



# Lugs & Connectors



CABLE JOINTS, CABLE TERMINATIONS, CABLE GLANDS, CABLE CLEATS  
FEEDER PILLARS, FUSE LINKS, ARC FLASH, CABLE ROLLERS, CUT-OUTS

11KV 33KV CABLE JOINTS & CABLE TERMINATIONS  
FURSE EARTHING  
[www.cablejoints.co.uk](http://www.cablejoints.co.uk)  
**Thorne and Derrick UK**

Tel 0044 191 490 1547 Fax 0044 191 477 5371  
Tel 0044 117 977 4647 Fax 0044 117 9775582

## Lugs & Connectors

3M have designed lugs and connectors with the reliability and ease of installation that Electricians demand. From the very first Scotchlok™ Insulation Displacement Connector (IDC) to today's improved models and lugs, 3M has always provided connection technology that saves time and money.

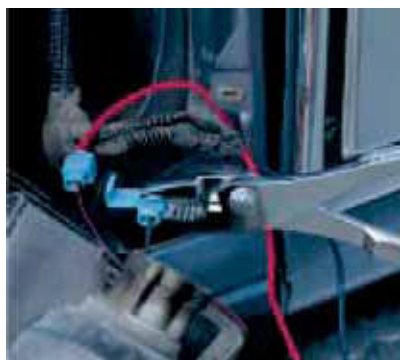
Regardless of the cable or wire type, 3M manufacture a wide range of quality connectors and lugs suitable for a variety of applications including power, telecom, automotive and data transmission.



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## Scotchlok™ Wire Connectors

Quick, reliable splices are a snap and a squeeze:

3M Scotchlok™ insulation displacement connectors (IDC's) are easy to use and save time to install, just squeeze - no stripping or twisting. Our unique "U" contact provides a dependable electrical connection.











A "live-spring" joint is made by driving the "U" contact down into connector.

As the "U" contact is pressed into connector, it grasps conductors as it displaces insulation.

Contact grips conductor and holds with a firm, resilient pressure.



## 3M™ Communication Connectors

CONNECTOR	TYPE CONNECTOR	SPECIAL FEATURES	MAXIMUM INSULATION	AWG (mm <sup>2</sup> ) WIRE RANGE	OPERATING TEMPERATURE	
<b>UR**</b>			Moisture Resistant Seal	0.066" (1,67 mm)	19-26 (0,9-0,4) Solid Wire	-40 to 285°F (-40 to 140°C)
<b>UR2**</b>			RUS Listed Full Featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid Wire	-40 to 285°F (-40 to 140°C)
<b>UG**</b>			Moisture Resistant Seal	0.066" (1,67 mm)	19-26 (0,9-0,4) Solid Wire	-40 to 285 (-40 to 140 °C)
<b>UY**</b>			Moisture Resistant Seal	0.060" (1,52 mm)	22-26 (0,7-0,4) Solid Wire	-40 to 285 F (-40 to 140 °C)
<b>UY2**</b>			RUS Listed Full Featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid Wire	-40 to 285 F (-40 to 140 °C)
<b>UB2A**</b>			RUS Listed Full Featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid Wire	-40 to 285 (-40 to 140 °C)
<b>U1B**</b>			Full Pair	0.125" (3,18 mm)	16-19 (1,3-0,9) Solid Wire	-40 to 285°F (-40 to 140°C)
<b>U1R**</b>			Full Pair	0.125" (3,18 mm)	19-24 (0,9-0,5) Solid Wire	-40 to 285°F (-40 to 140°C)
<b>UAL**</b>			For Aluminum Copper	0.082" (2,08 mm) Outside port 0.076" (1,93 mm) Center port	17-20 (1,15-0,5) Solid Wire 19-24 (0,9-0,5) Copper	-40 to 285°F (-40 to 140°C)

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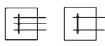







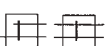



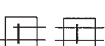

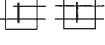













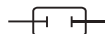
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Cold Shrink tubes & End Caps  
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Cable & Wire Management  
Lugs & Connectors  
Heat Shrink  
Cable & Fault Locators & Electronic Marker Systems



## 3M™ Self Stripping Power Connectors

CONNECTOR	TYPE CONNECTOR	SPECIAL FEATURES	MAXIMUM INSULATION	AWG (mm <sup>2</sup> ) WIRE RANGE	OPERATING TEMPERATURE	UL, CSA or CE CERTIFIED	
<b>314</b>			Moisture Resistant Seal	0.155" (3,94 mm)	22-14 (0,5-1,5)	105°C (221°F)	UL SP
<b>316IR</b>			Moisture Resistant Applications	0.155" (3,94 mm)	22-16 (0,5-1,5)	105°C (221°F)	—
<b>557</b>			Dual Element Connection	0.120" (3,05 mm)	22-16 (0,5-1,5)	105°C (221°F)	UL SP CE
<b>558</b>			Flame Retardant	0.120" (3,05 mm)	22-16 (0,5-1,5)	105°C (221°F)	UL SP CE
<b>560B</b>			Run & Tap Splicing	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	90°C (194°F)	UL
<b>560N</b>			Flame Retardant	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	105°C (221°F)	UL SP
<b>560</b>			Flame Retardant	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	105°C (221°F)	UL SP CE
<b>562</b>			Run & Tap Splicing	0.190" (4,82 mm)	12-10 (3,0-4,0) Solid/Stranded 10 Stranded	90°C (194°F)	—
<b>567</b>			Dual Element Connection	0.145" (3,68 mm) Tap 0.190" (4,82 mm) Run	18-14 (0,75-1,5) Tap 12-10 (3,0-4,0) Run	105°C (221°F)	UL SP CE
<b>804</b>			Moisture Resistant Applications	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	75°C (167°F)	UL
<b>905</b>			Low Voltage (Automotive) Applications	0.110" (2,79 mm) Tap 0.145" (3,68 mm) Run	22-18 (0,5-1,0) Tap 18-14 (0,75-1,5) Run	90°C (194°F)	CE
<b>951</b>			T-Tap Disconnect	0.150" (3,81 mm)	22-18 (0,5-1,0)	105°C (221°F)	UL SP
<b>952</b>			T-Tap Disconnect	0.150" (3,81 mm)	18-14 (0,75-1,5)	105°C (221°)	UL SP
<b>953</b>			T-Tap Disconnect	0.150" (3,81 mm)	12 (3,0)	105°C (221°)	UL SP
<b>972</b>			Fuse Holder	0.150" (3,81 mm)	18-14 (0,75-1,5)	90°C (194°F)	—



Electrical Tapes  
Low Voltage Joints & Terminations  
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Earthing Kits  
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Cable & Fault Locators & Electronic Marker Systems



## 3M™ Spring Power Connectors

Scotchlok™ Y, R, G and B Electrical Spring Connectors are the original colour-coded wire connectors. They are flexible yet durable with an outer insulator that gives you a compact, fully insulated connection that won't cut or abrade wires.

### Features

These four spring connectors have a corrosion-resistant steel inner shell to strengthen them while permitting spring expansion and contraction due to temperature changes.

A deep, flared skirt makes wire insertion easier and protects against faults.

The design and a flexible base let Scotchlok connectors bend with the wires you're slicing to fit easily into tight places.

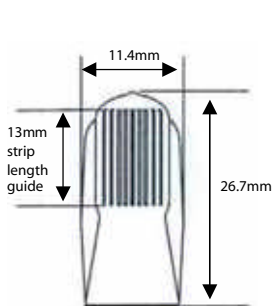
### Application

The live action spring delivers reliable, vibration-resistant connections over a wide range of wire

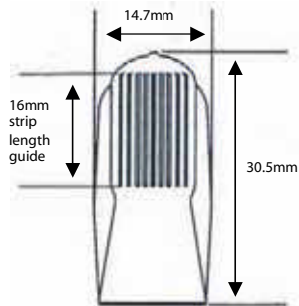
Connector	Conductor Combinations*	
	Cross section sol/str (mm²)	Quantity
<b>Y</b>	1	5-6
	1.5	4-5
	2.5	2-5
	4	2-4
<b>G</b>	2.5	4-6
	4	2-6
	6	2-4
<b>R</b>	1	5-6
	1.5	4-6
	2.5	2-5
	4	2-4
	6	2
<b>B</b>	4	3-6
	6	3-4
	10	2-3
	16	2

\* Copper conductors only

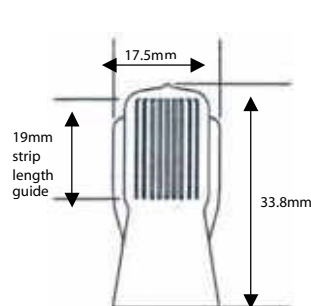
Scotchlok™ Y Connector



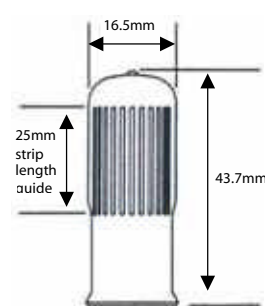
Scotchlok™ R Connector



Scotchlok™ G Connector



Scotchlok™ B Connector



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## 3M™ DBY/DBR - Direct Bury Splice Kits

3M DBY, DBY Kits provide quick, reliable underground splicing for irrigation and sprinkler systems, landscape lighting and other projects. Specially designed plastic insulator tube comes pre-packaged containing insulating gel.

Locking fingers in the tube ensure that the Scotchlok Spring Connector stays in position, the closed tube cover provides strain relief, and the design protects against corrosion failure.

Application temperature range is 0°C - 49°C

With 3M Direct Bury Splice Kits, there's no mixing, no mess, Just slide your connection (Scotchlok Y or R Connectors only) into the insulator tube, close and bury.



DBR Kit contains the R Type Scotchlok Spring Power Connector

DBY Kit contains the Y Type Scotchlok Spring Power Connector

(see selection tables on page 97 for details)



## 3M™ Scotch Cable Lugs and Connectors

### Features

Comprehensive range available, from 6mm<sup>2</sup> up to 1000mm<sup>2</sup>

Voltage range from 0.6kV up to 36kV

Available in Copper or Aluminium

Waterblocked versions available

For use with DIN standard circumferential hexagonal compression tooling

Connectors available to join differing conductor sizes

Bi-metallic Connectors and Lugs available

The complete voltage range available from 0.6kV to 33kV



### Selection Example

	Size (mm <sup>2</sup> )	11kV	Die No.
L	25	A	11 W.12
Lug	Aluminium	Waterblocked	
Connector	Copper		
C	185	C.25	
	Size (mm <sup>2</sup> )	Die No.	

Use the selection example to identify the correct lug or connector you require

Description	Conductor Size	Colour
B-42-1101	0.5-1.5	Red
C-42-1101	1.0-2.5	Blue
D-42-1101	2.5-6.0	Yellow

## 3M™ Crimp Connectors

Pre-insulated Vinyl covered butt connectors, for smaller sized conductors

## 3M™ Tools & Accessories

### EP1 – Compression Tool with or without steel handle



Copper lug and connectors 6-240sq.mm  
 Aluminium lugs and connectors 16-300sq.mm  
 Telescopic handle offers increased leverage on larger Sized connectors.  
 Hexagonal crimp  
 Re-shaping dies available for sector shaped solid aluminium Conductors

### EP2 – Crimp Tool (Copper Conductors only)



For non-insulated cable lugs and connectors from 6-50sq.mm  
 Hexagonal crimp with revolving dies

### EP3 – Crimp Tool



Universal compression crimp, for lugs and connectors from 0.5-16sq.mm

### E9BM – Crimping Tool

For use with most Scotchlok connectors.  
 Parallel closing action with adjustable jaws.  
 High mechanical advantage.

### E9Y – Crimping Tool



Stepped jaws and long nose provide parallel crimping action.  
 Features include a side wire cutter, insulated handles and a return spring.

### E9E – Crimping Tool

Parallel closing action tool for use with Scotchlok butt and tap connectors.

Also available for Hire:  
 Complete with Die sets, for use with larger Connectors and Lugs to DIN Standard  
 Hydraulic Hand Crimp Tool  
 Hydraulic Foot Pump

## 3M Dies for Aluminium Lugs & Connectors

### ALUMINIUM LUGS & CONNECTORS

Conductor Area Sq. mm	10	16-25	35	50	70	95-120	150	185	240	300
3M Part Number	A10/10	A16/25-12	A35-14	A50-16	A70-18	A95/120-22	A150-25	A185-28	A240-32	A300-34
Die Code Number	10	12	14	16	18	22	25	28	32	34

## 3M Dies for Copper Lugs & Connectors

### COPPER LUGS & CONNECTORS

Conductor Area Sq. mm	6	10	16	25	35	50	70	95	120	150	185	240
3M Part Number	C6-5	C10-6	C16-8	C25-10	C35-12	C50-14	C70-16	C95-18	C120-20	C150-22	C185-25	C240-28
Die Code Number	5	6	8	10	12	14	16	18	20	22	25	28



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## 3M™ IR 500 Infrared Thermometer

This Laser Sighted, lightweight and durable instrument allows accurate, non-contact surface temperature measurements from -18° to 260°C (0° to 500°F) at a safe distance.

The single-point laser sighting accurately 'spots' trouble up to 4 feet away

### Features

- Non-contact temperature measurement
- Laser sighting
- Easy to use - one button operation
- Back-lit LCD display
- Wide -18° to 260°C temperature range
- Celsius to Fahrenheit switchable
- Powered by 9V battery (included)
- Pocket sized

### Applications

- Monitor electric motors
- Locate loose wire connections
- Diagnose nuisance tripping of circuit breakers
- Check lighting ballasts and transformers



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