

File E223527  
Project 4787872264

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REPORT

on

Programmable Controllers for Use in Hazardous Locations

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## DESCRIPTION

## PRODUCT COVERED:

USL, CNL Open Type Programmable Controllers - PicoPak series, type PicoPak-CI-CO-LP-x, where x may be S or P, for use in Hazardous Locations, Class I, Division 2, Groups A,B,C and D.

## GENERAL:

These products shall comply with ordinary locations File E141197, issued date 2017-08-09, Programmable Controllers, covering for this manufacturer and with the following description. Should the Procedure File E141197, issued date 2017-08-09 be withdrawn, labeling under this Procedure must be discontinued until authorization to resume is received. In the case of any discrepancy between this File and E141197, this file has precedence.

These modules are intended to be used for input / output isolation purposes. The devices consist of Input / Output Modules with 4-20 mA I/O functions.

## TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Products designated USL have been investigated using requirements contained in UL121201 Nonincendive Electrical Equipment For Use In Class I and II, Division 2, and Class III, Divisions 1 and 2 Hazardous (Classified) Locations - Issue Date 2017/09/15.

Products designated CNL have been investigated using requirements contained in Canadian Standards CSA C22.2 NO. 213-17, Nonincendive Electrical Equipment For Use In Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations - Edition 3 - Revision Date 2017/09/15

## RATINGS:

## Electrical:

I/P to isolator 6 to 35Vdc, 4 to 20mA.  
O/P from isolator 18 to 32Vdc, 4 to 20 mA  
Supply: 18 to 32Vdc, 850mW supply (at 32Vdc)

NOTE: Passive isolator that takes its power from the O/P side of the device.

## Environmental:

Ambient temperature range:  
-40 °C ≤ Tamb ≤ +55 °C (70 °C with derating)

Temperature Code: T4

## Derating:

- Up to and including 55°C, resistive loads on all terminals in normal operation considered between 0 to 600 Ω (nominal 24Vdc), (May also be calculated as  $R_{max} = (V_{supply} - 12V) / 0.02A$ )
- Above 55°C and up to 70°C, minimum resistive loads are as follows:

Ext. voltage Vdc	Min. output load Ω
18	50
24	350
28	550
32	750

## NOMENCLATURE:

PicoPak- CI- CO- LP- S  
I II III IV V

I - PicoPak series  
II - CI, current input, 4-20mA  
III - CO, current output, 4-20mA  
IV - LP, loop powered (takes power from output side of device)  
V - S, screw terminals  
P, sprung push-in terminals

## MARKING:

The following markings shall appear on the device in addition to ordinary locations marking under File E141197, issued date 2017-08-09.

## Marking Content

1. Listee name or Trademark or File Number
2. Catalog or Model number
3. Electrical ratings: Voltage, frequency and either amperes, volt-amperes, or watts
4. Designation of hazardous locations indicated under "Product Covered".
5. Operating temperature code: "T4".
6. The month and year of manufacture or another suitable method, such as date coding or serial numbers.
7. Ambient temperature range as indicated under RATINGS, Environmental.

## INSTALLATION INSTRUCTIONS:

Installation Instructions are provided with each device and shall include the following, or equivalent wording in addition to ordinary locations marking under File E141197, issued date 2017-08-09. When sold in Canada the following Warnings shall be provided in both French and English.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D or non-hazardous locations only.

WARNING - EXPLOSION HAZARD - Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.

WARNING - EXPLOSION HAZARD - Substitution of any components may impair suitability for Class I, Division 2.

Device is open-type and is to be installed in a tool-locked enclosure suitable for its environment.

## Assembly And Construction -

The PLCs are described in accordance with the following figures, illustrations and description.