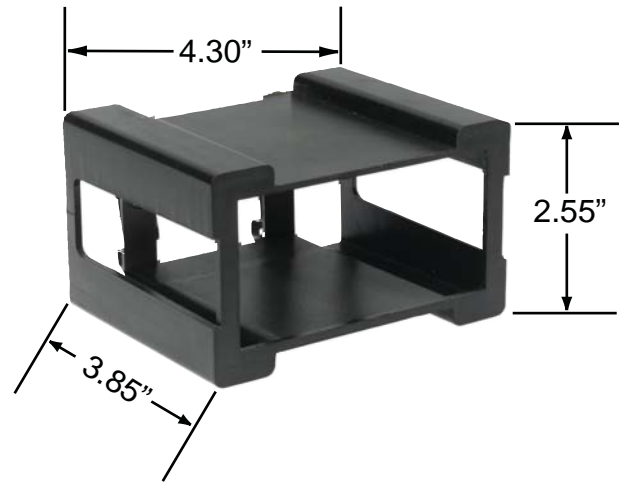


DIN Rail Mounting Bracket

- **Fits Simpson Hawk 3, Falcon and Counters**
- **Fits Standard Din Rail**



Ordering Information

Din Rail Adapter 45004

Specifications

| | |
|--------------------------|--|
| Enclosure: | UL94V-0 Rated ABS |
| Attachment Clips: | Spring Steel |
| Stiffeners: | Steel |
| Installed depth: | 4.20" from top of DIN Rail to front of meter bezel |

Thermocouples/RTD

Quick Disconnect Assemblies



Ordering Information

| Type | ANSI Color Code | Max. Operating Temperature | Catalog Number |
|------|-----------------|----------------------------|----------------|
| J | Black | 1500°F | 21238 |
| K | Yellow | 1600°F | 21239 |

Note: All selections include standard plug and jack connectors.

Specifications

316 Stainless Steel Best corrosion resistance of the stainless steel grades. Good corrosion resistance in H₂S. Subject to damaging carbide precipitation. 900°-1600°F (482°-871°C) range.

Ungrounded Junction This type of thermocouple junction is fully insulated from the welded sheath end. The ungrounded junction is excellent for applications where stray EMFs would affect the reading and for frequent or rapid temperature cycling. Response time is 2.5 seconds.

Forming The XACTPAK® sheath can be formed around a mandrel twice the sheath diameter.

Metal Transition Assemblies



Ordering Information

| Type | ANSI Color Code | Max. Operating Temperature | Catalog Number |
|------|-----------------|----------------------------|----------------|
| J | Black | 1500°F | 21242 |
| K | Yellow | 1600°F | 21243 |
| RTD | White | 1200°F | 21244 |

Insulated Soft Wire



Soft-wire thermocouples are available in two insulation types. All soft-wire selections have beaded butt welded measurement junctions.

| Type | Temperature Rating | | Physical Properties | | |
|-------------|--------------------|----------------|---------------------|---------------------|---------------------|
| | Continuous | Single Reading | Abrasion Resistance | Moisture Resistance | Chemical Resistance |
| Glass Braid | 900°F (482°C) | 1000°F (538°C) | Fair | Good | Good |
| Teflon® | 400°F (204°C) | 500°F (260°C) | Excellent | Excellent | Excellent |

Ordering Information

| Cat. No. | Description |
|----------|---|
| THJ105 | T/C J, 24 Gauge, Fiber Glass Braid, 5 foot |
| THJ1015 | T/C J, 24 Gauge, Fiber Glass Braid, 15 foot |
| THK105 | T/C K, 24 Gauge, Fiber Glass Braid, 5 foot |
| THK1015 | T/C K, 24 Gauge, Fiber Glass Braid, 15 foot |
| THJ035 | T/C J, 20 Gauge, FEP Teflon®, 5 foot |
| THJ315 | T/C J, 20 Gauge, FEP Teflon®, 15 foot |

Compression Fitting

This adjustable fitting can be applied at any point along the sheath. It is used to mount a thermocouple assembly at a given depth, or to mount a thermocouple head on an assembly.



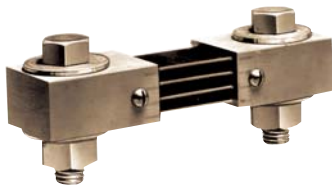
Ordering Information

| Single Threaded Catalog# | Length | Sheath O.D. Inches | Bore ±0.001 Inches | Male NPT Inches | Hex Across Flats Inches |
|--------------------------|--------|--------------------|--------------------|-----------------|-------------------------|
| 21253 | 1-1/4" | 3/16 | 0.194 | 1/8 | 1/2 |

External Portable and Switchboard Shunts



50mV Shunts
Portable 150 amp
Catalog No. 06714



Switchboard
100 amp
Catalog No. 06500

Dimension Table for External Portable Shunts

| Amps | A | B | C | Amps | A | B | C |
|------|---------|------|--------|------|---------|------|--------|
| 1 | 1-5/16" | 1/2" | 3/8-16 | 30 | 1-5/16" | 1/2" | 3/8-16 |
| 5 | 1-5/16" | 1/2" | 3/8-16 | 50 | 1-5/16" | 1/2" | 3/8-16 |
| 10 | 1-5/16" | 1/2" | 3/8-16 | 75 | 1-5/16" | 1/2" | 3/8-16 |
| 15 | 1-5/16" | 1/2" | 3/8-16 | 100 | 1-5/16" | 1/2" | 3/8-16 |
| 25 | 1-5/16" | 1/2" | 3/8-16 | 150 | 1-5/16" | 1/2" | 3/8-16 |
| | | | | 200 | 1-5/16" | 1/2" | 3/8-16 |

Dimension Table for Switchboard Shunts

| Amps | A | B | C | D | E |
|------|--------|--------|--------|------|--------------|
| 100 | 4-1/2" | 1" | 3-1/2" | 1/2" | 3/8-16x1-1/2 |
| 150 | 4-1/2" | 1" | 3-1/2" | 1/2" | 3/8-16x1-1/2 |
| 200 | 4-1/2" | 1" | 3-1/2" | 1/2" | 3/8-16x1-1/2 |
| 300 | 5-1/2" | 1-1/2" | 4" | 1" | 1/2-13x2 |
| 400 | 5-1/2" | 1-1/2" | 4" | 1" | 1/2-13x2 |
| 500 | 5-1/2" | 1-1/2" | 4" | 1" | 1/2-13x2 |

Ordering Information

Portable 50mV Shunts

| Range | Cat. Number |
|-------|-------------|
| 1 | 06700 |
| 5 | 06703 |
| 10 | 06704 |
| 15 | 06705 |
| 25 | 06707 |
| 30 | 06708 |
| 50 | 06709 |
| 75 | 06711 |
| 100 | 06713 |
| 150 | 06714 |
| 200 | 06715 |

5' leads included

Switchboard 50mV Shunts

| Range | Cat. Number |
|-------|-------------|
| 100 | 06500 |
| 150 | 06503 |
| 200 | 06504 |
| 250 | 06505 |
| 300 | 06506 |
| 400 | 06507 |
| 500 | 06508 |

5' leads included

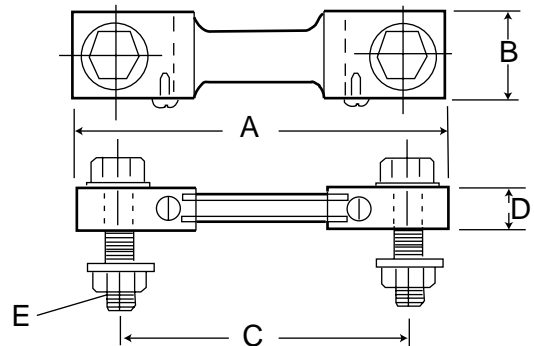
Portable 100mV Shunts

| Amps | Cat. Number |
|------|-------------|
| 10 | 06716 |
| 100 | 06717 |

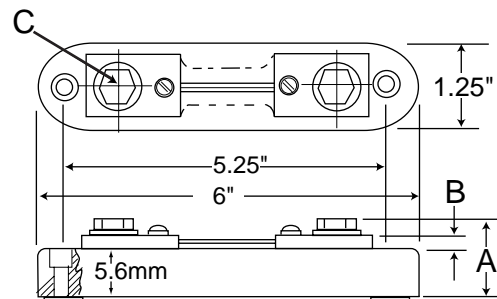
5' leads not included



Switchboard Shunts



External Portable Shunts



Current Transformers

Model 186 Current Transformer

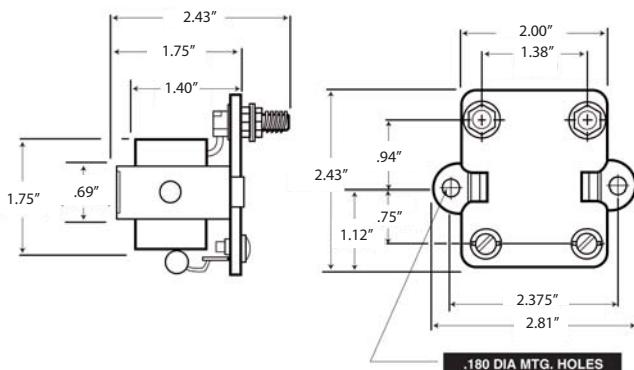


- **Optimal for remote sensing of AC current signals**
- **Converts AC current signal to 0-10 ACV signal**
- **For use with rectifier type analog panel meters or digital indicators**
- **Perfect for low current measurement where a donut current transformer would not sense a signal**

Ordering Information

| Range | VA | Cat. Number |
|---------|------|-------------|
| 0-100mA | 0.50 | 01295 |
| 0-500mA | 0.53 | 01304 |
| 0-5Amp | 0.40 | 01312 |
| 0-10Amp | 1.45 | 01314 |
| 0-15Amp | 1.05 | 01315 |
| 0-20Amp | 1.04 | 01316 |
| 0-25Amp | 1.50 | 01317 |
| 0-30Amp | 1.10 | 01318 |
| 0-40Amp | 1.09 | 01319 |
| 0-50Amp | 1.90 | 01321 |

Dimensions



Current Transformers with Terminals

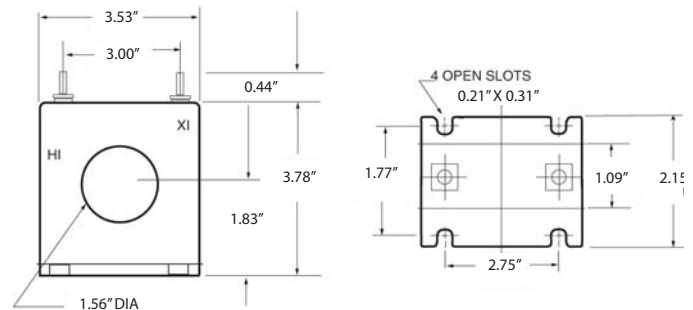
- **Reduces high AC current signal to 5 amp AC signal**
- **Use with analog and 5 amp AC digital indicators**



Specifications

| | |
|------------------|---|
| Accuracy | ±2.0% (100 Amp) ±1.0% (100-1000 Amp) |
| Frequency | 50-400 Hz |
| Insulation Class | 0.6kV BIL 10kV full wave |
| Weight | 1.0lb (453.59g) |

Dimensions



Ordering Information

| Range | Burden VA@60Hz | Catalog Number |
|--------|----------------|----------------|
| 100:5 | 2.0 | 37020 |
| 150:5 | 5.0 | 37021 |
| 200:5 | 5.0 | 37022 |
| 300:5 | 12.5 | 37023 |
| 500:5 | 20.0 | 37024 |
| 1000:5 | 25.0 | 37025 |

Donut Current Transformers



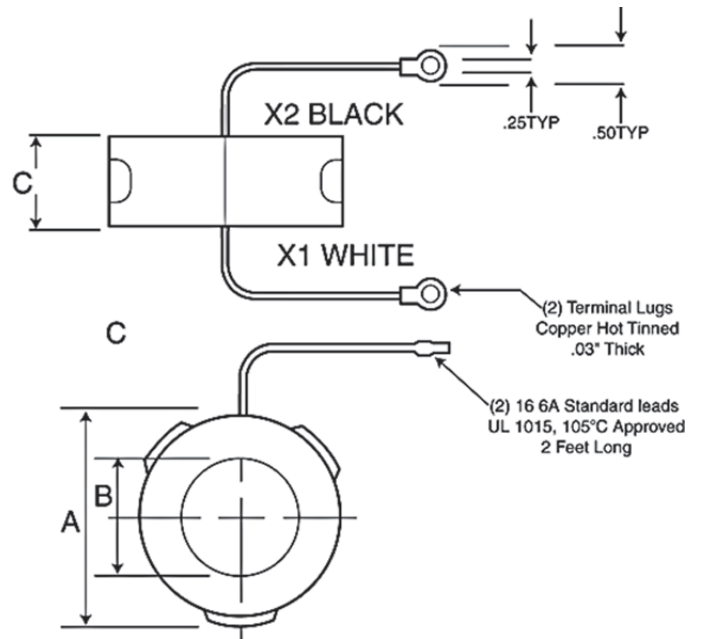
- Meets A.S.A C57.13 Standard
- Flexible leads are UL105, 105°C CSA approved
- Molded from impact and abrasive resistance black nylon for rugged construction
- ±2% Accuracy

| Catalog Number | Turns Ratio | Accuracy For 2 VA Burden |
|----------------|-------------|--------------------------|
| 01293 | 10:1 | 2% |
| 01306 | 15:1 | 2% |
| 01297 | 20:1 | 1% |
| 01298 | 30:1 | 1% |
| 01299 | 40:1 | 1% |
| 01313 | 50:1 | .8% |
| 01300 | 60:1 | .6% |
| 01305 | 80:1 | .5% |
| 01301 | 100:1 | .5% |
| 02303 | 120:1 | .5% |
| 02459 | 150:1 | .3% |
| 02304 | 200:1 | .3% |

Ordering Information

| Ampere | | Turns Ratio | Catalog Number | Dimensions | | |
|---------|-----------|-------------|----------------|------------|-------|---|
| Primary | Secondary | | | A | B | C |
| 50 | 5 | 10:1 | 3.56" | 1.56" | 1.10" | |
| 75 | 5 | 15:1 | | | | |
| 100 | 5 | 20:1 | | | | |
| 150 | 5 | 30:1 | 3.56" | 2.06" | 1.10" | |
| 200 | 5 | 40:1 | | | | |
| 250 | 5 | 50:1 | | | | |
| 300 | 5 | 60:1 | | | | |
| 400 | 5 | 80:1 | | | | |
| 500 | 5 | 100:1 | | | | |
| 600 | 5 | 120:1 | | | | |
| 750 | 5 | 150:1 | 4.50" | 3.00" | 1.09" | |
| 1000 | 5 | 200:1 | | | | |

Dimensions



Donut Current Transformer Wrapping Information

Primary Turn Ratio Modification

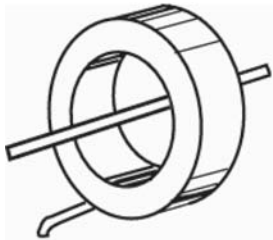
Formula: $K_a = K_n \times N_n / N_a$

Where: K_a = Actual Transformer Ratio
 K_n = Nameplate Transformer Ratio
 N_a = Actual Number of Primary Turns
 N_n = Nameplate Number of Primary Turns

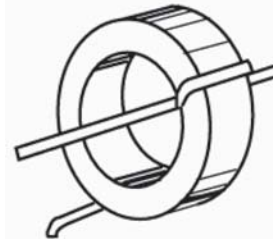
The ratio of the current transformer can be modified by adding more primary turns to the transformer. By adding primary turns, the current required to maintain five amps on the secondary is reduced.

Example: A 100:5 current transformer designed for one primary turn.

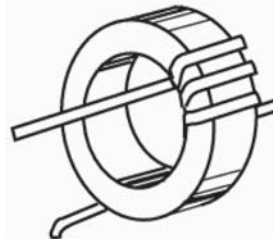
| 1 Primary Turn | | |
|-----------------|--------------|--|
| Nameplate Ratio | Actual Ratio | |
| 100:5 | 100:5 | |



| 2 Primary Turns | | |
|-----------------|--------------|--|
| Nameplate Ratio | Actual Ratio | |
| 100:5 | 50:5 | |



| 4 Primary Turns | | |
|-----------------|--------------|--|
| Nameplate Ratio | Actual Ratio | |
| 100:5 | 25:5 | |



Primary Turn Ratio Modification

Formula: $\frac{I_p}{I_s} = \frac{N_s}{N_p}$

Where: I_p - Primary Current
 I_s - Secondary Current
 N_p - Number of Primary Turns
 N_s - Number of Secondary Turns

Example: A 300:5 Current Transformer.
 $\frac{300p}{5s} = \frac{60s}{1p}$

(In practicality one turn is dropped from the secondary as a ratio correction factor.)

The ratio of the current transformer can be modified by altering the number of secondary turns by forward or backwinding the secondary lead through the window of the current transformer. By adding secondary turns, the same primary current will result in a decrease in secondary output. By subtracting turns, the same primary current will result in greater secondary output.

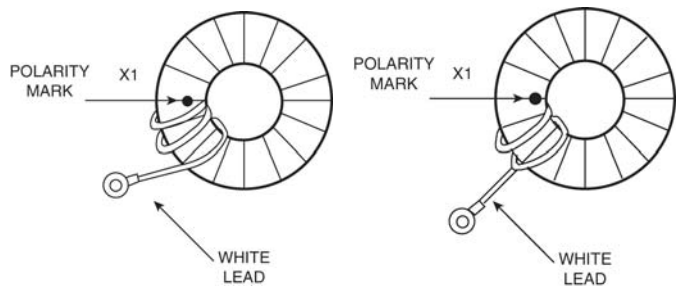
Again using the 300:5 example adding five secondary turns will require 325 amps on the primary to maintain the 5 amp secondary output or

$$\frac{325p}{5s} = \frac{65s}{1p}$$

Deducting 5 secondary turns will only require 275 amps on the primary to maintain the 5 amp secondary output or

$$\frac{275p}{5s} = \frac{65s}{1p}$$

The above ratio modifications are achieved in the following manner:



Model 183 Multiplier



- Reduces high AC Voltage Signals down to 150 VAC
- Reduces high DC Voltage signals down to 500 μ ADC
- Accuracy $\pm 1\%$

Ordering Information

DC Volts - 2000 Ohms/Volt

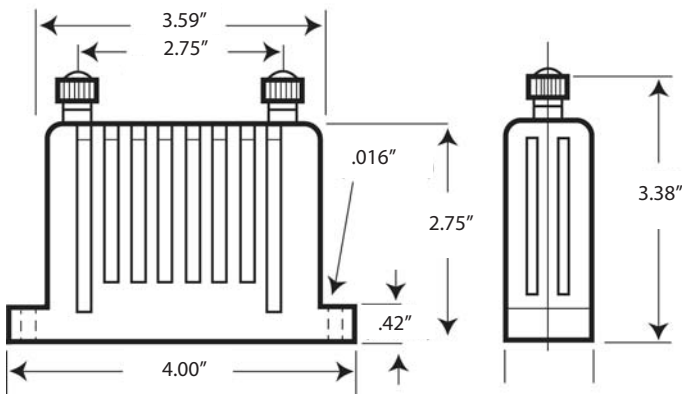
Used only with Simpson DC Volt analog panel meters or with 0-2 mA DC digital panel meters. Digital units will need to be recalibrated when a multiplier is used.

| Range | Multiplier Resistance M Ω | Meter Sensitivity DC μ A | Catalog Number |
|--------|----------------------------------|------------------------------|----------------|
| 0-500 | 1 | 500 | 08552 |
| 0-1000 | 2 | 500 | 08554 |
| 0-2000 | 4 | 500 | 08557 |
| 0-4000 | 8 | 500 | 08560 |
| 0-5000 | 10 | 500 | 08561 |

AC Volts - 166 Ohms/Volt

Used only with Simpson AC Volt, iron vane analog panel meters or with a 0-200 VAC digital meter using an external 25K Ω /1W resistor across the inputs.

| Range | Impedance Ω @ 60 Hz | Voltage Reduced | Voltage Drop | Catalog Number |
|--------|----------------------------|-----------------|--------------|----------------|
| 0-500 | 58,333 | 350 | 150 | 08562 |
| 0-600 | 75,000 | 450 | 150 | 08563 |
| 0-750 | 100,000 | 600 | 150 | 08564 |
| 0-1000 | 141,666 | 850 | 150 | 08565 |



Current Transducers

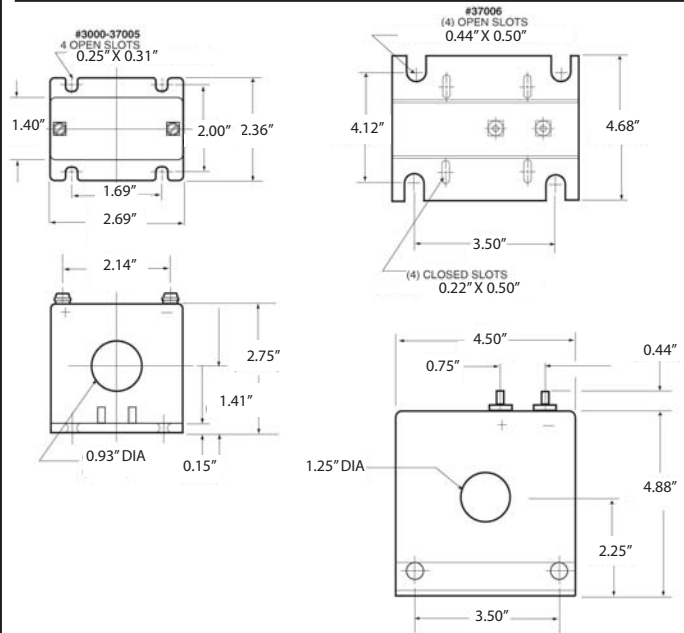
- Reduces AC current signals down to 4-20 DCmA
- Screw terminals for easy connection
- Operates on 24V DC power

Specifications

| | |
|-------------------|--------------------------------------|
| Accuracy: | $\pm 0.5\%$ F.S. Max |
| Frequency: | 60Hz |
| Insulation Class: | 600V |
| Max. Output: | 30DCmA |
| Temp. Effect: | |
| Accuracy: | $\pm 0.04\%/^{\circ}$ C |
| Operating: | -30 $^{\circ}$ C to +65 $^{\circ}$ C |
| Storage: | -55 $^{\circ}$ C to +85 $^{\circ}$ C |
| Supply Voltage: | 24 DCV $\pm 10\%$ |
| Weight: | 1.5lb (680.39kg) |



Dimensions



Ordering Information

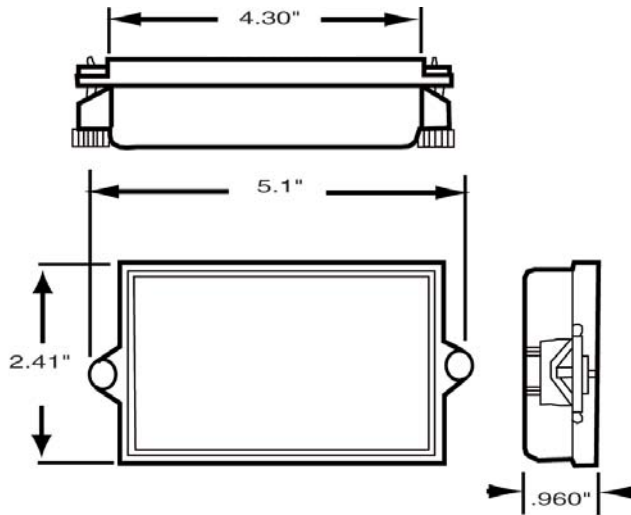
| Input Current Range(ACA) | Output Current Range(DCmA) | Catalog Number |
|--------------------------|----------------------------|----------------|
| 0-5 A | 4-20mA | 37000 |
| 0-50 A | 4-20mA | 37001 |
| 0-75 A | 4-20mA | 37002 |
| 0-100 A | 4-20mA | 37003 |
| 0-150 A | 4-20mA | 37004 |
| 0-200 A | 4-20mA | 37005 |
| 0-300 A | 4-20mA | 37006 |

1/8 DIN NEMA 4 Removable Cover

- **Protects 1/8 DIN indicators and controllers**
- **Dust tight and water tight to NEMA 4 standards**
- **Removable front cover allows access to programming buttons or scaling potentiometers**



Dimensions



Specifications

| | |
|---------------------------|---|
| Lens Material | Clear 94-V-0 UL-rated polycarbonate with UV inhibitor |
| Gasket Material | Closed Cell Neoprene |
| Bezel Material | Steel |
| Bezel Finish | Black Polyurethane |
| Bezel Dimensions | 4.3" x 2.41" x 0.28" (109.2mm x 61.2mm x 7.1mm) |
| Overall Dimensions | 4.3" x 2.41" x 0.96" (109.2mm x 61.2mm x 24.4mm) |
| Panel Cutout | 3.66" x 1.79" (93mm x 45.5mm) |

Ordering Information

Catalog number

45003

Bezel Kits

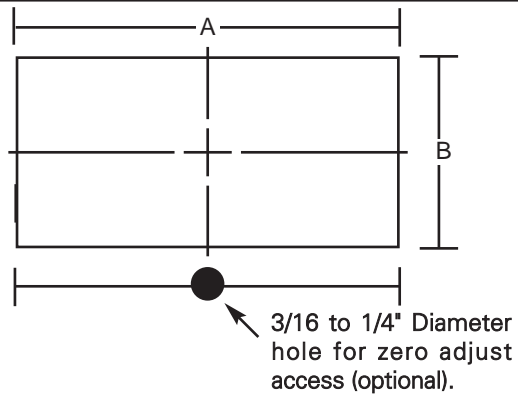
This bezel kit provides an attractive appearance for Wide-Vue analog panel meters. Die cast with a black satin finish, bezel kits are designed for behind panel mounting and can accommodate a panel thickness from 1/8" to 3/16". All required mounting hardware is included.



Ordering Information

| Size | Panel Cutout | | Catalog Number |
|----------|--------------|--------|----------------|
| | A | B | |
| 3 - 1/2" | 3.406" | 2.094" | 01253 |
| 4 - 1/2" | 4.812" | 2.750" | 01123 |

Panel Cutout



Wide-Vue or Tru-Vue Bezel Kit



Ordering Information

Bezel kit for 2-1/2 Wide-Vue or Tru-Vue meter

01255