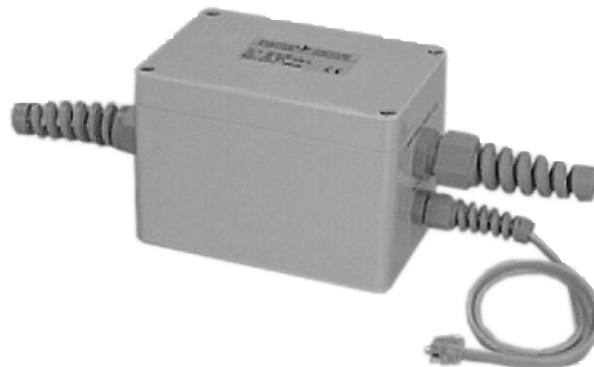


Backing Pump Relay Boxes



Article number PM 041 937 -A
PM 041 938 -T

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Please note: Current operating instructions are available via www.pfeiffer-vacuum.de under "Infoservice".

1. Safety Instructions

- ☞ Read and follow all instructions in this manual.
- ☞ Inform yourself regarding:
 - Hazards which can be caused by the unit;
 - Hazards which can be caused by your system.
- ☞ Observe the safety and accident prevention regulations.
- ☞ Regularly check that all accident prevention measures are being complied with.
- ☞ Take account of the ambient conditions when installing the relay boxes. The protection type is IP 65.
The necessary measures must be taken if installation in an environment which requires other protection types.
- ☞ Do not carry out any unauthorised conversions or alterations to the relay boxes.
- ☞ Disconnect from mains power when working on the relay box.

1.1. For Your Orientation

Instruction in the text

➔ Working instruction: here, you have to do something.

Symbols used

- ⓘ High vacuum flange
- Ⓥ Fore-vacuum flange

Position numbers

The same pump and accessory parts have the same position numbers in all illustrations.

1.2. Pictogram Definitions



Danger of damage to the pump or to the system



Danger of an electric shock.



Attention to particularly important information on the product, handling the product or to a particular part of the documentation.

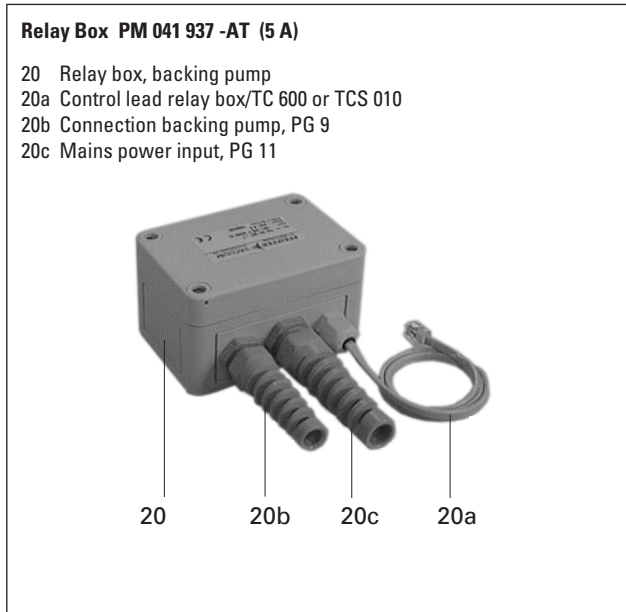
Modifications reserved.

2. Understanding The Relay Box

2.1. Main Features

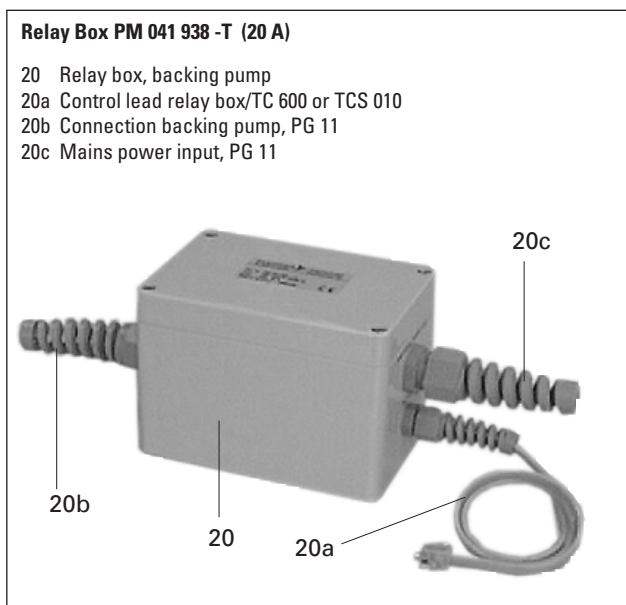
Relay Box PM 041 937 -AT

The relay box with semiconductor relay PM 041 937 -AT is provided for intermittent operations on diaphragm vacuum pumps (MVP 015; MZ 2T; MD 4T). The maximum relay contact load is 5 A. The connection of mains voltage, single phase of 90 - 265 V is possible.



Relay Box PM 041 938 -T

The relay box with mechanical relay PM 041 938 -T is provided for the operation of larger vacuum backing pumps. The maximum relay contact load is 20 A. The connection of mains voltage, single phase of 90 - 265 V is possible.



The customer is responsible for mains power supply and for the connection to the backing pump.

Proper Use

- The relay box may only be used to control a vacuum backing pump to PFEIFFER turbomolecular pumps with the integrated Electronic Drive Unit TC 600 and TC 100 with TCS 010.

Improper Use

Certain types of use are regarded as improper, e.g.:

- Using the relay box where contact loads are too high.
- The connection of a mains power voltage other than those shown above.

Improper use will cause any rights regarding liability and guarantees to be forfeited.

3. Installation



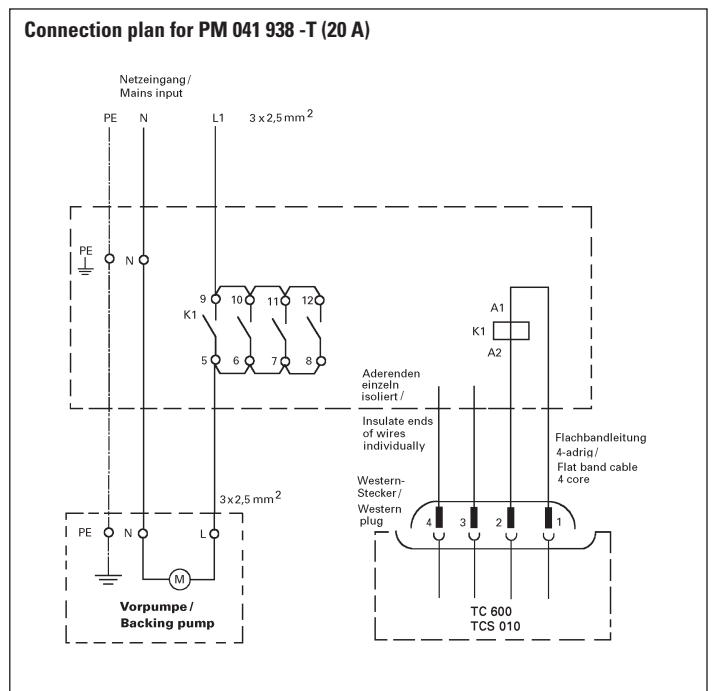
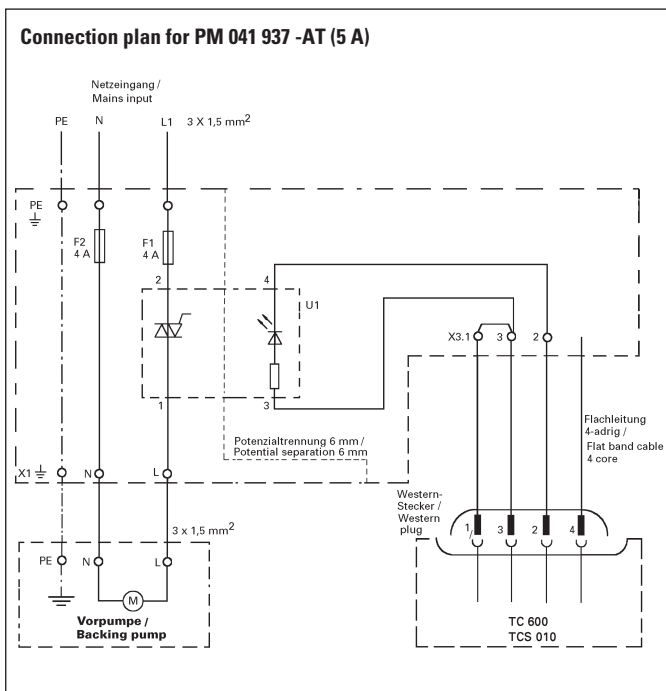
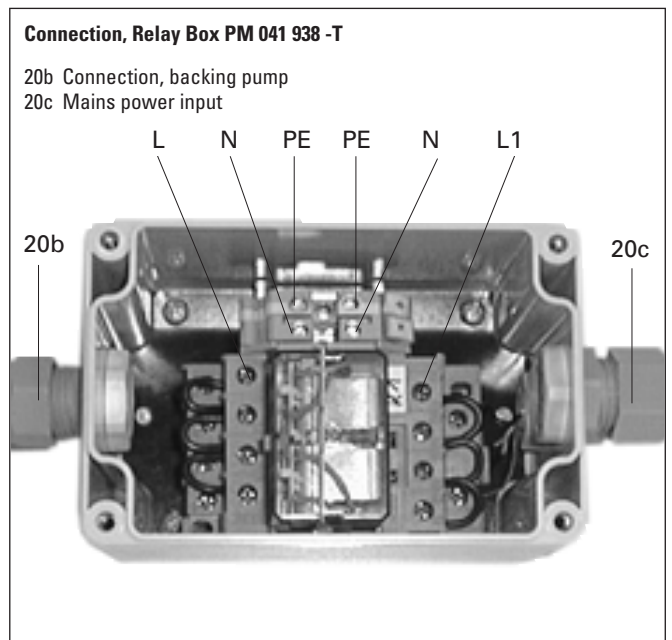
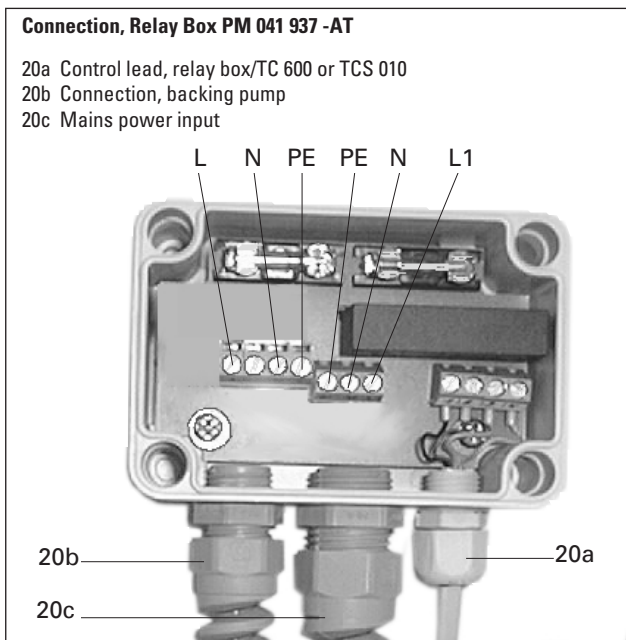
The electrical connections must be carried out in accordance with local regulations and by professionally qualified persons. During installation ensure that the mains connection plug is disconnected.

- ➔ Unscrew the cover on the relay box.
- ➔ Execute the wiring of the mains power connection and the backing pump in accordance to the following illustrations and connection plans.
- ➔ Close the relay box.

- ➔ TC 600:
Plug the control lead 20a into the connection "FV PUMP" of the TC 600 on the turbopump.
- ➔ TC 100:
Plug the control lead 20a into the connection "Out1" or "Out2" of the TCS 010. The outputs should be configured in accordance with Operating Instructions PM 800 547 BN "Pumping Operations With The DCU", Section 3.19..
- ➔ Connect the mains power cable to mains voltage.

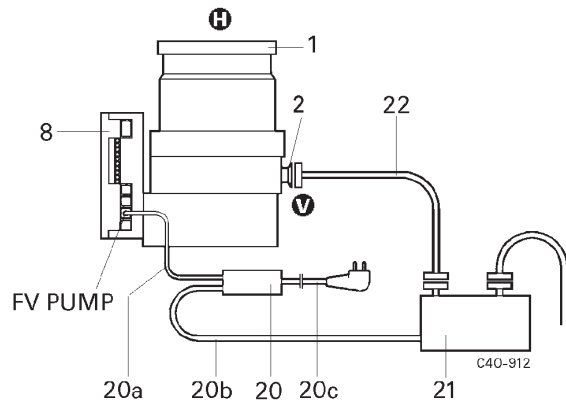


Take account of the maximum loadability and mains voltage range of the relay box.



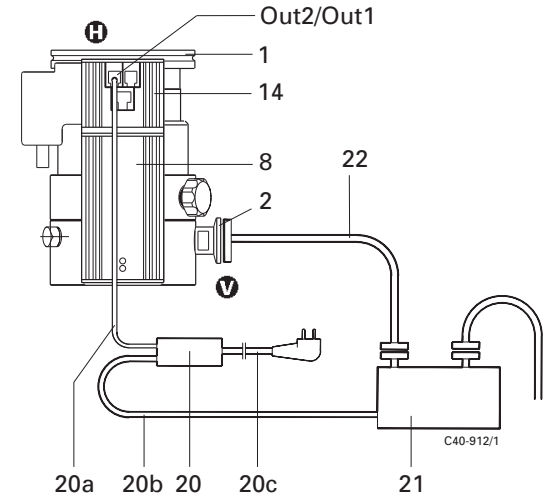
Connecting the backing pump to the turbopump with TC 600

- 1 High vacuum flange
- 2 Fore-vacuum flange
- 8 Electronic Drive Unit TC 600
- 20 Relay box, backing pump
- 20a Control lead relay box/TC 600
- 20b Connecting cable backing pump
- 20c Mains power cable
- 21 Backing pump
- 22 Intake line



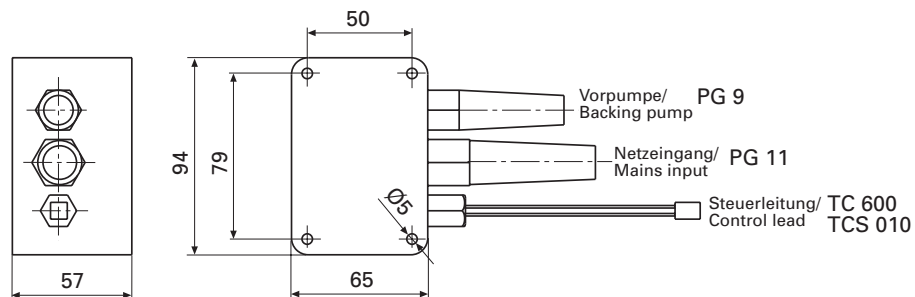
Connecting the backing pump to the turbopump with TC 600

- 1 High vacuum flange
- 2 Fore-vacuum flange
- 8 Electronic Drive Unit TC 100
- 14 Pumping Station Control Unit TCS 010
- 20 Relay box, backing pump
- 20a Control lead relay box/TCS 010
- 20b Connecting cable backing pump
- 20c Mains power cable
- 21 Backing pump
- 22 Intake line

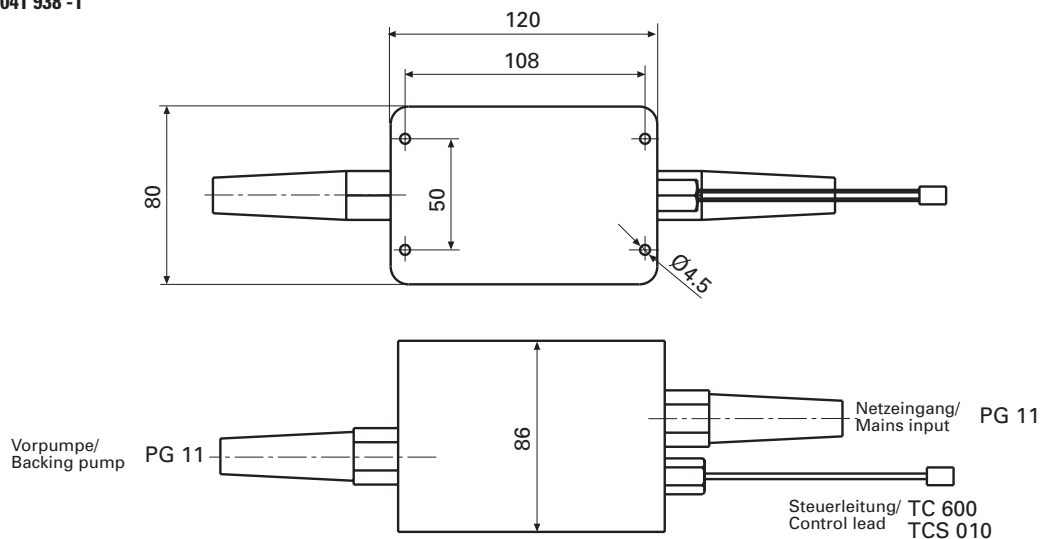


4. Dimensions

PM 041 937 -AT



PM 041 938 -T



Konformitätserklärung im Sinne folgender EU-Richtlinien:

- **Elektromagnetische Verträglichkeit 89/336/EWG**
- **Niederspannung 73/23/EWG**

Wir bestätigen Konformität mit der EU-Richtlinie über elektromagnetische Verträglichkeit 89/336/EWG und der EU-Niederspannungsrichtlinie 73/23/EWG.

Die angewandten Richtlinien, harmonisierten Normen, nationalen Normen und Spezifikationen sind unten aufgeführt.

Produkt:

Relaisbox Vorvakuumpumpe

Angewendete Richtlinien, harmonisierte Normen und angewendete, nationale Normen in Sprachen und Spezifikationen:

EN 61010, EN 55011, EN 50081-1, EN 50082-2, IEC 801 1-4, VDE 0843-6

Unterschrift:



Geschäftsführer (W. Dondorf)

Declaration of conformity pursuant to the following EU directives:

- **Electromagnetic Compatibility Directive 89/336/EEC**
- **Low Voltage Directive 73/23/EEC**

We certify conformity with EU Electromagnetic Compatibility Directive 89/336/EEC and EU Low Voltage Directive 73/23/EEC.

The guidelines, harmonized standards, national standards and specifications which have been applied are listed below.

Product:

Backing pump relay box

Guidelines, harmonised standards, national standards in languages and specifications which have been applied:

EN 61010, EN 55011, EN 50081-1, EN 50082-2, IEC 801 1-4, VDE 0843-6

Signatures:



Managing Director (W. Dondorf)

Adressen • Addresses

Argentina

ARO S.A., Av. Belgrano 369,
1092 Buenos Aires, telephone +54 / 11 4331 5766,
telefax +54 / 11 4331 3572

Australia

Sciteck Australia Pty. Ltd., Suite 1B,
10-18 Cliff Street, Milsons Point, NSW 2061,
telephone +61 / 2 9954 1925, telefax +61 / 2 9954 1939

Austria

Pfeiffer Vacuum Austria GmbH
Diefenbachgasse 35, A-1150 Wien,
telephone +43 / 1 8941 704, telefax +43 / 1 8941 707
Service Hotline: +43 / 1 8941704

Branch Office, Czech Republic

Pfeiffer Vacuum Austria GmbH, Branch Prague
Zvonarska 885
CZ-156 00 Praha 5
telephone + 420/2 900 42981, telefax + 420/2 579 23014

Belgium / Luxemburg

Pfeiffer Vacuum Belgium N.V./S.A.
Luxemburgstraat 5, B-9140 Temse
telephone +32 / 3 710 5920, telefax +32 / 3 710 5929
Service Hotline: +32 / 3 710 5922

Brazil

Elmi Tec
Assistencia Técnica e Representação S/C Ltda.
Rua Bernadino de Compos, 551-Brooklin
CEP 04620-002 São Paulo, SP - Brasil
telephone +55 / 11 5532 0740, telefax +55 / 11 5535 3598

Chile

BERMAT S.A., Coyancura 2283, Oficina 601
Providencia, P.O. Box 9781, Santiago
telephone +56 / 2 231 8877, telefax +56 / 2 231 4294

Colombia

Arotec Colombiana S.A., Carrera 16 No. 36-89
P.O. Box 050 862, Santafe de Bogota / D.C.
telephone +57 / 1 288 7799, telefax +57 / 1 285 3604

Denmark

Pfeiffer Vacuum Scandinavia AB, Vesterengen 2,
DK-2630 Taastrup,
telephone +45 / 43 52 38 00, telefax +45 / 43 52 38 50

France

Pfeiffer Vacuum France SAS
45, rue Senouque, BP 139
F-78531 BUC Cedex
telephone +33 / (0)1 30 83 04 00,
telefax +33 / (0)1 30 83 04 04

Germany

Pfeiffer Vacuum GmbH,
Berliner Strasse 43, D-35614 Asslar
telephone +49 / 6441 802 400, telefax +49 / 6441 802 399
Service Hotline: +49 / 6441 802 333

Great Britain

Pfeiffer Vacuum Ltd.
2-4 Cromwell Business Centre
Howard Way, Interchange Park
Newport Pagnell, MK16 9QS, United Kingdom
telephone +44 / 1 908 500615, telefax +44 / 1 908 500616

Greece

Analytical Instruments S.A., 1 Mantzarou St.,
GR-15451 Athens,
telephone +30 / 10 674 8973-7, telefax +30 / 10 674 8978

Hong Kong

Pfeiffer Vacuum Asia Ltd.
Units 06-07, 17/F, Workingfield Commercial Building,
408-412 Jaffe Road, Hong Kong
telephone +852 2575 6688, telefax +852 2575 6993

India

Pfeiffer Vacuum India Ltd.
25-E Nicholson Road, Tarbund
Secunderabad 500 009,
telephone +91 / 40 775 0014, telefax +91 / 40 775 7774

Israel

ODEM Scientific Applications Ltd.
9 Hamazmera St., P.O.B. 2001 Nes Ziona
telephone +972 8 938 0333, telefax +972 8 938 0334

Italy

Pfeiffer Vacuum Italia S.p.a.
Via San Martino, 44 I-20017 RHO (Milano)
telephone +39 / 2 93 99 051, telefax +39 / 2 93 99 05 33

Japan

Hakuto Co. Ltd., C.P.O. Box 25,
Vacuum Scientific Instruments Division
C.P.O. Box 25, Tokyo 100-91
telephone +81 / 3 32 258 910, telefax +81 / 3 32 259 011

Korea

Pfeiffer Vacuum Korea Ltd.,
703 Ho, 853-1, Hankuk Mulru, Dongchonri, Suzi-Eup,
449-843 Yong-in City, Kyungkido
telephone +82 / 31 266 0741, telefax +82 / 31 266 0747

Netherlands

Pfeiffer Vacuum Nederland BV
Veldzigt 30a, NL-3454 PW De Meern,
telephone +31 / 30 6666050, telefax +31 / 30 6662794

Peru

Ing. E. Brammertz s.r.l., José Pardo 182,
Apartado 173, PE-18 Miraflores,
telephone +51 / 1 445 8178, telefax +51 / 1 445-1931

Poland

Softrade Sp.z.o.o, ul. Grunwaldzka 391,
PL-60-173 Poznan, telephone +48 / 61 8677 168,
telefax +48 / 61 8677 111

Portugal

Unilaser Lda, Taguspark
Núcleo Central, sala n° 268, Estrada Cacém-
Porto Salvo, P-2780 Oeiras
telephone +351 / 1 421 7733, telefax +351 / 1 421 7744

Singapore

APP Systems Services Pte. Ltd, 2 Corporation Road
06-14 Corporation Place, Singapore 618494,
telephone +65 / 268 2024, telefax +65 / 268 6621

Spain

Tecnovac
Tecnología de Vacío S.L.,
Sector Literatos, 38 - Local 1
ES-28760 Tres Cantos (Madrid)
telephone +34 / 91 804 11 34, telefax +34 / 91 804 30 91

Sweden

Pfeiffer Vacuum Scandinavia AB
Johanneslundsvägen 3
SE-194 61 Upplands Väsby
telephone +46 / 8 590 748 10, telefax +46 / 8 590 748 88

Switzerland

Pfeiffer Vacuum Schweiz S.A.
Förrlibuckstraße 30, CH-8005 Zürich
telephone +41 / 1 444 2255, telefax +41 / 1 444 2266

South Africa

Labotec Pty Ltd., P.O. Box 6553,
Halfway House
1685 Midrand
telephone +27 / 11 315 5434, telefax +27 / 11 315 5882

Taiwan

HAKUTO Taiwan Ltd. Hsinchu office No. 103,
Hsien Chen 11th Street, Chupei,
HsinChu County, Taiwan, R.O.C.
(zip/postal code: 302)
telephone +886 / 3 554 1020, telefax +886 / 3 554 0867

Thailand

Hakuto (Thailand) Ltd.
18th Floor, Chokchai Int'l Bldg.
690 Sukhumvit Road
Klongton, Klongtoey
Bangkok 10110
telephone +662 / 259 6244, telefax +662 / 259 6243

U.S.A.

Pfeiffer Vacuum, Inc.
24 Trafalgar Square
Nashua, NH 03063-1988
USA
telephone +1 / 603 578 6500, telefax +1 / 603 578 6550

Venezuela

Secotec S.A., Apartado 3452, Caracas 1010-A,
telephone +58 / 212 573 8687, telefax +58 / 212 573 1932

Other countries

AVI - Applied Vacuum Industries GmbH
Leginglenstrasse 17A; CH-7320 Sargans
Switzerland
telephone +41 / 81 710 03 80
telefax +41 / 81 710 03 81

Scope of represented countries

Armenia, Azerbaijan, Bangladesh, Belarus, Bulgaria, Cambodia, Estonia, Georgia, Kazakhstan, Kingdom of Nepal, Kirghizia, Latvia, Lithuania, Maldives, Philippines, P.R. China, Rumania, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Vietnam

A.E.M.S.

Advanced Equipment Materials and Systems
P.O. Box 25
Föhrenweg 18
FL-9496 Balzers
telephone +423 / 380 0550
telefax +423 / 380 0551

Scope of represented countries

Bahrain, Egypt, Iraq, Iran, Jordan, Kuwait, Lebanon, Lybia, Oman, Pakistan, Saudi-Arabia, Sudan, Syria, Turkey, United Arab Emirates, Yemen

Zentrale/Headquarters

Pfeiffer Vacuum GmbH

Berliner Str. 43
D-35614 Asslar

Telefon 06441/802-0
Telefax 06441/802-202
Hotline 06441/802-333
www.pfeiffer-vacuum.de

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