

# Insulation Displacement Connectors and Tools

## IDC for Electrical Applications

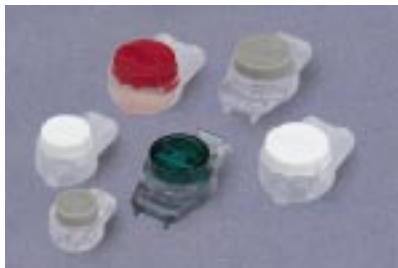


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The latest series of Scotchlok™ Insulation Displacement Connectors (IDCs) have kept all that was good about the original connector—the design, the shape, the element technology and the

color-coding. But each new model also incorporates a full wire range capability, an increased port size that accommodates up to 0.160" (4,0 mm) insulation sizes, double "U" elements and a solvent-resistant plastic construction. Choose from 38 different 3M IDCs to meet a variety of uses, including fluorescent ballast installation and replacement, fixture and appliance wiring, automotive and marine wiring, and control circuit wiring.

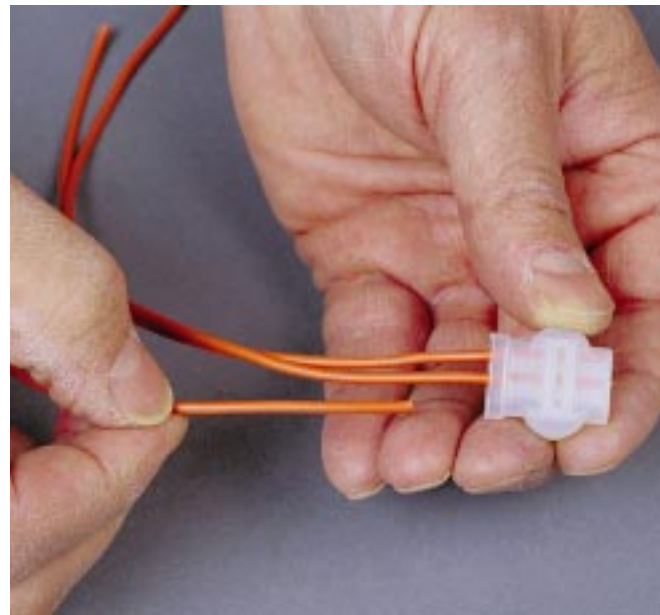
## IDC for Communication Applications



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Over 30 years ago, 3M introduced the industry's original U element connector, the Scotchlok UR Connector. The latest series of connectors, the Scotchlok UR2, UY2, and UB2A connectors, feature that same originality

in technology advantages, building on the successful Scotchlok connector's design, shape, color-coded cap concepts, and element technology. The Series 2 connectors additionally offer full wire range capability, increased port size to accommodate up to 0.082" (2,08 mm) insulation sizes, double elements in all products, and a solvent resistant plastic construction.



Scotchlok™ Insulation Displacement Connectors require no stripping

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## E-9BM, E-9C, E-9E, E-9Y Crimping Tools



Top: E-9C, L to R: E-9BM, E-9Y, E-9E

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The E-9BM Crimping Tool is used with most Scotchlok connectors and has parallel closing action with adjustable jaws and a high mechanical advantage. The E-9C Cartridge Tool with Case holds

connectors (in cartridges) firmly in place, allowing the craftsman use of the other hand for guiding wires. A time saving tool, the E-9C holds cartridges of UR2, UR2-D, UR, UY2, UY2-D, UY, UAL, ULG, UP2, and UP3 connectors. The E-9E Crimping Tool is a parallel closing action tool for use with Scotchlok butt and tap connectors. The E-9Y Crimping Tool's stepped jaws and long nose provide parallel crimping action. Its features include a side wire cutter, insulated handles, and a return spring.



### Features — Benefits

#### Insulation Displacement Connectors

Squeeze shut connector	No stripping or twisting
Crimp with slip-joint pliers	No special tools required
Unique "U" contact, fully insulated	Provides dependable connections
No need to cut run wire	Faster installation, minimum clean up
No need to twist on	Easy on hands



## Connecting Tips



Quick, reliable splices are a snap. And a squeeze.

3M Scotchlok Insulation Displacement Connectors (IDCs) are easy to use and save time—to install one, 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.

# Specification Information for Scotchlok™ Insulation Displacement Connectors

Connector	Type Connection	Features/Description	Maximum Insulation O.D.	AWG (mm <sup>2</sup> ) Wire Range	Operating Temperature	UL, CSA, or CE Certified	Tools	
<b>314*</b>			Moisture resistant seal	0.150" (3,81 mm)	22-14 (0,5-1,5)	221°F (105°C)		E-9BM
<b>314U*</b>			Dry environment applications	0.150" (3,81 mm)	22-14 (0,5-1,5)	221°F (105°C)		E-9BM
<b>316IR</b>			Moisture resistant applications	0.160" (4,0 mm)	22-16 (0,5-1,5)	221°F (105°C)	n/a	E-9BM
<b>557*</b>			Dual element connection	0.120" (3,05 mm)	22-16 (0,5-1,5)	221°F (105°C)		E-9BM
<b>558*</b>			Flame retardant	0.120" (3,05 mm)	22-16 (0,5-1,5)	221°F (105°C)		E-9BM
<b>560</b>			Flame retardant	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	221°F (105°C)		E-9BM
<b>560B</b>			Run & tap splicing	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	194°F (90°C)		E-9BM
<b>560N</b>			Flame retardant	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	221°F (105°C)		E-9BM
<b>562</b>			Run & tap splicing	0.190" (4,82 mm)	12 (Solid/Stranded) -10 (Stranded)	194°F (90°C)		E-9BM
<b>564</b>			Dry environment applications	0.145" (3,68 mm)	18-14 (0,75-1,5)	194°F (90°C)		E-9BM
<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	221°F (105°C)		E-9BM
<b>804</b>			Moisture resistant applications	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	167°F (75°C)		E-9BM
<b>804U</b>			Dry environment applications	0.145" (3,68 mm)	18-16 (0,75-1,5) Solid/Stranded 14 Stranded	167°F (75°C)		E-9BM
<b>901</b>			Disconnect	0.145" (3,68 mm)	18-14 (0,75-1,5)	194°F (90°C)		E-9BM
<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	194°F (90°C)		E-9BM
<b>905N</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	194°F (90°C)		E-9BM
<b>951</b>			T-tap disconnect	0.150" (3,81 mm)	22-18 (0,5-1,0)	221°F (105°C)		E-9BM
<b>952</b>			T-tap disconnect	0.150" (3,81 mm)	18-14 (0,75-1,5)	221°F (105°C)		E-9BM
<b>953</b>			T-tap disconnect	0.150" (3,81 mm)	12 (3,0)	221°F (105°C)		E-9BM
<b>972</b>			Auto fuse holder	0.150" (3,81 mm)	18-14 (0,75-1,5)	194°F (90°C)	n/a	E-9BM

\*Also tested in accordance with UL Standard for Portable Electric Lamps, UL 153, Section 15 when housed within the body of the lamp.

































**Note:** All products listed above are UL Listed 23438 and CSA Certified LR15503

† UL Listed 70512 and CSA Certified LR15503

# Ordering Information for Scotchlok™ Insulation Displacement Connectors

<b>Product Number</b>	<b>UPC (054007-)</b>	<b>Inner Unit Pack</b>	<b>Case Qty.</b>
314	09230	50/box	500
	09231	n/a	1,000
314U	09232	50/box	500
	09233	n/a	1,000
316IR	50419	30/box	300
557	21494	100/box	1,000
	21502	500/bag	5,000
558	14861	100/box	1,000
	14879	500/bag	5,000
560	00839	100/box	1,000
	00840	500/bag	5,000
560B	20090	100/box	1,000
	20181	500/bag	5,000
560N	09513	n/a	5,000
562	11032	100/box	1,000
	11040	n/a	1,000
564	06118	500/bag	5,000
567	14887	100/box	1,000
	14895	n/a	1,000
801	06126	50/box	500
	06127	n/a	5,000
804	06134	25/box	250
	06135	500/bag	5,000
	50187	50/bag	1,000
	50188	100/bag	1,000
804U	50767	500/box	5,000
901	06106	50/box	500
	06107	n/a	5,000
902	06119	500/box	500
	06120	n/a	1000
903	06122	50/box	500
	06123	n/a	1000
905	06128	50/box	500
	06129	500/bag	5,000
905N	06124	500/bag	5,000
951	12312	50/box	500
	12313	n/a	1,000
952	08427	50/box	500
	08428	n/a	1,000
953	12314	50/box	500
	12315	n/a	1,000
972	06171	25/box	250
	06172	n/a	1,000

# Specification Information for Scotchlok™ Insulation Displacement Connectors for Communication

Connector	Type Connector	Features	Maximum Insulation	AWG (mm <sup>2</sup> ) Wire Range	Operating Temperature	UL, CSA, or CE Certified	Tools	
<b>U1B*</b>			Full pair	0.125" (3,18 mm)	16-19 (1,3-0,9) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>U1R*</b>			Full pair	0.125" (3,18 mm)	19-24 (0,9-0,5) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UAL*</b>			For aluminum copper	0.082" (2,08 mm) Outside port 0.076" (1,93 mm) Center port	17-20 (1,15-0,8) Solid wire 19-24 (0,9-0,5) copper	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UB*</b>			Moisture resistant seal	0.050" (1,27 mm)	19-26 (0,7-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UB2A*</b>			RUS Listed, Full featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UB2A-D*</b>			RUS Listed, Full featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UG*</b>			Moisture resistant seal	0.066" (1,67 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>ULG*</b>			For large insulations	0.082" (2,08 mm) Outside port 0.076" (1,93 mm) Center port	19-26 (0,9-0,5) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UP2*</b>			Dry, Flame retardant	0.060" (1,52 mm)	22-26 (0,7-0,4) Solid wire	-40 - 285° F -40 - 140°C	UL	E-9BM
<b>UP3*</b>			Dry, Flame retardant	0.066" (1,67 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	UL	E-9BM
<b>UR*</b>			Moisture resistant seal	0.066" (1,67 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UR2*</b>			RUS Listed, Full featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UR2-D*</b>			Dry, Full featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UY*</b>			Moisture resistant seal	0.060" (1,52 mm)	22-26 (0,7-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UY2*</b>			RUS Listed, Full featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM
<b>UY2-D*</b>			Dry, Full featured	0.082" (2,08 mm)	19-26 (0,9-0,4) Solid wire	-40 - 285° F -40 - 140°C	n/a	E-9BM

\*Solid wire only

# Ordering Information for Scotchlok™ Insulation Displacement Connectors for Communication

<b>Product Number</b>	<b>UPC (054007-)</b>	<b>Inner Unit Pack</b>	<b>Case Qty.</b>
U1B	71340	100/box	1,000
U1R	56388	100/box	1,000
UAL	27827	100/box	1,000
	27828	10/cartridge	1,000
UB	30201	100/box	1,000
	33279	1000/box	5,000
UB2A	57282	100/box	1,000
	57278	1000/box	5,000
UB2A-D	57283	100/box	1,000
	57280	1000/bin	1,000
	57279	1000/box	5,000
UG	56391	100/box	1,000
	33280	1000/box	5,000
	27814	20/bag	1,000
ULG	30198	100/box	1,000
	30199	10/cartridge	1,000
UP2	33428	20/bag	1,000
	33420	1,000/box	5,000
	32698	10/cartridge	1,000
UP3	33429	20/bag	1,000
	33419	1000/box	5,000
	32700	10/cartridge	1,000
UR	33277	500/box	5,000
	27815	20/bag	1,000
	56390	100/box	1,000
	27816	10/cartridge	1,000
UR2-D	71473	20/bag	1,000
	71474	500/box	5,000
	71475	10/cartridge	1,000
UR2	68538	100/box	1,000
	68539	500/box	5,000
	68540	20/bag	1,000
	68541	10/cartridge	1,000
UY	33278	1000/box	5,000
	14929	20/bag	1,000
	14911	100/box	1,000
	17817	16/cartridge	1,000
UY2	68537	100/box	1,000
	68535	1000/box	5,000
	68534	10/cartridge	1,000
	68536	20/bag	1,000
UY2-D	71476	20/bag	1,000
	71477	1000/box	5,000
	71478	12/cartridge	1,200

# Specification and Ordering Information for Application Tools

<b>Product Number</b>	<b>UPC (054007-)</b>	<b>Description</b>	<b>Application</b>	<b>Inner Unit Pack</b>	<b>Case Qty.</b>
E-9BM Crimping Tool	33482	Adjustable jaws, parallel action	UR2, UR2-D, UR, UY2, UY2-D, UY, UAL, ULG, UP2 in cartridges	1/box	10
E-9C Cartridge Tool with Case	34211	Cartridge, parallel action	UAL, ULG, UR2, UY2 in cartridges	n/a	1
E-9E Crimping Tool	10577	Parallel action	UAL, UG, UR2, UY2, UB2	1/bx	10
E-9Y* Crimping Tool	15625	Stepped jaws, side wire, cutters, insulated handles, return spring	UAL, UG, UR2, UY2, UB2	1/bx	10
E-9CW Cartridge Tool with Case and Window	34226	E-9C with window to view connection	UAL, ULG, UR2, UY2 in cartridges	n/a	1

\*It is recommended when splicing 19 AWG (0,9 mm) using the E-9Y tool that no more than two conductors be crimped.