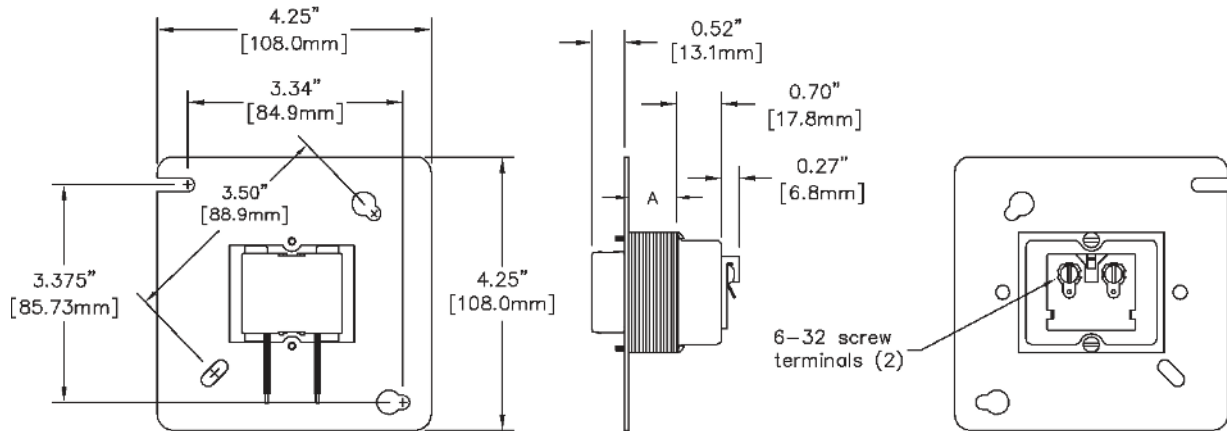
# Basler Electric Class 2 Transformers - Group B - 3/4" Frame Size, continued

## Voltage Options

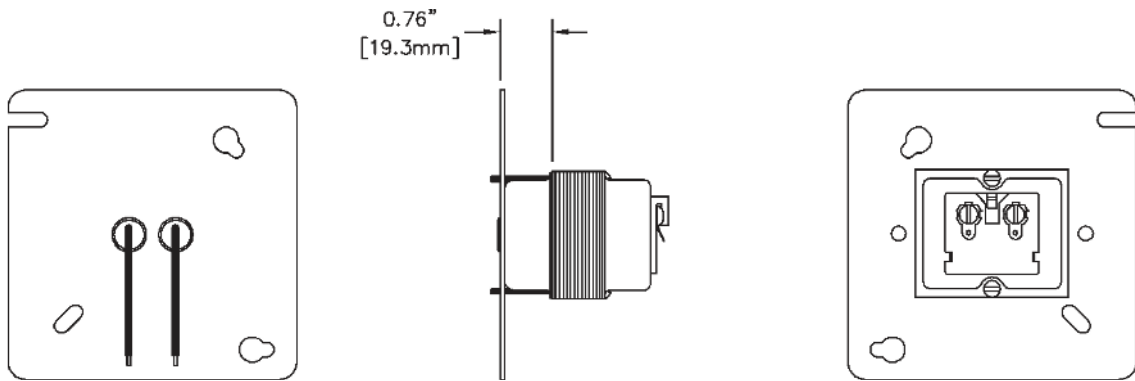
VA	Primary Voltage	Frequency (Hz)	Secondary Voltage (RMS)	Dim. A	Notes	
10	120	50/60	12	0.500"		
			24	[12.70mm]		
	240	50/60	12	0.500"		
			24	[12.70mm]		
15	120	50/60	12	0.500"		
			24	[12.70mm]		
	240	50/60	12	0.500"		
			24	[12.70mm]		
20	120	50/60	12	0.625"		
			24	[15.87mm]		
	208/240	50/60	12	0.625"		
			24	[15.87mm]		
	240	50/60	12	0.625"		
			24	[15.87mm]		
25	120	50/60	12	0.875"		
			24	[22.25mm]		
	208/240	50/60	12	0.875"		
			24	[22.25mm]		
	240	50/60	12	0.875"		
			24	[22.25mm]		
30	120	60*	24	0.750"		
	208/240	60*	24	1.000"		
				[25.40mm]		
	240	60*	24	0.750"		
277	60	24	1.000"	Quick connect termination option only available on opposite sides		
35	120	50/60	24	1.125"		
	208/240	50/60	24	1.125"		
				[28.58mm]		
240	50/60	24	1.125"	[28.58mm]		
40	120	60*	24	1.000"		
	120	50/60	24CT	1.250"		
				[31.75mm]		
	208/240	60*	24	1.000"		
				[25.40mm]		
240	60*	24	1.000"	[25.40mm]		
460	50/60	24	1.250"	Quick connect termination option only available on opposite sides		
45	120	50/60	24	1.375"		
	240	50/60	24	1.375"		
				[9.53mm]		
	277	50/60	24	1.375"		Quick connect termination option only available on opposite sides
480	50/60	24	1.375"	Quick connect termination option only available on opposite sides		
50	120	60*	24	1.250"		
	208/240	60*	24	1.500"		
				[38.10mm]		
	240	50/60	24	1.250"		[31.75mm]
	277	50/60	24	1.375"		Available only with opposite side termination
	346	50/60	24	1.375"		Available only with opposite side termination
	400	50/60	24	1.375"		Available only with opposite side termination
	480	50/60	24	1.375"		Available only with opposite side termination
575	50/60	24	1.375"	Available only with opposite side termination		

\* Denotes 50/60 Hz also available. Add 0.250" [6.35mm] to dimension A.

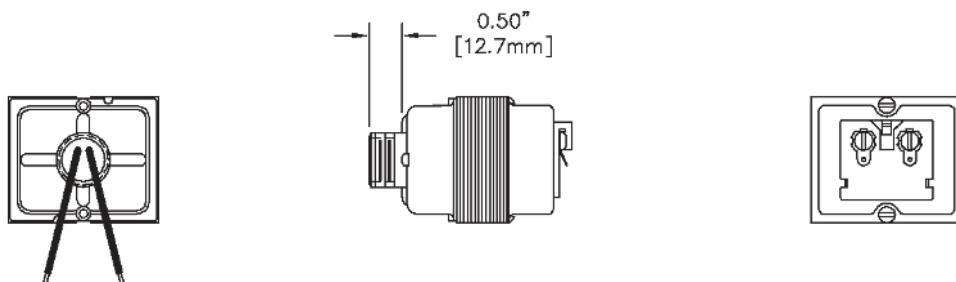
## 4"x4" Plate Drop-Through



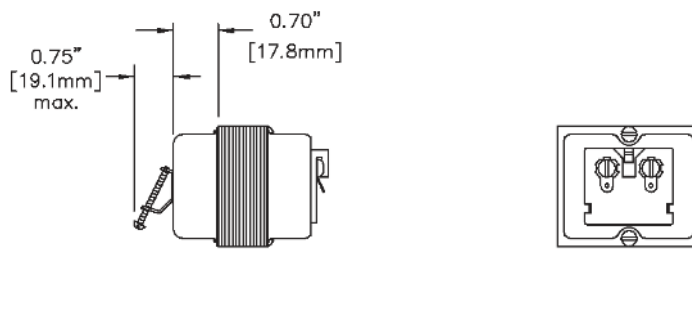
## 4"x4" Plate Standoff



## 1/2" Conduit Fitting



## Outlet Box Clamp



# Basler Electric Class 2 Transformers - Group C - 3/4" Frame Size

## Voltage Options

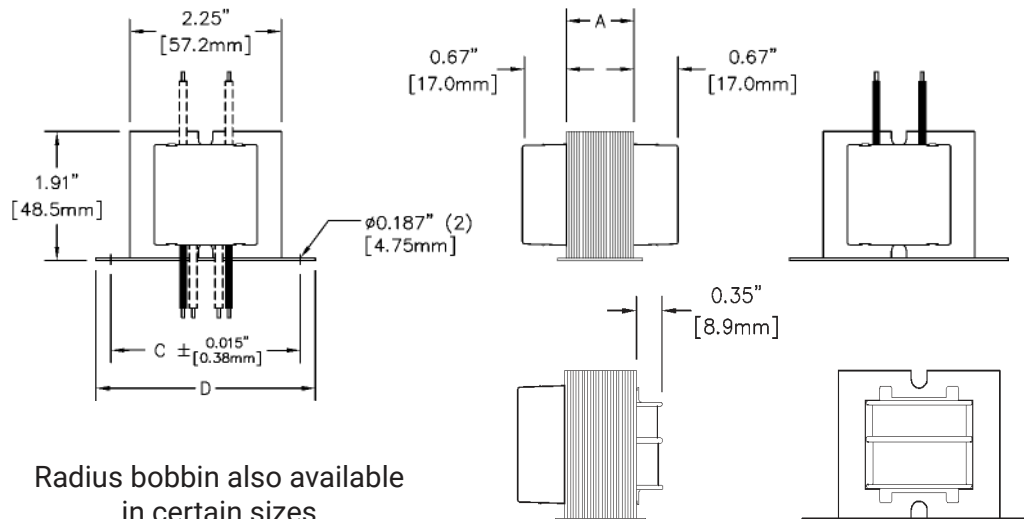
VA	Primary Voltage	Frequency (Hz)	Secondary Voltage (RMS)	Dim. A	Dim. B	Notes
30	120	50/60	24	1.000" [25.40mm]	2.28" [57.9mm]	
	208/240	50/60	24	1.000" [25.40mm]	2.28" [57.9mm]	
	240	50/60	24	1.000" [25.40mm]	2.28" [57.9mm]	
	277	60	24	1.000" [25.40mm]	2.28" [57.9mm]	
40	120	60*	24	1.000" [25.40mm]	2.28" [57.9mm]	
	120/208/240	60	24	1.250" [31.75mm]	2.53" [64.3mm]	Leaded termination option only available on opposite sides
	120/240	60	24	1.250" [31.75mm]	2.53" [64.3mm]	
	208/240	60*	24	1.000" [25.40mm]	2.28" [57.9mm]	
	240	60*	24	1.000" [25.40mm]	2.28" [57.9mm]	
	460	50/60	24	1.250" [31.75mm]	2.53" [64.3mm]	
50	120	60	24	1.250" [31.75mm]	2.53" [64.3mm]	
	208/240	60	24	1.250" [31.75mm]	2.53" [64.3mm]	
	240	60	24	1.250" [31.75mm]	2.53" [64.3mm]	

\* Denotes 50/60 Hz also available. Add 0.250" [6.35mm] to dimension A.

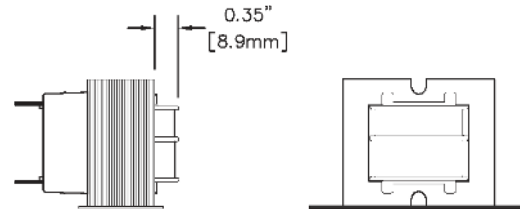
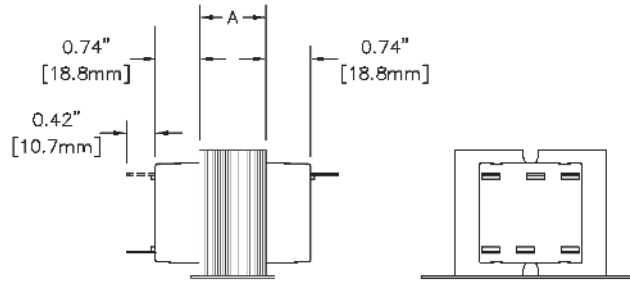
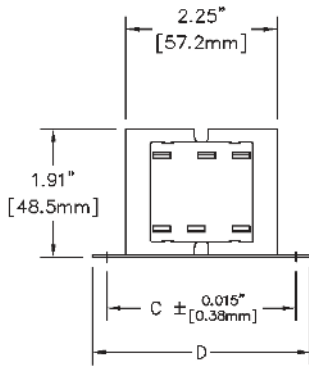
## Mounting Options

Option	Dim. C	Dim. D
1	2.812" [71.42mm]	3.250" [82.55mm]
2	3.125" [79.38mm]	3.562" [90.47mm]

## Leaded Termination Options

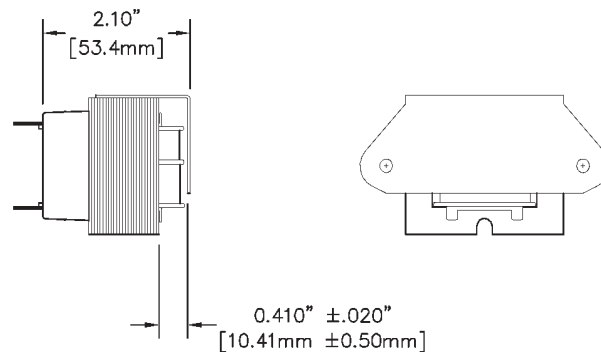
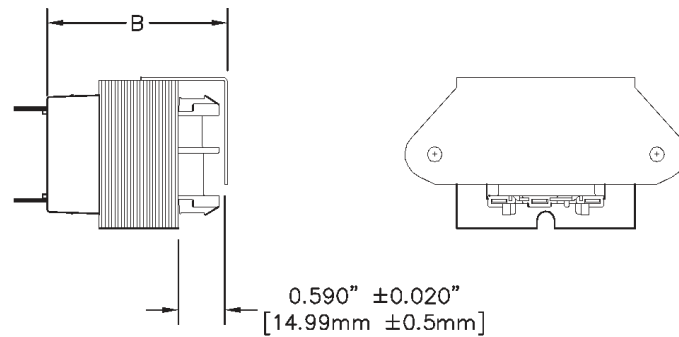
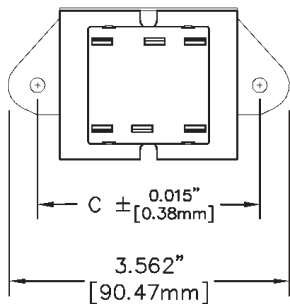


## Quick Connect Termination Options (Flat Plate)



Radius bobbin also available  
in certain sizes

## Quick Connect Termination Options (Laydown Plate)



Radius bobbin also available  
in certain sizes

# Basler Electric Class 2 Transformers - Group D - 7/8" Frame Size

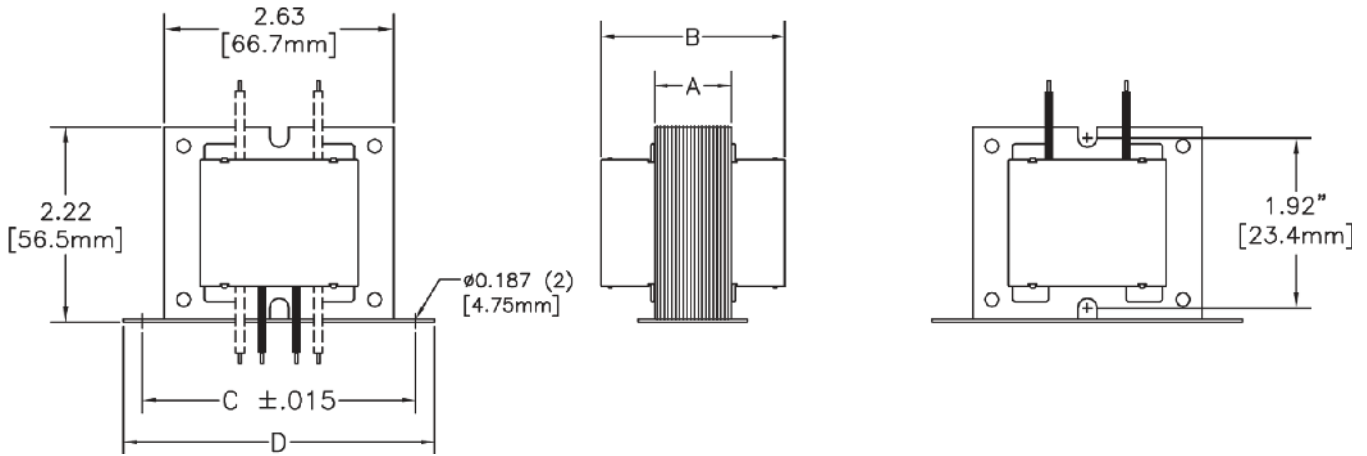
## Voltage Options

VA	Primary Voltage	Frequency (Hz)	Secondary Voltage (RMS)	Dimensions			
				A	B		
					Leads	Quick Connect same side	Quick Connect opposite sides
40	120	50/60	24	.750" [19.05mm]	2.00" [50.8mm]	2.22" [56.3mm]	2.56" [65.0mm]
	208/240	50/60	24	.750" [19.05mm]	2.00" [50.8mm]	2.22" [56.3mm]	2.56" [65.0mm]
	240	50/60	24	.750" [19.05mm]	2.00" [50.8mm]	2.22" [56.3mm]	2.56" [65.0mm]
45	120	50/60	24	1.000" [25.40mm]	2.25" [57.2mm]	2.47" [62.7mm]	2.81" [71.4mm]
	208/240	50/60	24	1.000" [25.40mm]	2.25" [57.2mm]	2.47" [62.7mm]	2.81" [71.4mm]
	240	50/60	24	1.000" [25.40mm]	2.25" [57.2mm]	2.47" [62.7mm]	2.81" [71.4mm]
50	120	50/60	24	1.125" [28.58mm]	2.38" [60.5mm]	2.59" [65.9mm]	2.94" [74.6mm]
	208/240	50/60	24	1.125" [28.58mm]	2.38" [60.5mm]	2.59" [65.9mm]	2.94" [74.6mm]
	240	50/60	24	1.125" [28.58mm]	2.38" [60.5mm]	2.59" [65.9mm]	2.94" [74.6mm]

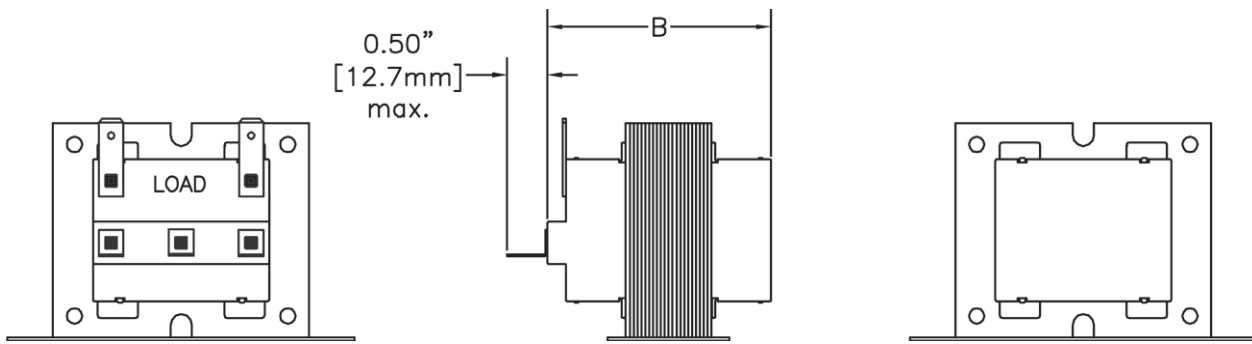
## Mounting Options

Option	Dim. C	Dim. D
1	3.125" [79.37mm]	3.562" [90.47mm]
2	No plate	No plate

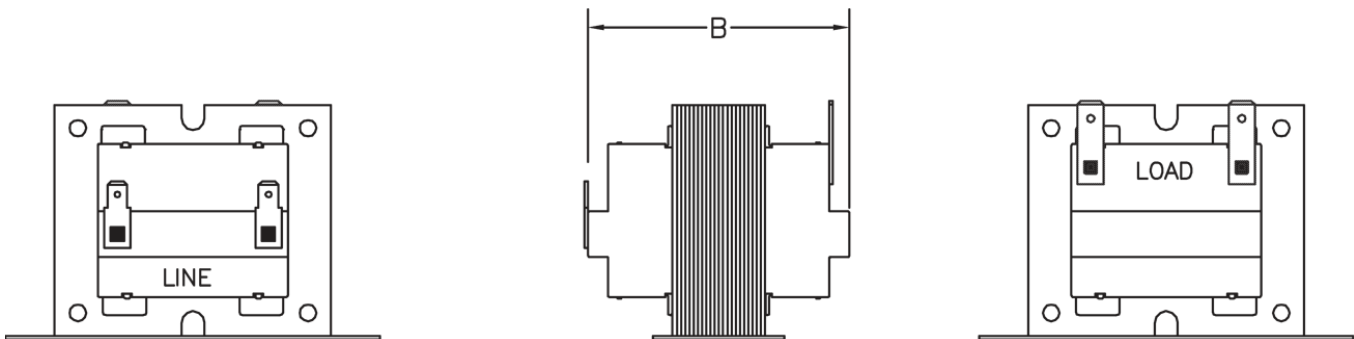
## Leaded Termination Options



## Quick Connect Termination (Same Side)



## Quick Connect Termination (Opposite Side)



# Basler Electric Class 2 Transformers - Group E - 1" Frame Size

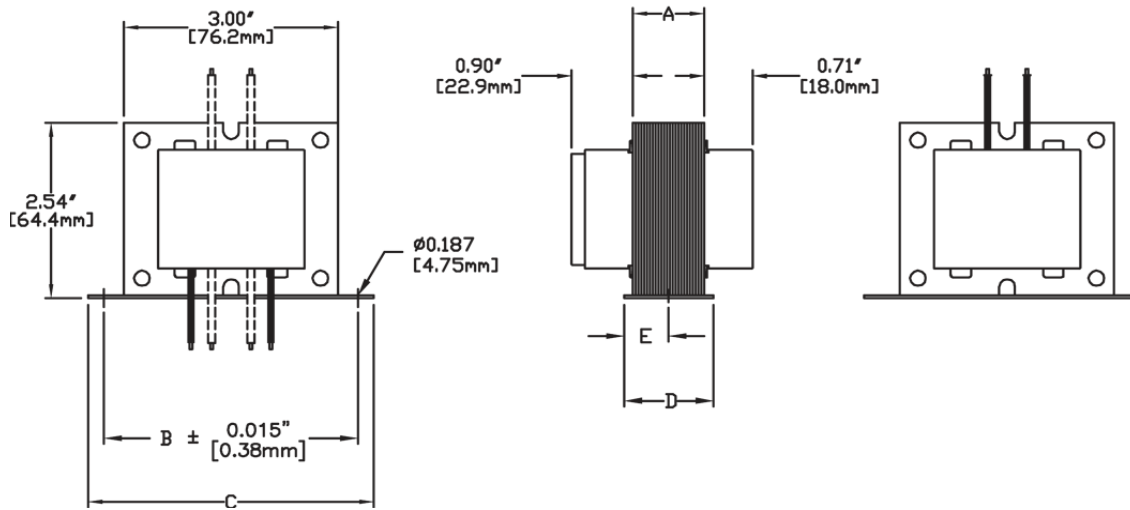
## Voltage Options

VA	Primary Voltage	Frequency (Hz)	Secondary Voltage (RMS)	Dim. A	Notes
65	120	50/60	24	1.000" [25.40mm]	
	120/208/240	50/60	24	1.125" [28.58mm]	Available only with opposite side termination
	120/240	50/60	24	1.125" [28.58mm]	
	208/240	50/60	24	1.000" [25.40mm]	
	240	50/60	24	1.000" [25.40mm]	
	480	50/60	24	1.000" [25.40mm]	
	600	50/60	24	1.000" [25.40mm]	
75	120	50/60	24	1.125" [28.58mm]	
	120/208/240	50/60	24	1.250" [31.75mm]	Available only with opposite side termination
	208/240	50/60	24	1.125" [28.58mm]	
	240	50/60	24	1.125" [28.58mm]	
	277	50/60	24	1.125" [28.58mm]	Available only with circuit breaker protection and same side termination
	400	50/60	24	1.125" [28.58mm]	Available only with circuit breaker protection and same side termination
	480	50/60	24	1.125" [28.58mm]	
	600	50/60	24	1.125" [28.58mm]	
100	120	60	25	1.250" [31.75mm]	Available only with circuit breaker protection and same side termination
	120/277	60	25	1.500" [38.10mm]	Available only with circuit breaker protection and same side termination
	208/230	50/60	25	1.500" [38.10mm]	Available only with circuit breaker protection and same side termination
	208/240	50/60	25	1.500" [38.10mm]	Available only with circuit breaker protection and same side termination
	400	50/60	25	1.500" [38.10mm]	Available only with circuit breaker protection and same side termination
	460/575	50/60	25	1.500" [38.10mm]	Available only with circuit breaker protection and same side termination

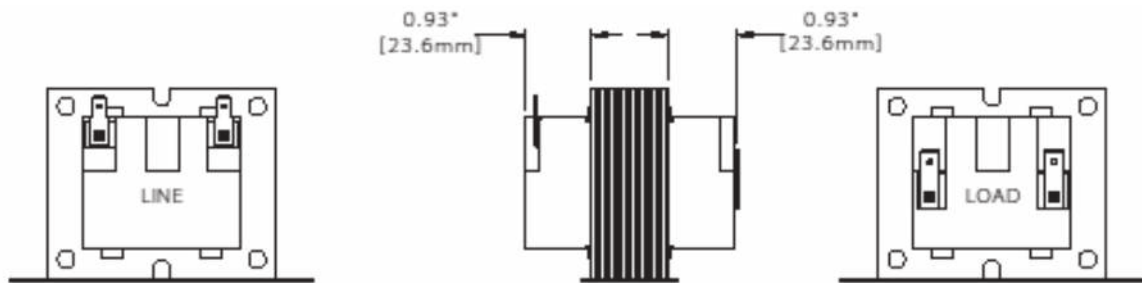
## Mounting Options

Option	Dim. B	Dim. C	Dim. D	Dim. E
1	3.562" [90.48mm]	4.000" [101.60mm]	1.250" [31.75mm]	0.625" [15.88mm]

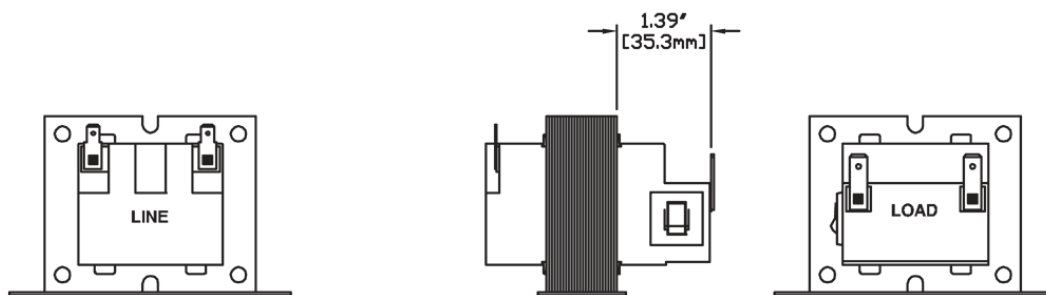
## Leaded Termination Options for Fast Acting and Time Delay Fuse Protection



## Quick Connect Termination Options for Fast Acting and Time Delay Fuse Protection



## Quick Connect Termination Options for Resettable Circuit Breaker Protection



Same side termination option is avail-

## Basler Electric Value-Added Services

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Basler's capabilities range from wiring harnesses and fabricating sheet metal to producing complex build-to-print electromechanical assemblies. With an experienced engineering staff and custom manufacturing capabilities, we can become an extension of your process, freeing up floor space and allowing you to focus on your core business. We can become an extension of your process, freeing up floor space and allowing you to focus on your core business.



**Custom Fabricated Sheet Metal Assembly**



**Custom Wiring Harness**



Now Part of



**Contact us at:**

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**Basler Electric Worldwide Headquarters**  
12570 State Route 143 | Highland IL 62249-1074  
+1.618.654.2341 | [info@basler.com](mailto:info@basler.com)

[www.basler.com](http://www.basler.com)