

# Amphenol

## EV SERIES POWER CONNECTORS



**Amphenol**



## Introduction

The **EV Series** Connector line is specifically designed for connecting the Power Cables within a mobile or stationary power supply. The power supplies may be used with vehicle drives systems or stationary power. The connectors meet the necessary specifications for commercial transportation requirements.

The **IP2X** or **TUV Fingerproof** design on both the plug and receptacle allow much greater flexibility when connectorizing 'always hot' systems such as battery packs, fuel cells, capacitor packs etc.

### Features of the EV Series Connectors.

Utilizing RADSOK® contact technology.

- ◆ High reliability
- ◆ Low insertion/extraction force
- ◆ Low contact resistance, high current in smaller package
- ◆ High mating cycles

The design is based on the Military 5015 and Amphenol GT Reverse Bayonet series connectors assuring a proven rugged metal design. Wide range of current capacities from 120A to 500A. Built in HVIL or interlock sensing circuit for safety. Six keyed and color coded plug positions to prevent misconnections. Continuous through connector shielding, both Overmolded and Mechanical Backshell, FMLB capable.

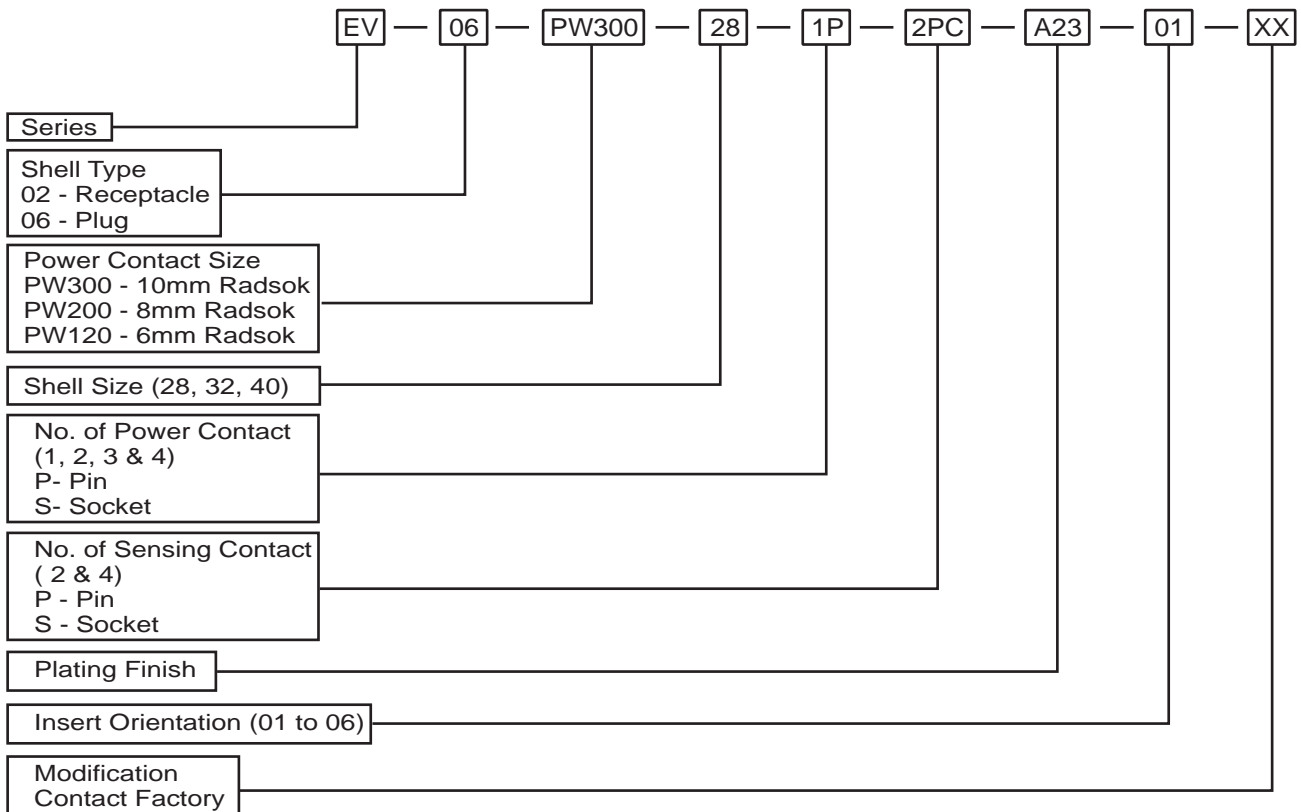
### Features:

- ◆ IP2X Fingerproof on both Plug & Receptacle
- ◆ Up to 500A with RADSOK® Contacts
- ◆ IP67 Rating
- ◆ Keyed & Color Coded

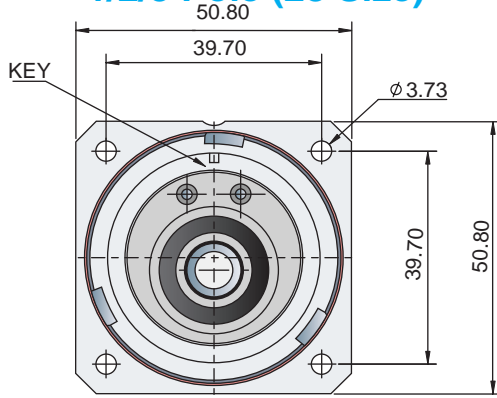


Voltage	1000V DWV 3000V
Current	6mm 120A, 8mm 200A, 10mm 300A, 14mm 500A
Cable	5 ga to 350MCM, 10 to 185 mm <sup>2</sup>
Termination	Crimp or Threaded Stud or Bolt
Interlock	Isolated FBLM HVIL within plug and receptacle
Finger Proof	Plug and Receptacle fully IP2X or TUV fingerproof
Sealing	IP67
Housing	Shielded Metallic
Backshell	Shielded with Overmold or Mechanical assembly
Backshell	180° or optional 90°
Minimum Ambient	-40°C
Maximum Ambient	+90°C
Connection	Low insertion 1/4 turn with distinct click
Service	Field service kits available
Keying	6 key selections with color coding
Interlock Creepage	> 8mm high voltage to low voltage contacts
Interlock Clearance	>6.4mm high voltage to shell
Altitude	7000 to 12,000 feet above sea level

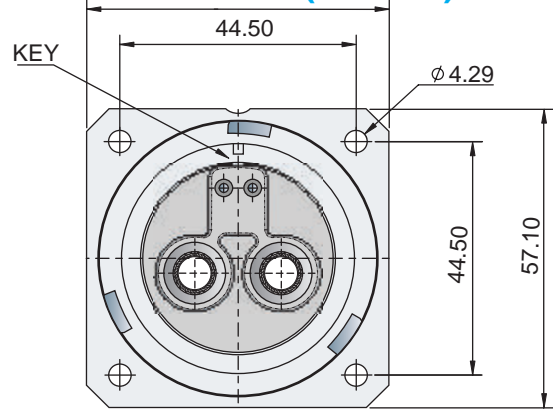
### Ordering Information



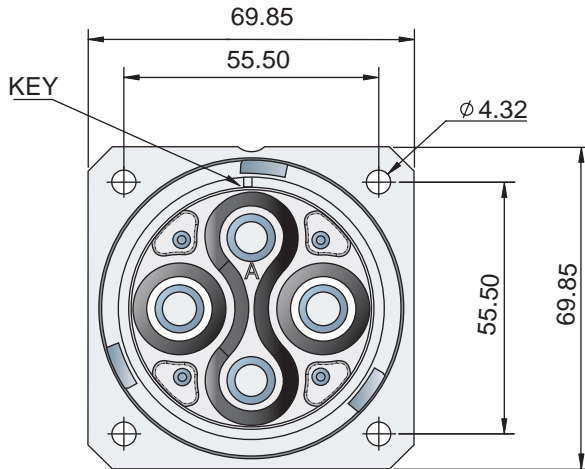
## 1/2/3 Pole (28 Size)



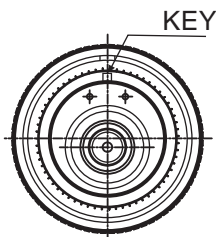
## 2 & 3 Pole (32 Size)



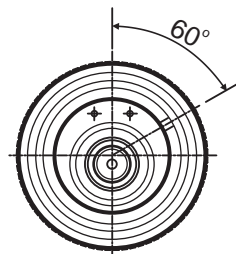
## Four Pole (40 Size)



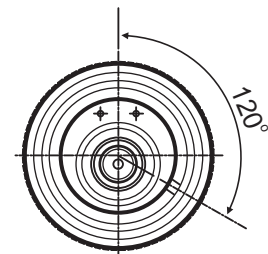
## Key Rotation



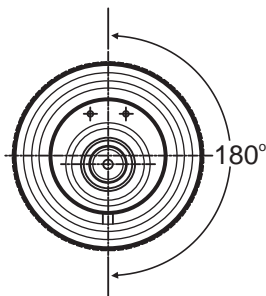
Normal 0°



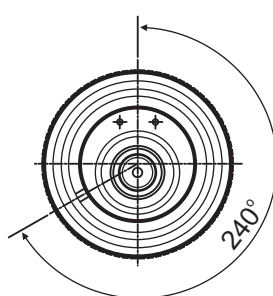
60°



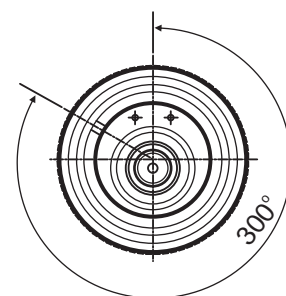
120°



180°



240°



300°

All dimensions are in mm

## Overmolded Cable Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW300-28-1P-2PC-A23-01	0
EV-06-PW300-28-1P-2PC-A23-02	60
EV-06-PW300-28-1P-2PC-A23-03	120
EV-06-PW300-28-1P-2PC-A23-04	180
EV-06-PW300-28-1P-2PC-A23-05	240
EV-06-PW300-28-1P-2PC-A23-06	300

## Mechanical Backshell Cable Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW300-28-1P-2PC-A23-01-SB	0
EV-06-PW300-28-1P-2PC-A23-02-SB	60
EV-06-PW300-28-1P-2PC-A23-03-SB	120
EV-06-PW300-28-1P-2PC-A23-04-SB	180
EV-06-PW300-28-1P-2PC-A23-05-SB	240
EV-06-PW300-28-1P-2PC-A23-06-SB	300

## Receptacle With Crimp Contact Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW300-28-1S-2SC-A23-01	0
EV-02-PW300-28-1S-2SC-A23-02	60
EV-02-PW300-28-1S-2SC-A23-03	120
EV-02-PW300-28-1S-2SC-A23-04	180
EV-02-PW300-28-1S-2SC-A23-05	240
EV-02-PW300-28-1S-2SC-A23-06	300

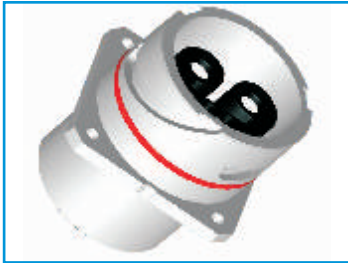
## Receptacle With M12 Stud



CONNECTOR NO.	KEY ROTATION
EV-02-PW300-28-1S-2SC-A23-01-M12	0
EV-02-PW300-28-1S-2SC-A23-02-M12	60
EV-02-PW300-28-1S-2SC-A23-03-M12	120
EV-02-PW300-28-1S-2SC-A23-04-M12	180
EV-02-PW300-28-1S-2SC-A23-05-M12	240
EV-02-PW300-28-1S-2SC-A23-06-M12	300



## EV Series 2 Pole Receptacle Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW120-28-2S-4PC-A23-01	0
EV-02-PW120-28-2S-4PC-A23-02	60
EV-02-PW120-28-2S-4PC-A23-03	120
EV-02-PW120-28-2S-4PC-A23-04	180
EV-02-PW120-28-2S-4PC-A23-05	240
EV-02-PW120-28-2S-4PC-A23-06	300

## EV Series 2 Pole Plug Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW120-28-2P-4SC-A23-01	0
EV-02-PW120-28-2P-4SC-A23-02	60
EV-02-PW120-28-2P-4SC-A23-03	120
EV-02-PW120-28-2P-4SC-A23-04	180
EV-02-PW120-28-2P-4SC-A23-05	240
EV-02-PW120-28-2P-4SC-A23-06	300

## EV Series 3 Pole Receptacle Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW120-32-3S-4PC-A23-01	0
EV-02-PW120-32-3S-4PC-A23-02	60
EV-02-PW120-32-3S-4PC-A23-03	120
EV-02-PW120-32-3S-4PC-A23-04	180
EV-02-PW120-32-3S-4PC-A23-05	240
EV-02-PW120-32-3S-4PC-A23-06	300

## EV Series 3 Pole Plug Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW120-32-3P-4SC-A23-01	0
EV-06-PW120-32-3P-4SC-A23-02	60
EV-06-PW120-32-3P-4SC-A23-03	120
EV-06-PW120-32-3P-4SC-A23-04	180
EV-06-PW120-32-3P-4SC-A23-05	240
EV-06-PW120-32-3P-4SC-A23-06	300

## EV Series 2 Pole Receptacle Connector



CONNECTOR NO.
EV-02-PW200-32-2S-2SC-A23-01
EV-02-PW200-32-2S-2SC-A23-02
EV-02-PW200-32-2S-2SC-A23-03
EV-02-PW200-32-2S-2SC-A23-04
EV-02-PW200-32-2S-2SC-A23-05
EV-02-PW200-32-2S-2SC-A23-06

KEY ROTATION
0
60
120
180
240
300

## EV Series 2 Pole Plug Connector



CONNECTOR NO.
EV-06-PW200-32-2P-2PC-A23-01
EV-06-PW200-32-2P-2PC-A23-02
EV-06-PW200-32-2P-2PC-A23-03
EV-06-PW200-32-2P-2PC-A23-04
EV-06-PW200-32-2P-2PC-A23-05
EV-06-PW200-32-2P-2PC-A23-06

KEY ROTATION
0
60
120
180
240
300

## EV Series 3 Pole Receptacle Connector



CONNECTOR NO.
EV-02-PW200-32-3S-2SC-A23-01
EV-02-PW200-32-3S-2SC-A23-02
EV-02-PW200-32-3S-2SC-A23-03
EV-02-PW200-32-3S-2SC-A23-04
EV-02-PW200-32-3S-2SC-A23-05
EV-02-PW200-32-3S-2SC-A23-06

KEY ROTATION
0
60
120
180
240
300

## EV Series 3 Pole Plug Connector



CONNECTOR NO.
EV-06-PW200-32-3P-2PC-A23-01
EV-06-PW200-32-3P-2PC-A23-02
EV-06-PW200-32-3P-2PC-A23-03
EV-06-PW200-32-3P-2PC-A23-04
EV-06-PW200-32-3P-2PC-A23-05
EV-06-PW200-32-3P-2PC-A23-06

KEY ROTATION
0
60
120
180
240
300



## EV Series 4 Pole Power Connector



CONNECTOR NO.	KEY ROTATION
EV-02-PW300-40-4S-4SC-A23-01	0
EV-02-PW300-40-4S-4SC-A23-02	60
EV-02-PW300-40-4S-4SC-A23-03	120
EV-02-PW300-40-4S-4SC-A23-04	180
EV-02-PW300-40-4S-4SC-A23-05	240
EV-02-PW300-40-4S-4SC-A23-06	300

## Receptacle 4 Pole Connector With Crimp Contact

### Overmolded Cable Connector



CONNECTOR NO.	KEY ROTATION
EV-06-PW300-40-4PC-A23-01	0
EV-06-PW300-40-4PC-A23-02	60
EV-06-PW300-40-4PC-A23-03	120
EV-06-PW300-40-4PC-A23-04	180
EV-06-PW300-40-4PC-A23-05	240
EV-06-PW300-40-4PC-A23-06	300

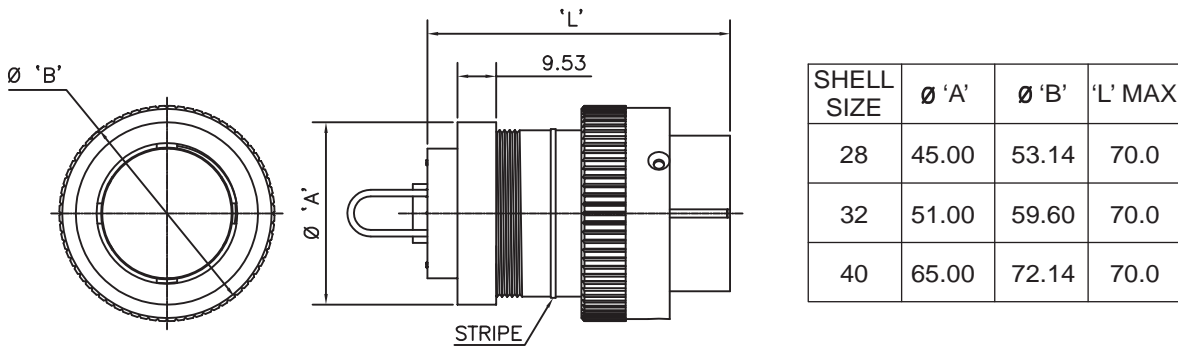
## Dust Cap With Sense Circuit Shorting (For 320 Amp Single Pole)



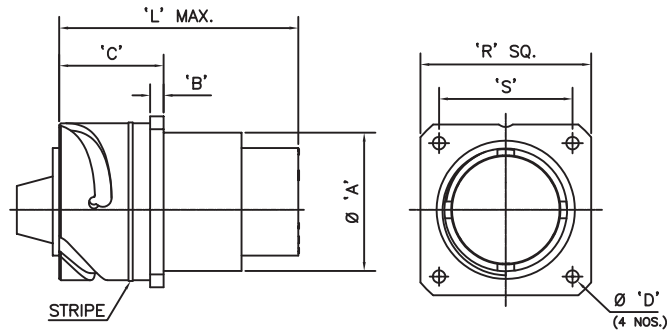
CONNECTOR NO.	KEY ROTATION
EV-06-PW-28-2PC-A23-01-DC	0
EV-06-PW-28-2PC-A23-02-DC	60
EV-06-PW-28-2PC-A23-03-DC	120
EV-06-PW-28-2PC-A23-04-DC	180
EV-06-PW-28-2PC-A23-05-DC	240
EV-06-PW-28-2PC-A23-06-DC	300

Notice : All information, including illustrations given herein is believed to be accurate at the time of printing. In lieu of design advances, Amphenol reserves the right to change specifications without notice. This publication Series EV Connector 15-03-11 supercedes all existing Amphenol literature on Series EV Connector.

## Over Molding Connector

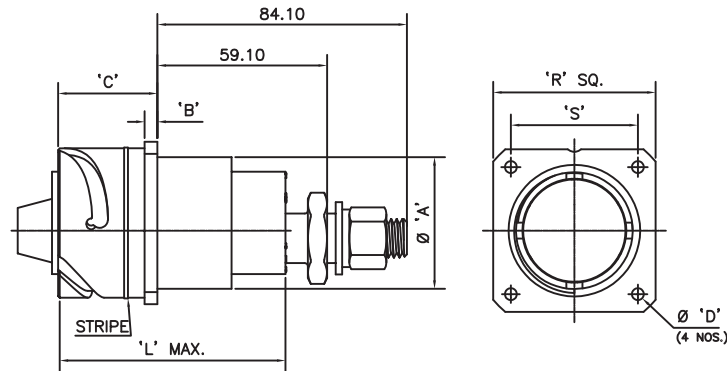


## Receptacle With Crimp Contact



SHELL SIZE	Ø 'A'	'B'	'C'	'D'	'L' MAX	'R' SQ	'S' SQ
28	41.10	4.0	31.05	3.73	73.0	50.80	39.70
32	47.52	4.0	31.05	4.29	59.0	57.10	44.50
40	65.00	6.0	33.05	4.32	80.0	69.85	55.50

## Receptacle With Metric Stud



SHELL SIZE	Ø 'A'	'B'	'C'	'D'	'L' MAX	'R' SQ	'S' SQ
28	41.10	4.0	31.05	3.73	73.0	50.80	39.70

# Amphenol

*A Global Company*



## NORTH AMERICA

### Sales & Product Support

Amphenol Interconnect Product Corporation  
20 Vally St. Endicott , NY B760 USA,  
Tel:- 607 754 4444  
Fax:-607 786 4311  
www.amphenol-aipc.com

Amphenol PCD  
72 Cherry Hill Drive  
Beverly, MA 01915 USA  
Tel: +1-978-624-3400  
Fax: +1-978-927-1513  
info@amphenolpcd.com  
www.amphenolpcd.com  
www.backshellworld.com

Amphenol Aerospace Operations  
40-60, Delaware Avenue  
Sidney, NY 13838-1395  
Tel: +1-607-563-5011  
Fax: +1-607-563-5357

Amphenol Canada  
Meford Drive  
Scarborough,  
ON M1B 2X6  
Tel: +416-291-4401  
Fax: +416-292-0647

Amphenol Fiber Systems International  
1300 Central Expressway North  
Suite 100 Allen, Texas 75013, USA  
Tel: +1-214-547-2400  
Fax: +1-214-547-9344

## EUROPE

### France

Amphenol Socapex S.A.S.  
948, Promenade de l'Arve  
Bp29, Thyez Cedex  
74311, France  
Tel: +33-4-5089-2800  
Fax: +33-4-5096-1941

### United Kingdom

Amphenol Limited  
Thanet Way, Whitstable  
Kent CT5 3JF, England  
Tel: +44-1227-773-200  
Fax: 44-1227-276-571

### Germany

Amphenol-Air LB GmbH  
Am Kleinbahnhof 4  
Saarlouis  
D-66740, Germany  
Tel: 49-6831-9810-00  
Fax: 49-6831-9810-30

### Italy

Via Barbaiana 5  
20020 Lainate (Milano)  
Italy  
Tel :+39-02-93254.209  
+39-02-93254.214  
Fax:+39-02-93254-444

### Center & East Europe

Amphenol Austria  
Wiener Gasse 68  
2380 Perchtoldsdorf  
Tel: +43-699-10396071  
Fax: +43 699 40396071

Amphenol Air-LB  
Immeuble Le Doublon  
11, Avenue Dobonnet  
Courbevoie-Cedex  
92407, France  
Ph: +33-1-4905-3000  
Fax: +33-1-4905-3043

### Spain

Amphenol Iberica  
Edificio Burgosol Oficina  
N 55 C/Comunidad de  
Madrid 35 bis -  
Las Rozas (Madrid)  
Tel: +34-91-6407302  
+34-91-6407306  
Fax:+34-91-6407307

### Holland

Amphenol Benelux  
Zadelmaker 121  
NL-2401 PD Alphen  
aan den Rijn Holland  
Tel:+31-172-444903  
Fax:+31-172 240254

### Sweden

Amphenol  
(Nordic & Baltic)  
Ångsullsvägen 7  
S-187 51 Täby  
Sweden  
Tel: +46-85-1051816  
+46-76-8418600  
Fax: +46-70- 2634677  
+46-70-2203197

## ASIA

### India

Amphenol Interconnect India Pvt. Ltd.  
105 Bhosari Industrial Area  
Pune-411026, India  
Tel: +9120-3068-8305  
Fax:+9120-2712-9158

Amphenol Interconnect India Pvt. Ltd.  
61 Electronics City  
Bangalore-560 100, India  
Ph: +9180-2852-3838  
Fax: +9180-2852-0418

### Japan

Amphenol Japan  
471-1, Deba, Ritto City  
Shiga 520-3041, Japan  
Tel: +81-77-553-8501  
Fax: +81-77-551-2200

### Korea

Amphenol Daeshin Electronics  
558 SoSa, SongNae, Bucheon-City  
Kyunggi-Do, Korea 420-130  
Tel: +82-32-610-3800  
Fax: +92-32-673-2507

### Singapore

Amphenol East Asia Ltd.  
72 Bendemeer Road  
# 03-33 Luzerne  
Singapore 339 941  
Tel: 65-6294-2128  
Fax: 65-6294-3522

### China

Amphenol PCD Shenzhen  
3/F Building, A4 Songbai  
Industrial Park  
East Road of Minghuan  
Gongming Town, Baon District  
Shenzhen, China  
Tel: +86-755-8173-8000  
Fax: +86-755-8173-8180

## ROW

### Australia

Amphenol Australia Pty Ltd  
2 Fiveways Boulevard  
Keysborough  
VIC 3173  
Ph: +61-3-8796-8888  
Fax: +61-3-8796-8801

### Israel

Bar-Tec Ltd.  
P.O. Box 279  
Kfar Sava, 44102 Israel  
Tel: +972-9-7644100  
Fax: +972-9-7674324

### Africa

Amphenol South Africa  
30 Impala Road  
2196 Sandton-Chistlehurst  
South Africa  
Tel: +27-11-783-9517  
Fax: +27-11-783-9519

### Turkey

Amphenol International Ltd.  
Sun Plaza Ka:15 Maslak Mah.  
Bilim Sok. No:5  
34398 – Sisli – Istanbul  
Tel: +90 212 367 92 19  
Fax: +90 212 367 92 21

### Russia

Amphenol Russia  
8-2 Yaroslavskaja Str  
129164 Moscow, Russia  
Tel: +7-495-937-6341  
Fax: +7-495-937-6319

### Brazil

Amphenol do Brasil Ltda  
Rua Diogo Moreira 132  
CEP 05423-010  
Sao Paulo-SP, Brazil  
Tel: +55-11-3815-1003  
Fax: +55-11-3815-1629

### Argentina

Amphenol Argentina  
Avenida Callao 930  
2nd Floor, Office B Plaza  
C1023AAP Buenos Aires  
Argentina  
Tel: 54-11-4815-6886  
Fax: 54-11-4814-5779

www.amphenol-in.com