

B-WIRE CONNECTORS



REDUCE SPLICING TIME
USING
B-WIRE CONNECTORS

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Suitable for Copper and Aluminium Conductors :

The introduction of plastic insulation of conductors instead of paper in telecommunication cables brought new problems of conductor jointing especially of the smaller conductor gauges. To make a successful joint by traditional methods it is necessary to strip the insulation, but the high density polythene adheres so strongly to the wire that it is almost impossible to consistently strip the more common smaller gauges without damaging the surface of the conductors or indeed breaking them. Apart from this difficulty which demands a high standard of skill from the jointer, this procedure is time consuming.

A new jointing method is, therefore, needed to overcome these difficulties which, if it is to prove successful, must at least meet the following conditions: -

- No stripping of the conductor insulation**
- No deformation or twisting of the conductors**
- No tip soldering of the joint**
- No jointing skill**
- Simple handling**
- No complicated ancillary equipment**
- No increase in diameter over the usual paper insulated conductor joint**
- Reduction in costs compared with crank handle, twisting and soldered joints**
- Equally suitable copper and aluminium conductors**

The Egerton B—Wire Connector amply meets these requirements. This connector, which produces a high integrity joint, is precision made and scientifically tested at all stages of manufacture, to ensure consistently excellent characteristics of the product and offers:—

High insulation resistance.

Very low constant value joint resistance even at low temperatures, and after temperature changes.



Joining the conductors

Push 2 or 3 unstripped conductors into the B-Wire connector

Place the connector with the conductor into the jaws of the crimping pliers

Close the handles of the pliers

A connection of high electrical quality is now completed

The handles will not release until they have reached the end of their travel and a correct joint has been made. There is, therefore, no risk of faulty joints by mis-operation.

Quality :

For the supply of B-Wire connectors to the British Post Office, German Post Office and other Telecommunication Departments it is essential that the standard of our connectors is the highest possible. In order to achieve this a strict Quality Control is operated at all stages of manufacture. The test results and Quality Control records are available for inspection by the Post Office Inspecting Officers.

SUPPLIES:

Code E 1500	No.1	Connector	White unfilled for conductors	.4 — .6 mm
Code E 1501	No.1A	Connector	Blue filled for conductors	.4 — .6 mm
Code E 1502	No.2	Connector	Yellow unfilled for conductors	.6 — .8 mm
Code E 1503	No.2A	Connector	Orange filled for conductors	.6 — .8 mm
Code E 1504	No.3	Connector	Green unfilled for conductors	.9 — 1.2 mm
Code E 1505	No.3A	Connector	Red filled for conductors	.9 — 1.2 mm

GREASE FILLED CONNECTORS Nos. 1A, 2A and 3A are particularly suitable for joining cable pairs in flexibility or cross connecting cabinets where moisture can be present. During the manufacture of these connectors they are partly filled with a petroleum jelly. The grease will not flow out of the connectors and the amount in each connector is controlled so as to prevent the grease from being displaced when the wires are inserted. During the crimping operation the grease is firmly packed around the conductors and forced towards the open end of the connector creating a barrier against the ingress of moisture and condensation.

PACKING:

Types No. 1, 1A, 2 and 2A: —

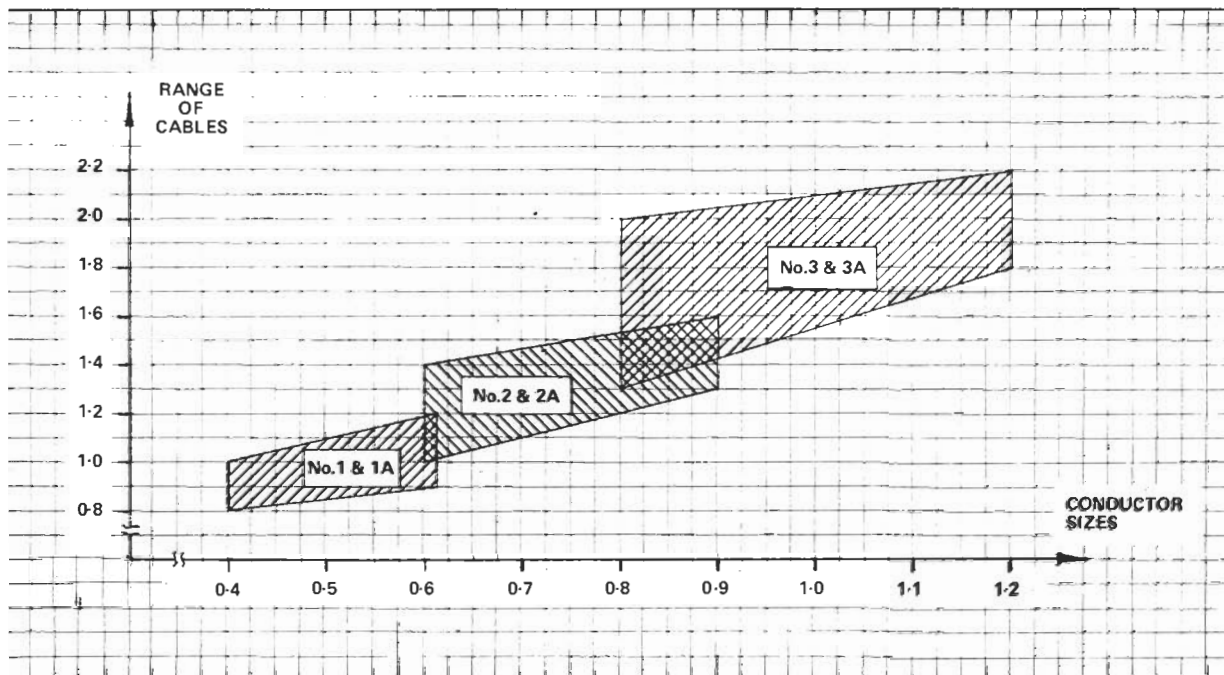
500 connectors, inside polythene bag and cardboard outer carton.

5,000 connectors (10 x 500 connectors) packed in one outer carton.

Types No. 3 and 3A

250 connectors, inside polythene bag and cardboard outer carton.

2,500 connectors (10 x 250 connectors) packed in one outer carton.



This diagram shows the application field of the various connector sizes for the various conductor sizes with regard to the respective total cable diameter.

The connectors consist of 3 parts,

1. an inner perforated tinned Phosphor Bronze sleeve which is inserted
2. into an outer Brass shell
3. this outer shell is in turn insulated with a plastic moulded sleeve. The connectors are open at one end for accepting conductors and closed at the other.

The inner perforated phosphor bronze contact part is tubular in shape, open at both ends with a longitudinal slit. It has small holes pierced and plunged which produce up to 290 sharp spikes pointing inwards. The quality of the contact produced largely depends upon the shape and the number of spikes which pierce both insulation and conductors.

The Brass Shell or Pressure Part is tubular in shape and open at one end. To facilitate the change in shape of this shell when the contact is produced a saw-toothed shaped slit is made along one side. Its purpose, when crimped, is to maintain a lasting pressure on the contact part in such a way that, in spite of its springiness, it does not allow the spikes embedded in the conductors to work loose. The latent resistance tension produced must be so small that there is no loosening of the Contact Part even though it is subjected to vibration and temperature variations.

The insulation Part is a tubular plastic section open at one end to accept the Contact and Pressure Parts. Its purpose is to protect the crimped joints and insulate them from each other.



Conductor Sizes in millimetres	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2
0.4	1 or 1A	1 or 1A	1 or 1A					
0.5	1 or 1A	1 or 1A	1 or 1A					
0.6	1 or 1A	1 or 1A	1 or 1A	2 or 2A	2 or 2A			
0.7			2 or 2A	2 or 2A	2 or 2A			
0.8			2 or 2A	2 or 2A	2 or 2A	3 or 3A	3 or 3A	3 or 3A
0.9					3 or 3A	3 or 3A	3 or 3A	3 or 3A
1.0					3 or 3A	3 or 3A	3 or 3A	3 or 3A
1.2					3 or 3A	3 or 3A	3 or 3A	3 or 3A

THREE WIRE CONNECTIONS

FIRST WIRE in millimetres	SECOND WIRE in millimetres	THIRD WIRE				
		0.4	0.5	0.6	0.7	0.8
0.4	0.4	1 or 1A	1 or 1A	1 or 1A		
0.4	0.5	1 or 1A	1 or 1A	1 or 1A		
0.4	0.6	1 or 1A	1 or 1A	1 or 1A		
0.5	0.5	1 or 1A	1 or 1A	1 or 1A		
0.5	0.6	1 or 1A	1 or 1A	1 or 1A		
0.6	0.6	1 or 1A	1 or 1A	2 or 2A	2 or 2A	2 or 2A
0.6	0.7			2 or 2A	2 or 2A	2 or 2A
0.6	0.8			2 or 2A	2 or 2A	2 or 2A
0.7	0.7			2 or 2A	2 or 2A	2 or 2A
0.7	0.8			2 or 2A	2 or 2A	2 or 2A
0.8	0.8			2 or 2A	2 or 2A	3 or 3A
0.8	0.9					3 or 3A
0.9	0.9					3 or 3A