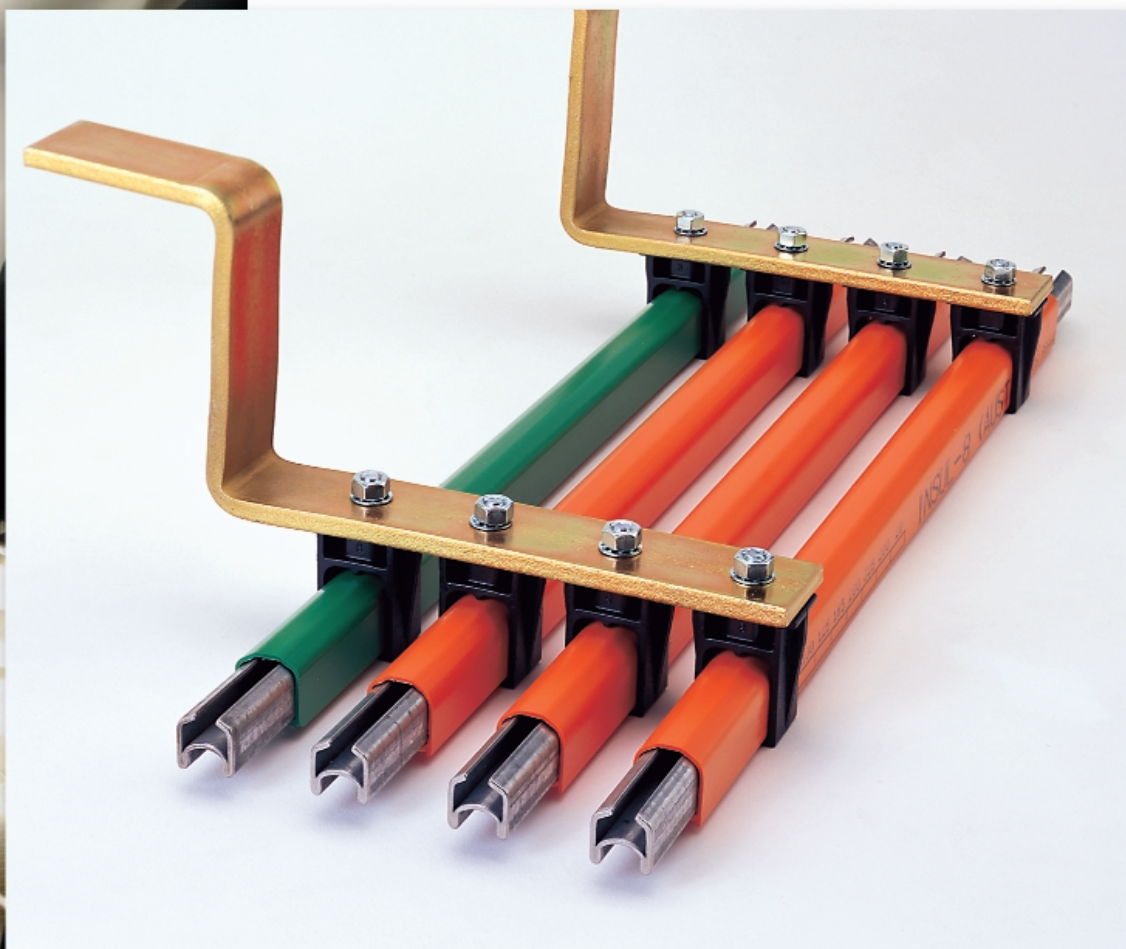


# **ACTIV-8 PLUS**

*Insulated Conductor Bar*



**CONDUCTIX**  
INSUL 8

Ⓢ DELACHAUX GROUP

[www.conductix.com.au](http://www.conductix.com.au)



# ACTIV-8 PLUS

ACTIV-8 is the most widely used and stocked conductor rail in use in Australia. It was designed by Conductix engineers utilising over thirty years of experience and supported by the worldwide Delachaux group of companies with over fifty years of pioneering innovation in mobile electrification.

Across Australia you can find ACTIV-8 used in many applications including overhead cranes, automated storage and retrieval, assembly lines and other moving powered equipment.

With the ACTIV-8 range of accessories, the ease of installation and the Conductix team ready to assist in the design of difficult installations, it becomes obvious why ACTIV-8 has become accepted as the industry standard.

## Some benefits of the ACTIV-8 PLUS system:

- Current ratings from 90 to 400 Amps
- Finger safe to IP2
- Systems up to 200m without expansion sections
- Able to be curved down to a 1.5m radius
- Green coloured earth components.

### Conductor Bars:

Available in galvanised steel, copper and high conductive aluminium with a stainless steel contact surface. Supplied in either four or two metre lengths and in a range of 90 to 400 Amps. Factory curved units are offered.

### Power Feeds:

Power feeds are designed in a variety of styles ranging from 54 to 330 Amps and available to suit cable sizes up to 70mm<sup>2</sup>.

### Expansion Sections:

Expansion sections are used at all structural expansion joints and for long runways to compensate for thermal expansion.

### Insulating Covers:

Standard conductor bar covers of PVC meet all requirements for electrical insulation and may be used outdoors and in temperatures up to 75°C.

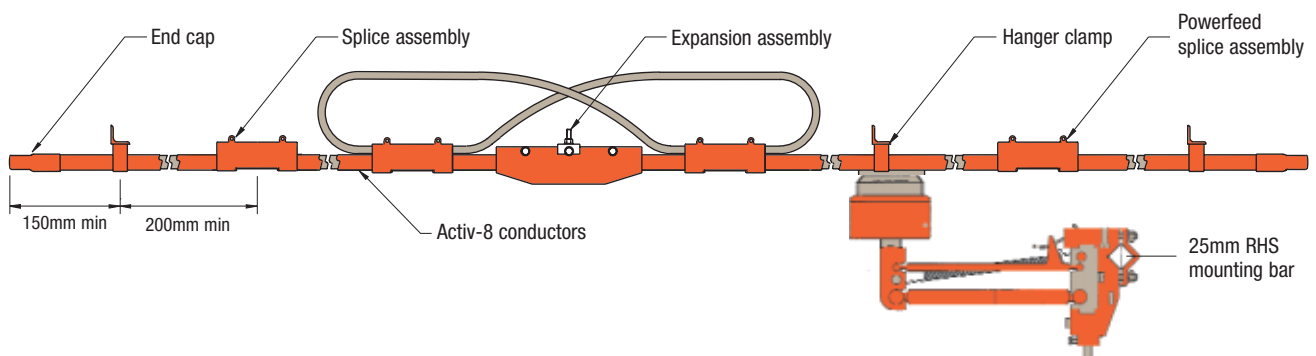
### Hanger Clamps / Anchor Clamps:

Hanger clamps made from high strength Xenoy support the conductors and are of a "sliding tight" design. Anchor clamps are designed to grip and support the conductors "anchor-tight" and are used at anchor points only.

### Collectors:

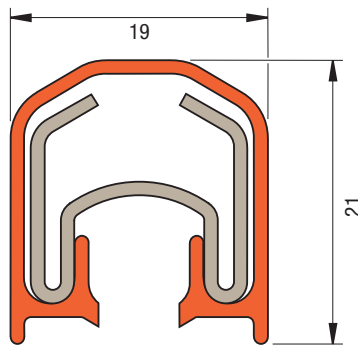
Insulated contact heads that hold the replaceable shoes are mounted on spring loaded arms and are designed to both articulate and swivel. No exposed metal surfaces carry current.

## Basic System Design:

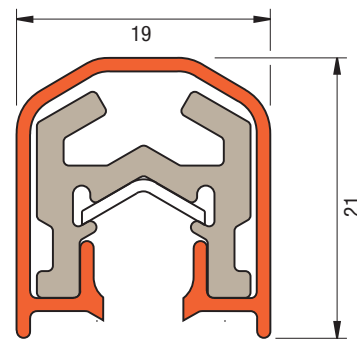


# SYSTEM COMPONENTS

**Conductor Bar Detail**  
**Gal Steel & Copper**



**Conductor Bar Detail**  
**Alu/Stainless Steel**



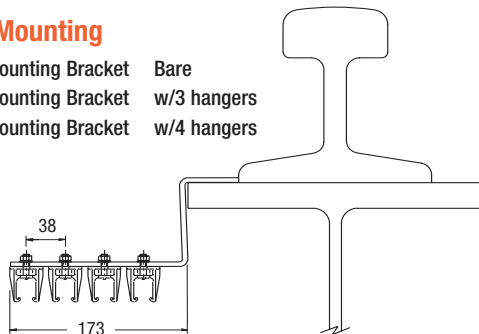
	90A	120A	140A	250A	300A	400A
	Gal Steel	Gal Steel	Gal Steel	Copper	Alu/Stainless	Copper
Conductor Bar 4m	98352	98353	98354	98355	98358	98357
Conductor Bar 4m Med.Temp.*	98362	98363	98364	98365	98368	98367
Splice Assembly	98306	98306	98306	98306	97750	98306
Power Feed	98307	98307	98307	98307	90156	98307
End Cover	98309	98309	98309	98309	98309	98309
Expansion Section 1.5m	97052	97053	97054	97055	97059	97057
Isolation Section 500mm	97061/090	97061/120	97061/140	97061/250	97061/300	97061/400

All components listed above (except Med. Temp. cover) are available in green to designate earth.

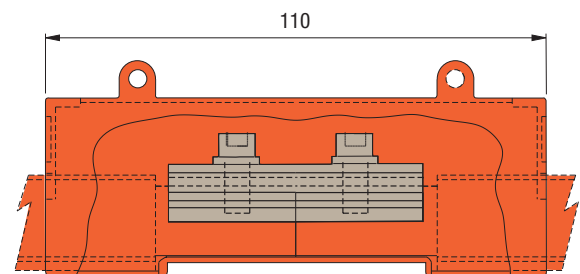
\* Medium Temperature conductor bar incorporates red, halogen-free lexan cover.

## Standard Mounting

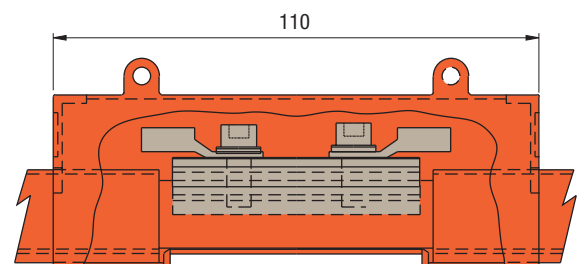
- 97879 "Z" Mounting Bracket Bare
- 98382 "Z" Mounting Bracket w/3 hangers
- 98383 "Z" Mounting Bracket w/4 hangers



## Splice Assembly P/No. 98306

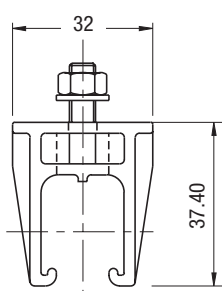


## Power Feed Assembly 54-330A P/No. 98307

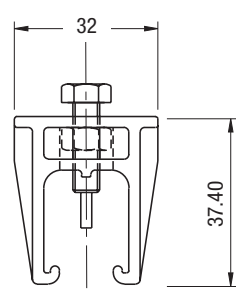


Galv. & Copper	Alum/ S/S	Description	Amps	
Part No.	Part No.		1 Lug Connected	2 Lugs Connected
98307/06	90156/06	Powerfeed 6mm <sup>2</sup> Crimp Lug	54	108
98307/10	90156/10	Powerfeed 10mm <sup>2</sup> Crimp Lug	74	148
98307/16	90156/16	Powerfeed 16mm <sup>2</sup> Crimp Lug	99	198
98307/25	90156/25	Powerfeed 25mm <sup>2</sup> Crimp Lug	135	270
98307/35	90156/35	Powerfeed 35mm <sup>2</sup> Crimp Lug	165	330

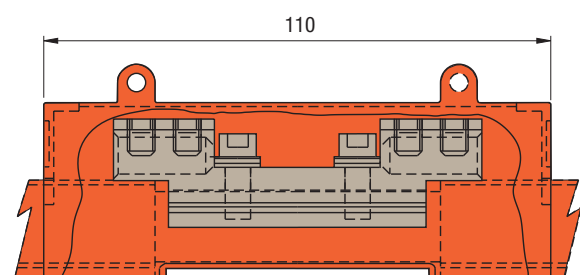
## Hanger P/No. 98380



## Anchor P/No. 98381

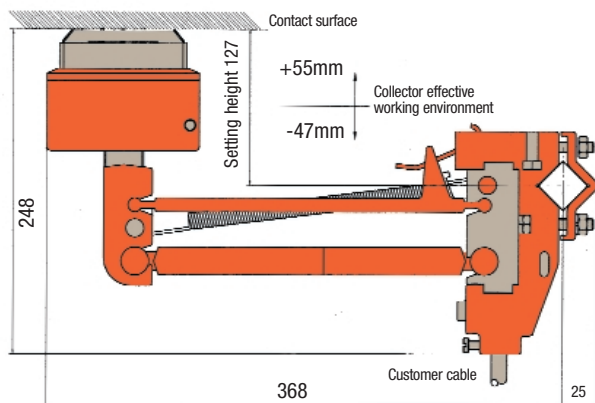


## Power Feed Assembly 330A P/No. 97027

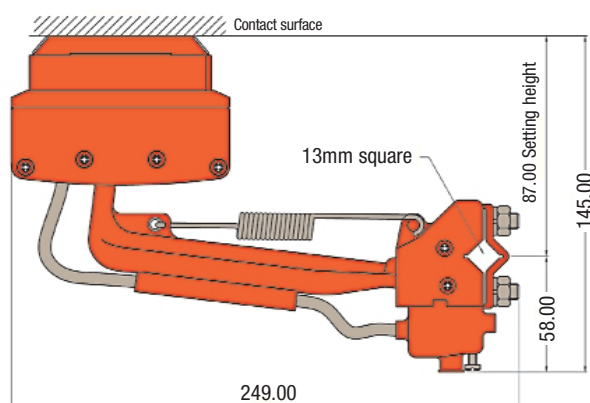


# SYSTEM COMPONENTS

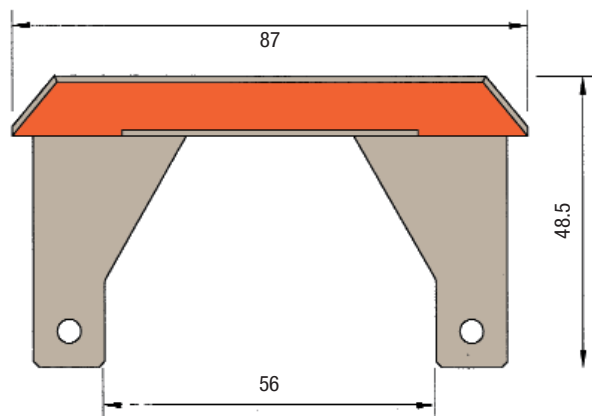
## 100 Amp DI Collector P/No. 310990



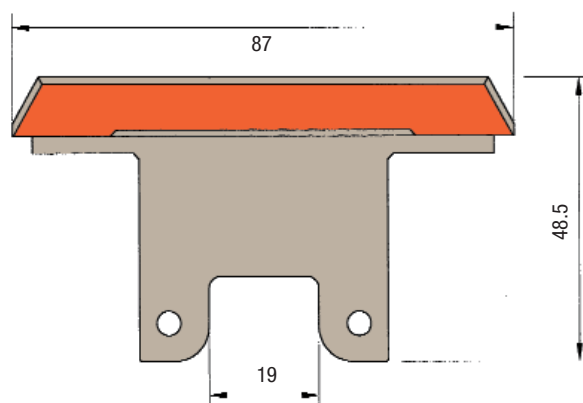
## 50 Amp SI Collector P/No. Live: 399360 Earth (Green): 399380



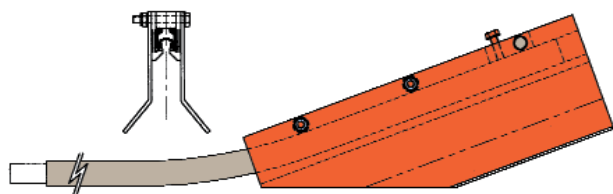
## 100 Amp DI Collector Shoe P/No. 310993 (includes holder)



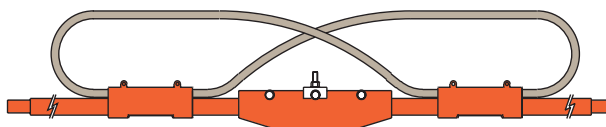
## Collector Shoe for Double Arm Collector (P/No. 98497) P/No. 98387



## Pick-up Guide



## Expansion Section

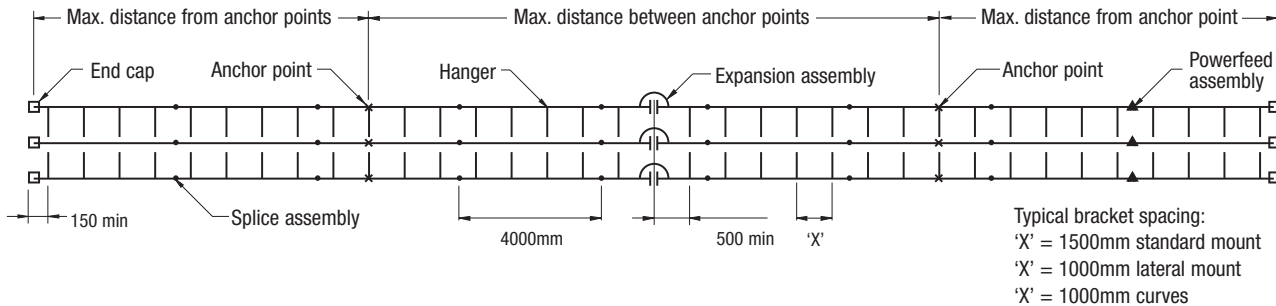


## Other components:

Part No.	Description	Part No.	Description
28082	30 A Collector Shoe	98308	Cluster Style Anchor Clamp
31582	30 A 2 Pole Collector	98309	End Cover
31583	30 A 3 Pole Collector	98310	12mm Collector Mount Bar
31584	30 A 4 Pole Collector	98311	Cluster Style Monopole Hanger Clamp
97011	Monopole Pick-up Guide Assembly	98313	Cluster Style 3 Pole Hanger Clamp
97012	Two Pole Pick-up Guide Assembly	98314	Cluster Style 4 Pole Hanger Clamp
97013	Three Pole Pick-up Guide Assembly	98324	Splice Clamp w/o Cover
97014	Four Pole Pick-up Guide Assembly	98325	54-330 A Power Feed w/o Cover
97061	Monopole Isolating Section	98326	330 A Power Feed w/o Cover
97062	Two Pole Isolating Section	98327	Transfer Cap
97063	Three Pole Isolating Section	98328/70	Power Feed for 70mm Cable
97064	Four Pole Isolating Section	98388	100 A Cast Iron Cleaning Shoe for 98497 collector
97752	330 A Power Feed for Alu/SS Bar	A163	"Danger Live Rail" Sign
98275	Conductor Bar PVC Insulating Cover	A164	25mm Collector Mount Bar
98288	Splice Cover Half	97879C672	3 Phase Anchor Clamp Kit
		97879C671	4 Phase Anchor Clamp Kit

# TECHNICAL DATA

## Typical 3 Phase System:



An accurate choice of conductors can only be made when all of the following information is known:

- Type of current: single or three phase AC; continuous DC
- The maximum current load for all motors
- Allowable voltage drop for the motors being supplied
- Expected duty cycle of the system
- The ambient temperature range
- Environment (dusty, coastal, humid, acidic...)

	Galvanised Steel			Copper	Alu/Stainless	Copper
	90A	120A	140A	250A	300A	400A
Cross sectional area in sq mm	45.36	61.05	88.64	46.24	104.00	88.64
Weight per four meter length	1.91kg	2.4kg	3.26kg	2.14kg	1.62kg	3.65kg
Resistance R (for DC) (ohm/m)	0.002621	0.001948	0.00134	0.000381	0.000303	0.000203
Impedance Z (Ohm/m) 22mm cts @ 20°C	0.002416	0.001808	0.001253	0.000393	0.000319	0.000235
*Impedance Z (Ohm/m) 38mm cts @ 20°C	0.002431	0.001823	0.001268	0.000408	0.000334	0.000250
Impedance Z (Ohm/m) 75mm cts @ 20°C	0.00245	0.001842	0.001287	0.000427	0.000353	0.000269
Max. system length without expansions	200m	200m	200m	150m	150m	150m
Max. distance between anchor points	180m	180m	180m	120m	85m	120m
Max. distance from anchor to end of run	100m	100m	100m	75m	75m	75m
Min. bending radius	1.5m	1.5m	1.5m	1.5m	2.0m	1.5m
Thickness/gauge of conductor in mm	0.8	1.1	1.6	0.8	extrusion	1.6

\* Z bracket arrangement

## Voltage Drop Calculations:

AC three phase  $VD = L \times I \times Z \times 1.73 \text{ Volts}$

AC single phase  $VD = L \times I \times Z \times 2 \text{ Volts}$

DC  $VD = L \times I \times R \times 2 \text{ Volts}$

VD = Voltage drop in Volts

I = Maximum Current in Amps

L = System length in meters from feed

R = DC resistance in Ohms per meter

Z = Impedance in Ohms per meter

The value of L will vary dependent on the placement of the power feed(s) as shown in the diagram below:

End Feed  
L = length

Centre Feed  
L = 1/2 length

Two End Feeds  
L = 1/4 length

Feed point at 1/6 from each end  
L = 1/6 length

Feed points at 1/2 and 1/10 from ends  
L = 1/10 length



**VICTORIA** Head Office

14 England Street, Dandenong,  
Victoria 3175, Australia  
Tel: 61 3 9706 8844  
Fax: 61 3 9794 9298  
Email: info@conductix.com.au

**NEW SOUTH WALES**

4/77 Newton Road, Wetherill Park,  
New South Wales 2164, Australia  
Tel: 61 2 9604 9800  
Fax: 61 2 9604 9844  
Email: info@conductix.com.au

**QUEENSLAND**

52 Lysaght Street, PO Box 6211,  
Acacia Ridge, Queensland 4110, Aust.  
Tel: 61 7 3219 6911  
Fax: 61 7 3344 5377  
Email: info@conductix.com.au

**WESTERN AUSTRALIA**

592 Albany Highway, Victoria Park,  
Western Australia 6100, Australia  
Tel: 61 8 9355 2077  
Fax: 61 8 9355 2088  
Email: info@conductix.com.au



POWER AND DATA TRANSFER

**HEADQUARTERS****DELACHAUX S.A.**

119 Avenue Louis Roche -BP152  
92231 Gennevilliers Cedex  
FRANCE  
Tel : +33 (0) 1 46 88 15 00  
Fax : +33 (0) 1 46 88 15 01  
www.delachaux.fr  
delachomgt@delachaux.fr

**CONDUCTIX OPERATIONS**

119 Avenue Louis Roche-BP152  
92231 Gennevilliers Cedex  
FRANCE  
Tel : +33 (0) 1 46 88 15 13  
Fax : +33 (0) 1 46 88 15 10  
conductix@delachaux.fr  
www.conductix.com

**Subsidiary companies****BENELUX**

CONDUCTIX Benelux

Brussels  
Tel: + (32) (0) 2 469 25 60  
Fax: + (32) (0) 2 469 29 35  
info@conductix.be  
www.conductix.be

**CANADA**

CONDUCTIX Corp. (Insul-8)

St Jérôme  
Tel: + (1) 450 565 9900  
Fax: + (1) 450 432 6985  
infoCanada@conductix.us  
www.conductix.us

**CHINA**

CONDUCTIX Ltd (Han Fa)

Wuhan  
Tel: + (86) 27 83 49 99 88  
Fax: + (86) 27 83 49 99 89  
info@conductix.cn  
www.conductix.cn

**FRANCE**

CONDUCTIX (Delachaux)

Belley  
Tel: + 33 (0) 4 79 42 50 00  
Fax: + 33 (0) 4 79 42 50 05  
infoconductix@delachaux.fr  
www.conductix.fr

Gennevilliers  
Tel: + 33 (0) 1 46 88 15 23  
Fax: + 33 (0) 1 46 88 15 21  
infoconductix@delachaux.fr  
www.conductix.fr

**GERMANY / AUSTRIA**

CONDUCTIX GmbH

Offenbach / Main  
Tel: + (49) 69 98 40 23 0  
Fax: + (49) 69 98 40 23 99  
info@conductix.de  
www.conductix.de

**ITALY**

CONDUCTIX Srl (Comes)

Milan  
Tel: + 39 (0) 39 607 431  
Fax: + 39 (0) 39 607 43292  
info@conductix.it  
www.conductix.it

**Turin**

Turin  
Tel: + 39 (0) 11 45 09 007  
Fax: + 39 (0) 11 42 41 008  
info@conductix.it  
www.conductix.it

**MEXICO**

CONDUCTIX S.de R.L. de C.V. (Insul-8)

Monterrey  
Tel : + (52) 811 090 9013  
Fax : + (52) 811 090 9014  
infoMexico@conductix.us  
www.conductix.com-mx

**UNITED KINGDOM**

CONDUCTIX Ltd (Insul-8)

Salford  
Tel: + (44) 161 848 01 61  
Fax: + (44) 161 873 70 17  
info@conductix.co.uk  
www.conductix.co.uk

**UNITED STATES**

CONDUCTIX, Inc. (Insul-8)

Omaha, NE  
Tel: + (1) 402 339 9300  
Fax: + (1) 402 339 9627  
info@conductix.us  
www.conductix.us

Harlan, IA  
Tel: + (1) 712 755 2246  
Fax: + (1) 402 952 9381  
info@conductix.us  
www.conductix.us

**Countries where we are represented :**

Algeria, Argentina, Austria, Bahrain, Bolivia, Brasil, Bulgaria, Cameroons, Chile, China, Colombia, Congo, Ivory Coast, Croatia, Czechia, Denmark, U.A.S., Ecuador, Egypt, Finland, Gabon, Greece, Guatemala, Guinea, Honduras, Hungary, Indonesia, India, Iraq, Iran, Ireland, Israel, Japan, Jordania, Korea, Kuwait, Lebanon, Madagascar, Malaysia, Mali, Mauritania, Mexico, Morocco, Netherlands, New Zealand, Niger, Nigeria, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Rumania, Russia, Saudi Arabia, Senegal, Singapore, Slovakia, South Africa, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, Turkey, Uruguay, Venezuela, Viet-Nam...