# ENCLOSURES & PANELS



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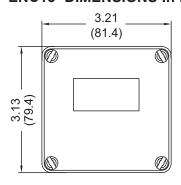
# MODEL ENC13 - NEMA 4 ENCLOSURES FOR CUB7

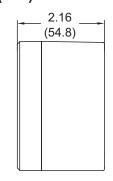
#### **DESCRIPTION**

This enclosure is designed for applications requiring a water resistant instrument enclosure. The enclosure is fabricated of polycarbonate and is designed to withstand NEMA 4X/IP65 wash-down applications. The enclosure must be drilled to accept conduit fittings or other types of wiring connectors. The enclosure can be used free-standing, or it can be securely fastened to a mounting surface.



# **ENC13 DIMENSIONS In inches (mm)**





LATCHING FEATURE

#### **ORDERING INFORMATION**

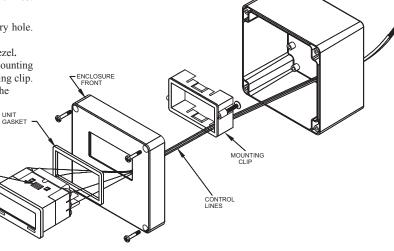
MODEL NO	DESCRIPTION	PART NUMBER
ENC13	Plastic Enclosure for CUB7 units	ENC13000

ENCLOSURE REAR

#### **ENC13 INSTALLATION**

It is recommended to wire the unit before mounting it in the enclosure to ensure good electrical connections. The following steps outline the most common sequence for installing a unit.

- Determine the location of the conduit fitting and drill the necessary hole.
   Install the fitting and bring the wiring into the enclosure.
- 2. Slide the panel gasket over the rear of the unit to the back of the bezel.
- 3. Assemble nut fastener and mounting screw onto both sides of the mounting clip. The tip of the screw should not project from the hole in mounting clip.
- 4. Install the unit through the opening in the front of the lid until the bezel flange contacts the panel.
- 5. Slide the mounting clip over the rear of the unit until the mounting clip is against the inside of the enclosure. The mounting clip has latching features which engage into mating features on the unit's housing.
  - Note: It is necessary to hold the unit in place when sliding the mounting clip into position.
- 6. Alternately tighten each screw to ensure uniform gasket pressure. Visually inspect the front panel gasket. The gasket should be compressed to about 75 to 80% of its original thickness (Recommended torque is 28 to 36 in-oz.). If not, gradually turn mounting screws to further compress the gasket.
- 7. If the gasket is not adequately compressed, and the mounting screws can no longer be turned, loosen the mounting screws and check that the mounting clip is latched as close as possible to the inside of enclosure. Repeat the procedure for tightening the screws.



- 8. Connect the necessary wires to the unit for the application desired.
- Assemble the enclosure with the screws provided. Alternately tighten each screw to ensure uniform gasket pressure.

# MODEL ENC8 - NEMA 4 ENCLOSURES FOR CUB4, CUB5, DT8 & DT9 UNITS

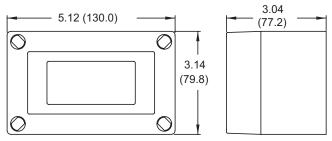
# ENC8A & ENC8B - PLASTIC ENCLOSURES





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# **ENC8A DIMENSIONS In inches (mm)**



#### **DESCRIPTION**

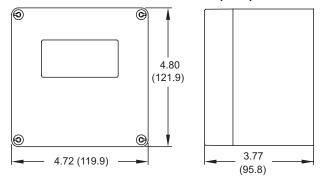
These enclosures are designed for applications requiring a water resistant instrument enclosure. The enclosures are fabricated of polycarbonate and are designed to withstand NEMA 4X/IP65 wash-down applications. The enclosures must be drilled to accept conduit fittings or other types of wiring connectors. The enclosures can be used free-standing, or securely fastened to a mounting surface.

#### ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
ENC8A	Plastic Enclosure for single units	ENC8A000
ENC8B	Plastic Enclosure for units with an MLPS1 attached	ENC8B000

For More information on Pricing, Enclosures & Panel Mount Kits, refer to the RLC Catalog or contact your local RLC Distributor.

### **ENC8B DIMENSIONS In inches (mm)**



#### **ENC8A INSTALLATION**

It is recommended to wire the unit before mounting it in the enclosure to ensure good electrical connections. The following steps outline the most common sequence for installing a unit without an MLPS1 attached.

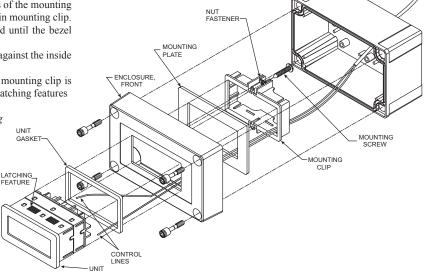
- Determine the location of the conduit fitting and drill the necessary hole.
   Install the fitting and bring the wiring into the enclosure.
- 2. Slide the panel gasket over the rear of the unit to the back of the bezel.
- 3. Assemble nut fastener and mounting screw onto both sides of the mounting clip. The tip of the screw should not project from the hole in mounting clip.
- Install the unit through the opening in the front of the lid until the bezel flange contacts the panel.
- Slide the mounting plate over the rear of the unit until it is against the inside front of the enclosure.
- 6. Slide the mounting clip over the rear of the unit until the mounting clip is against the inside of the enclosure. The mounting clip has latching features which engage into mating features on the unit's housing.

Note: It is necessary to hold the unit in place when sliding the mounting clip into position.

- 7. Alternately tighten each screw to ensure uniform gasket pressure. Visually inspect the front panel gasket. The gasket should be compressed to about 75 to 80% of its original thickness (Recommended torque is 28 to 36 in-oz.). If not, gradually turn mounting screws to further compress the gasket.
- 8. If the gasket is not adequately compressed, and the mounting screws can no longer be turned, loosen the mounting screws and check that the mounting clip is latched as close as possible to the inside of enclosure. Repeat the procedure for tightening the screws.

- 9. Connect the necessary wires to the unit for the application desired.
- Assemble the enclosure with the screws provided. Alternately tighten each screw to ensure uniform gasket pressure.

ENCLOSURE,

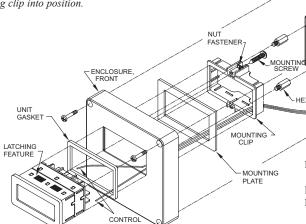


#### **ENC8B w/ MLPS1 Installation**

Installing a unit with an MLPS1 attached requires some planning. It is recommended that the unit with the MLPS1 attached be temporarily installed in the enclosure to determine the best location for the conduit fitting to avoid interference with the MLPS1.

- Determine the location of the conduit fitting and drill the necessary hole.
   Install the fitting and bring the wiring into the enclosure.
- 2. Slide the panel gasket over the rear of the unit to the back of the bezel.
- Remove the common and V+ screw terminals from the rear of the unit (save for later use) and replace them with the stand-offs (supplied with the MLPS1).
- 4. Assemble nut fastener and mounting screw onto both sides of the mounting clip. The tip of the screw should not project from the hole in mounting clip.
- 5. Install the unit through the opening in the front of the lid until the bezel flange contacts the panel mounted gasket.
- 6. Slide the mounting plate over the rear of the unit until it is against the inside front of the enclosure.
- 7. Slide the mounting clip over the rear of the unit until the mounting clip is against the inside of the enclosure. The mounting clip has latching features which engage into mating features on the unit's housing.

Note: It is necessary to hold the unit in place when sliding the mounting clip into position.



- 8. Alternately tighten each screw to ensure uniform gasket pressure. Visually inspect the front panel gasket. The gasket should be compressed to about 75 to 80% of its original thickness (Recommended torque is 28 to 36 in-oz.). If not, gradually turn mounting screws to further compress the gasket.
- 9. If the gasket is not adequately compressed, and the mounting screws can no longer be turned, loosen the mounting screws and check that the mounting clip is latched as close as possible to the inside of enclosure. Repeat the procedure for tightening the screws.

  AC POWER FOR MLPS

  SENSOR EXCITATION (OPTIONAL)

  SQUARE WASHER

  WASHER

  WASHER
  - 10. Mount the MLPS1 and optional sensor wires needed, to the stand-offs using the screw terminals from the unit with the supplied square washers.
  - 11. Connect AC power to the terminal block of the MLPS1.
  - 12. After all electrical connections have been made, assemble the enclosure with the screws provided. Alternately tighten each screw to ensure uniform gasket pressure.

# **ENC8 - STEEL ENCLOSURE**



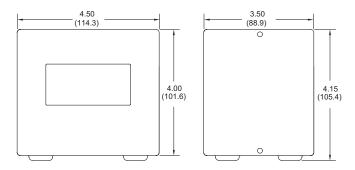
#### **DESCRIPTION**

This enclosure is designed for use with the CUB4, CUB5, DT8 & DT9 units. The enclosures are large enough to accommodate a Micro-line Power Supply (MLPS1) attached to the unit. These rugged enclosures are fabricated of formed steel with all seams welded to withstand NEMA 4/IP65 wash-down applications. The kits are coated with a durable black polyurethane finish.

The holes for conduit fittings or other types of wiring connectors can be drilled through the removable rear access panel, or through the enclosure itself.

The enclosures can be free standing or securely fastened to a mounting surface with the brackets and hardware found in the mounting kit (provided with the enclosure). The brackets also allow the enclosure to be raised and/or tilted from the mounting surface in order to achieve the most favorable operating position. Provided are four self-stick foot pads that can be applied to the bottom of the enclosure to protect the mounting surface. The foot pads are particularly useful for free standing installations.

#### **DIMENSIONS** In inches (mm)



MODEL NO	DESCRIPTION	PART NUMBER
ENC8	NEMA 4/IP65 ENCLOSURE	ENC80000
For More information on Pricing, Enclosures & Panel Mount Kits,		

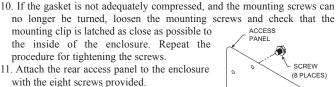
#### ENC8 INSTALLATION

It is recommended to wire the unit before mounting it in the enclosure to ensure good electrical connections. The following steps outline the most common sequence for installing a unit without an MLPS1 attached.

- 1. Determine the location of the conduit fitting and drill the necessary hole.
- 2. Apply adhesive side of panel gasket to rear enclosure opening.

DO NOT APPLY THE ADHESIVE SIDE OF THE GASKET TO THE ACCESS PANEL.

- 3. Slide the panel gasket over the rear of the unit to the back of the bezel.
- 4. Assemble nut fastener and mounting screw onto both sides of the mounting clip. The tip of the screw should not project from the hole in mounting clip.
- 5. Route the wire to be connected to the unit from the conduit fitting through the mounting clip, and then through the rear of the enclosure and out the
- 6. Connect the necessary wires to the unit for the application desired.
- 7. Install the unit through the opening in the front of the enclosure until the bezel flange contacts the panel.
- 8. Slide the mounting clip over the rear of the unit until the mounting clip is against the inside of the enclosure. The mounting clip has latching features which engage into mating features on the unit's housing.
  - Note: It is necessary to hold the unit in place when sliding the mounting clip into position.
- 9. Alternately tighten each screw to ensure uniform gasket pressure. Visually inspect the front panel gasket. The gasket should be compressed to about 75 to 80% of its original thickness (Recommended torque is 28 to 36 in-oz.). If not, gradually turn mounting screws to further compress the gasket.

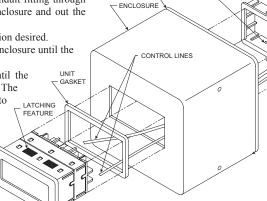


FASTENER

LATCHING

PANEL

GASKET



12. Alternately tighten each screw to ensure uniform gasket pressure. Visually inspect the sponge rubber The gasket should be compressed to about 75 to 80% of its original thickness.

ONDUIT FITTING

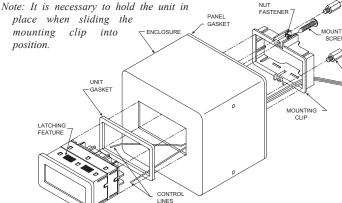
MOUNTING

CONDUIT

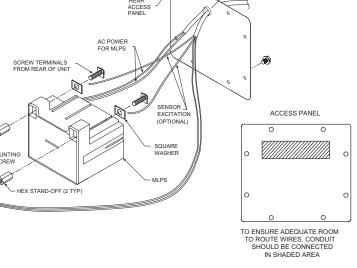
#### **ENC8 w/ MLPS1 Installation**

Installing a unit with an MLPS1 attached requires some planning. It is recommended that the unit with the MLPS1 attached be temporarily installed in the enclosure to determine the best location for the conduit fitting to avoid interference with the MLPS1.

- 1. Mark the location of the conduit fitting and drill the necessary hole.
- 2. Apply adhesive side of panel gasket to rear enclosure opening. DO NOT APPLY THE ADHESIVE SIDE OF THE GASKET TO THE
- ACCESS PANEL. 3. Slide the panel gasket over the rear of the unit to the back of the bezel.
- 4. Remove the common and V+ screw terminals from the rear of the unit (save for later use) and replace them with the hex drive stand-offs (supplied with the MLPS1).
- 5. Assemble nut fastener and mounting screw onto both sides of the mounting clip. The tip of the screw should not project from the hole in mounting clip.
- 6. Route the wire to be connected to the unit from the conduit fitting through the mounting clip, and then through the rear of the enclosure and out the front.
- 7. Connect the necessary wires to the unit for the application desired.
- 8. Install the unit through the opening in the front of the enclosure until the bezel flange contacts the panel mounted gasket.
- 9. Slide the mounting clip over the rear of the unit until the mounting clip is against the inside of the enclosure. The mounting clip has latching features which engage into mating features on the unit's housing.



- 10. Alternately tighten each screw to ensure uniform gasket pressure. Visually inspect the front panel gasket. The gasket should be compressed to about 75 to 80% of its original thickness (Recommended torque is 28 to 36 in-oz.). If not, gradually turn mounting screws to further compress the gasket.
- 11. If the gasket is not adequately compressed, and the mounting screws can no longer be turned, loosen the mounting screws and check that the mounting clip is latched as close as possible to the inside of enclosure. Repeat the procedure for tightening the screws.
- 12. Connect AC power to the terminal block of the MLPS1.



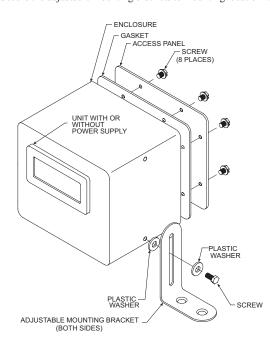
- 13. Mount the MLPS1 and optional sensor wires needed, to the stand-offs using the screw terminals from the unit with the supplied square washers.
- 14. After all electrical connections have been made, attach the rear access panel to the enclosure with the eight screws provided.
- 15. Alternately tighten each screw to ensure uniform gasket pressure. Visually inspect the sponge rubber gasket. The gasket should be compressed to about 75 to 80% of its original thickness.

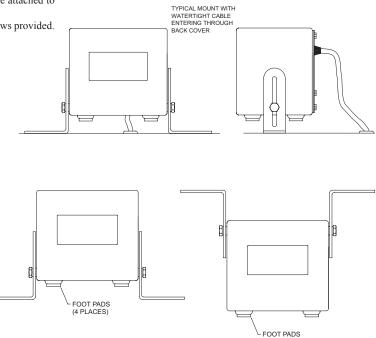
(4 PLACES)

#### MOUNTING THE ENCLOSURE

- 1. Self-stick foot pads may be applied to the features on the bottom of the enclosure to protect the mounting surface.
- 2. To securely mount the enclosure, attach the adjustable mounting brackets to the enclosure using the plastic washers and screws. Mounting brackets may be attached to the top or bottom of the enclosure.

3. Secure the adjustable mounting brackets to mounting location with the screws provided.





# NEMA 4 1/16 DIN SERIES ENCLOSURES

# **ENC11A & ENC11B - PLASTIC ENCLOSURES**

- RUGGED POLYCARBONATE CONSTRUCTION
- COMPLETELY SEALED FOR NEMA 4X/IP65 WASH-DOWN
- EASY MOUNTING OPTIONS

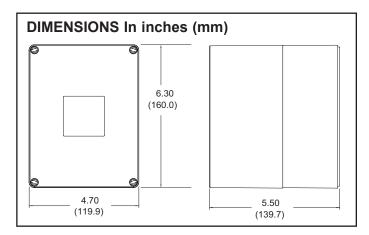
#### **DESCRIPTION**

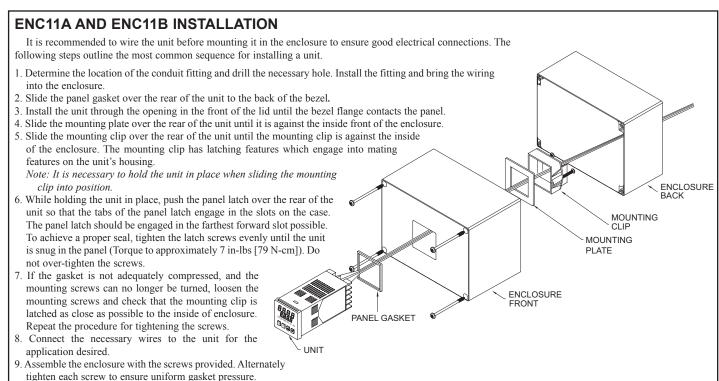
These enclosures are designed for applications requiring a water resistant instrument enclosure. The ENC11A and ENC11B enclosures are fabricated of polycarbonate and when properly installed, the meter and the enclosures are designed to withstand NEMA 4X/IP65 wash-down applications. The enclosures can be used free-standing, or securely fastened to a mounting surface. The enclosures are precut for either one or two meters.

Electrical connections to the enclosed instrument are easily made by drilling the desired location on the back or side of the enclosure. Select the proper drill size to accommodate the conduit fitting or other wire connector. To maintain the enclosure NEMA 4X rating, sealed connectors must be used.

MODEL NO	DESCRIPTION	PART NUMBER
ENC11A	NEMA 4X/IP65 Enclosure for One 1/16 DIN Meter	ENC11A00
ENC11B	NEMA 4X/IP65 Enclosure for Two 1/16 DIN Meters	ENC11B00







# **ENC11 - STEEL ENCLOSURE**

- RUGGED STEEL CONSTRUCTION
- COMPLETELY SEALED FOR WASH-DOWN
- VERSATILE MOUNTING OPTIONS FOR MACHINE OR DESKTOP

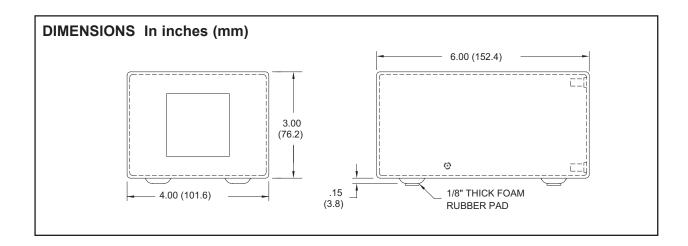


#### **DESCRIPTION**

This enclosure is designed for applications requiring a water resistant instrument enclosure. The enclosure is fabricated of formed steel with all seams welded to withstand NEMA 4/IP65 wash-down applications. The kit is coated with a durable flat black polyurethane finish.

Electrical connections to the enclosed instrument are easily made through a removable access panel at the rear of the enclosure. The panel must be drilled to accept conduit fittings or other types of wiring connectors.

The enclosure can be used free-standing or securely fastened to a mounting surface with brackets which are provided with each enclosure. The brackets also allow the enclosure to be raised and/or tilted from the mounting surface in order to achieve the most favorable operating position. Self-adhering rubber pads are provided which can be applied to the bottom of the enclosure. These rubber pads will protect the mounting surface and are particularly useful for free-standing installations.



MODEL NO	DESCRIPTION	PART NUMBER
ENC11	NEMA 4 Enclosure for 1/16 DIN Units	ENC11000

# NEMA 4 1/8 DIN SERIES ENCLOSURES

### **ENC5B & ENC5C - PLASTIC ENCLOSURES**

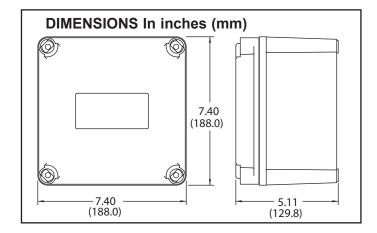
- RUGGED POLYCARBONATE CONSTRUCTION
- COMPLETELY SEALED FOR NEMA 4X/IP65 WASH-DOWN
- EASY MOUNTING OPTIONS

#### DESCRIPTION

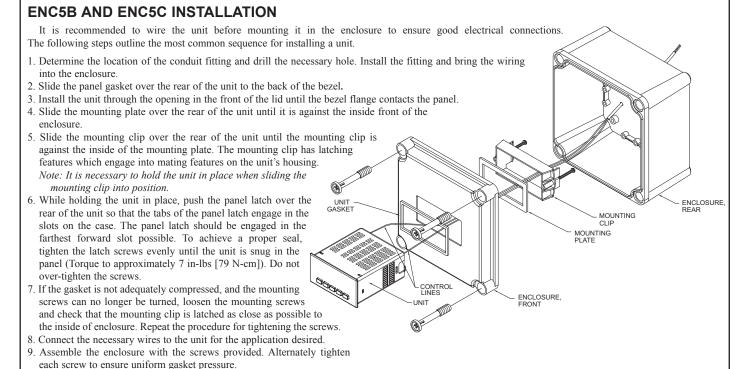
These enclosures are designed for applications requiring a water resistant instrument enclosure and are precut for either one or two meters. The ENC5B and ENC5C enclosures are fabricated of polycarbonate and when properly installed, the meter and the enclosures are designed to withstand NEMA 4X/IP65 wash-down applications. The enclosures can be used free-standing, or securely fastened to a mounting surface.

Electrical connections to the enclosed instrument(s) are easily made by drilling the desired location on the back or side of the enclosure. Select the proper drill size to accommodate the conduit fitting or other wire connector. To maintain the enclosure NEMA 4X rating, sealed connectors must be used.





MODEL NO	DESCRIPTION	PART NUMBER
ENC5B	NEMA 4X/IP65 Enclosure for One 1/8 DIN Meter	ENC5B000
ENC5C	NEMA 4X/IP65 Enclosure for Two 1/8 DIN Meters	ENC5C000





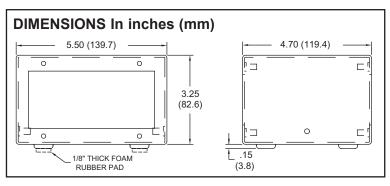
- RUGGED STEEL CONSTRUCTION
- COMPLETELY SEALED FOR NEMA 4/IP65 WASH-DOWN
- VERSATILE MOUNTING OPTIONS FOR MACHINE OR DESKTOP

#### **DESCRIPTION**

The ENC5A enclosure is fabricated of formed steel with all seams welded to withstand NEMA 4/IP65 wash-down applications. The kit is coated with a durable flat black polyurethane finish.

Electrical connections to the enclosed instrument are easily made through a removable access panel at the rear of the enclosure. The panel must be drilled to accept conduit fittings or other types of wiring connectors.

The enclosure can be used free-standing or securely fastened to a mounting surface with brackets which are provided with each enclosure. The brackets also allow the enclosure to be raised and/or tilted from the mounting surface in order to achieve the most favorable operating position. Self-stick rubber pads are provided which can be applied to the bottom of the enclosure. These rubber pads will protect the mounting surface and are particularly useful for free-standing installations.

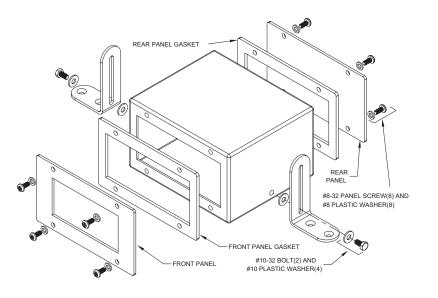


#### ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
ENC5A	NEMA 4/IP65 Enclosure for 1/8 DIN Meter	ENC5A000

#### **ENC5A INSTALLATION**

- Mark the location on the rear panel for your wire connector or conduit fitting, and drill the necessary hole. Connect your wire connector or fitting to the rear panel.
- Remove the center sections of the front and rear panel gaskets. These centers contain the optional foam rubber feet for the enclosure.
- Apply the adhesive side of the panel gasket to the front and rear openings of the enclosure. DO NOT APPLY THE ADHESIVE SIDE OF THE GASKET TO THE FRONT OR REAR PANELS.
- Install the unit to the front panel according to the standard panel installation instructions found in the product literature
- Route the wires to be connected to the unit from the conduit fitting through the rear of the enclosure and out the front
- Connect the necessary wires to the unit for the application desired.
- 7. Attach the front and rear panels to the enclosure with the screws and washers provided. Alternately tighten each screw to ensure uniform gasket compression. Visually inspect the sponge rubber gasket. The gasket should be compressed to about 75 to 80% of its original thickness.



- 8. For a free-standing enclosure, apply the self-stick foam rubber pads to the features on the bottom of the enclosure to protect the mounting surface.
- 9. To securely mount the enclosure, attach the adjustable mounting brackets to the enclosure using the washers and bolts provided. Secure the mounting brackets to the desired mounting location. The mounting screws to attach the brackets to your surface are not provided due to the variety of installation options available.

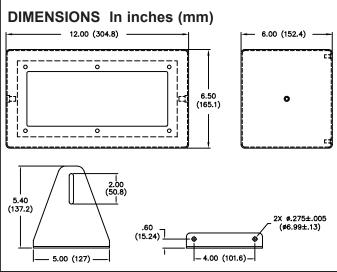
# LPAX ENCLOSURE, MOUNTING AND LABEL ACCESSORIES

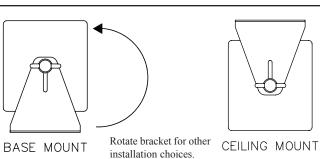


- ENGINEERING UNIT LABELS
- BRACKETS FOR BASE, CEILING, OR WALL MOUNTING
- NEMA 4/IP65 ENCLOSURE FOR WASHDOWN ENVIRONMENTS
- FRONT PANEL SHROUD FOR ENHANCED VIEWING

#### **ENC9-NEMA 4/IP65 LPAX ENCLOSURE**

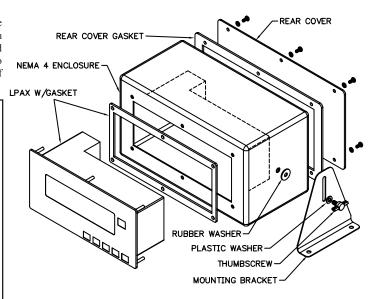
The ENC90000 NEMA 4/IP65 enclosure provides a means of mounting the LPAX display in dirty or washdown environments. The enclosure comes with all the gaskets, hardware (except the mounting screws), and brackets required to base, ceiling, or wall mount the LPAX display. The mounting screws to attach the brackets to your surface are not provided due to the variety of installation options available.





#### ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBERS
ENC9	NEMA 4 Enclosure for LPAX	ENC90000

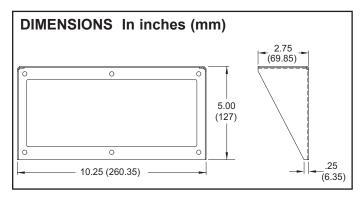


#### **ENCLOSURE ASSEMBLY**

- Before drilling a hole in the enclosure for your wire connector or fitting, ensure that the location you have chosen allows enough clearance around the MPAX module.
- Remove the center section of the gasket provided with the LPAX, and slide it over the rear of the display and onto the mounting studs.
- 3. Insert the LPAX into the enclosure as illustrated. Install six #10-32 keps nuts (supplied with the LPAX) and tighten evenly for uniform gasket compression. The gasket should be compressed to about 75 to 80% of its original thickness. Do not overtighten the nuts.
- 4. Run the wires through the hole that was drilled in the enclosure, and attach them to the LPAX. Wiring instructions are provided in the appropriate PAX bulletin shipped with the MPAX Module.
- 5. Remove the center section of the rear cover gasket. Apply the gasket to the rear panel of the enclosure by inserting the screws through the panel and into the holes in the gasket. Position the panel on the enclosure and start all of the screws. Alternately tighten each screw to ensure uniform gasket compression. The gasket should be compressed to about 75 to 80% of its original thickness.
- To securely mount the enclosure, attach the adjustable mounting brackets to the enclosure using the washers and screws provided.
- 7. Secure the mounting brackets to the desired mounting location.

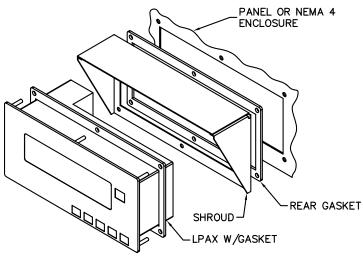
#### **SHROUD**

The optional shroud enhances the readability of the LPAX unit in areas with high intensity overhead light sources. The shroud can be used in conjunction with any installation (panel mount, enclosure, or mounting brackets). When properly installed, the shroud will not affect the integrity of a NEMA 4 installation.



#### **ORDERING INFORMATION**

MODEL NO.	DESCRIPTION	PART NUMBERS
SHR	Shroud for LPAX	SHRLPAX0

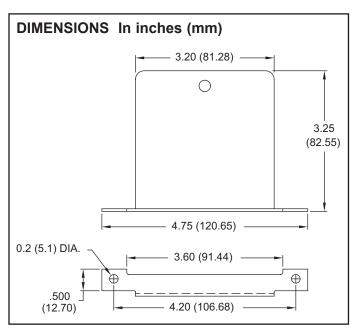


#### **INSTALLATION**

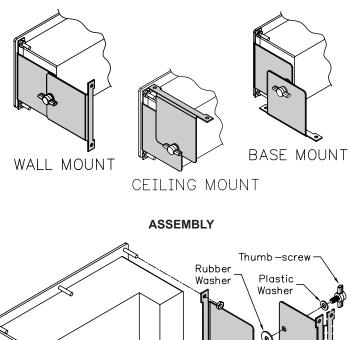
- 1. Remove the center section of the gasket provided with the LPAX, and slide it over the rear of the display and onto the mounting studs.
- 2. Orient the shroud and gasket as shown in the assembly figure, and place it over the LPAX. The studs of the LPAX should now be protruding through the rear of the shroud.
- 3. Follow the remaining installation instructions for panel mounting, bracket mounting or enclosure mounting as appropriate.

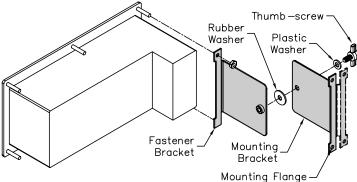
#### **MBLPAX-MOUNTING BRACKETS**

The MBLPAX mounting brackets provide an easy way to base, wall, or ceiling mount the LPAX display. The MBLPAX kit comes with two sets of brackets, and most of the hardware to mount the LPAX at virtually any angle. The screws to attach the brackets to your surface are not provided due to the variety of installation options available.



MODEL NO.	DESCRIPTION	PART NUMBERS
MB	Mounting Bracket for LPAX	MBLPAX00





- 1. When installing the brackets, the fastener bracket must be installed on the studs of the LPAX as shown.
- 2. The mounting bracket may be installed with the flange facing in or out.
- 3. The rubber washers provided must be installed between the two mounting brackets during assembly.
- 4. The screws for fastening the brackets to a surface are not provided in the MBLPAX kit. The holes are 0.2" in diameter and will accept size #10 screws and smaller.

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### NEMA 4/IP65 LARGE DISPLAY ENCLOSURE & SHROUD FOR EPAX

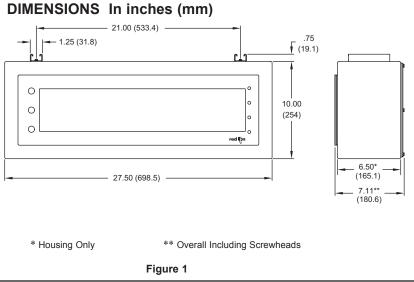


Picture includes the EPAX, Nema Enclosure, and Shroud

- LIGHT-WEIGHT ALUMINUM CONSTRUCTION
- COMPLETELY SEALED FOR WASH-DOWN
- MOUNTING CHANNELS FOR VERSATILE INSTALLATION

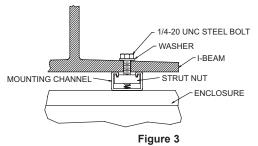
#### **DESCRIPTION**

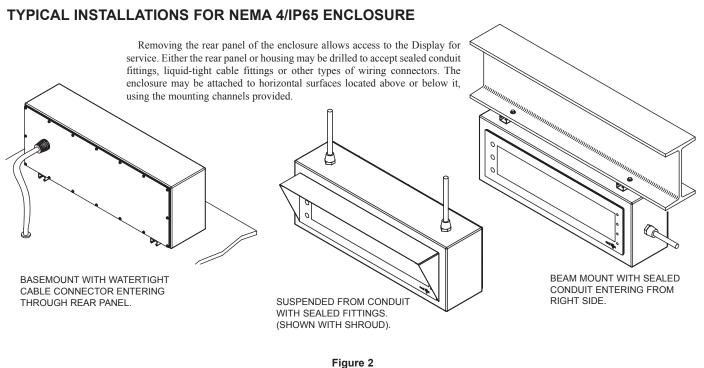
The NEMA 4/IP65 Large Display Enclosure is designed to protect the EPAX from dust and hose directed water, when properly installed. This light-weight all aluminum unit utilizes welded seams and neoprene gaskets to meet NEMA 4/IP65 requirements. A textured, polyurethane coating protects against corrosion and is scratch resistant. Figure 1 below shows the overall dimensions of the Enclosure. The Display Enclosure with Mounting Channels weighs 9 pounds (4.1 Kg).



#### **MOUNTING**

Provided with the enclosure are two ¼-20 UNC x 1" hex bolts, two ¼-20 UNC "strut nuts", and two ¼" washers. The "strut nuts" can be installed anywhere in the channel by inserting them, spring side down, into the channels, then rotating them 90 degrees clockwise until the notches engage with the lips of the channel. The bolts and washers provided allow mounting to surfaces ¼" to ½" thick (6.4 to 12.7 mm). Use longer bolts for mounting to thicker surfaces. Bolts fabricated from materials other than steel are not recommended.





#### **ASSEMBLY AND INSTALLATION PROCEDURE**

- Install the two mounting channels on the enclosure housing using the four #8-32 screws provided and then insert the strut nuts (provided). Invert enclosure if base mounting.
- 2. If the wiring is to be routed through the housing, make sure that the mounting channels are oriented properly before drilling, so the Display will be readable. Wiring is generally brought into the right side of the housing or rear panel, closest to the terminals of the MPAX module. Drill the proper size hole in the housing or rear panel for the wiring connector or sealed conduit fitting and attach the fitting(s)
- 3. Before installing the Display into the housing, be sure that the mounting channels are oriented properly for the type of installation planned. Place the gasket that is supplied with the Display over the studs extending from the front panel of the display.
- 4. If using the shroud, refer to the Shroud Installation Procedure. Place the Display with gasket through the holes in the housing as shown at right. Working back and forth across the stud pattern, install the #10-32 keps nuts supplied with the Display on the studs. Tighten firmly.
- 5. Mount the housing, using the strut nuts and steel ½-20 UNC bolts and washers, as shown in figure 4.
- Connect the wires to the Display per the instructions included with the personality board.
- 7. Remove the center section of the rear panel gasket. Apply the gasket to the rear panel of the enclosure by inserting the #8-32 screws through the panel and into the holes in the gasket. Position the panel on the housing, start all of the screws, then firmly tighten them in a pattern working back and forth across the rear panel.

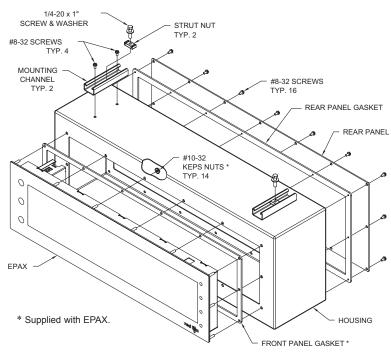
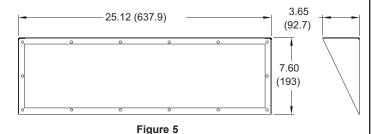


Figure 4

#### DIMENSIONS FOR THE EPAX DISPLAY SHROUD

The optional EPAX Display Shroud enhances the readability of the Displays that are installed in areas with high intensity overhead light sources. The Shroud can be used with the EPAX Display in any installation, (panel mount, NEMA 4/IP65 Enclosure, or Universal Mounting Bracket). When properly assembled, the Shroud will not affect the integrity of a NEMA 4/IP65 installation. The Shroud weighs 1.0 pound (0.45 Kg).

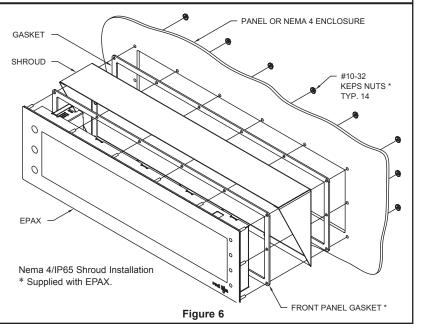
#### **DIMENSIONS** In inches (mm)



#### SHROUD INSTALLATION PROCEDURE

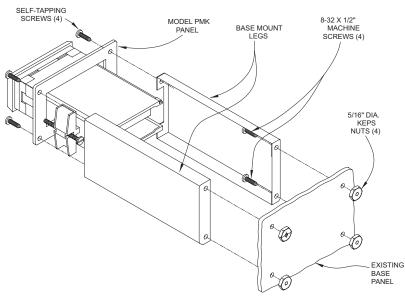
# Installing The Shroud On An EPAX Display In A NEMA 4/IP65 Enclosure Or Panel

- 1. Place a gasket over the studs extending from the rear of the front panel of the Display.
- Orient the shroud as shown in Figure 6, and place it over the display. The studs of the display should now be protruding through the rear of the shroud.
- 3. Place the other gasket over the studs.
- 4. Install the unit into the panel or enclosure using the #10-32 keps nuts that are supplied with the Display. Tighten the nuts firmly.



MODEL NO.	DESCRIPTION	PART NUMBERS
ENC12	NEMA 4/IP65 Enclosure for EPAX	ENC12000
SHR	Shroud for EPAX	SHREPAX0
EN/SH	EPAX NEMA 4/IP65 Enclosure and Shroud	EPAXENSH

#### MODEL BMK3 & BMK4 - BASE MOUNT KITS



#### **DESCRIPTION**

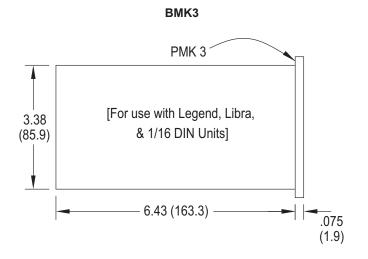
The Model BMK3 and 4 Base Mount Kits provide the necessary equipment for base mounting various units. The kits are coated with a durable flat black polyurethane finish and consist of two mounting legs which attach to the customer's base panel, using the hardware provided.

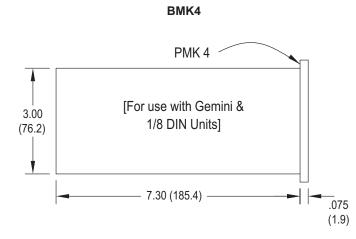
Model PMK3 and 4 are separate front panels, available for different sized units. After mounting the units to the appropriate PMK panel, the entire assembly is then attached to the mounting legs.

#### **MOUNTING PROCEDURE**

- 1. Mark and drill holes (3/16" Dia.) in base panel for attaching the base mount legs. Use the appropriate Model PMK panel as a template for marking the mounting hole locations. NOTE: RECOMMENDED MINIMUM BASE PANEL THICKNESS IS 1/8" TO SUPPORT THE WEIGHT OF THE INDICATOR WITHOUT PANEL DISTORTION.
- Attach the base mount legs to the base panel using the machine screws and nuts provided or user supplied hardware if panel thickness exceeds 1/4".
- Mount the indicator to the Model PMK panel, utilizing the mounting clips provided, in accordance with the panel mounting instructions supplied with the individual unit.
- Attach the PMK panel and unit assembly to the base mount legs by using the self-tapping screws provided.

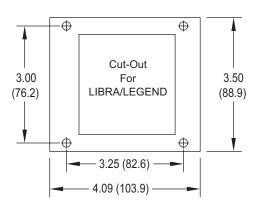
#### BASE MOUNT DIMENSIONS In inches (mm)

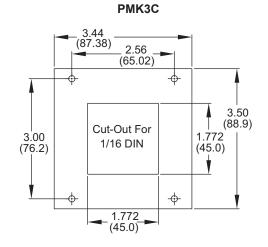




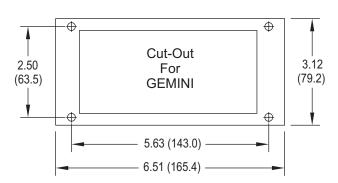
# PANEL DIMENSIONS In inches (mm)

#### PMK3B

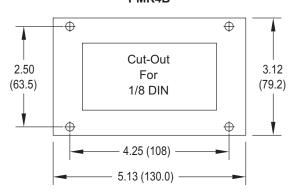




#### PMK4A



#### PMK4B



MODEL NO.	DESCRIPTION	PART NUMBER
BMK 3	Base Mount Kit For Legend And Libra	BMK30000
BMK 4	Base Mount Kit For Gemini and 1/8 DIN Units	BMK40000
PMK 3B	Mounting Panel For Libra And Legend	PMK3B000
PMK 3C	Mounting Panel For 1/16 DIN Units	PMK3C000
PMK 4A	Mounting Panel For Gemini	PMK4A000
PMK 4B	Mounting Panel For 1/8 DIN Units	PMK4B000

# MODEL BMK6, BMK7 & BMK7A - BASE MOUNT KIT FOR CUB4, CUB5 & DT8 UNITS



#### **DESCRIPTION**

The BMK6, BMK7 and BMK7A base mounts are designed for use with the CUB4, CUB5, and DT8 units. The BMK7 is large enough to accommodate a Micro-line Power Supply (MLPS) attached to a CUB4 or DT8. The BMK7A will accommodate a Micro-line Power Supply (MLPS) attached to a CUB5.

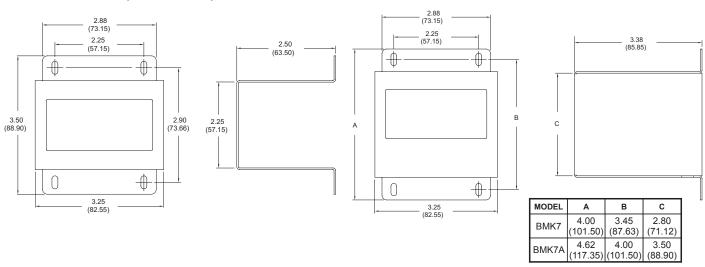
The wires can either be brought through the panel on which the unit is mounted, or through the hole(s) in the enclosure itself. Grommets are provided to insert in the hole(s) on the base mount (where applicable) when wires are routed through it. The grommets are in the accessory bag with each base mount unit, along with four nuts and bolts for mounting.

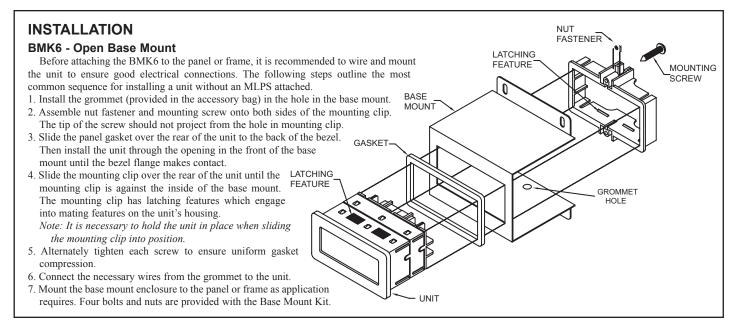
The base mounts are constructed of steel with a textured black finish.

# **DIMENSIONS** In inches (mm)

# BMK6 - OPEN BASE MOUNT KIT (Without MLPS)

#### BMK7/BMK7A - CLOSED BASE MOUNT KIT (With or Without MLPS)





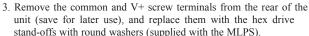
#### **INSTALLATION**

#### BMK7/BMK7A - Closed Base Mount

Before attaching the BMK7/BMK7A to the panel or frame, it is recommended to wire and mount the unit to ensure good electrical connections. The following steps outline the most common sequence for installing a unit with an MLPS attached.

1. Install the grommets (provided in the accessory bag) in the holes in the base mount.

2. Slide the panel gasket over the rear of the unit to the back of the bezel.



4. Assemble nut fastener and mounting screw onto both sides of the mounting clip. The tip of the screw should not project from the hole in mounting clip.

5. Route the wires from the grommets, through the mounting clip, into the rear of the base mount and out the front.

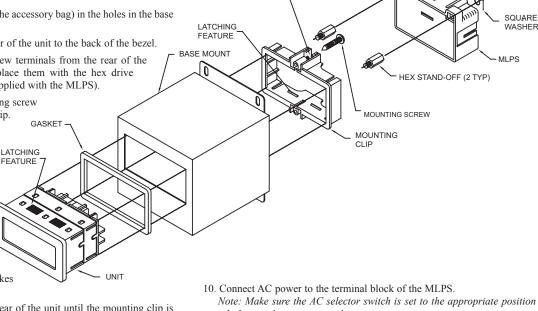
6. Connect the wires necessary for the application to the unit.

7. Install the unit through the opening in the front of the base mount until the bezel flange makes

8. Slide the mounting clip over the rear of the unit until the mounting clip is against the inside of the base mount. The mounting clip has latching features which engage into mating features on the unit's housing.

Note: It is necessary to hold the unit in place when sliding the mounting clip into position.

9. Alternately tighten each screw to ensure uniform gasket compression.



NUT FASTENER

before applying power to the unit.

SCREW TERMINALS FROM REAR OF UNIT

- 11. Mount the MLPS and optional sensor wires needed to the stand-offs using the screw terminal from the unit with the supplied square washers.
- 12. Mount the base mount enclosure to the panel or frame as application requires. Four bolts and nuts are provided with the Base Mount Kit.

#### ORDERING INFORMATION

MODEL NO	DESCRIPTION	PART NUMBER
	OPEN BASE MOUNT KIT	BMK60000
BMK	CLOSED BASE MOUNT KIT (DT8, CUB4)	BMK70000
	CLOSED BASE MOUNT KIT (CUB5)	BMK7A000

For More information on Pricing, Enclosures & Panel Mount Kits refer to the RLC Catalog or contact your local RLC Distributor.

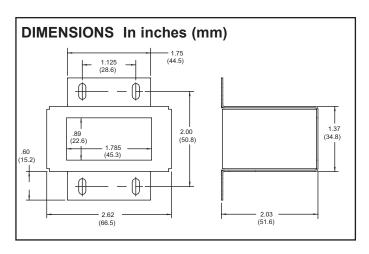
#### MODEL BMK8 - BASE MOUNT KIT FOR CUB7



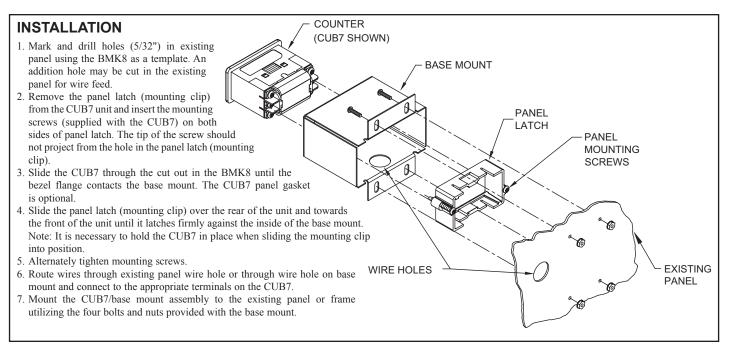
#### **DESCRIPTION**

The BMK8 base mount is designed for use with the CUB7 series products. Wire feed to the CUB7 unit may be through the existing panel/frame or through the hole in the BMK8 itself.

The base mount is constructed of steel with a textured black finish and includes four mounting bolts and nuts.



MODEL NO.	DESCRIPTION	PART NUMBER
BMK8	CUB7 BASE MOUNT KIT	BMK80000



### MODEL BMK9 - DIN RAIL MOUNT ADAPTER KIT FOR PAX

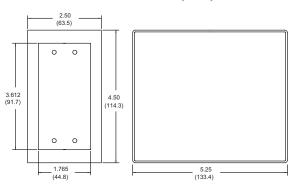


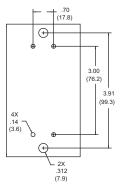
#### **DESCRIPTION**

The BMK9 DIN rail mount kit is designed to adapt any PAX panel mount meter to DIN rail mount requirements. Wire feed to the PAX unit may be through the top or bottom of the adapter kit.

The DIN rail adapter frame is constructed of steel with a textured black finish and includes two plastic DIN rail mounting feet for attachment to a top hat (T) profile rail according to EN50022 - 35 x 7.5 and 35 x 15.

#### **DIMENSIONS** In inches (mm)





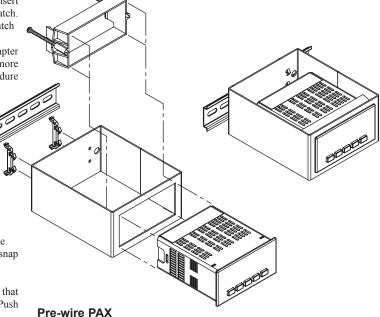
#### ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
BMK9	DIN Rail PAX Base Mount Kit	BMK90000

For More information on Pricing, Enclosures & Panel Mount Kits refer to the RLC Catalog or contact your local RLC Distributor.

#### **INSTALLATION**

- 1. Remove the panel latch (mounting clip) from the PAX meter unit and insert the mounting screws (supplied with the PAX) on both sides of panel latch. The tip of the screw should not project from the hole in the panel latch
- 2. The PAX meter may be wired after the unit has been mounted in the adapter frame, in which case continue with Step 3. If pre-wiring the PAX is more convenient, skip to the pre-wiring step at the end of this installation procedure before returning to Step 3.
- 3. Slide the PAX meter through the cut out in the BMK9 and then slide the panel latch (mounting clip) over the rear of the PAX.
- 4. Continue sliding the PAX meter until the bezel flange contacts the adapter frame. The PAX panel gasket is optional.
- 5. Slide the panel latch (mounting clip) towards the front of the unit until it latches firmly against the inside of the adapter frame. Note: It is necessary to hold the PAX meter in place when sliding the mounting clip into position.
- 6. Alternately tighten mounting screws through the rear access holes of the adapter frame.
- 7. Apply both DIN rail feet to the rear of the adapter frame. The two latching pins of the rail foot are positioned into the mating holes on the adapter frame. Slight pressure applied to the center of the rail foot will snap foot into locking position.
- 8. Wire PAX meter appropriately.
- 9. To install the complete assembly on a T style rail, angle the assembly so that the top groove of both rail feet are located over the top lip of the rail. Push the assembly towards the rail until it snaps into place.
- 10. To remove the assembly from the rail, place a screwdriver behind the bottom groove of the foot rail and slightly pry upwards to release first rail foot. Apply same procedure to second rail foot and remove complete assembly.



2a. Route wires through the panel latch (mounting clip) and then through the front cut out of the adapter frame from the inside to the outside. Wire PAX meter appropriately. Continue with installation at Step 3 above.

# MODEL BMK11 - CUB5 OR MLPS DIN RAIL BASE MOUNT ADAPTER KIT

#### **DESCRIPTION**

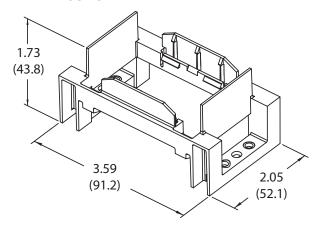
The model BMK11 can be used to mount a CUB5 meter or a Micro Line Power Supply (MLPS) in various applications. Need a DIN rail mounted display? Simply add the DIN rail clips to the back of the BMK11, install your meter and snap it on the rail. If your application requires an inexpensive power supply, simply mount an MLPS to the BMK11 and snap it to the rail. For base mount application, just use the appropriate mounting screws to securely fasten the BMK11. Nothing could be easier.

#### ORDERING INFORMATION

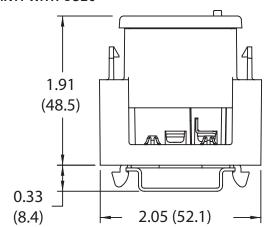
MODEL NO.	DESCRIPTION	PART NUMBER
BMK11	CUB5 or MLPS DIN Rail Base Mount Kit	BMK11000

# **DIMENSIONS** In inches (mm)

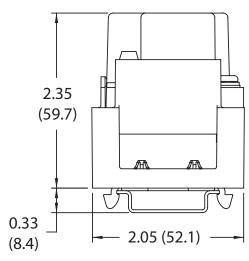
#### **BMK11 WITHOUT UNIT**



#### **BMK11 WITH CUB5**



#### **BMK11 WITH MLPS**

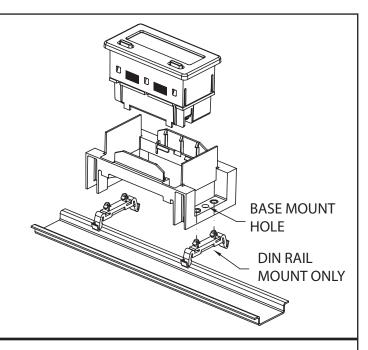


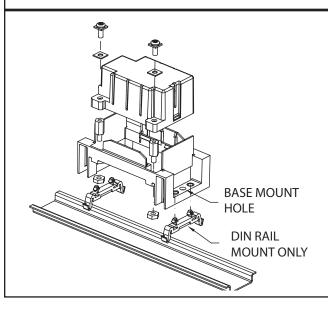
#### 1020

## www.redlion.net

#### **CUB5 INSTALLATION**

- 1. Remove the panel latch (mounting clip) from the indicator. Insert the indicator into the BMK11 per diagram at right. Verify indicator is fully seated and latches have engaged. With latches properly engaged the indicator will not pull out of the BMK11.
- 2. Wire the indicator.
- 3. For DIN RAIL mounting, insert the two plastic feet as shown in the diagram at right. Angle the assembly so that the top groove of both rail feet are located over the top lip of the rail. Rotate the assembly towards the rail until it snaps into place.
- 4. To remove the assembly from the rail, place a screwdriver behind one of the rail feet and draw the rail foot away from the rail disengaging it from the rail. Apply the same procedure to the second rail foot and remove the complete assembly from the rail.
- 5. For **Base Mount**, use the holes indicated in the diagram at right, and screw or bolt the assembly to the desired mounting surface. User is responsible for selecting the appropriate screw or bolt to provide mounting to the desired surface. Base mount holes in the BMK11 are designed for #8 hardware.
- 6. To remove the indicator from the BMK11, slide a small screwdriver into the slot provided in the latch. Draw the latch away from the indicator until disengaged. Repeat the procedure on the other side. Once the latches are released, remove the indicator from the BMK11.





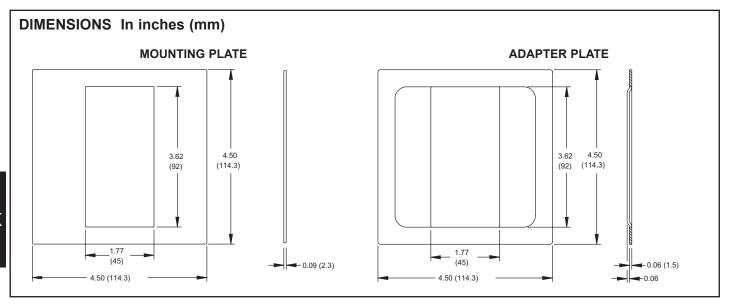
#### **MLPS INSTALLATION**

- 1. Using the two nuts supplied with the BMK11, affix standoffs from MLPS hardware pack as indicated in the diagram at left.
- 2. Snap the MLPS over the standoffs into the BMK11 as indicated in the diagram.
- 3. Attach the MLPS to the standoffs using the square washers and SEMS terminal screws included with MLPS hardware pack.
- 4. Assembly can be wired at this time, or after the mounting is completed.
- 5. For **DIN RAIL** mounting, insert the two plastic feet as shown in the diagram. Angle the assembly so that the top groove of both rail feet are located over the top lip of the rail. Rotate the assembly towards the rail until it snaps into place.
- 6. For **Base Mount**, use the holes indicated in the diagram at left, and screw or bolt the assembly to the desired mounting surface. User is responsible for selecting the appropriate screw or bolt to provide mounting to the desired surface. Base mount holes in BMK11 are designed for #8 hardware.
- 7. To remove the MLPS from the BMK11, slide a small screwdriver between the MLPS and the latch wall. Draw the latch away from the MLPS until disengaged. Repeat procedure on the other side. Once latches are released remove the MLPS from the BMK11.

# MODELS PMK5, PMK7, and PMK7A - PANEL MOUNT ADAPTER KITS

#### PMK5 - 1/4 DIN TO 1/8 DIN ADAPTER

This panel mount adapter kit is used to mount 1/8 DIN instruments, vertically or horizontally into an existing 1/4 DIN panel cut-out. The kit includes two durable steel mounting plates painted black and a neoprene gasket. The Adapter Kit, when used with a unit which has NEMA 4/IP65 specifications, will meet NEMA 4/IP65 requirements when properly installed. Red Lion Controls 1/8 DIN products include Temperature and Process Control Units (*Models TCU, TSC, PCU, and PSC*), and PAX Series.

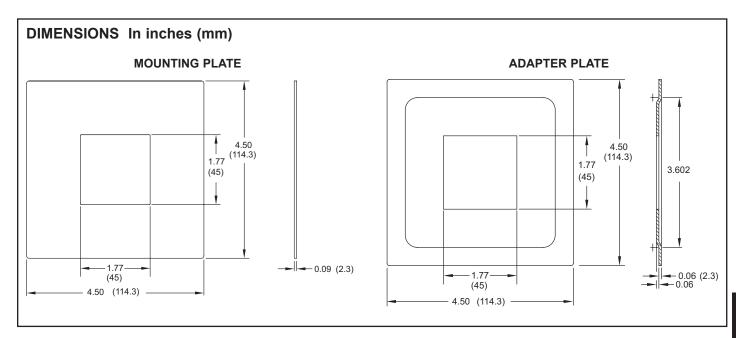


#### PANEL LATCH **INSTALLATION** ADAPTER PLATE TYPICAL VERTICAL MOUNT INSTALLATION (Supplied w/Adapter Kit) 1. Remove the paper backing from the adhesive side of the adapter gasket (included with adapter kit) and carefully apply the gasket to the front ADAPTER GASKET of the existing panel cut-out. (Supplied w/Adapter Kit) 2. Apply the panel gasket (provided with the unit) to one side of the mounting MOUNTING PLATE plate. Slide the mounting plate over (Supplied w/Adapter Kit) the unit with the gasket facing the Bezel of the unit. EXISTING PANEL CUT-OUT 1/4 DIN 3. Insert the unit with mounting plate 3.62" (92 mm) X 3.62" (92 mm) into the panel cut-out from the front. Slide the adapter plate over the rear of the unit. The protrusion on the adapter plate is designed to fit into the existing 1/4 DIN panel cut-out to properly position the unit. 4. Refer to the installation section of the manual, supplied with the instrument, (Supplied w/Unit) to complete the installation. TCU

MODEL NO.	DESCRIPTION	PART NUMBER
PMK5	Panel Mount Adapter Kit (1/4 DIN TO 1/8 DIN)	PMK50000
PMK7	Panel Mount Adapter Kit (1/4 DIN TO 1/16 DIN)	PMK70000
PMK7A	Panel Mount Adapter Kit (1/4 DIN TO CUB)	PMK7A000

#### PMK7 - 1/4 DIN TO 1/16 DIN ADAPTER

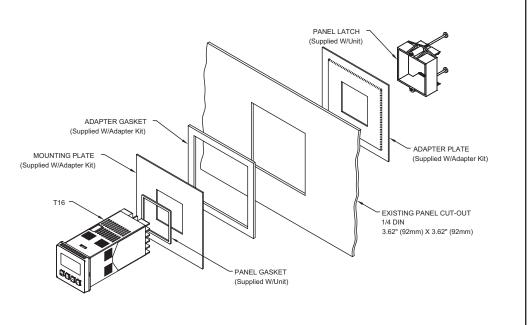
This panel mount adapter kit is used to mount 1/16 DIN instruments, into an existing 1/4 DIN panel cut-out. The kit includes two durable steel mounting plates painted black and a neoprene gasket. The Adapter Kit, when used with a unit which has NEMA 4/IP65 specifications, will meet NEMA 4/IP65 requirements when properly installed. Red Lion Controls 1/16 DIN products include Temperature and Process Control Units (*Models T48, T16, P48, and P16*), and Model C48 Counters and Timers.



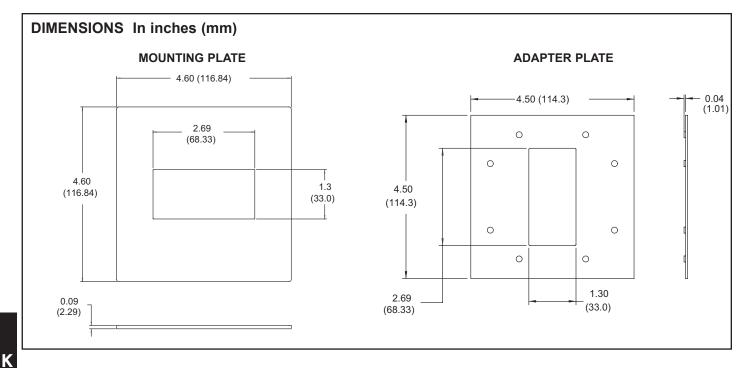
# INSTALLATION

TYPICAL INSTALLATION

- Remove the paper backing from the adhesive side of the adapter gasket (included with adapter kit) and carefully apply the gasket to the front of the existing panel cut-out.
- 2. Apply the panel gasket (*provided with the unit*) to one side of the mounting plate. Slide the mounting plate over the unit with the gasket facing the Bezel of the unit.
- 3. Insert the unit with mounting plate into the panel cut-out from the front. Slide the adapter plate over the rear of the unit. The protrusion on the adapter plate is designed to fit into the existing 1/4 DIN panel cut-out to properly position the unit.
- Refer to the installation section of the manual, supplied with the instrument, to complete the installation.

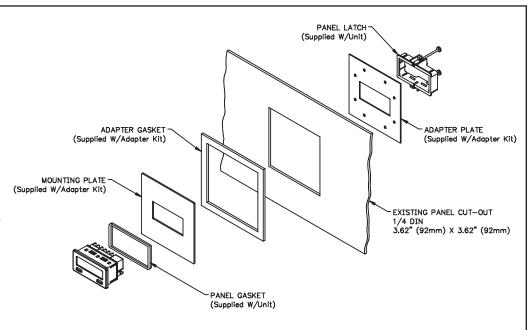


#### This panel mount adapter kit is used to mount CUB4, CUB5, DT8 and DT9 instruments, into an existing 1/4 DIN panel cut-out. The kit includes two durable steel mounting plates painted black and a neoprene gasket. The Adapter Kit, when used with a unit which has NEMA 4/IP65 specifications, will meet NEMA 4/IP65 requirements when properly installed.



#### **INSTALLATION** TYPICAL INSTALLATION

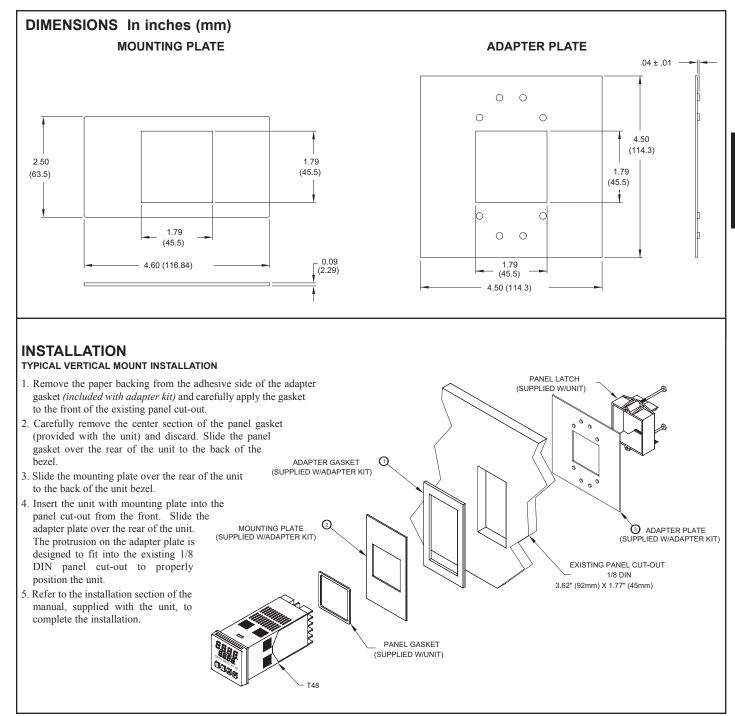
- 1. Remove the paper backing from the adhesive side of the adapter gasket (included with adapter kit) and carefully apply the gasket to the front of the existing panel cut-out.
- 2. Apply the panel gasket (provided with the unit) to one side of the mounting plate. Slide the mounting plate over the unit with the gasket facing the Bezel of the unit.
- 3. Insert the unit with mounting plate into the panel cut-out from the front. Slide the adapter plate over the rear of the unit. The protrusion on the adapter plate is designed to fit into the existing 1/4 DIN panel cut-out to properly position the unit.
- 4. Refer to the installation section of the manual, supplied with the instrument, to complete the installation.



# PANEL MOUNT ADAPTER KIT - 1/8 DIN TO 1/16 DIN

The panel mount adapter kit is used to mount 1/16 DIN instruments into existing vertical or horizontal 1/8 DIN panel cut-outs. The kit includes two black painted durable steel mounting plates and a sponge rubber gasket. The Adapter Kit, when used with a unit which has NEMA 4/IP65 specifications, will meet NEMA 4/IP65 requirements when properly installed. Red Lion Controls 1/16 DIN products include Temperature and Process Control Units (Models T48, and P48), and the C48 units.

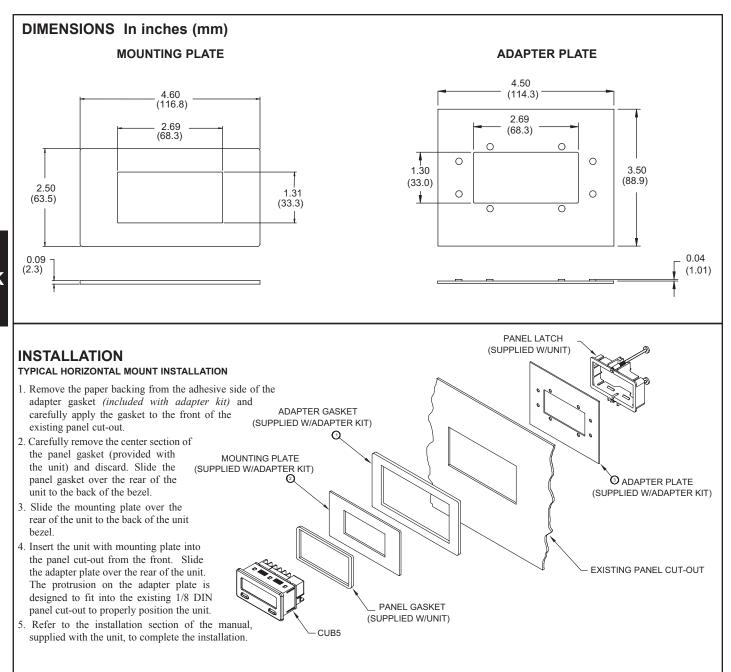
MODEL NO.	DESCRIPTION	PART NUMBER
PMK6	Panel Mount Adapter Kit (1/8 DIN to 1/16 DIN)	PMK60000



# PANEL MOUNT ADAPTER KIT - 1/8 DIN TO CUB5

The panel mount adapter kit is used to mount CUB5 units into existing 1/8 DIN panel cut-outs. The kit includes two black painted durable steel mounting plates and a sponge rubber gasket. The Adapter Kit, when used with a unit which has NEMA 4/IP65 specifications, will meet NEMA 4/IP65 requirements when properly installed. Red Lion Controls CUB5 products include Counters, Timers, Temperature, Process and Rate units.

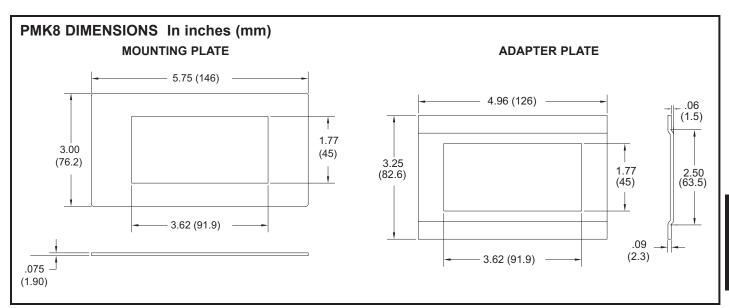
MODEL NO.	DESCRIPTION	PART NUMBER
PMK6A	Panel Mount Adapter Kit (1/8 DIN to CUB5)	PMK6A000

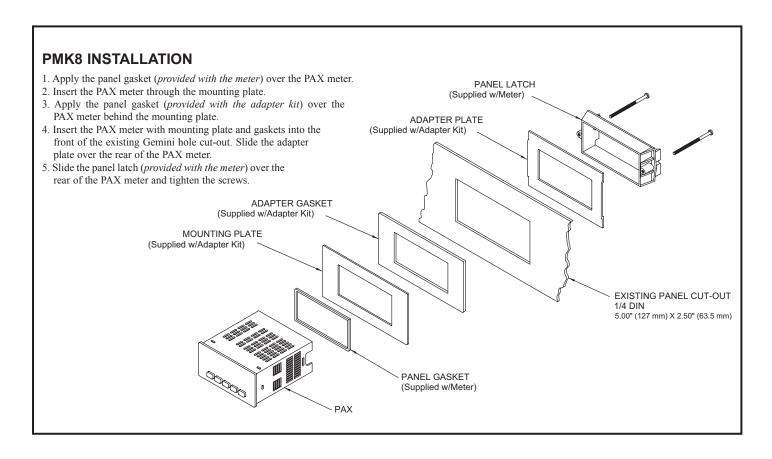


### MODEL PMK8 - PANEL MOUNT ADAPTER KIT FOR PAX TO GEMINI CUT-OUT

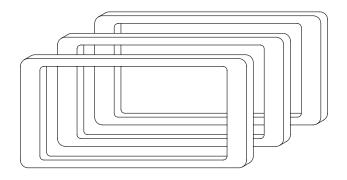
The **PMK8** panel mount adapter kit is used to mount a PAX meter into an existing GEMINI panel cut-out. The kit includes two durable steel mounting plates painted black and a neoprene gasket. The Adapter Kit, when used with a meter which has NEMA 4/IP65 specifications, will meet NEMA 4/IP65 requirements when properly installed.

MODEL NO.	DESCRIPTION	PART NUMBER
PMK8	Panel Mount Adapter Kit (PAX to Gemini)	PMK80000



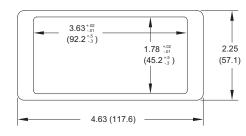


# 1/8 DIN PANEL ADAPTER KIT FOR DT3A, DT3D, SCT, & SCP PANEL CUT-OUTS



The 1/8 DIN panel adapter kit permits the mounting of the PAX and Apollo units into an existing 1.8" (45.7 mm) x 3.88" (98.5 mm) (DT3A, DT3D, SCT, & SCP) panel cut-out. The kit consists of two metal adapter plates coated with a durable flat black polyurethane finish, and a neoprene gasket, which provides a sealed front panel that meets NEMA 4/IP65 specifications when properly installed.

#### **DIMENSIONS** In Inches (mm)

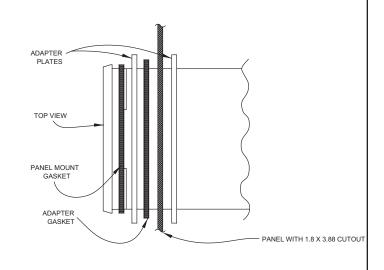


NOTE: An overall panel area of 2.25" (57.1 mm) x 4.63" (117.6 mm) is required for proper mounting.

#### **INSTALLATION**

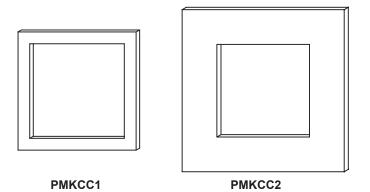
- Remove the backing from the adhesive side of the adapter gasket (*included with adapter kit*) and carefully stick the gasket to the front of the existing panel cut-out.
- 2. Place the standard panel mount gasket (provided with the unit) over the unit. Then slide one of the plates over the unit. If the gasket has adhesive, apply the gasket to the plate, then slide the plate over the unit. (Gasket must be facing the bezel.)
- 3. Insert the unit into the panel cut-out from the front and slide the remaining adapter plate over the unit from the rear.
- Install the mounting clip(s) as per the unit instructions. Tighten the mounting screws evenly to apply uniform compression and to provide a water-tight seal.

CAUTION: Only minimum pressure is required to seal the panel. Do NOT overtighten the mounting screws.



MODEL NO.	DESCRIPTION	PART NUMBER
PMKA1	3-PIECE KIT permits mounting to existing 1.8" x 3.88" (45.7 x98.4 mm) Panel cut-out, O.A. DIM. 2.25" x 4.63" (57.1 x 117.6 mm)	PMKA1000

### INSTALLATION FOR 1/16 DIN PANEL MOUNT KITS



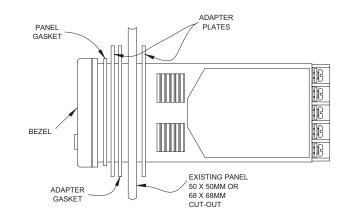
These panel mount kits for 1/16 DIN products are available to aid in replacing many products on the market today. Kits come complete with adapter plates coated with a durable flat black polyurethane finish and gaskets.

#### PMKCC1 & PMKCC2

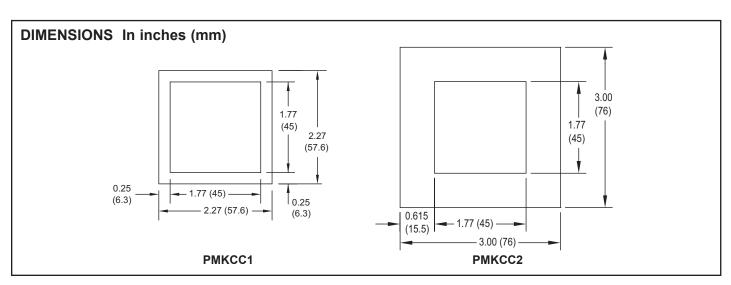
These panel mount kits adapt 1/16 DIN products to either a 50 mm x 50 mm or a 68 mm x 68 mm panel cut-out. The kit consists of two metal panel adaptors and one neoprene gasket. The adapter plates and gasket are pinched between the front bezel of the 1/16 DIN unit and the unit's mounting clip.

Note: If room permits, make the wiring connections after the unit is mounted. If there is not enough room, pull the wires through before installing as described below:

- 1. Slide the following items onto the 1/16 DIN unit.
  - a. Panel gasket supplied with 1/16 DIN unit.
  - b. One PMKCC adapter plate.
  - c. Adapter gasket supplied with PMKCC.
- 2. If wiring connections can be made after the unit is mounted, skip to Step 3.
  - a. Pull wires through mounting clip.
  - b. Pull wires through one PMKCC adapter plate.
  - c. Pull wires through existing panel opening.
  - d. Wire unit.
- Slide unit through panel cut-out from the front, and center in the panel opening.
- 4. Slide PMKCC adapter plate onto back of unit.
- 5. Install the mounting clip and tighten to moderately "pinch" the gaskets between the front bezel and the mounting clip.



MODEL NO.	DESCRIPTION	PART NUMBER
PMKCC1	3-PIECE KIT permits mounting in existing 1.97" X 1.97" (50 mm x 50 mm) panel cut-outs	PMKCC100
PMKCC2	3-PIECE KIT permits mounting in existing 1.97" X 1.97" (50 mm x 50 mm) or 2.68" X 2.68" (68 mm x 68 mm) panel cut-outs	PMKCC200



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