

Achieve the new UL2238 Certification

Features and Benefits

- Allen-Bradley cordsets and patchcords meet the new UL2238 standard for cable assemblies
- These products also meet NFPA-79 Electrical Standard
- OEMs and end users can take advantage of early compliance prior to February 2015
- UL2238 compliant products help ensure safer and more reliable connections
- Rugged and suitable for industrial applications
- Constructed for excellent reliability and flexibility

Allen-Bradley cordsets and patchcords meet the new UL2238 standards for safer, more reliable connections that can help reduce liability and downtime.



The Rockwell Automation portfolio of Allen-Bradley® connection systems is one of the most extensive in the industry. Setting the benchmark for flexibility, availability, quality and compatibility, Allen-Bradley connection systems provide seamless connectivity for your Integrated Architecture and components.

As part of our constant efforts to provide industry-leading solutions and highest value to our customers, Rockwell Automation is proud to announce that Allen-Bradley cordsets and patchcords are connectivity products that comply with the new UL2238 standard for industrial connectivity as well as the NFPA-79 Electrical Standard for Industrial Machinery.

Since standards expressly written for cable assemblies did not exist prior to UL2238, companies relied on other standards (e.g. UL508 and UL1977) as de facto guidelines for cable design. The new standard officially covers connectivity products; to achieve certification, cables must meet strict electrical, mechanical, thermal, and environmental requirements by passing a battery of 19 rigorous tests.

Originally slated to go into effect in February 2013, the compliance date was moved to February 2015 to give vendors more time to upgrade their products in accordance with the new standard. However, Allen-Bradley cordsets and patchcords are UL2238 compliant TODAY, which means customers can be compliant well before the deadline. For OEMs, that means a competitive edge in shipping compliant machines ahead of the curve. At the same time, all customers will benefit from safer, more reliable connections that can help reduce liability and downtime.

LISTEN.
THINK.
SOLVE.®

Allen-Bradley cordsets and patchcords meet the new UL2238 standard for cable assemblies.

What is UL2238?

Starting February 2015, all connectivity products must meet new standards for electrical, mechanical, thermal, and environmental performance as detailed by Underwriters Laboratories in UL2238. Prior to this standard, connectivity products were designed through interpretation of other standards such as UL508 (Standard for Industrial Control Equipment) and UL1997 (Standard for Components Used in Control Power Applications). UL2238 is the first standard written expressly for cable assemblies and outlines requirements as established through an extensive list of rigorous performance tests.

Summary of UL2238 Requirements

- An acceptable grade of polymer must be used for all connector plastic inserts that hold metal pins
- Flammability classification of HB or better for insulation of live parts
- Electrical: Comparative Tracking Index (CTI) and Hot Wire Ignition (HWI) minimum performance level ratings
- High-current Arc Ignition (HAI) Performance level rating
- Thermal: Relative Temperature Index of 50/50/50 minimum

19 Rigorous Performance Tests

- Mold Stress – Relief Distortion
- Moisture Absorption Resistance
- Dielectric Voltage – Withstand
- Insulation Resistance
- Conductor Secureness
- Strain-relief
- Temperature
- Current-cycling and Vibration
- Jacket Retention
- Polarization
- Adhesion
- Grounding impedance
- Fault Current
- Cable Pullout
- Comparative Tracking Index
- Glow Wire
- High-current Arc Resistance to Ignition



UL2238 Standard

This standard is intended for cable assemblies and fittings used for connectivity of equipment, sensors and actuators for Industrial Control applications. Polymeric material used for electrical insulation or enclosure of live parts (metal pins) shall have acceptable performance levels.

NFPA-79

Established by the National Fire Protection Association, NFPA-79 is the section of the National Electric Code (NEC) that focuses on the electrical wiring standards used with industrial machinery.

Raw cables shall have acceptable performance levels for Electrical (voltage, current), Physical (flammability, environmental) and Mechanical (wall thickness, materials) requirements.

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