ICC-ES PMG Product Certificate

PMG-1296

Effective Date: January 2025

This listing is subject to re-examination in one year.

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CSI: DIVISION: 23 00 00—HEATING, VENTILATING AND AIR CONDITIONING (HVAC)
Section: 23 20 00—HVAC Pipe and Fittings

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Products: Refrigeration Tubing Connectors

Listee: RLS, LLC
6212 Pershall Road
Hazelwood, MO 63042
www.rapidlockingsystem.com

Compliance with the following codes:

2024, 2021, 2018, 2015, 2012, 2009 and 2006 *International Mechanical Code®* (IMC)
2024, 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)
2024, 2021, 2018, 2015, 2012, 2009 and 2006 *Uniform Mechanical Code®* (UMC)*

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Compliance with the following standards:

UL 207 (Edition 9), Standard for Refrigerant-Containing Components and Accessories, Nonelectrical

Identification:

The refrigerant tubing connectors shall be legibly and permanently marked with the manufacturer's name, trade name, trademark, or identifying symbol or other descriptive marking by which the organization responsible for the product may be identified.

The shipping carton, a separate instruction sheet included with the shipping carton or a tag attached to the component shall include a distinctive model, part number, or type designation for the connector and include information for each refrigerant type for which the connector is intended and the ICC-ES PMG listing mark.

Installation:

The refrigerant tubing connectors must be installed in accordance with the manufacturer's published installation instructions, the applicable codes and this listing.

Mechanical joints shall not be used on annealed temper copper tube in sizes larger than $^{7}/_{8}$-inch (22.2 mm) OD size per IMC and ¾" of an inch nominal size per UMC.

Note: The 2024, 2021 and 2018 IMC, IRC and UMC permit for press-connect joints listed for refrigeration piping.

Models:

The refrigerant tubing connectors are intended for connection of copper, aluminum, titanium and other types of tubing approved by the manufacturer. The connection is accomplished by compressing (solder-free) the fitting to a pipe. The refrigerant tubing connectors are only suitable with the following refrigerants (R32, R134A, R404A, R407, R410A, R417A, R421A, R422, R424A, R427A, R434A, R437A, R438A, R445A, R446A, R447A, R447B, R448A, R449, R450A, R451A, R451B, R452B, R453A, R454A, R454B, R454C, R455A, R456A, R460A, R460B, R460C, R463A, R507, R513, R718, R1234yf, R1234ze, Ethylene Glycol).

Series Model Name: RLS™ Cu

Type of Connector	Sizes
Couplings	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-5/8", 2-1/8"
Slip Couplings	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8", 1-3/8"
Long Radius 90°	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-5/8", 2-1/8"
Long Radius 45°	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8", 1-3/8", 1-5/8", 2-1/8"
Street 90°	1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8", 1-3/8"
Stubs	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8", 1-3/8"
Reducers (F x F)	1-3/8" x 1-1/8", 1-3/8" x 7/8", 1-1/8" x 7/8", 1-1/8" x 3/4", 1-1/8" x 5/8", 1-1/8" x 1/2", 1" x 7/8", 7/8" x 3/4", 7/8" x 5/8", 7/8" x 1/2", 3/4" x 5/8", 3/4" x 1/2", 5/8" x 1/2", 5/8" x 3/8", 5/8" x 1/4", 1/2" x 3/8", 1/2" x 1/4", 3/8" x 1/4", 5/16" x 1/4", 11mm x 3/8", 1-5/8" x 1-1/8", 1-5/8 x 1-3/8", 2-1/8" x 1-3/8", 2-1/8" x 1-5/8"
Tees	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-5/8", 2-1/8"
Bushing (B x F)	1-3/8" x 1-1/8", 1-1/8" x 7/8", 7/8" x 3/4", 3/4" x 1/2", 5/8" x 1/2", 1/2" x 3/8"
Cap	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8"
SAE (Euro) Flare	1/4", 3/8", 1/2", 5/8", 3/4"
Capillary Coupling	0.072" x 1/4", 0.109" x 1/4"
Return Bend	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8"

Ratings:

Sizes	Design Pressure, psig	Maximum Abnormal Pressure, psi	Continuous Operating Temperature
¼" RLS	700	700	250°F (121°C)
5/16" RLS	700	700	250°F (121°C)
3/8" RLS	700	700	250°F (121°C)
½" RLS	700	700	250°F (121°C)
¾" RLS	700	700	250°F (121°C)
5/8" RLS	700	700	250°F (121°C)
7/8" RLS	700	700	250°F (121°C)
1" RLS	700	700	250°F (121°C)
1-1/8" RLS	700	700	250°F (121°C)
1-1/4" RLS	700	700	250°F (121°C)
1-3/8" RLS	700	700	250°F (121°C)
1-5/8" RLS	700	700	250°F (121°C)
2-1/8" RLS	700	700	250°F (121°C)

Conditions of Listing:

1. The refrigerant tubing connectors must be used with only the following refrigerants (R32, R134A, R404A, R407, R410A, R417A, R421A, R422, R424A, R427A, R434A, R437A, R438A, R445A, R446A, R447A, R447B, R448A, R449, R450A, R451A, R451B, R452B, R453A, R454A, R454B, R454C, R455A, R456A, R460A, R460B, R460C, R463A, R507, R513, R718, R1234yf, R1234ze, Ethylene Glycol).
2. Mechanical joints shall not be used on annealed temper copper tube in sizes larger than $^{7}/_{8}$-inch (22.2 mm) OD size per IMC and ¾" of an inch nominal size per UMC.
   Note: The 2024, 2021 and 2018 IMC, IRC and UMC permit for press-connect joints listed for refrigeration piping.
3. The installation must be pressure-tested for leaks in the presence of the code official or the code official's designated representative.
4. When installation is in fire-resistance-rated assemblies, evidence must be provided to the code official of compliance with *International Building Code*® (IBC) Section 713 (penetrations), *Uniform Building Code* (UBC) Section 709 (walls and partitions) or UBC Section 710 (floor/ceiling or roof/ceiling), as applicable.
5. The connectors must not be used as a source of electrical ground.
6. When the system is embedded in concrete, tubing must be covered a minimum of $^{3}/_{4}$ inch (19.1 mm) and installation must comply with IBC Section 1906.3 or UBC Section 1906.3, as applicable.
7. The refrigerant tubing connectors are under a quality control program with surveillance inspections annually by ICC-ES.