



INSULATED PIERCING CONNECTORS EP TYPE FOR STREET LIGHTING CONNECTION IN LV INSULATED OVERHEAD LINES AND TUNNEL LIGHTING APPLICATIONS

KEY FEATURES

- Resistant to 6 kV one minute after immersion in water for 30 minutes
- All components are secured
- Metallic shear head designed to allow reliable installation
- Flexible end cap is a tube which guides small wire
- Low applied torque allows easy installation by linemen and avoids damage to cable

TE Connectivity's (TE) Insulated Piercing Connectors are specifically designed for connecting a street lighting conductor from a LV ABC to a lamp wire.

These connectors are made of :

- Two bodies in anti UV black resistant thermoplastic fibre glass reinforced
- Two connecting blades in tinned copper
- One protected steel bolt M6 equipped with a metallic shear head nut of 10 mm in standard version or 13 mm if requested.
- One flexible fixed end cap that allows inserting small lamp wires
- Seal compound to improve the water resistance integrity

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

Insulated Piercing Connectors EP



These connectors withstand the tests described in the French standard NFC 33 020 and European standard EN50483-4.

PRODUCT SELECTION INFORMATION						
Description	Cross section (mm ²)		Max current (A)	Weight (g)	Standard Packaging	Part Number
	Main	Tap				
EP 95	16 - 95	1,5 - 10	63	48	50	1727912-1
EP 95-13	16 - 95	1,5 - 10	63	50	50	1727912-3
EP 35	2,5 - 35	1,5 - 6	63	48	50	1727912-2
EP 35-13	2,5 - 35	1,5 - 6	63	50	50	1727912-4
EP 120-13	16 - 120	1,5 - 6	63	50	50	1856549-3
KZEP CECST70*	16 - 70	1,5 - 6	63	48	12	1018563-2

* CES = EDF Marking

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INSULATED PIERCING CONNECTORS P2X95 MK2 FOR INSULATED OVERHEAD LINES AND LV ABC CONDUCTORS

KEY FEATURES

- * Range Taking
- * Accept copper conductor
- * Waterproof
- * Captive and flexible end caps
- * All components are solid and tight in place
- * Equipped with shear head to ensure a reliable tightening torque
- * Operating temperature -55°C to +55°C
- * Installation temperature -20°C to +55°C
- * Can be installed on energized main if not under load

TE Connectivity's (TE) Insulated Piercing Connectors P2X95 Mk2 / P2X95 U Mk2 are specifically designed for service connection in LV ABC lines.

Ease of installation has been combined with excellent mechanical, electrical and environmental characteristics to provide a connector capable of terminating aluminium or copper stranded conductors.

Metallic blades imbedded in moulded plastic and surrounded with a sealing compound insure electrical contact in low voltage overhead distribution networks. A single torque control nut draws the two parts of the connector together and shears off when the teeth have pierced the insulation and made contact with the conductor strands. It is not recommended to re-use IPC when removed.

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Insulated Piercing Connectors P2X95



This connector is fully in line with the French standard NF C 33 020 and the new European standard EN 50483-4 (connector class 1)

PRODUCT SELECTION INFORMATION

Description	Teeth	Main (Al/Cu)		Tap (Al/Cu)		Characteristics			Part Number
		Min (mm ²)	Max (mm ²)	Min (mm ²)	Max (mm ²)	I Max (A)	Packing	Weight (g)	
P2X 150	Alu Alloy	50	150	6	35 (50)	100	By 50	118	1510619-2
P2X95 Mk2	Alu Alloy	16	95	4	35 (50)	100	By 50	108	2037763-1
P2X95 U Mk2	Tined copper	16	95	4	35 (50)	150	By 50	112	2037763-2

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INSULATED PIERCING CONNECTORS P3X/P4X FOR INSULATED OVERHEAD LINES AND LV ABC LINES, MAIN TO MAIN CONNECTION

KEY FEATURES

- Expanded wire range
- Accept copper conductor
- Waterproof
- End caps for taps and splices
- Single bolt application with ring washers for residual pressure
- Torque control nut for precise pressure on conductor and insulation
- Operating temperature -55°C to +55°C
- Installation temperature -20°C to +55°C
- Can be installed on energized main if tap is not under load

TE Connectivity's (TE) Insulated Piercing Connectors P3X/P4X's easy installation has been combined with excellent mechanical, electrical and environmental characteristics to provide a connector capable of termination aluminum or copper stranded conductors.

Tin plated copper blades (P3/P4) imbedded in moulded plastic and surrounded with a sealing compound insure electrical contact in low voltage overhead distribution networks. A single torque control nut draws the two halves of the connector together and shears off when the teeth have pierced the insulation and made contact with the conductor strands. It is not recommended to re-use IPC when removed.

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Insulated Piercing Connectors P3X/P4X



The mechanical strength of the connection is in accordance with the tensile requirements of NF C 33 020 while the electrical performance meets the test outlined in NF C 33 004. The dielectric and waterproof tests are in accordance with the rigid standard of NF C 33 020 and corrosion test per NF C 33 003. The molded end caps have been tested for dielectric strength and resist 6kV for one minute.

PRODUCT SELECTION INFORMATION

Description	Part Number	Teeth	Main Al / Cu		Tap Al/Cu		Characteristics		
			Min (mm ²)	Max (mm ²)	Min (mm ²)	Max (mm ²)	I Max (A)	Packaging	Weight (g)
P3X 95	1574150-1	Tined copper	25	95	25	95	350	50	158
P4X 120 D	1701730-1	Tined copper	25	120	25	120	550	25	332
P4X 150 D	1574182-1	Tined copper	50	150	50	150	550	25	342

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TRANSITION CONNECTOR FOR BARE TO INSULATED LV LINES, P3B AND P2B TYPE

KEY FEATURES

- Range Taking
- Accept Al/Cu conductors
- Watertight (no water inside LV ABC cable)
- Captive and flexible end caps
- All components are solid and tight in place
- Equipped with metallic shear head to ensure a reliable tightening torque
- Installation temperature -20°C to +55°C
- Can be installed on energized main if not under load
- No damage on the bare cable

TE Connectivity's (TE) Insulated Piercing Connectors P3B120/P2B100 U Mk2 are specifically designed to connect a LV Bare line to a LV ABC line by simultaneous action.

Ease of installation has been combined with excellent mechanical, electrical and environmental characteristics to provide a connector capable of connecting aluminium or copper bare conductors.

A single torque control nut draws the two parts of the connector together and shears off when the contact is optimal. It is not recommended to re-use IPC when removed.

In order to combine good mechanical and electrical performances, a new connecting technology has been implemented. Indeed connection on the bare cable is done by using a metallic plate on the top of the connector and a piercing teeth technology at the bottom.

Connection on the LV ABC cable is still done by piercing technology.

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Transition connector



These connectors withstand the tests described in the European standard EN 50483-4:2009

(connectors class A for P3B120 and connector class B for P2B100 U Mk2)

- Mechanical tests on connectors
- Mechanical tests on cables (LV ABC cables and bare cables)
- Water tightness tests
- Electrical ageing test (with short circuits for class A connector)
- Environmental tests (climatic and corrosion)

PRODUCT SELECTION INFORMATION

Description	Part Number	Cross section (mm ²)		Characteristics		
		Bare Al/Cu	LV ABC	Max Current (A)	Weight (g)	Packing
P2B100 U Mk2	2107864-1	7-100	4-35 (50)	150	133	50
P3B120	2107862-1	7-120 (150*)	25-95	350	170	50

* Fits up to this conductor size geometrically, but max current rating of the connector is lower than possible cable rating

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INSULATION PIERCING CONNECTORS (IPC) FOR USE IN 1 kV TO 10 kV INSULATION CABLE SYSTEMS

KEY FEATURES

- Suitable for aluminium and copper conductors
- Potential free tightening bolts allow safe installation on life lines
- Components not loose, end cap attached to body
- Connector teeth are factory greased and covered with a rubber seal to retard water entry and corrosion
- Contact plates made of tinned copper, bolt made of steel with Geomet (Chromium free) protection

TE Connectivity's (TE) Raychem insulation piercing connectors are designed for use in 1 kV to 10 kV insulation cable systems. The insulation material is made of weather and UV resistant glass fibre reinforced polymer.

The clip mechanical and electrical properties by the product are a result of high quality materials used to create it. Contact with the blade selects tin bronze alloy or a strong aluminum alloy, which ensures the optimal transition of contact area. The waterproof material is made of high quality rubber ring and silica gel to ensure years of quality. The increase of the glass fiber with insulation shell, achieves the optimal mechanical properties.

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Insulation Piercing Connectors

Connectors type DZ6 meet requirements according to UL486 and ESI-43-14, including 4 kV voltage withstand test in air.



PRODUCT SELECTION INFORMATION

Wire (mm ²)		Description	Bolt	Bolt	The Rated Current	Length × Wide × High
Main	Tap		Number	Size	(A)	(mm)
Insulation Piercing Connectors (1 kV)						
16 - 95	4 - 35 (50)	KZ2-95	1	13	138	52 × 47 × 87
50 - 150	6 - 35	KZ2-150	1	13	138	52 × 47 × 87
25 - 95	25 - 95	KZ3-95	1	13	207	61 × 52 × 93
50 - 150	50 - 150	KZ4-150	1	13	239	61 × 52 × 93
120 - 240	25 - 120	DZ 6 UL_F	1	17	239	68 × 42 × 100
150 - 240	150 - 240	KZ5-240 D	2	17	712	135 × 84 × 121
Insulation Piercing Connectors (10 kV)						
16 - 95	16 - 70	MV95/70	1	13	320	95 × 61 × 52
95 - 240	35 - 95	MV240/95	1	13	393	129 × 80 × 55
95 - 240	35 - 95	MV240/95 G	1	13	393	129 × 80 × 55
120 - 240	95 - 185	MV240/185	1	17	600	130 × 84 × 62
185 - 300	150 - 240	MV300/240	2	17	712	135 × 84 × 121
Fire-Resistant Insulation Piercing Connectors (1 kV)						
16 - 95	4 - 35	FR KZ2-95	1	13	138	52 × 47 × 87
50 - 150	6 - 35	FR KZ2-150	1	13	138	52 × 47 × 87
25 - 95	25 - 95	FR KZ3-95	1	13	207	61 × 52 × 93
50 - 150	50 - 150	FR KZ4-150	1	13	239	61 × 52 × 93
120 - 240	25 - 120	FR DZ6	1	17	239	68 × 42 × 100

Other wire diameter application products available on request. Contact your local TE representative for details.

Rated current refers to the cable conductor reaches maximum allowed working temperature for a long time (PVC, polyethylene insulation is lower than 70 °C cross-linked polyethylene insulation is lower than 90 °C), through the IPC current.

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