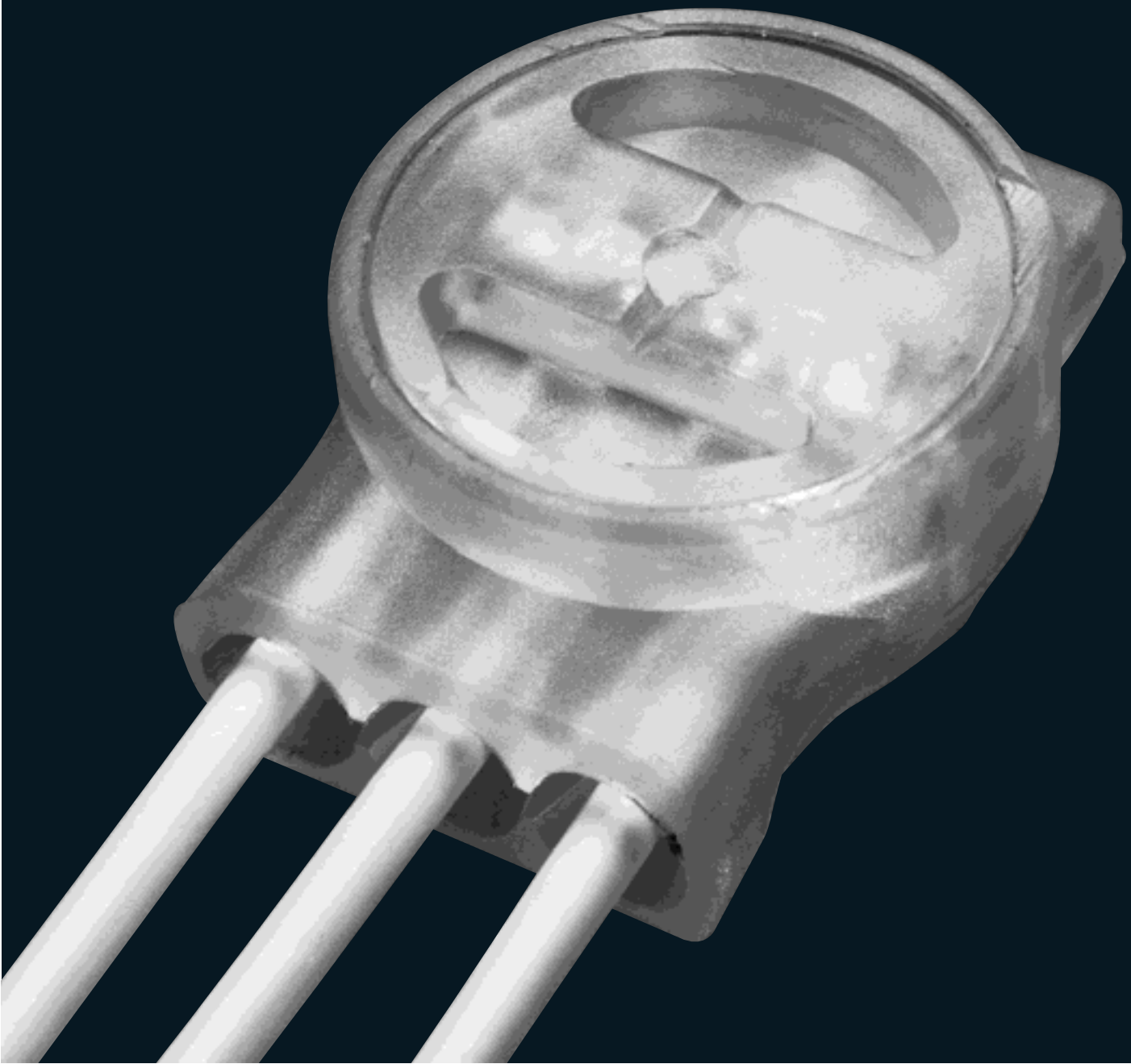




CHANNELL

Connectors for copper and aluminium  
telecom cable networks



# DISCRETE INSULATION DISPLACEMENT CONNECTORS

Channell's insulation displacement connectors feature tin-plated copper alloy contacts and polypropylene bodies to ensure reliable connections in copper and aluminium telecommunications cable networks.

## 8 Series connectors

Channell 8 Series connectors provide a simple economical and reliable means of jointing copper or aluminium conductors. They can be used with PE- or PVC-insulated wires, and do not require insulation to be stripped, making connection quick and easy.

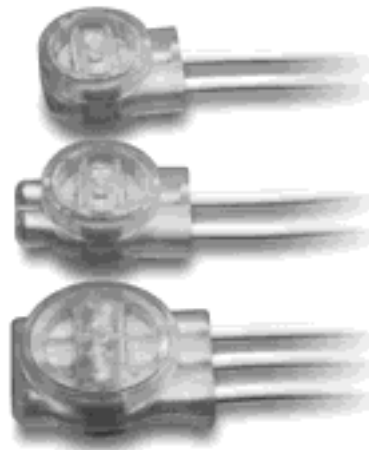
8 Series connectors are filled with high viscosity compound that ensures excellent insulation resistance and good electrical performance even in extreme environmental conditions. Unfilled connectors are also available for internal applications. All connectors are crimped using standard parallel action pliers.

Ordering information and dimensions

Ordering reference	Description	Length (mm)	Width (mm)	Height open (mm)	Height closed (mm)	Max conductor diameter including insulation (mm)
CON 8025	8A/1 connector (box of 500)	14.85	9.75	9.00	6.40	2.10
CON 8010	8A connector (box of 500)	12.40	9.75	9.00	6.40	1.90
CON 8121	8B connector (box of 250)	16.25	12.65	9.00	6.40	2.10
CON 8221	8C connector (box of 250)	15.10	10.20	9.00	6.40	1.90

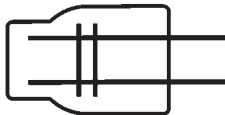
### Features

- Accepts wide range of conductor diameters from 0.4 to 0.9mm (26 to 19 AWG)
- Connects wires up to 2.06mm outer diameter (including insulation)
- Coloured caps available for easy connector identification



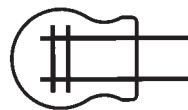
### 8A/1 connector

8A/1 can be used on any combination of two conductors. The ports extend beyond the body of the connector so that it is easy to see that the wires are properly inserted before crimping.



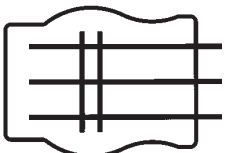
### 8A connector

8A does not have extended ports. It is smaller than 8A/1, and is ideal for use where jointing space is limited. Like 8A/1 it can be used on any combination of two conductor sizes.



### 8B connector

8B is a two or three wire connector, which may be used to connect any combination of two or three wires. When only two wires are connected, the middle port may be used for test access. The connector has an extended body, so that it is easy to see when the wires are correctly inserted beyond the connecting element, and are correctly positioned for crimping.



### 8C connector

8C is a half-tap connector which may be used to connect any combination of two wires. Maximum insulation diameter is 1.6mm for the through wire and 2.06mm for the tap wire. 8C is easy to use. The new wire is simply inserted and secured by finger crimping before the tapped wire is introduced and the connector is crimped.



# 11A connector

Channell's make-before-break 11A connector is ideal for maintenance applications in copper or aluminium telephone networks, as well as offering reliable connection for new installations. It provides a no-break changeover so that suspect connectors can be removed quickly and easily. The connector is simply positioned and crimped in place. The crimping action makes the new connection first, before cutting off the old connector, ensuring no loss of service.

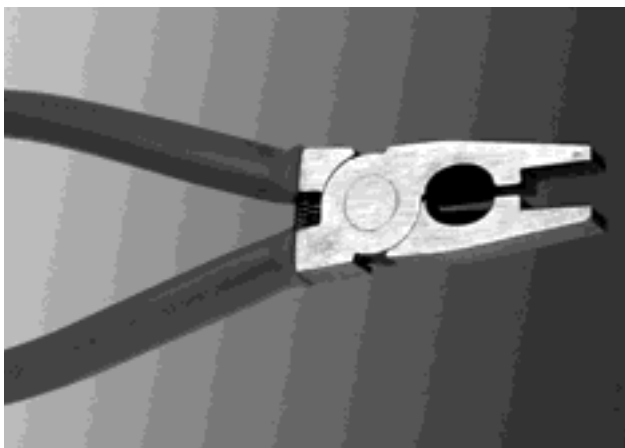
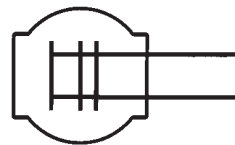
The 11A connector incorporates a test access point for line testing.

Ordering information and dimensions

Ordering reference	Description	Length (mm)	Width (mm)	Height open (mm)	Height closed (mm)	Max conductor diameter including insulation (mm)
CON 1125	11A connector (box of 250)	12.6	12.5	9.3	5.8	2.06

## Features

- Accepts wide range of conductor diameters from 0.4 to 0.9mm (26 to 19 AWG)
- Connects wires up to 2.06mm outer diameter (including insulation)



# IDC accessories

Ordering information

Ordering reference	Description
JTL 2916	8A/C crimping plier
RBX 5041	Test probe 41A including lead fitted with banana plug

# DISCRETE INSULATION PIERCING CONNECTORS

For networks standardised on the traditional insulation piercing method of conductor jointing, Channell's B-wire jointing system offers a reliable and effective method for jointing of copper or aluminium telephone conductors.

The connector consists of an inner perforated tinned phosphor-bronze contact point, inserted into an outer brass shell, which is insulated with a plastic moulded sleeve, colour-coded for easy identification.

B-wire connectors are crimped with Channell B-wire crimping tools, to produce a high integrity joint with good contact resistance.



# B-wire connector

Channell's B-wire connector can be used for the jointing of copper or aluminium, PE- or PVC-insulated wires. It does not require insulation to be stripped, or joints to be soldered, making connection quick and easy. For external applications,



B-wire connectors are available filled with high quality sealing jelly, providing an effective barrier against ingress of dust and moisture when the connector is crimped. Unfilled connectors are available for internal or less demanding applications.

Ordering information and dimensions

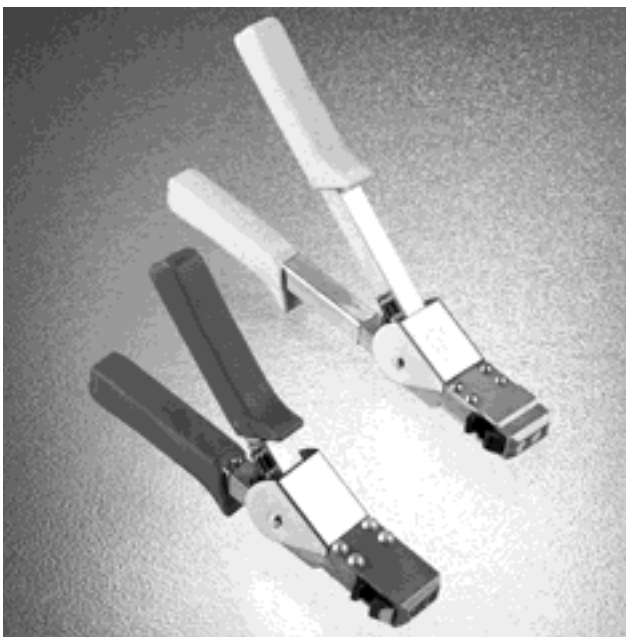
Ordering reference	Description	Colour	Filled / unfilled	Max conductor diameter (mm)
E 1500	Type 1 connector (box of 500)	White	unfilled	0.4 – 0.6
E 1501	Type 1A connector (box of 500)	Blue	filled	0.4 – 0.6
E 1502	Type 2 connector (box of 250)	Yellow	unfilled	0.6 – 0.8
E 1503	Type 2A connector (box of 250)	Orange	filled	0.6 – 0.8
E 1504	Type 3 connector (box of 250)	Green	unfilled	0.9 – 1.2
E 1505	Type 3A connector (box of 250)	Red	filled	0.9 – 1.2

Unfilled connectors are available for less demanding applications.



# B-wire crimping tool

Channell's heavy duty B-wire crimping tools are used for crimping the B-wire connector. The connector is simply inserted into the jaws of the tool and the handles closed, to produce a



high integrity joint. A ratchet mechanism prevents the handles being released until crimping is complete, so there is no possibility of faulty joints through mis-operation.

Ordering information

Ordering reference	Description
JTL 2300	B-wire crimping tool 2/1 (for Type 1, 1A, 2, 2A connectors)
JTL 2307	B-wire crimping tool 3 (for Type 3 connectors)

# MODULAR CONNECTORS

Channell's FS2 Fast Splicing System allows quick and reliable jointing of large pair cables. FS2 modules ensure optimum use of space, so reducing the size of the jointing bundle.

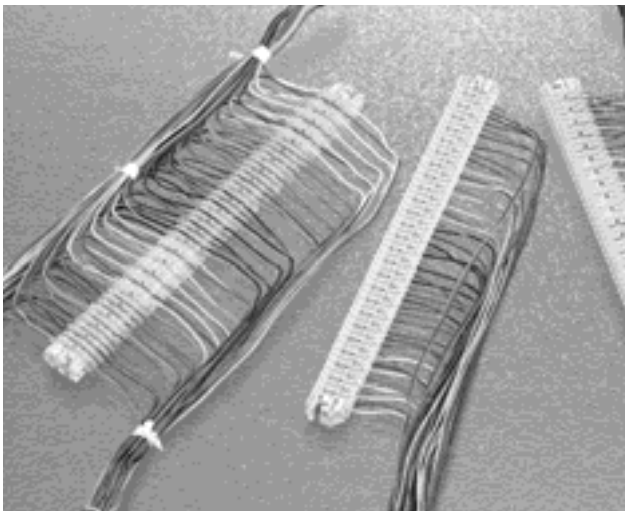
## FS2 connection modules

Channell's FS2 25-pair, 20-pair and 10-pair connector modules allow high speed, accurate splicing of telecommunication cables.

Each module consists of four moulded parts; a bottom cover, bottom block, top block and cover. The two blocks are ultrasonically welded, and together constitute the body of the connector. A latching mechanism locks the covers and the body together. The top left hand corner of each module is cut to ensure proper orientation of the module during crimping.

Built-in test ports opposite each wire entry allow access for testing of circuits without any need to open the module. The U-contacts and wire cut-off blades are held securely in the body. The contacts strip the insulation and complete the connection by applying continuous pressure on the conductors while the blades trim the excess wire.

A plastic adapter, provided free with every 20 modules, holds the module firmly in place during crimping and prevents the possibility of high resistance connections.



### Features

- 25-pair and 20-pair modules accommodate conductors from 0.32 to 0.8mm diameter (28 to 20 AWG) with an overall diameter of up to 1.65mm over insulation
- 10-pair module accommodates conductors from 0.4 to 0.9mm diameter (26 to 19 AWG) with an overall diameter of up to 1.95mm over insulation
- Encapsulated and dry versions available
- Test ports allow continuity testing without disassembly of modules
- Oxygen Induction Test value in excess of 30 minutes
- Non-halogen flame retardant materials also available

Ordering information and dimensions

Ordering reference	Type	Configuration		Length (mm)	Width (mm)	Height (mm)	No. of contacts
<b>25-pair connector module</b>							
CON5000	filled	Straight	Gold/ivory	165.10	14.35	10.55	50
CON5010	filled	Half-tap	Green/ivory	165.10	14.35	10.55	50
CON5020	filled	Pluggable	Red	165.10	14.35	10.55	50
CON5030	dry	Straight	Gold/ivory	165.10	14.35	10.55	50
CON5040	dry	Half-tap	Green/ivory	165.10	14.35	10.55	50
CON5050	dry	Pluggable	Red	165.10	14.35	10.55	50
CON5060	flame retardant*	Straight	Gold/ivory	165.10	14.35	10.55	50
CON5070	flame retardant*	Half-tap	Green/ivory	165.10	14.35	10.55	50
CON5080	flame retardant*	Pluggable	Red	165.10	14.35	10.55	50
<b>20-pair connector module</b>							
CON5100	filled	Straight	Gold/ivory	134.98	14.72	10.70	40
CON5110	filled	Half-tap	Green/ivory	134.98	14.72	10.70	40
CON5120	filled	Pluggable	Red	134.98	14.72	10.70	40
CON5130	dry	Straight	Gold/ivory	134.98	14.72	10.70	40
CON5140	dry	Half-tap	Green/ivory	134.98	14.72	10.70	40
CON5150	dry	Pluggable	Red	134.98	14.72	10.70	40
CON5160	flame retardant*	Straight	Gold/ivory	134.98	14.72	10.70	40
CON5170	flame retardant*	Half-tap	Green/ivory	134.98	14.72	10.70	40
CON5180	flame retardant*	Pluggable	Red	134.98	14.72	10.70	40
<b>10-pair connector module</b>							
CON5200	filled	Straight	Gold/ivory	73.52	14.30	10.60	20
CON5210	filled	Half-tap	Green/ivory	73.52	14.30	10.60	20
CON5220	filled	Pluggable	Red	73.52	14.30	10.60	20
CON5230	dry	Straight	Gold/ivory	73.52	14.30	10.60	20
CON5240	dry	Half-tap	Green/ivory	73.52	14.30	10.60	20
CON5250	dry	Pluggable	Red	73.52	14.30	10.60	20
CON5260	flame retardant*	Straight	Gold/ivory	73.52	14.30	10.60	20
CON5270	flame retardant*	Half-tap	Green/ivory	73.52	14.30	10.60	20
CON5280	flame retardant*	Pluggable	Red	73.52	14.30	10.60	20

\*Non-halogen flame retardant material available to special order

# SPECIFICATIONS

## FS2 splicing equipment

The FS2 modular connector system simplifies cable splicing by allowing multiple operations to be performed at the same time. The module is held in place in the rig as the wires are guided into colour-coded holders, making it easy to check the colour sequence before crimping. All pairs are crimped and cut in one operation

The Channell FS2 splicing rig is fully interchangeable with leading industry brands, so there is no need for re-training on tooling equipment or splicing techniques. It can be used for both one-man fold-back and in-line splicing.

Ordering reference	Description
JTL 5400	Complete splicing rig for 25-pair and 20-pair FS2 connector modules
JTL 5500	Hand held crimping tool for 10-pair FS2 connector modules

## FS2 accessories

Ordering information

Ordering reference	Description
CON 5001	Transparent bases for 25-pair connector module (box of 100)
CON 5101	Transparent bases for 20-pair connector module (box of 100)
CON 5201	Transparent bases for 10-pair connector module (box of 100)

### Discrete insulation displacement connectors **8 Series / 11A connector**

Materials	
Insulation	Polypropylene
Contact base material	Hard copper alloy
Contact finish	Tin alloy
Sealant	High viscosity compound

### Discrete insulation piercing connectors **B-wire**

Materials	
Insulation	Polyvinyl chloride
Contact base material	Phosphor bronze
Contact finish	Tin alloy
Moisture resistance compound	Petroleum jelly

### Modular connectors **FS2**

Materials	
Module	Polycarbonate UL 94V0 rated
Contacts	Phosphor bronze
Cutting blades	Stainless steel
Sealant	Fully synthetic filling compound

Non-halogen flame retardant material available to special order

### Discrete insulation displacement connectors **8 Series / 11A connector**

### Discrete insulation piercing connectors **B-wire**

### Modular connectors **FS2**

All Channell connectors meet international standards for cable splicing, and have been qualified by independent accredited testing authorities worldwide. Electrical, environmental and mechanical performance tests have been carried out, as detailed below.

Performance		
Electrical	Environmental	Mechanical
Contact resistance	Insulation resistance	Latching
Contact current	Operating temperature	Pull test
High voltage surge	Humidity	Connectability
Dielectric strength	Water immersion	
Insulation resistance	Temperature cycle	
	Thermal ageing	
	Vibration	
	Oxygen Induction Test	

Actual results and defined test procedures are available from Channell on request.

For more information or to order,  
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