



Complete Freeze Protection for Process Instrumentation

Totaal pakket voor de vorstbeveiliging van uw proces instrumentatie

Protection-basse température complète pour l'instrumentation

Kompletter Frostschutz für Prozess-Instrumentierung

Completa protezione antigelo per strumentazione di processo

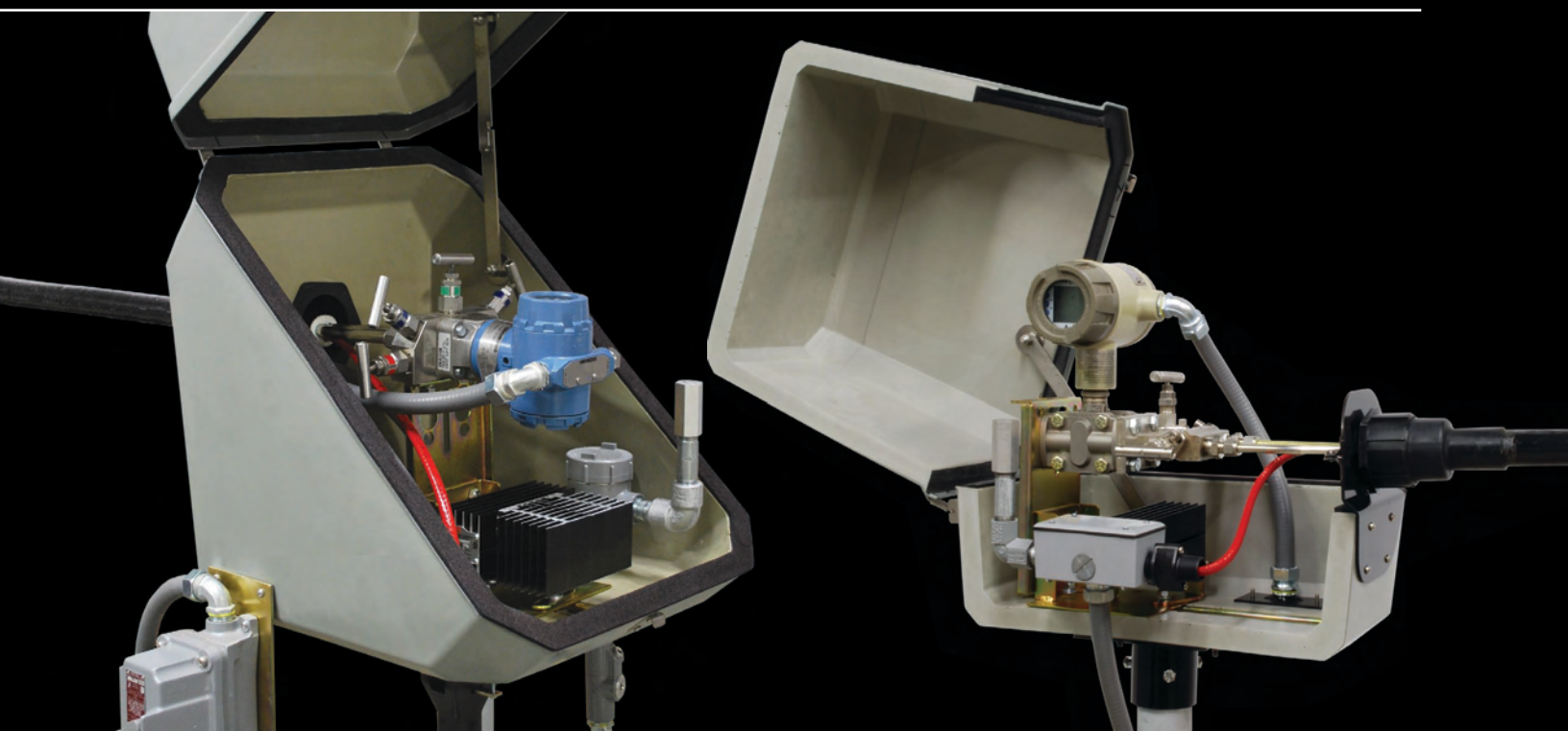
Komplett frostsikring av prosess instrumenter

Комплексная морозная защита приборов и процессных линии КИПиА

Completa Proteccion Contra Congelacion Para Instrumentacion de Proceso

VIPAK[®]

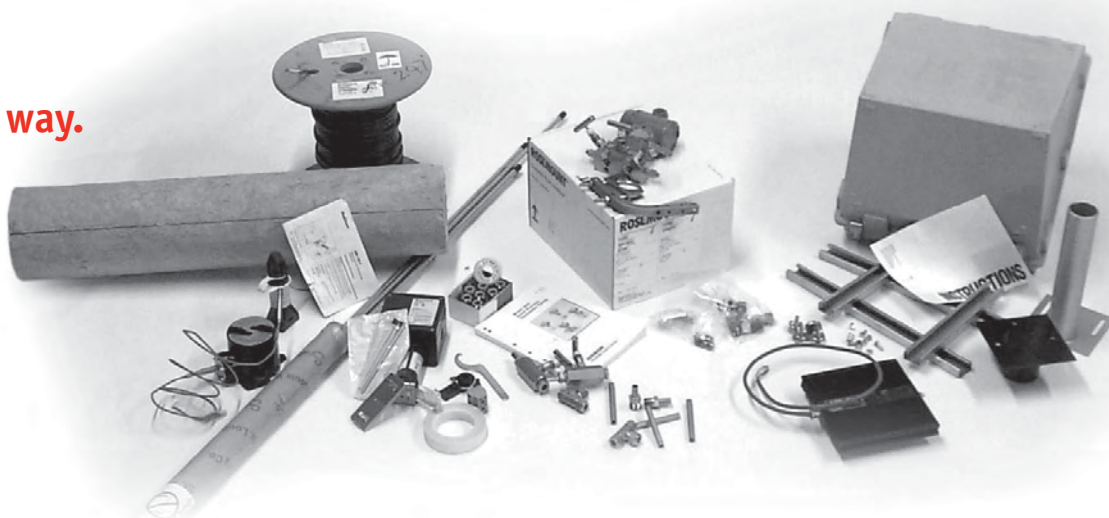
Design | Enclosures | Supports | Tubing Bundle | Installation



O'BRIEN PROVIDES COMPLETE FREEZE PROTECTION FOR PROCESS INSTRUMENTATION

Protecting instrumentation and tubing from freezing or maintaining process fluids at elevated temperatures involves many components, designs and engineering skills. Instead of specifying and purchasing individual components, have O'Brien provide an integrated solution with one source responsibility.

The typical way.



DESIGN and SUPPORT

One source responsibility for design, impulse lines, and instrument freeze protection combined with field support services sets the O'Brien solution apart from all others.

TRACEPAK®

Engineered, pre-traced and insulated tubing bundle for instrument impulse, sample transport, and small diameter process lines.

VIPAK®

Engineered enclosure system designed for process instrumentation. TRAKMOUNT® and factory installation of instrumentation makes field work easy.

The O'Brien solution.

A complete system

The VIPAK enclosure system winterizes process instruments and protects them from corrosion and mechanical abuse. A full range of enclosure sizes are available to accommodate single and multiple instrument requirements. Enclosures can be combined with a wide selection of heavy-duty mounts, brackets and heaters to create customized packages that suit each application.

Easy to install

Process instrumentation fastens directly to O'Brien mounting kits and process connections line up with factory mounted parting plates for quick, easy installation.

Easy to order

- 1 Select an enclosure style and size. Choose standard construction or anti-static option.
- 2 Add a mounting kit or individual mount and bracket.
- 3 Add an electric or steam heater.
- 4 Add entry fittings, plates, connections and other options to complete the package.
- 5 Select TRACEPAK® pre-insulated tubing bundle configuration.

Protects instruments from:

- Corrosion
- Chemical attack
- Mechanical abuse
- Freezing and Weather



ENCLOSURE FEATURES

**Factory installed accessories -
heaters, windows, mounts, bracketry**

Impact Resistant EN50014 / BS5501

VIPAK's rigid ABS shell forms a structural bond with medium density urethane foam insulation to provide a durable enclosure that remains impact resistant for years, even at low ambient temperatures.

Anti-static Option EN50014 / BS5501



Corrosion & UV Resistant ABS Shell

Insulation

1" (25mm) thick ABS/Urethane composite.

Metal-to-Metal Support

VIPAK's unique thru-bolt construction, with metal spacers between the enclosure mount and the instrument bracket, provides a solid support for instruments and accessories.



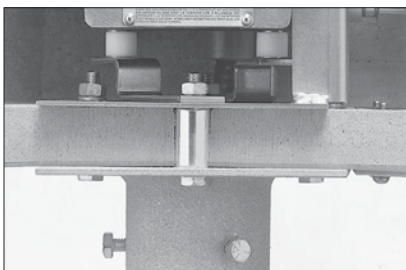
Weather Protection IP66

Parting lines are protected by a molded flange and sealed with closed cell neoprene gasket.

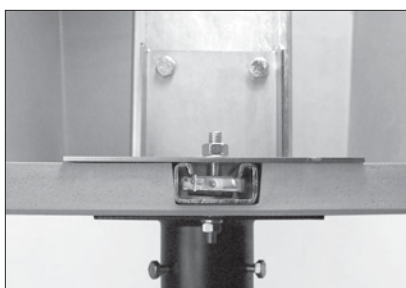
Windows are sealed with silicone adhesive to guarantee a weather-tight enclosure.

Arctic Protection -60°F / -50°C

VIPAK's ABS shell and 1" (25mm) thick wall of urethane insulation combined with O'Brien heaters provide freeze protection at temperatures as low as -60°F / -50°C with a 25mph / 40kph wind.



Standard Configuration



TRAKMOUNT™



Heavy Duty SS Hinges & Latches

Custom designed hinges and latches eliminate binding and allow the door or lid to be removed easily.

A Series

Accessible from every angle

- ABS enclosure ideal for pressure, differential pressure and case type instruments in combination with manifolds, air sets, and purge meters.
- Top-hinged for easy access to process instruments from the front, top, or either side.
- Available in three sizes.
- Standard lid-support bracket keeps the lid open.
- Common options include mounting kits, heaters and factory-installed tempered glass windows.



B Series

Front-door access

- ABS enclosure Ideal for case type recorders, indicators, controllers and sample handling or conditioning systems.
- Front door allows easy access to equipment.
- Available in 22 different sizes.
- Common options include mounting kits, rear access panels, surface plates, heaters and factory-installed tempered glass windows.



C Series

Maximum access

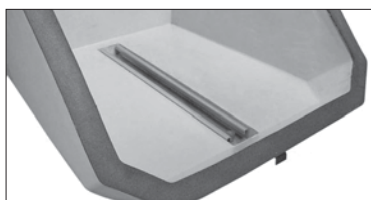
- ABS enclosure ideal for pressure, differential pressure and other transmitters in combination with manifolds, air sets, purge meters and output gages.
- Easy-open, tilt-back lid allows access from all sides.
- Available in 25 different sizes.
- Common options include lift access package, parting plates, mounting kits, heater and (W3) windows.



TRAKMOUNT™

Instrument Mounting Made Simple

- Unique track design.
- Instrument brackets can be positioned anywhere in the enclosure.
- Convenience of factory installed brackets.
- Reduced installation time.



The new Trakmount is recessed in several A and C Series enclosures so the bottom surface is flat. It can be used with any instrument bracket and allows

the transmitter and manifold to be positioned virtually anywhere in the enclosure.



MOUNTING KITS

Mounting kits are easy-to-order combinations of standard mount and bracket components. Refer to pages 17 and 18 for compatibility with enclosure styles and sizes. Mounting kits are used with styles shown in parenthesis behind model numbers.

If you do not find a combination that fits your application, select individual components from the technical specification section on pages 19 thru 21. X designations in the model number are completed by O'Brien at time of order to reflect the exact component needed for the enclosure selected.



- MK1** (A,C)
For back mounting a single transmitter.
- **Universal instrument support bracket**
 - **2" pipe pedestal**



- MK2** (A,C)
For manifold mounting a single transmitter.
- **Universal manifold support bracket**
 - **2" pipe pedestal**



- MK3** (A,C)
For pipe mounting equipment.
- **12" (305mm) tall offset 2" pipe bracket**
 - **2" pipe pedestal**



- MK4** (B)
For pipe mounting equipment.
- **Offset socket bracket for 2" pipe**
 - **Removable 12" (305mm) tall 2" pipe**
 - **2" pipe pedestal**



- MK5X** (B)
Adjustable rails for mounting equipment with a 2" pipe mounting bracket for the enclosure.
- **Adjustable rack bracket**
 - **Vertical 2" pipe mount**



- MK6X** (B)
Adjustable rails for mounting equipment with wall mounting supports for the enclosure.
- **Adjustable rack bracket**
 - **Wall mounting feet**



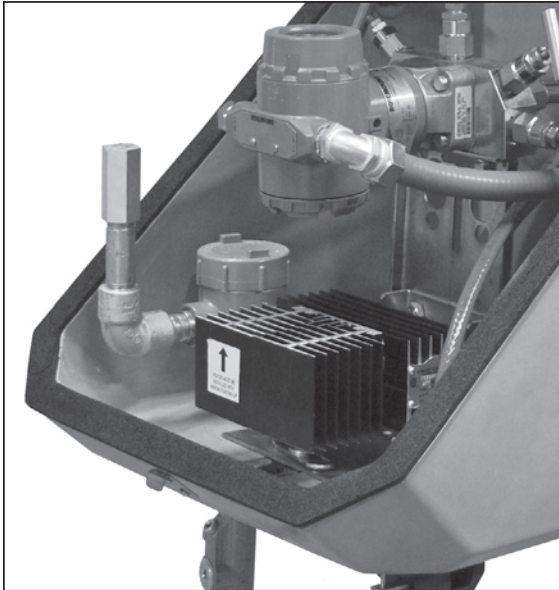
- MK7** (A,C)
Provides a vertical surface for custom mounting equipment.
- **6" (150mm) wide x 14" (355mm) tall 1/4" (6mm) steel vertical bracket**
 - **2" pipe pedestal**



- MK8** (B)
Adjustable rails on a vertical bracket for mounting equipment.
- **21" (560mm) tall slotted vertical bracket with adjustable rails**
 - **2" pipe pedestal**

O'BRIEN

T-SERIES HEATER



Approvals:

NEC & CSA: Class I, Division 1, Group A, B, C, D
Class I, Division 2
ATEX: Zone I EEx d IIC T3

Control Options:

Tamper Proof Thermostat:
50°F/10°C, 125°F/50°C
75°F/25°C, 150°F/65°C
100°F/40°C

For higher temperatures contact your local representative or the factory.

Voltage:

Standard: 115 VAC, 230VAC or 277VAC
Available: 12 VDC, 24 VDC, 100VAC or 208VAC

Mounting Configuration:

Horizontal or Vertical

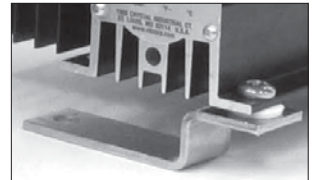
Maximum Output Wattage:

	Standard Body	Extended Body
T3 Rating:	200W	400W
T4 Rating:	100W	NA

T-Series heater model number guide and dimensional drawings are available on page 24.

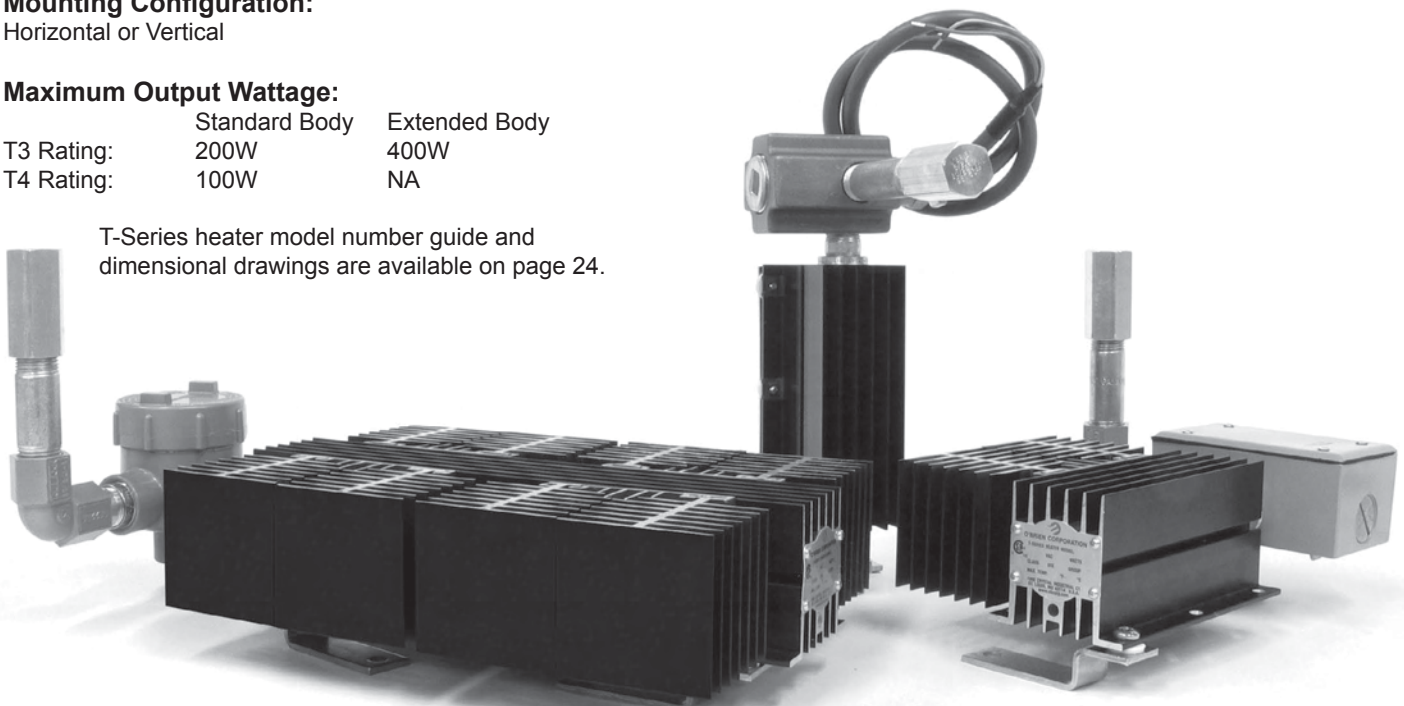
Designed specifically for enclosures

The T-Series heater provides approved hazardous area heaters for a wide range of applications from instrument freeze protection to temperature maintenance for analytical applications. The system is highly configurable and includes redundant internal protection for long trouble free operation.



The T-Series heater can be configured for vertical and horizontal installation with maximum efficiency. It is available in two base sizes and variable fin area depending upon wattage and maintain temperature. Our experience with electric heater design and application is reflected in the T-Series heater sizing guide on page 25. Use this chart to confidently select the correct size heater for your installation.

This heater series is available in T3 and T4 temperature ratings to meet the needs of your area classification. It is supplied with a factory set tamper proof temperature switch. The standard junction box volume can be increased to accommodate other wiring connections such as impulse line heater cables.



STEAM HEATERS



Six sizes

With a choice of six sizes you can select a steam heater that will provide freeze protection in the winter without overheating the instrument in the summer.

Our experience with steam heater design and application is reflected in the heater sizing guide on page 26. Use this chart to confidently select the right size heater for your installation.

Freeze protection or temperature maintenance

These heaters have been thoroughly tested in our in-house environmental chamber to verify design calculations so that reliable predictions can be made for both low and high ambient conditions.

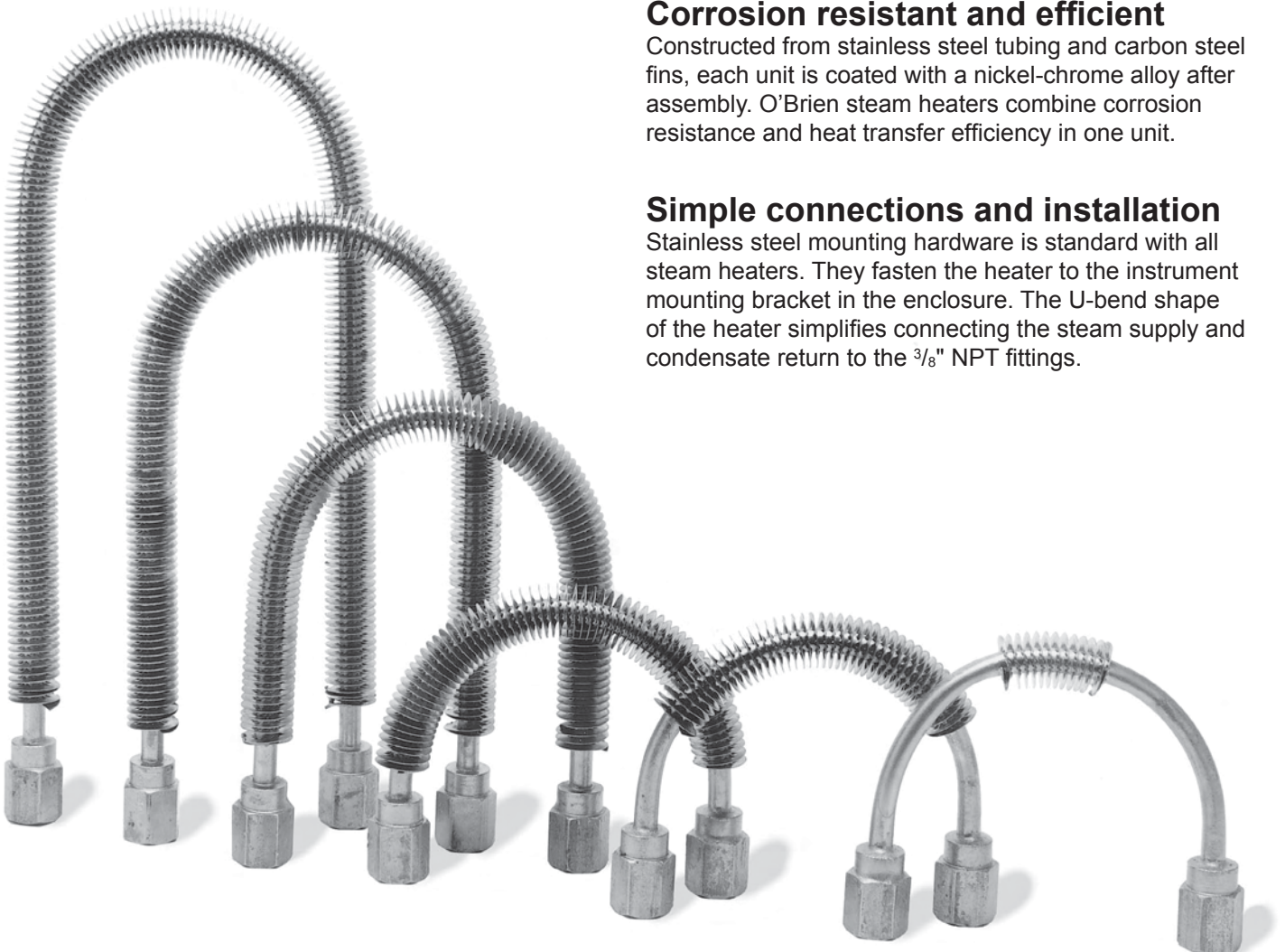
If you need to maintain precise temperatures you can use the heater control valve (HCV) to control the enclosure temperature. It is available with standard 50°F/10°C and 100°F/40°C set-points. It can also be ordered for special set-point requirements.

Corrosion resistant and efficient

Constructed from stainless steel tubing and carbon steel fins, each unit is coated with a nickel-chrome alloy after assembly. O'Brien steam heaters combine corrosion resistance and heat transfer efficiency in one unit.

Simple connections and installation

Stainless steel mounting hardware is standard with all steam heaters. They fasten the heater to the instrument mounting bracket in the enclosure. The U-bend shape of the heater simplifies connecting the steam supply and condensate return to the 3/8" NPT fittings.





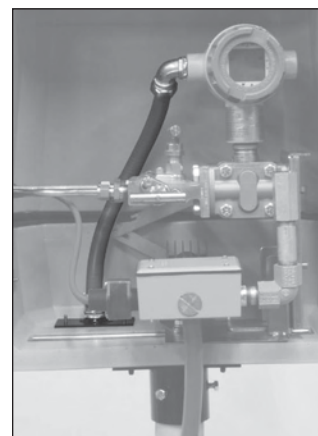
LPD2E shown

LPD2, MLPD2, LPD2E and MLPD2E combination power connection kits

These kits provide a single power connection point for the enclosure heater and TRACEPAK tracer or tracers. They use FM approved and CSA certified Division 2 components and feature an external junction box. (See pg. 21 for complete model number selection.)

IPK1 instrument power and signal connection kit

This option brings instrument power and signal wires to the outside of the enclosure. It includes a 1/2" NPT instrument connection, 24" (600mm) liquid tight flexible metal conduit, and a metallized plate with a 1/2" NPT connection for the outside of the enclosure.

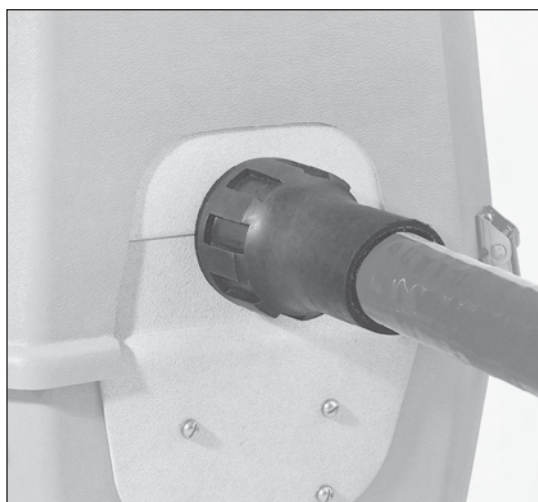
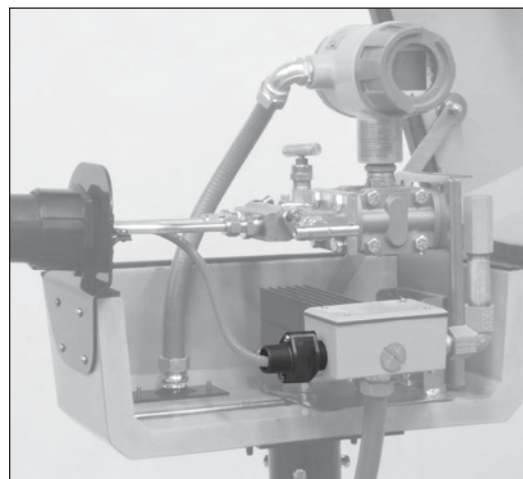


Y and TC power connection kits are electric heater options

For installations that do not require an outside junction box, the Y and TC kit heater options provide an economical and compact power connection for the TRACEPAK tracer.

The Y kit is FM approved and CSA certified for Class I Division 2.

The TC kit (not shown) is CSA certified for Class I Division 1 locations.



ES heat-shrink entry seals for tubing bundles

These waterproof entry seals have a heat-shrinkable boot at one end and a mounting assembly at the other. They mount directly to the wall of the enclosure or can be supplied with optional plates. The ES fittings will fit TRACEPAK tubing bundles from 3/4" to 3 1/2" (19-90mm) OD.

CONNECTIONS AND OPTIONS

Surface and parting line plates

Parting plates (PP, SPP, DPPT, DSPPT, DSPPT4, DSPPT4S, and DSPPT5) are used with “C” style enclosures to bring process connections through the wall of the enclosure 2" (50mm) above the parting line.

Surface plates (4SP, 4SSP, D4SP, and D4SSP) are used to bring heated connection lines through the wall of the box.

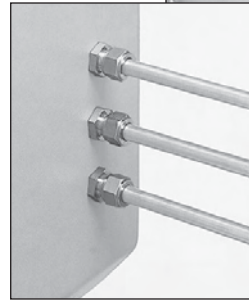
To make your installation job easier, Parting plates and Surface plates can be supplied predrilled to your specifications or split in half.

Tubing and signal lines can be installed directly through the wall of the enclosure by drilling appropriate size holes.

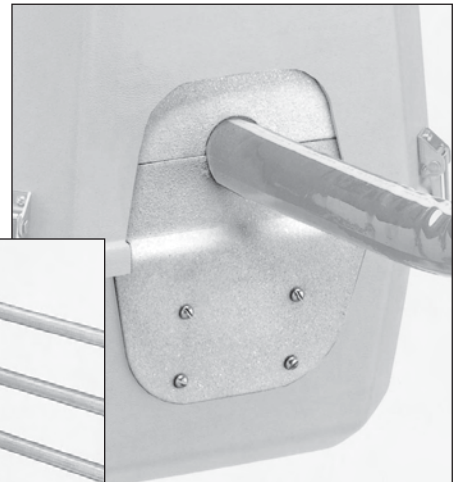
The ABS or GRP shells are strong enough to mount bulkhead fittings directly to the wall of the enclosure. However, you must use plate options when mounting fittings for steam supply or return lines, plate options must be used.



Cord Grips



Bulkhead Fittings



**DSPP or DSPPT
Parting Plate**

Options

Enclosures can be customized for individual applications by adding options:

- **Tempered glass windows**
- **Locking latches**
- **Drains**
- **Lid supports**
- **Access doors**
- **SS handles**
- **Blow out discs**
- **EDPM latches**

For an expanded list of mounting hardware, brackets and optional components, refer to pages 19-23.

