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ReactIR™ 45P

Process Chemistry Understanding

METTLER TOLEDO

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Should this device be passed onto other parties for private or professional use, the content of this regulation must also be related.

Thank you for your contribution to environmental protection.

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General Safety

ReactIR™ 45P is real-time *in situ* Process Analytical Technology (PAT) tool designed for mid-infrared (FTIR) based process monitoring in normal or classified area environments. The ReactIR 45P system provides critical reaction information during campaigns to ensure reaction compliance and safety through full time production monitoring.



Caution—Read this safety manual before product installation, operation, and maintenance. Failure to follow these instructions could result in personal injury and/or product damage that could void the warranty.

This safety manual applies to ReactIR 45P normal location (NL) and hazardous location (HL) configurations and is a supplement to the “ReactIR 45P Hardware Manual.”

Note: General safety information for both configurations is covered in this chapter. Specific safety information for the normal location is in [Chapter 2](#) and specific hazardous location safety information is in [Chapter 3](#).

Per the ISO 9001 procedures followed at METTLER TOLEDO, the ReactIR 45P system adheres to applicable regulations and standards in the area of intended use. Requirements for compliance with local regulations may be different. The end user of the equipment is responsible for compliance with all local, corporate, or other applicable regulations.



Caution—If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.



WARNING—There are no user-serviceable parts inside a ReactIR 45P system. Contact your METTLER TOLEDO Field Service Engineer (FSE) for all service needs.

Laser Classification

All ReactIR 45P instruments are in compliance with the U.S Department of Health and Human Services (DHHS) Radiation Performance and in accordance with International Standards.

Class 1 Laser Product

Compliant with **21 CFR 1040.10** and **1040.11**

except for deviations per Laser Notice 50, dated June 24, 2007

and

Compliant with **IEC 60825-1**

1 ■ General Safety

CE Compliance

The following label appears on the ReactIR 45P enclosure:



Figure 1-1 Laser label

CE Compliance



ReactIR 45P systems have been tested and comply, as required, with the Electromagnetic Capability (EMC) Directive and Low Voltage Directive (LVD).

- **EMC Directive 2004/108/EC**
IEC 61326-1: Electrical Equipment for Measurement, Control and Laboratory Use
- **Low Voltage Directive 2006/95/EC**
EN61010-1:2001 Safety requirements for electrical equipment for measurement, control, and laboratory use

CE compliance for European ReactIR models is only certified for permanent installations when power is wired through metal conduit.



Caution—The CE mark applies only to unmodified instruments supplied by METTLER TOLEDO.

NRTL Certification

The ReactIR 45P is MET NRTL Listed under E112462.



Figure 1-2 MET marking

ReactIR 45P System ID Label

All ReactIR 45P NL and HL systems have the following label with product identification and electrical load information:

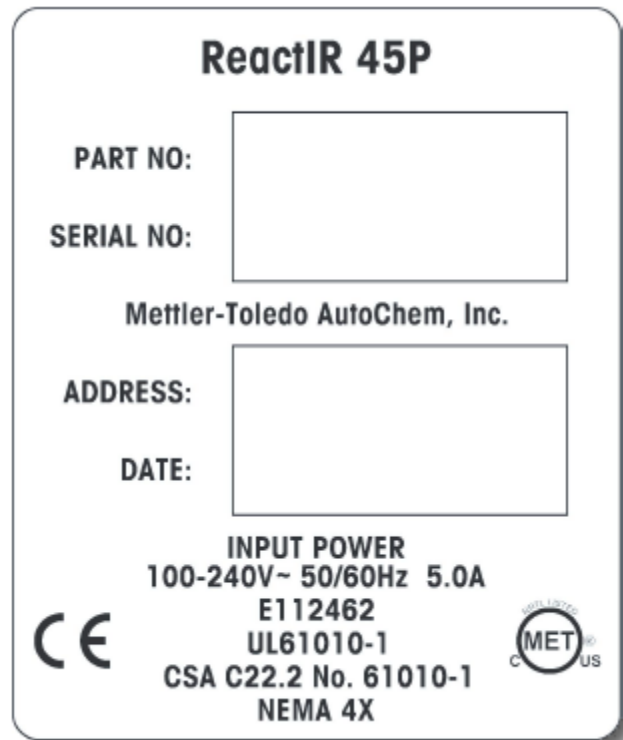


Figure 1-3 ReactIR 45P product identification label with electrical load specifications

ReactIR 45P Configurations

The ReactIR 45P has two configuration options—Normal Location (NL) or Hazardous Location (HL). The HL configuration includes integral purge and pressurization technology. Both configurations have an optional Air Handling Unit or require a user-supplied air pressure and flow regulator. The ReactIR 45P base unit is the same for both configurations, so a qualified METTLER TOLEDO Field Service Engineer (FSE) can convert the NL model to an HL, if required.

1 ■ General Safety

ReactIR 45P Configurations

- **ReactIR 45P HL base unit with a purge/pressurization system** for use in potentially explosive atmospheres. Safety information specific to the Hazardous Location configuration is in [Chapter 3, "Hazardous Location \(HL\) Safety."](#)



Figure 1-4 ReactIR 45P—HL (Hazardous Location) system, with optional Air Handling Unit

- **ReactIR 45P NL base unit for use in normal locations.** Safety information specific to the Normal Location is in [Chapter 2, “Normal Location \(NL\) Safety.”](#)



Figure 1-5 ReactIR 45P–NL (Normal Location) system, with optional Air Handling Unit and FiberConduit sampling technology

General Safety Considerations



Caution—There are no user-serviceable parts inside a ReactIR 45P base unit. Contact your METTLER TOLEDO Field Service Engineer for all service needs.



Caution—If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

The following general safety guidelines apply to all ReactIR 45P models:



- Verify that the model received matches the purchase order and specification sheet.
- Ensure all operators are properly trained to follow safe operating and maintenance procedures as described in this manual.
- Wear appropriate safety equipment during installation, operation, and maintenance, as outlined in your standard operation procedures.
- Always ensure that product use conforms with all applicable local laws, regulations, and codes.

1 ■ General Safety

Safety Symbols

Safety Symbols

Safety information for the ReactIR 45P instrument is marked by the following symbols:

	Caution Risk of danger
	Earth (Ground)

Safe Installation and Operation

A qualified METTLER TOLEDO representative installs and commissions the ReactIR 45P instrument and trains key personnel on how to use the equipment and software.



Caution—Improper installation and operation of the ReactIR 45P can result in safety hazards.

Power Supply



Caution—Safe installation of the ReactIR 45P requires caution when connecting electrical power to the unit.



Caution—Do not supply power to the system using any power cord except one that meets local and national standard codes.



Caution—In hazardous area classifications, the power connection must be made via a certified power cord (see [“Installation—Electrical Wiring” on page 24](#)).

Electrical Consumption

The primary ReactIR 45P label ([Figure 1-3](#)) on the enclosure exterior provides ready reference to the electrical consumption for proper safety.

Circuit Breaker



Caution—End user must provide dedicated power line with circuit breaker clearly marked and easily accessible by the user. Wiring should withstand at least 10 Amps.

Earth Grounding



Safety earth/ground. Use a ground strap with minimum 12 AWG. A 6mm (1/4") stud is located on the left side of the ReactIR 45P enclosure, below the thermoelectric (TE) cooler. Refer to the NL location drawing on [page 15](#) or the HL location drawing on [page 26](#).

Over-Temperature Protection

Note: The ReactIR 45P base unit contains a thermal cut-off system.

Mounting



Caution—Locate the ReactIR 45P system where it is readily accessible. If the unit is outdoors in warmer climates, it must be shaded from direct sunlight.



Caution—Ensure that installation location includes adequate clearance for the probe FiberConduit™ to bend. Bend radius is 30cm (11.8 inches).



Caution—To mount the system, use four 6mm (1/4 inch) stainless steel bolts (not included) to secure the ReactIR 45P to a vertical, flat structure capable of supporting 45kg (100 lbs) with the HL configuration or 37kg (83 lbs) for the NL configuration. Mounting tabs are located at the corners of the base unit and frame. Refer to the specifications chapter in the hardware manual for mounting tabs locations and dimensions.

Transport



Caution—Remove the sampling technology conduit prior to moving the ReactIR 45P instrument from one sampling point to another. Transport the base unit to a new location making sure to use equipment suitable for the weight. If necessary, separately transport the sampling technology with conduit.

**REMOVE SAMPLING CONDUIT
BEFORE TRANSPORTING**

Figure 1-6 Warning—Remove sampling technology

1 ■ General Safety

Maintenance Safety

Maintenance Safety

A certified METTLER TOLEDO Field Service Engineer must ensure that the system is powered off and cooled down before unlocking and opening the enclosure door. In HL configurations, a label (Figure 3-2) on the enclosure lists safety warnings for the purged/pressurized enclosure.



Caution—There are no user-serviceable parts inside a ReactIR 45P base unit. Contact your METTLER TOLEDO Field Service Engineer for all service needs.

Cleaning Instructions

Follow the cleaning instructions below for ReactIR 45P systems.

- Ensure the system is powered off before doing any cleaning.
- Clean all exterior surfaces with water and mild detergent.
- Be careful not to submerge any parts of the system in washing liquid.
- Be certain to dry all surfaces of the system after washing to avoid pooling of any liquid.

Air Filter

The Air Handling Unit filter should be inspected as part of regular maintenance. Inspection schedule shall be part of the end user's standard operating procedure and shall depend on use. Replace the filter, when necessary.

Service and Technical Assistance

METTLER TOLEDO has offices around the world. Contact the Mettler-Toledo AutoChem, Inc. headquarters in the USA for technical support or service. To arrange for specific application assistance from a METTLER TOLEDO Technology and Applications Consultant or for general assistance, contact Mettler-Toledo AutoChem, Inc. through the toll-free number below.

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Toll Free: **+1.866.333.6822**

Normal Location (NL) Safety

This chapter identifies safety standards and specifications for safe use of the ReactIR 45P NL instrument in unclassified areas, referred to as 'normal locations.' Review [Chapter 1, "General Safety"](#) for information that applies to all ReactIR 45P systems.

The ReactIR 45P NL is fully compliant with the United States and Canadian safety standards listed on the safety label for operation in normal locations. The ReactIR 45P identification label ([Figure 1-3 on page 7](#)) includes electrical load specifications.



Caution—There are no user serviceable parts inside the system. Contact a METTLER TOLEDO Field Service Engineer for all service needs.

Refer to ["Maintenance Safety" on page 12](#) for information on maintenance and service.

Safety Specifications

Table 2-1 ReactIR 45P NL Safety Specifications

Specification	Details
Base Unit Enclosure	316 Stainless steel, IP54 18 x 16 x 10.5 inches (H x W x D) 457 x 406 x 267 mm
Key	Non-sparking
Frame	Stainless steel 787 x 457 x 305mm (H x W x D) 31 x 18 x 12 inches
Weight with frame	37kg (83lbs)
Power	Voltage: 100–240V~ Frequency: 50/60Hz Max. Current: 5A
Power Cord	Plug specified at time of order per local electrical codes.
Fuses (2)	6A 250V 5x20mm slow-acting
Ambient Temperature Range	0°C to 35°C (32°F to 95°F)
Maximum Surface Temperature	Less than or equal to 135°C (275°F)
RTDs (2) (optional)	PT100 Intrinsically Safe (IS), 3V, 1mA
Purge Air	Dry, instrument quality
Purge Input Pressure Range	4.1 to 6.9 barg (60 to 100 psig)
Purge Flow Rate	4.7 Lpm (10SCFH)

2 ■ Normal Location (NL) Safety

Safety Specifications

System Inputs and Outputs (NL)

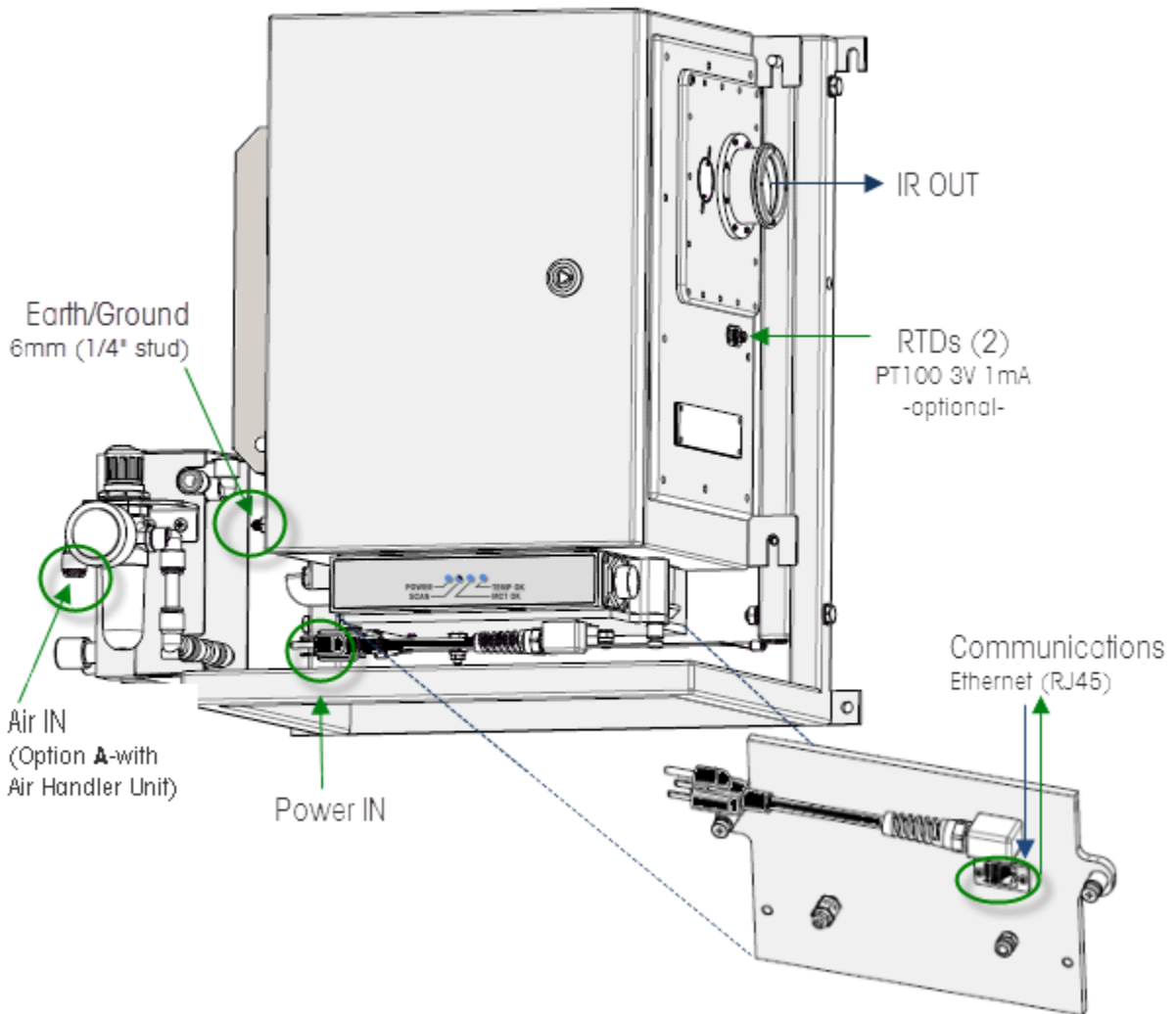


Figure 2-1 ReactIR 45P NL input and output connections (with Air Handling Unit)

Installation—Power and Air Input

1. Connect the power cord, located below the ReactIR 45P main enclosure (Figure 2-2), to external power.

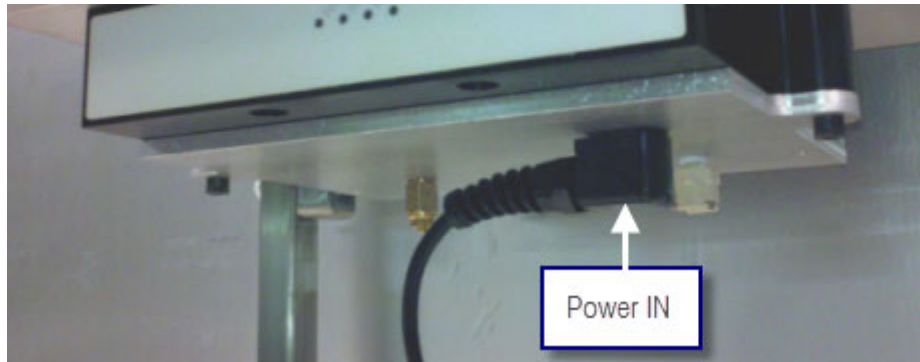


Figure 2-2 Power connection inputs—ReactIR 45P NL

2. Connect a 12 AWG grounding strap to the earth/ground stud on the left side of the enclosure, below the thermoelectric (TE) cooler (Figure 2-1).
3. Connect clean, dry instrument-quality air to the air input on the optional Air Handling Unit (option A in Figure 2-1).

With air input option B, the Air Handling Unit is customer-supplied. Connect the air tubing (provided) to the quick-connect fittings at the two option B inputs (Figure 2-3).

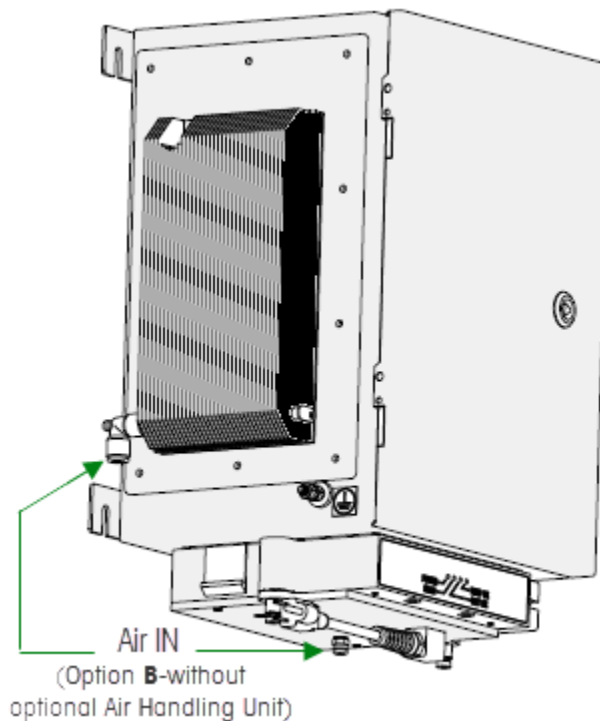


Figure 2-3 Air inputs—ReactIR 45P NL without frame and Air Handling Unit

2 ■ Normal Location (NL) Safety

Starting the ReactIR 45P NL System

Key to Secure ReactIR 45P System

The enclosure door is secured by a keyed lock. Before operation, ensure that the ReactIR 45P enclosure door is locked.

Starting the ReactIR 45P NL System

After the ReactIR 45P system has been installed and commissioned for use, review [Chapter 1, "General Safety"](#) and follow the steps below to start up the system for regular operation:

1. Verify the enclosure door is securely locked.
2. Apply 4.1–6.9 barg (60–100psig) of clean dry instrument air.



Caution—Pressure shall not exceed 6.9barg (100psig).

3. Regulate the air flow to the enclosure at 5SCFH and to the TE cooler at 4SCFM.
4. Connect the ReactIR 45P system country-specific power cord to the power supply that meets specifications on [page 13](#).

The ReactIR 45P system is ready for use.

Stopping the ReactIR 45P System

To stop the ReactIR 45P system, disconnect the external power ([Figure 2-2](#)).

Hazardous Location (HL) Safety

This chapter identifies the area classification for safe use of the ReactIR 45P HL instrument in hazardous locations per Class I/Division 1 and ATEX (pending) standards.

- CID1 applies to NA locations for Class I/ Division 1
- ATEX applies to EU locations for Zone 1 (pending)

Review the information in [Chapter 1, “General Safety”](#) that applies to all ReactIR 45P systems. The ReactIR 45P identification label ([Figure 1-3](#) on [page 7](#)) includes electrical load specifications.



Caution—Area of intended use must meet the following requirements:

- The Compressor intake must be located in unclassified location.
- Noncombustible material will be used for the intake line.
- A separate power source will be used for the protective gas.

[Table 3-3](#) and [Table 3-4](#) list the ReactIR 45P power and purge/pressurization specifications.

Declaration of Conformity

Refer to the D of C certificate shipped with the ReactIR 45P system.

Safety Certification/Area Classification

The ReactIR 45P (HL) is fully compliant with safety standards for operation in hazardous locations as specified in the safety labels shown in [Figure 3-1](#). The table below lists the equipment characteristics.

Table 3-1 ReactIR 45P Hazardous Location Equipment Characteristics

Characteristic	CID1 (NA)	ATEX (EU)—pend ing
Flammable Gas	Class I	Zone 1
Area Classification	Division 1	
Gas Group	Group B	Group IIB + H2
Temperature	T4	T4

3 ■ Hazardous Location (HL) Safety

Safety Marking Labels (HL)

Class I/Division 1 Certificate

Refer to the certificate in [Appendix A](#) on [page 32](#).

EC Type Examination Certificate (pending)

Refer to the certificate in [Appendix A](#) [page 32](#).

Safety Marking Labels (HL)

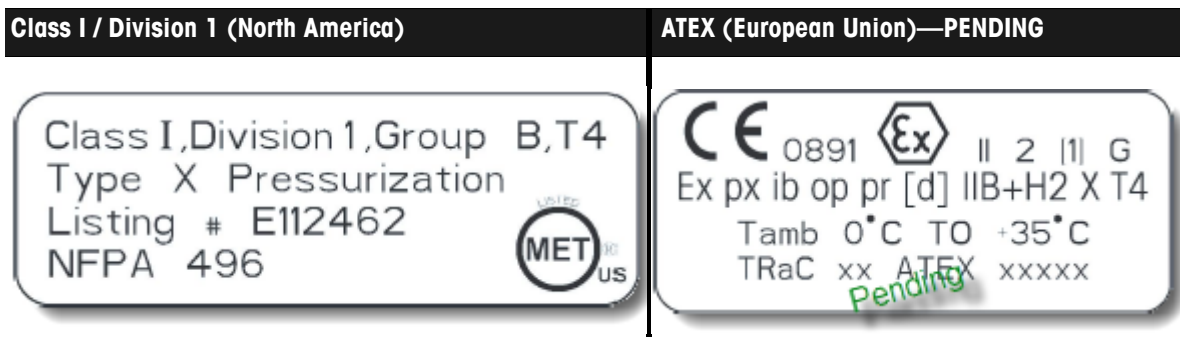


Figure 3-1 ReactIR 45P HL—Safety marking labels

Safety Specifications

- [“Materials of Construction” on page 19](#)
- [“ReactIR 45P HL Base Unit” on page 19](#)
- [“ReactIR 45P HL Purge/Pressurization System” on page 20](#)
- [“Enclosure Warning Label” on page 20](#)
- [“Purge and Pressurization Label” on page 21](#)
- [“System Inputs and Outputs \(HL\)” on page 23](#)
- [“Circuit Breaker” on page 24](#)
- [“Fiber Optic Cable” on page 24](#)
- [“Installation—Electrical Wiring” on page 24](#)
- [“Installation—Air” on page 27](#)
- [“Keys to Secure ReactIR 45P System” on page 29](#)

Materials of Construction

All ReactIR 45P models have the materials of construction specified in [Table 3-2](#).

Table 3-2 ReactIR 45P Materials of Construction

Specification	Details
Base Unit Enclosure	316 Stainless steel, IP54, NEMA 4x
Enclosure Door Seals	Bisco HT-805(s) with silicone PSA
MiniPurge Control Unit (CU)	Stainless steel
MiniPurge Interface Unit (MIU)	Cast aluminum enclosure
Electrical Conduit	1850 Pyrotenax copper industrial wiring cable, 3 conductor 16 AWG, 600V
O-rings	Silicone
Frame	316 Stainless steel
Labels	Chemically resistant polymer

ReactIR 45P HL Base Unit

Table 3-3 ReactIR 45P HL Base Unit Safety Specifications

Specification	Details
Base Unit Enclosure	18 x 16 x 10.5 inches (H x W x D) 457 x 406 x 267 mm
Base Unit with Frame	787 x 457 x 305mm (H x W x D) 31 x 18 x 12inches
Weight with frame	45.4kg (100lbs)
Power	Voltage: 100–240V~ Frequency: 50/60Hz Max. Current: 5A
Fuses	6A 250V 5x20mm slow-acting (2)
Ambient Temperature Range	0°C to 35°C (32°F to 95°F)
Maximum Surface Temperature	T4: Less than or equal to 135°C (275°F)
RTDs (2)	PT100 Intrinsically Safe (IS), 3V, 1mA
Fiber Optic Cable	LC Duplex Industrial-to-LC Duplex Jumper with dust caps equal (100m). METTLER TOLEDO P/N 14705015
Key	Non-sparking

3 ■ Hazardous Location (HL) Safety

Safety Specifications

ReactIR 45P HL Purge/Pressurization System

Table 3-4 ReactIR 45P HL Purge/Pressurization Specifications

Specification	Details
EXPO MiniPurge Control Unit (CU)	Stainless steel
Key	Non-sparking
EXPO MiniPurge Interface Unit (MIU)	Cast aluminum enclosure
EXPO Safety Manual	D805 Manual (ML 496)
Protective Gas	Dry air, Instrument quality Temperature of air not to exceed 35°C (95°F)
Internal Free Volume	24 Liters (1Cu Ft)
Purge Input Pressure Range	4.1 to 6.9 barg (60 to 100 psig)
Minimum Purge Flow Rate (during rapid exchange)	113 Lpm (4 SCFM)
Minimum Purge Duration	5 minutes
Maximum Purge Duration	10 minutes
Minimum Overpressure	2.5 mbarg (1.0" H ₂ O)
Maximum Overpressure	7.5 mbarg (3.0" H ₂ O)
Maximum Leakage Rate	57 Lpm (2 SCFM)

Enclosure Warning Label

The following label appear on the enclosure door of ReactIR 45P enclosure to warn of the potential risk and advise on the appropriate actions:

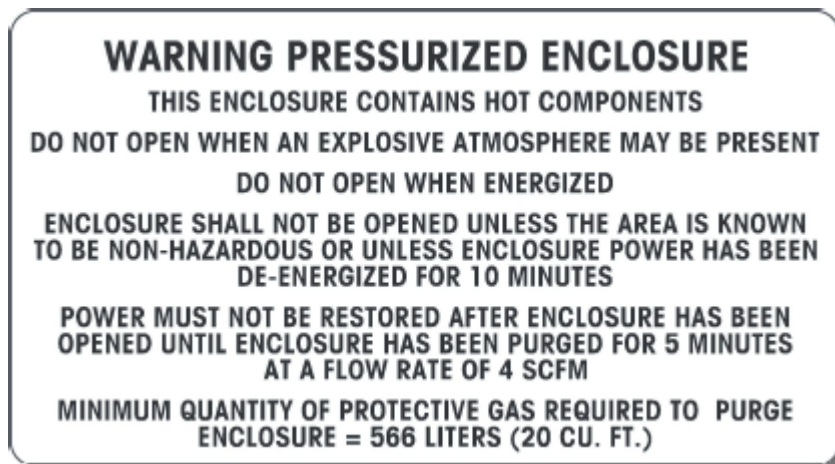


Figure 3-2 Enclosure warning labels

Purge and Pressurization Label

The ReactIR 45P uses an EXPO purge and pressurization system to establish and maintain safe operation in a hazardous location. The following label appear on the ReactIR 45P enclosure to notify the user of the purge specifications and enclosure limitations.

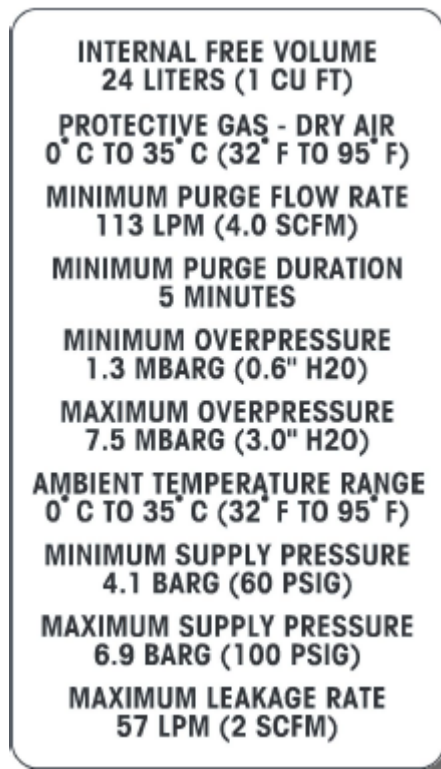


Figure 3-3 ReactIR 45P HL purge and pressurization safe use label

The warning label on the enclosure ([Figure 3-2](#) on [page 20](#)) specifies the minimum quantity of air required to purge the enclosure.

3 ■ Hazardous Location (HL) Safety

Safety Specifications

Below is the EXPO purge/pressurization control unit identification and safety label that appears on the purge enclosure. Refer to the EXPO manual shipped with instrument for safety information. Manual name and number is on [page 20](#).



Figure 3-4 EXPO MiniPurge Control System label

System Inputs and Outputs (HL)

Figure 3-5 shows the location of ReactIR 45P HL system inputs and outputs.

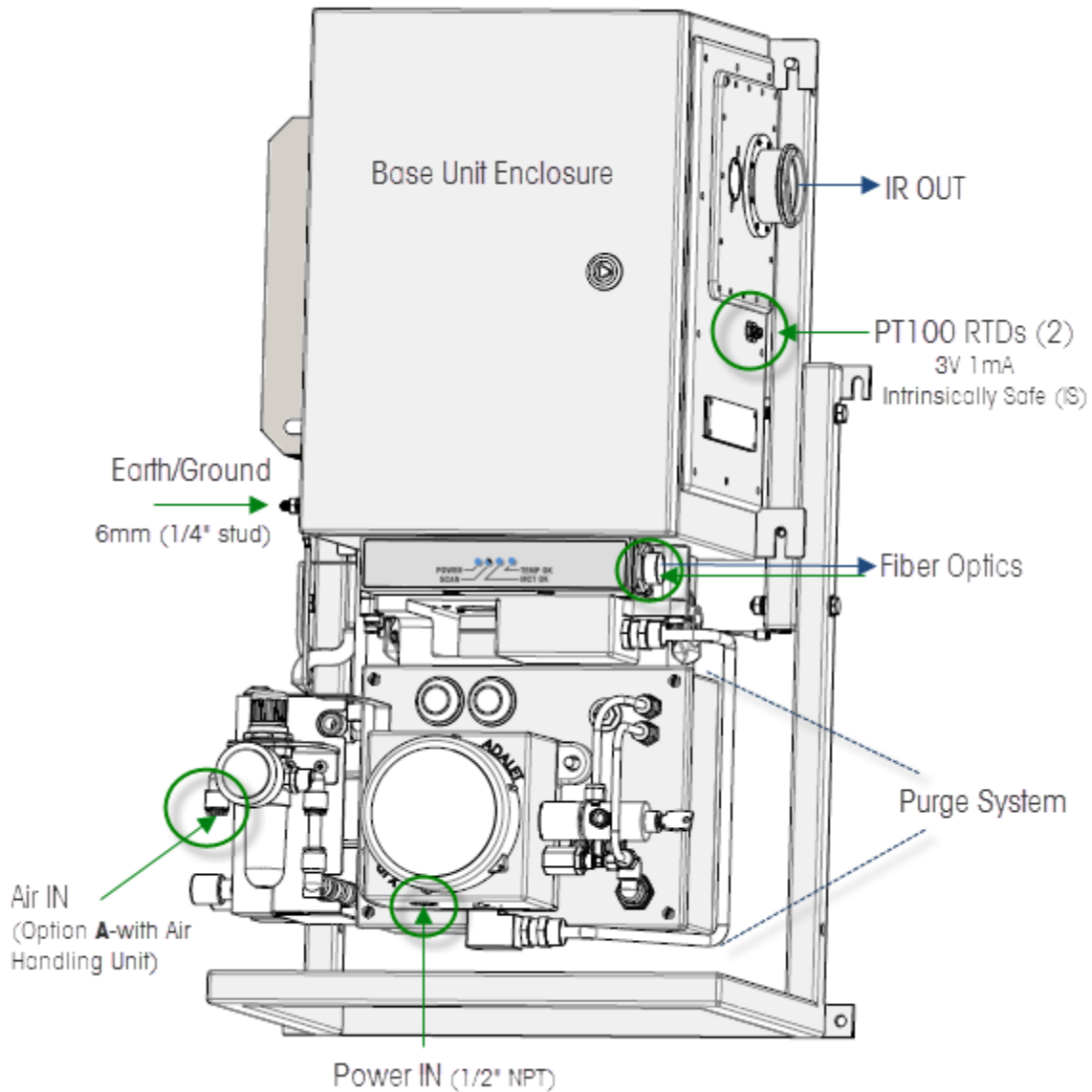


Figure 3-5 ReactIR 45P HL input and output connections (with Air Handling Unit)

3 ■ Hazardous Location (HL) Safety

Safety Specifications

The following label identifies the intrinsically safe Resistive Thermal Device (RTD) inputs on the right side of the enclosure when the RTD option is ordered:



Figure 3-6 RTD labels

Circuit Breaker



Caution—End user must provide dedicated power line with circuit breaker clearly marked and easily accessible by the user. Wiring should withstand 7 Amps.

Fiber Optic Cable



Caution—The fiber optic cable provided for communication between the ReactIR 45P system and the computer is designed so the coupling provides additional protective means that require a tool be used to connect and disconnect the cable.



Caution—Fiber optic cable must be routed in a customer-provided cable tray.

Installation—Electrical Wiring

1. Open the ReactIR 45P purge/pressurization enclosure. A certified METTLER TOLEDO Field Service Engineer (FSE) opens the ReactIR 45P HL system during installation.



Caution—There are no user-serviceable parts inside the system. Contact a METTLER TOLEDO FSE for all service needs.

2. Attach a dedicated power supply line with a 1/2" NPT fitting through the power input (Figure 4) and use the appropriate cable termination.

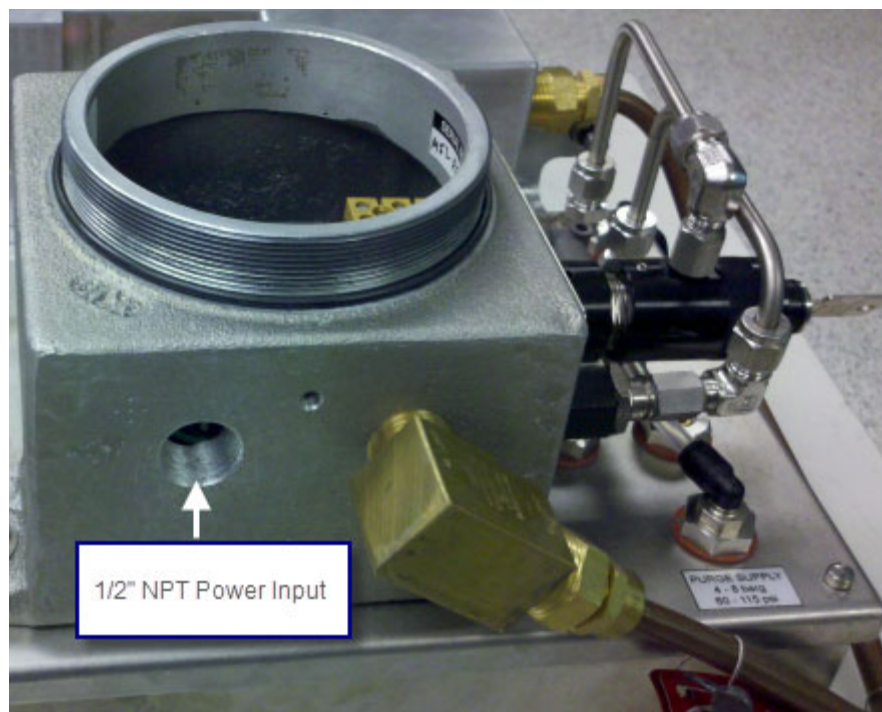


Figure 3-7 Power connection (ReactIR 45P HL)—1/2" NPT input



WARNING—External power connection to the purge interface unit box providing power to the ReactIR 45P must be made using an appropriately approved and suitably rated cable, gland, or conduit fitting in accordance with country and local electrical codes.

3 ■ Hazardous Location (HL) Safety

Safety Specifications

3. Connect a 12 AWG grounding strap to the earth/ground stud on the left side of the enclosure, below the thermoelectric (TE) cooler.

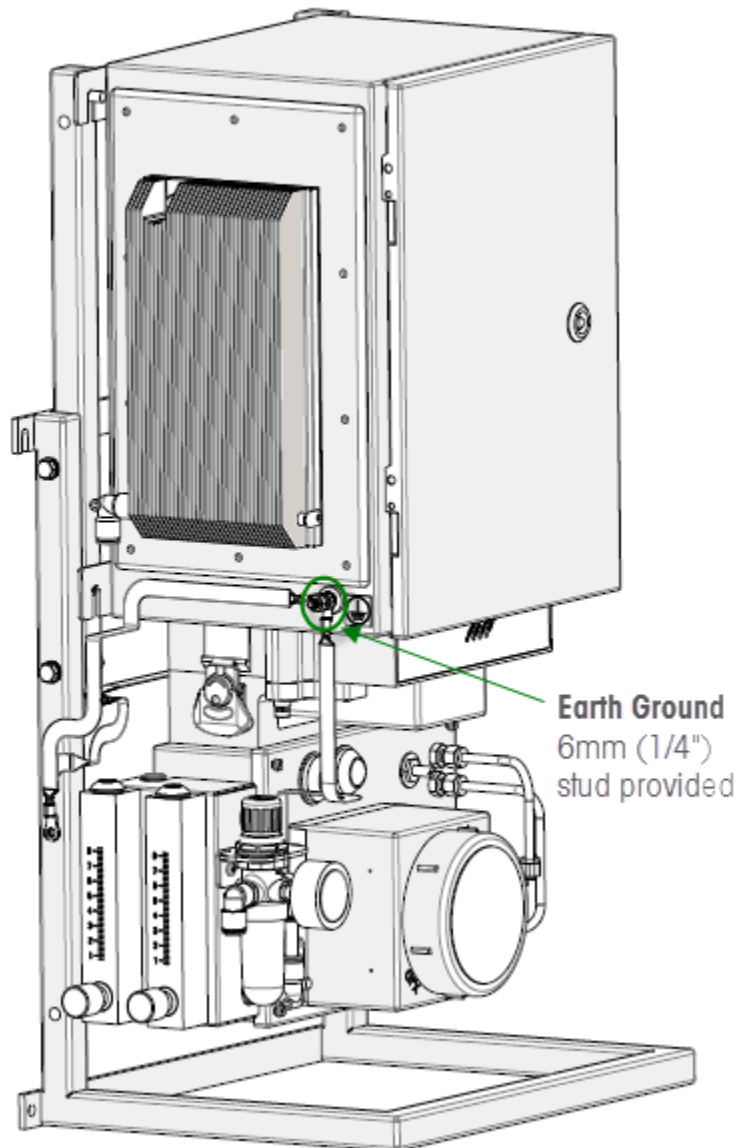


Figure 3-8 Earth/ground location (HL)

4. Connect the external power to the terminal block inside the purge/pressurization enclosure, according to [Table 3-5](#) and shown in [Figure 3-9](#).

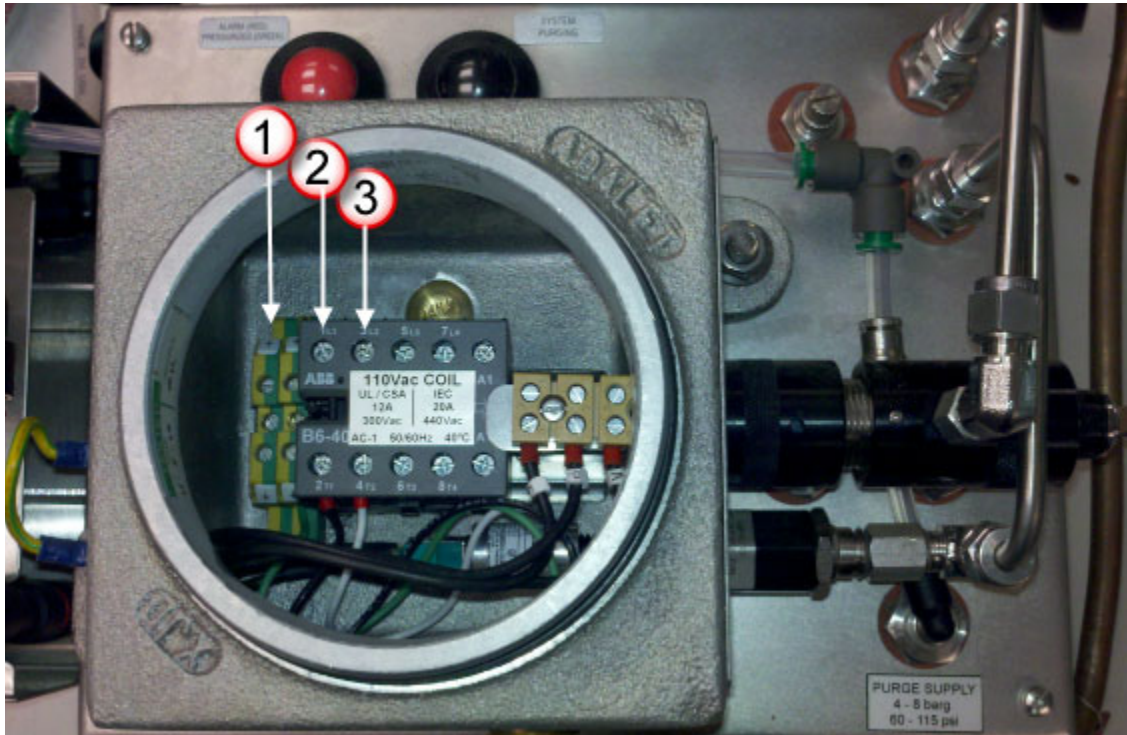


Figure 3-9 Power connection (ReactIR 45P HL)—Terminal block wiring

Table 3-5 Terminal Block Wiring

	Wire—EU	Wire—NA	Terminal	
1	Yellow/Green	Green	Ground	GND
2	Brown	Black	Line 1	1L1
3	Blue	White	Neutral	3L2

Installation—Air

Connect clean, dry instrument quality air supply that meets the specifications on the enclosure label (Figure 3-3 on page 21) and in the table on page 20) to the air input. See Figure 3-5 on page 23 for input location A.

3 ■ Hazardous Location (HL) Safety

Safety Specifications

For air input option B, the Air Handling Unit is customer-supplied. Connect 6mm air tubing (customer-supplied) to the two 6mm O.D. fittings provided at air inputs B. Air inlet to enclosure is shown in [Figure 3-10](#).

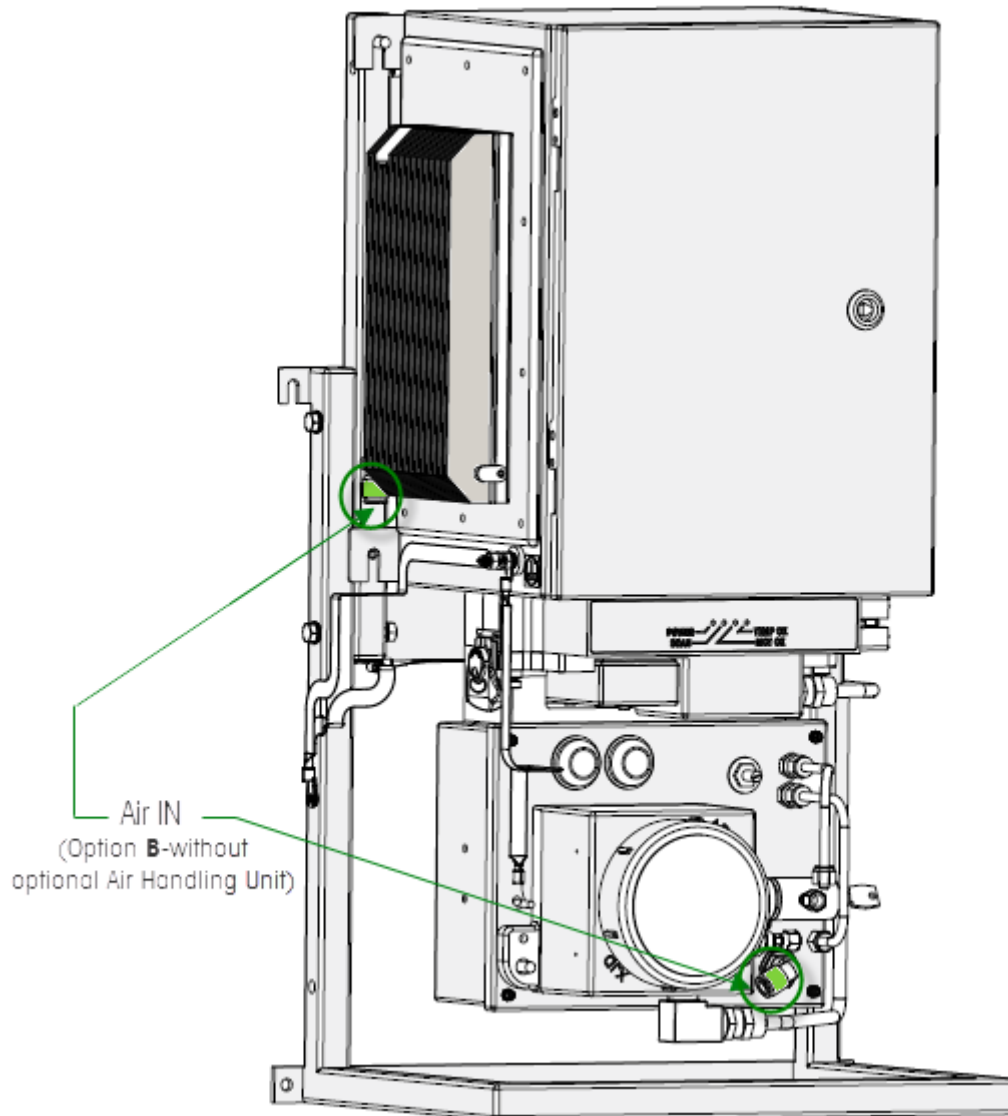


Figure 3-10 ReactIR 45P HL air inlets—Without optional Air Handling Unit

Special Conditions for Safe Use



Caution—If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.



Caution—There are no user-serviceable parts inside the system. Contact a METTLER TOLEDO Field Service Engineer for all service needs.

Refer to [“Maintenance Safety” on page 12](#) for information on maintenance and service.

Allow the ReactIR 45P HL system to reach full purge and pressurization before use.



Caution—Power to the ReactIR 45P HL base unit is only applied after the purge/pressurization system attains a fully purged and pressurized state. If the ReactIR 45P HL system enclosure is not fully purged/pressurized, the purge controller cuts power to the system.

Keys to Secure ReactIR 45P System

The enclosure door and the purge control are secured by key locks.

Before operation, ensure that key to the ReactIR 45P enclosure door and the key to the MiniPurge Control Unit (CU) are locked.



Caution—There are no user-serviceable parts inside the system. Contact a METTLER TOLEDO Field Service Engineer for all service needs.

Starting the ReactIR 45P HL System

After the ReactIR 45P system has been installed and commissioned for use, review the [Chapter 1, “General Safety”](#) and follow the steps below to start up the system for operation:

1. Verify the ReactIR 45P system enclosure and the purge/pressurization control unit are locked.
2. Apply 4.1–6.9 barg (60–100 psig) of clean, dry instrument quality air to the system.



Caution—Pressure shall not exceed 6.9barg (100psig).

3. Regulate air flow to the enclosure at 8 SCFM and to the TE cooler at 4 SCFM.

3 ■ Hazardous Location (HL) Safety

Stopping the ReactIR 45P HL System

4. Apply power to the ReactIR 45P purge/pressurization system and observe the MiniPurge indicators as the system goes through rapid exchange of enclosure air. The enclosure is fully purged and pressurized when the left indicator is green and the right indicator is black.
5. After the purge/pressurization completes and the enclosure is fully pressurized, the EXPO MiniPurge Interface Unit (MIU) releases power to the ReactIR 45P system.

The ReactIR 45P system is ready for use.

Stopping the ReactIR 45P HL System



Caution—If the ReactIR 45P HL system enclosure is not fully purged/pressurized, the purge controller cuts power to the system.

Safety Certificates

This appendix includes:

[“Class I/Division 1 Certificate” on page 32](#)

[“EC Type Examination Certificate” on page 33](#)

A ■ Safety Certificates

Class I/Division 1 Certificate

Class I/Division 1 Certificate



The applicant named below has been authorized by MET Laboratories, Inc. to represent the product(s) listed in this record as "MET Certified" and to mark this/these product(s) according to the terms and conditions of the MET Mark Utilization Agreement, MET Listing Reports, and the applicable marking agreements. Only the product(s) bearing the MET Mark and under a follow-up service are considered to be included in the MET Certification program. This certification has been granted under a System 3 program as defined in ISO Guide 67.

FILE NUMBER: E112462 **APPROVAL DATE:** July 12, 2011
REVISED: -

PRODUCT(S)	MODEL(S)	ELECTRICAL RATINGS
Process Monitoring System	ReactIR 45P	Hazardous and Normal Location Configuration Rated: 100-240 VAC, 50/60 Hz, 5.0 A Hazardous Location Configuration: Class I, Division 1, Groups B, T4


STANDARD NUMBER	STANDARD TITLE	EDITION
UL 61010-1/ CSA C22.2No. 61010-1	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use	2nd
NFPA 496	Standard for Purges and Pressurized Enclosures for Electrical Equipment	2008

MET LABORATORIES, INC. requires that any and all changes proposed in the previously identified product(s), that affects the information contained in the above referenced listing report, must be submitted to MET for evaluation prior to implementation to assure continued MET Certification status.

The above identified product(s) has/have been submitted by the applicant:

APPLICANT:
Mettler-Toledo AutoChem
7075 Samuel Morse Drive
Columbia, MD 21046

The covered products shall be subjected to follow-up inspections to ensure that the Certified product(s) are identical to the representative product sample evaluated by MET LABORATORIES, INC. and that all manufacturer's responsibilities are being fulfilled as specified in the MANUFACTURING RESPONSIBILITY section of the Certification report.


Rick Cooper
Director of Laboratory Operations,
Safety Laboratory



*MET Laboratories, Inc. is accredited by OSHA and the Standards Council of Canada.
The Nation's First Nationally Recognized Testing Laboratory*



EC Type Examination Certificate

---PENDING---

A ■ Safety Certificates

EC Type Examination Certificate

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