# **3M** United States

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#### Product Catalog for Electronic Specialty Markets > 3M<sup>™</sup> Terminals, Kits & Tools > Electrical Wire Connectors > Highland<sup>™</sup> Wire Connectors >

## Printer-friendly format 3M<sup>™</sup> Highland<sup>™</sup> Wire Connector H-33, Yellow, 18-12 AWG, 100/Box



3M<sup>™</sup> Highland<sup>™</sup> Wire Connectors make it quick and easy to match the right connector to the size of the wire. The shells are designed to withstand temperatures up to 221°F (105°C).



enlarge] GTIN(UPC/EAN) : 0 00 54007 43136 7 3M Id : 80-6109-8125-2

#### Additional Information

3M<sup>™</sup> Highland<sup>™</sup> Color-Coded Wire Connectors are UL Listed, CSA Certified, and work equally well with either solid or stranded wire. H-31, H-33 and H-35 connectors are rated to 600V (1000V in signs and lighting fixtures).

#### Learn More . . .

Packaging Data

Highland Electrical Spring Connectors - Data Sheet (PDF 12.0 K)

Ordering Information for Highland H-33 Spring Connectors - Product Selection Guide (HTML 2.3 K)

Please Note: Adobe® Acrobat® Reader is required to view PDF documents.



#### Characteristics

Agency Approvals	UL and CSA
China RoHS - Below MCV	Yes
Color	Yellow
EU RoHS Compliant	Yes
Maximum Recommended Voltage Rating	600 Volt
Units per Box	100

Wire Range Capabilities

22 to 14





## Data Sheet

## **1.0** Application

Use the 3M<sup>™</sup> Highland<sup>™</sup> Electrical Spring Connectors to electrically connect two or more wire ends in a pigtail application and insulate the connection. The wire range shall be 22 thru 10 AWG solid or stranded copper wire.

#### **Construction:**

Spring—Steel, plated Insulator—Vinyl

### 2. Engineering Specification

The Highland Electrical Spring Connectors shall be capable of connecting two or more wires in a pigtail application, in the wire range of No. 22 thru No. 10 solid or stranded copper conductors. The connectors shall be constructed of a plated steel spring, covered by a vinyl insulator. The connectors shall be UL Listed and CSA Certified.

### 3. Regulatory Agencies

UL Listed as a Pressure Cable Connector Tested per UL Standard 486C UL File No. E84147

#### CSA Certified as a Pressure Cable Connector Tested to CSA Standard C22.2 No. 0,188-M1983 CSA File No. 58960

#### **Specifications:**

MAX. VOLTAGE RATING:	
	Wire 1000V Signs,
	Lighting Fixtures and
	Luminaries
MAX TEMPERATURE	
RATING:	105°C (221°F)-UL
	90°C (194°F)-CSA

#### Wire Combinations:

Solid or stranded copper conductors only

H-29 (Gray) (300 Volts) 3 to 5 No. 22 2 to 4 No. 20 2 or 3 No. 18 2 No. 16 1 No. 20 w/ 1 to 4 No. 22 2 No. 20 w/ 1 to 3 No. 22 3 No. 20 w/ 1 or 2 No. 22 1 No. 18 w/ 1 No. 20 w/ 1 No. 22 1 No. 18 w/ 1 to 4 No. 22 1 No. 18 w/ 1 or 2 No. 20 2 No. 18 w/ 1 No. 20 or No. 22 1 No. 16 w/ 1 No. 18 or No. 22

H-30 (Blue) (300 Volts) 5 No. 22 3 to 5 No. 20 2 to 4 No. 18 2 or 3 No. 16 1 No. 20 w/ 4 No. 22 2 No. 20 w/ 2 or 3 No. 22 3 No. 20 w/ 1 or 2 No. 22 4 No. 20 w/ 1 No. 22 1 No. 18 w/ 2 to 4 No. 20 1 No. 18 w/ 3 or 4 No. 22 1 or 2 No. 18 w/ 1 No. 20 w/ 1 No. 22 2 No. 18 w/ 1 to 3 No. 20 2 No. 18 w/ 1 to 3 No. 22 3 No. 18 w/ 1 or 2 No. 20 or No. 22 4 No. 18 w/ 1 No. 22 1 No. 16 w/ 1 to 4 No. 20 1 No. 16 w/ 1 to 4 No. 22 1 No. 16 w/ 1 or 2 No. 18 2 No. 16 w/ 1 to 3 No. 22 2 No. 16 w/ 1 or 2 No. 20 2 No. 16 w/ 1 No. 18 1 No. 14 w/ 1 to 4 No. 22 1 No. 14 w/ 1 to 3 No. 20 1 No. 14 w/ 1 No. 16 1 No. 14 w/ 1 No. 18

H-31 (Orange) (600 Volts) 5 No. 22 3 to 5 No. 20 2 to 5 No. 18 2 to 3 No. 16 2 No. 14 1 No. 16 w/ 1 to 4 No. 18 2 No. 16 w/ 1 or 2 No. 18 1 No. 14 w/ 1 to 3 No. 18 1 No. 14 w/ 1 or 2 No. 16 2 No. 14 w/ 1 to 3 No. 20 or No. 22 H-33 (Yellow) (600 Volts) 4 or 5 No. 22

4 or 5 No. 22 3 to 5 No. 20 2 to 7 No. 18 2 to 4 No. 16 2 to 3 No. 14 2 No. 12 2 No. 18 w/ 2 to 4 No. 16 1 or 2 No. 16 w/ 1 to 3 No. 18 1 No. 14 w/ 1 to 4 No. 16 1 No. 14 w/ 1 to 3 No. 18 2 No. 14 w/ 1 to 2 No. 16 2 No. 14 w/ 1 to 2 No. 16 2 No. 14 w/ 1 to 2 No. 18

#### H-35 (Red) (600 Volts) 3 to 9 No. 18 2 to 6 No. 14 2 to 4 No. 12 2 to 3 No. 10 2 No. 14 w/ 1 to 4 No. 18 3 No. 14 w/ 1 to 4 No. 16 3 No. 14 w/ 1 to 3 No. 16 3 No. 14 w/ 1 to 3 No. 18 4 No. 14 w/ 1 to 2 No. 16 4 No. 14 w/ 1 to 2 No. 18

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5 No. 14 w/ 1 No. 16 5 No. 14 w/ 1 No. 18 1 No. 12 w/ 1 to 4 No. 18 1 No. 12 w/ 1 to 4 No. 16 1 No. 12 w/ 1 to 5 No. 14 2 No. 12 w/ 1 to 3 No. 16 2 No. 12 w/1 to 3 No. 18 2 No. 12 w/ 1 to 4 No. 14 3 No. 12 w/ 1 to 2 No. 16 3 No. 12 w/ 1 to 2 No. 18 3 No. 12 w/ 2 or 3 No. 14 4 No. 12 w/ 1 No. 14 4 No. 12 w/ 1 No. 16 4 No. 12 w/ 1 No. 18 1 No. 10 w/ 1 to 3 No. 12 1 No. 10 w/ 1 to 3 No. 14 2 No. 10 w/ 1 to 3 No. 18 2 No. 10 w/ 1 to 3 No. 16 2 No. 10 w/ 1 or 2 No. 14 2 No. 10 w/ 1 or 2 No. 12

#### Metric wire combinations (copper only) not UL Listed or CSA Certified. H-33 (Yellow)

## **H-29 (Gray)** 0,50 mm<sup>2</sup> (3 to 5)

0,75 mm<sup>2</sup> (2 to 3) 1,0 mm<sup>2</sup> (2)

#### H-30 (Blue)

0,50 mm<sup>2</sup> (3 to 5) 0,75 mm<sup>2</sup> (2 to 4) 1,0 mm<sup>2</sup> (2 to 3) 1,5 mm<sup>2</sup> (2)

#### H-31 (Orange)

0,75 mm<sup>2</sup> (3 to 5) 1,0 mm<sup>2</sup> (2 to 4) 1,5 mm<sup>2</sup> (2 to 3) 0,75 mm<sup>2</sup> (3 to 6) 1,0 mm<sup>2</sup> (2 to 5) 1,5 mm<sup>2</sup> (3 to 4) 2,5 mm<sup>2</sup> (2 to 3)

### H-35 (Red)

1,0 mm<sup>2</sup> (5 to 6) 1,5 mm<sup>2</sup> (3 to 6) 2,5 mm<sup>2</sup> (2 to 5) 4 mm<sup>2</sup> (2 to 4)