



Highland™ Electrical Spring Connectors



Data Sheet

1.0 Application

Use the 3M™ Highland™ 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: 300V or 600V Building
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
 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. 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
 2 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

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-29 (Gray)**

0,50 mm² (3 to 5)
 0,75 mm² (2 to 3)
 1,0 mm² (2)

H-30 (Blue)

0,50 mm² (3 to 5)
 0,75 mm² (2 to 4)
 1,0 mm² (2 to 3)
 1,5 mm² (2)

H-31 (Orange)

0,75 mm² (3 to 5)
 1,0 mm² (2 to 4)
 1,5 mm² (2 to 3)

H-33 (Yellow)

0,75 mm² (3 to 6)
 1,0 mm² (2 to 5)
 1,5 mm² (3 to 4)
 2,5 mm² (2 to 3)

H-35 (Red)

1,0 mm² (5 to 6)
 1,5 mm² (3 to 6)
 2,5 mm² (2 to 5)
 4 mm² (2 to 4)

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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
 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. 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
 2 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

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-29 (Gray)**

0,50 mm² (3 to 5)
 0,75 mm² (2 to 3)
 1,0 mm² (2)

H-30 (Blue)

0,50 mm² (3 to 5)
 0,75 mm² (2 to 4)
 1,0 mm² (2 to 3)
 1,5 mm² (2)

H-31 (Orange)

0,75 mm² (3 to 5)
 1,0 mm² (2 to 4)
 1,5 mm² (2 to 3)

H-33 (Yellow)

0,75 mm² (3 to 6)
 1,0 mm² (2 to 5)
 1,5 mm² (3 to 4)
 2,5 mm² (2 to 3)

H-35 (Red)

1,0 mm² (5 to 6)
 1,5 mm² (3 to 6)
 2,5 mm² (2 to 5)
 4 mm² (2 to 4)

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