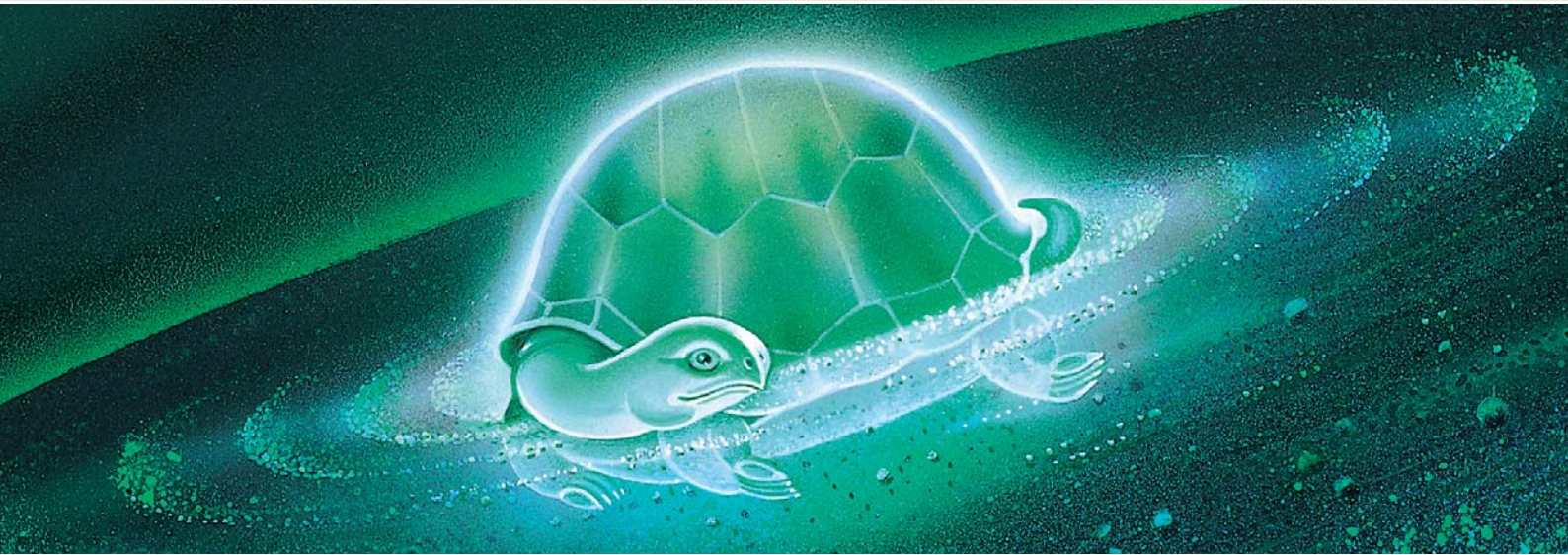
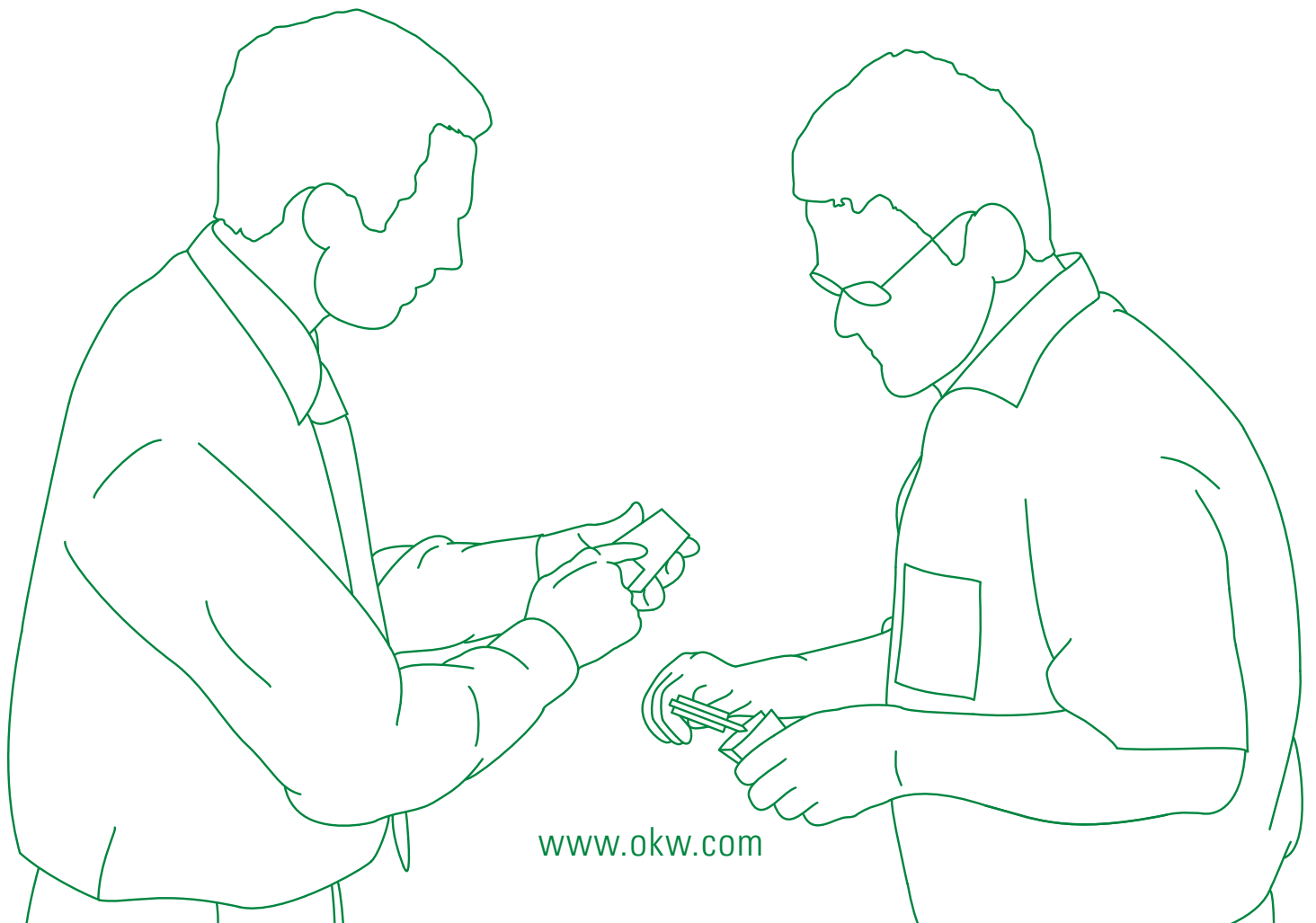
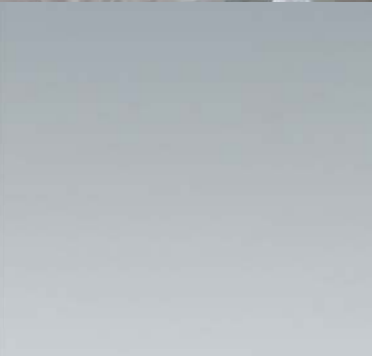


YOUR IDEAS AND VISIONS, REALISED BY US



INDIVIDUAL CASE SOLUTIONS





COMPREHENSIVE RANGE OF SERVICES FROM THE SPECIALIST

MODIFIED STANDARD

Look at our comprehensive standard range and select the case that matches your product ideas, your components and the needs of your customer best.

In the next step you merely have to tell us what you still need for your own very personal product. Together with you we choose the necessary modifications from our wide range of services - ideal in terms of price, quality and delivery time – to meet your specific requirements.

TAILOR-MADE CUSTOMER DESIGN

And what if your requirements go beyond our standard services? No problem. 35 years of experience in the development of cases are only waiting to help you realise your own individual solution.

From development to series-type production, we can offer the solution you need, for any quantity.

Modifications (page 4-7)

- Special material and colour
- EMC (ALVACOAT® 250/500/750)
- Mechanical processing
- Surface finishing
- Silk-screen/Tampo printing
- Digital printing
- Decorative foils
- Sales wrapping
- Membrane keyboard
- Assembly

Customer design (page 8-11)

- Prototyping
- Vacuum casting
- Milling and bending technology and milling technology
- Thermoforming – deep drawing technology
- Tool inserts for standard cases
- Tool inserts in basic moulds for customer designs
- Small series tools
- Complete tools

QUALITY FROM A SINGLE SOURCE

YOUR COMPETENT PARTNER

One supplier with a global logistics system for the complete electronic packaging module. All you have to do is to install the electronics in the case.

We have detailed product information and CAD drawings in 2D and 3D format for your ideas, ready to download.

In 3 working days at the latest you can have your own personal sample, which you can verify your own ideas with.

HIGHEST QUALITY STANDARDS

Our experienced staff can reproduce your product 100 percent according to your original sample, even after years, with the help of the latest CAD/CAM systems.

Since 1995 we have been certified according to DIN EN ISO 9001 and 14001 (DQS) as well as UL 746 C for the ALVACOAT®-method. Thus documentation of the highest standard can be taken for granted.

With our cases, we attach the greatest importance to the surface finish – whether demoulded or mechanically reworked.



SPECIAL MATERIALS

INDIVIDUAL PRODUCTION

In case of special properties of the parts like chemical resistance, flame-resistance or colouring, we also manufacture the cases in different materials and colours.

Individual production, from 1 pc. The production of almost all product groups in specific materials (ABS in special colours, ABS V-0/Cycoloy V-0 in off-white/black) is now also possible from quantities of just 1 piece.



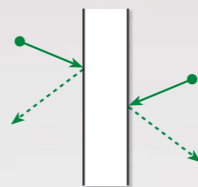
New materials

- Bioplastic – from renewable raw materials
- Antimicrobial plastic for sterile plastic surfaces – permanent protection against bacteria, viruses and fungi



Shielding effect

The aluminium coating is applied in a vacuum and, with a thickness starting from approx. 2.5 µm, guarantees good adhesion and a shielding effect of < 30-40 dB in the frequency range from 30 to 1,000 MHz.



PROTECTION FROM RADIATION

EMC

The vapour-plating system at OKW has been specially adapted to meet EMC requirements. The ALVACOAT® method is ideally suited to shielding electronic equipment against radiation from outside as well as from increased internal emission noise.

The control of the thickness of the coating makes it possible to meet individual requirements. Coating of other materials on request.



ALVACOAT® metallization services is a registered trademark of Odenwälder Kunststoffwerke Gehäusesysteme GmbH

MODIFICATIONS



THE RIGHT RECESSES

MECHANICAL PROCESSING

We can fulfil your processing wishes quickly and cheaply.

State-of-the art machines guarantee high and uniform quality.

Prototypes are available within 24 hours.



Services

- Drilling
- Tapping
- Threading
- Milling
- Punching



Services

- Standard colours, from matt to glossy
- Metallic colours
- Soft-Touch
- ESD paint
- Water transfer printing
- Antibacterial paint

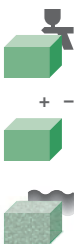
GREAT-LOOKING EFFECTS

SURFACE FINISHING

Do you want your enclosure to have a special colour or an unusual surface finish? No problem!

We can paint it at a reasonable price with high-grade, UV-resistant 2-component paints.

Short preparation/processing times, since all paints are produced using our own paint mixing plant.



MODIFICATIONS



INDIVIDUAL PRINTING



SILK-SCREEN/TAMPO PRINTING

Depending on the required printed image and the enclosure type, we choose the most suitable printing process together with you.

A special feature: all-round printing, printing of foils e.g.



Printing inks

Colour definition according to sample, range of dyes, RAL, Pantone or NCS possible.



Printing directly on the case

Digital printing directly on the case also makes a great impression. We can print ABS surfaces with differences in height of up to 2.5 mm – straight, convex and also concave.

MODIFICATIONS



PRINTING IN PHOTO QUALITY

DIGITAL PRINTING

The digital printing process (photo quality) allows different design versions without big expenses.

Decorative foils or sales packaging can be printed even for just 1 unit for lettering and for adding colour, and products can even be printed directly.

Special features: consecutive numbering, barcodes or price specifications.



MEMBRANE KEYBOARD

Use our potential for the production of your membrane keyboards as well.

Through our cooperation with powerful partners, we are in a position to offer you a complete range, e.g. for remote controls, machine control systems, medical equipment (disinfected applications), electrical household appliances and peripheral equipment etc.



Technology

- Keyboard Design without metal dome
- Keyboard Design with tactile feedback using metal domes.
- Also with integrated LEDs

MODIFICATIONS



FULL ASSEMBLY OF THE DEVICE

ASSEMBLY

We will carry out mounting and assembling to complete your device e.g. mounting of cable glands and display windows, supply and mounting of threaded bushes or bolts, conductive gaskets, battery clips, membrane keyboards or decorative foils e.g.

Of course, you can also provide us with your own components or keyboards for the assembly process.





Combination of standard base and prototype 1



Top part and bottom part made of wood 3



Milled parts made of a combination of aluminium/plastic 3



Covers with coating 4



New top part and optical fibres 6



Special designs in accordance with standard housing design 7



Customer design 8



YOUR IDEAS AND VISIONS REALISED BY US

COMPREHENSIVE TECHNOLOGY PORTFOLIO



TAILOR-MADE INDIVIDUALITY

We are pleased to pass on to you our years of experience in the development and manufacture of plastic cases, for all the requirements to be met by a case which cannot always be implemented in one standard product. You should therefore make use of our potential for your individual case.

TAILORED SOLUTIONS

Through the combination with standard parts, you benefit from the attractive relationship between investment and use. From development to series-type production, we can offer you the solution you need, for any quantity.

Milling and bending technology and milling technology

The bending process also takes account into the thermo-elastic properties of the plastics. The plastic plates are first milled and then bent into the required shape.

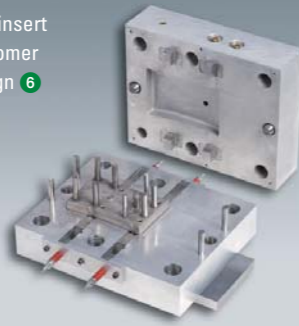
Milled parts are produced from panels or block material (aluminium, plastic or wood) using CNC technology. The combination of different materials is of particular interest.

Tool inserts in basic moulds for customer designs

Here, changeable inserts made of aluminium or steel are mounted in the existing basic OKW moulds for the case form that is to be created. Thanks to a cooling system which is integrated in the basic mould body, which does not need to be changed and which does not have to be mounted in the changeable insert, the cases can be produced at short notice and on reasonable terms.

TECHNOLOGIES	POSSIBLE TOTAL PRODUCTION
1 Prototyping	Single units, design samples
2 Vacuum casting	For pilot series and small series
3 Milling and bending technology and milling technology	Series up to 200 units
4 Thermoforming – deep drawing technology	Series up to 1,000 units
5 Tool inserts for standard cases	Series up to 10,000 units
6 Tool inserts in basic moulds for customer designs	Series from 15,000 to 50,000 units
7 Small series tools	Series from 1 to 25,000 units
8 Complete tools	Series from 50,000 to 250,000 units & more

Tool insert customer design 6



Customer-specific top/bottom parts 6



Additional illumination plate 6



STL prototype 1 and part 7 with double injection technique



Metal plate with TPE-plastic casing 7



Customer design 8



CONCEPT & DEVELOPMENT

1. PROJECT PHASE

On the basis of your requirements profile, we can work out a conceptual solution to meet your product requirements.



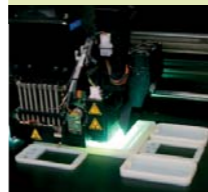
Your advantage

Whether it is a question of product concept, material specifications, optimum tooling design, high quality surface finish etc., we have the technical competence for complete solution.

PROTOTYPING

2. PROJECT PHASE

Before implementing an individual case solution, we offer you the opportunity to create a prototype. We can produce your prototype fast and cost-effective on our own 3-D-printer.



Your advantage

On the basis of the prototype, you can check integrated components, evaluate the design and in some cases even carry out functional tests.

IMPLEMENTATION

3. PROJECT PHASE

After the design has been approved, we implement the concept by creating the moulds, tool inserts and equipment.



Your advantage

Cost-effective solutions to meet your needs, for example the creation of interchangeable inserts in OKW's own standard moulds, reduce your investment to the minimum.

SERIES-TYPE PRODUCTION

4. PROJECT PHASE

For the series-type production of your individual case solution, modern machine facilities are available.



Your advantage

Besides straight injection moulding production, we can also finish your individual product to your own specifications in our Service Centre.

See also pages 4-7.

A Austria

Ineltro Halmer Electronics GmbH
 Lamezanstr. 10
 1230 Wien
 Tel. (1) 610 62-0
 E-Mail info@ineltro.at
 Web www.ineltro.at

AUS Australia

Soanar Pty Ltd
 39 Hewish Road
 Croydon, Victoria 3136
 Tel. 61 3 9724 0888
 E-Mail okw@soanar.com
 Web www.soanar.com

B Belgium

Telerex N.V.
 Bisschoppenhoflaan 255
 2100 Antwerpen
 Tel. (03) 3 26 40 00
 E-Mail info@telereurope.com
 Web www.telereurope.com

BD Bangladesh

Schurter Electronics (India) Pvt. Ltd.
 EPIP Plot# E-59, 60, 61, EPIP Zone, GIDC,
 Manjusar - 391 775
 Vadodara Savli Road, District-Vadodara
 Gujarat
 Tel. 91 2667 26 47 53 / 4
 E-Mail sales@schurter.co.in
 Web www.schurter.co.in

BG Bulgaria

K1 Electronics Ltd.
 55B, Layosh Koshut Str.
 1606 Sofia
 Tel. (2) 9 53 15 50
 E-Mail office@k1-bg.com
 Web www.k1-bg.com

BR Brazil

sob
 Schurter + OKW do Brasil
 Componentes Eletrônicos Ltda.
 Rua Novo Cancioneiro, 93 - Brooklin
 São Paulo - SP - CEP 04704-080
 Tel. 11 50 90 00 30
 E-Mail info@sob-brasil.com
 Web www.sob-brasil.com

BY Belarus

Components & Systems Ltd.
 M. Tank Street, 2, of. 1
 220004 Minsk
 Tel. (017) 3 06 32 35
 E-Mail hand@composyst.ru
 Web www.composyst.ru

CDN Canada

OKW Enclosures Inc.
 3000 Old Pond Road
 Bridgeville PA 15017
 Tel. (800) 9 65 98 72
 E-Mail sales@okwenclosures.com
 Web www.okwenclosures.com

CH Switzerland

okatron AG
 Altgraben 31
 4624 Härkingen
 Tel. 062 3 98 44 11
 E-Mail info@okatron.ch
 Web www.okatron.ch

CN China

Phoeni-tech Industry & Trading
 (Shanghai) Co. Ltd.
 Jiao Zhou Rd. 728
 Jiao Zhou Mansion Rm No. 0301
 200040 Shanghai CN
 Tel. 21 62 98 87 20 / 62 98 61 86
 E-Mail phoenitech@online.sh.cn

CZ Czech Republic

okatec spol. s r.o.
 Zámecká 193
 564 01 Žamberk
 Tel. 465 61 80 61
 E-Mail info@okatec.cz
 Web www.okatec.cz

D Germany

ORCA Gehäusestechnik GmbH
 Vertriebsgesellschaft Deutschland Nord
 Kreuzbreite 2
 31737 Rinteln
 Tel. (0 57 51) 890 99 0
 E-Mail info@orcanord.de
 Web www.orca-gehaeuse.com

ORCA Gehäusestechnik GmbH
 Vertriebsgesellschaft Deutschland Süd
 Friedrich-List-Str. 7
 74722 Buchen
 Tel. (0 62 81) 56 23 0
 E-Mail info@orca-gehaeuse.com
 Web www.orca-gehaeuse.com

okw Kunststofftechnik GmbH
 Vertriebsgesellschaft Deutschland Ost
 Karlsbader Str. 5
 09456 Annaberg-Buchholz
 Tel. (0 37 33) 67 69 0
 E-Mail info@okw-kunststofftechnik.de
 Web www.okw-kunststofftechnik.de

DK Denmark

Thorkild Larsen A/S
 Fabriksvangen 17
 3550 Slangerup
 Tel. 48 18 66 66
 E-Mail vg@thorkild-larsen.dk
 Web www.thorkild-larsen.dk

E Spain

Cenvalsa
 Ulises, n° 104
 28043 Madrid
 Tel. (91) 7 21 60 12
 E-Mail sismecanic@cenval.es
 Web www.cenval.es

EST Estonia

Elke Sensor LLC
 Elektroni t. 8-60
 11316 Tallinn
 Tel. 372 655 40 06
 E-Mail info@elkesensor.ee
 Web www.elkesensor.ee

F France

okatron sas
 ZAC Paris Nord 2, B.P. 69038
 22, avenue des Nations
 95971 Roissy CDG Cedex
 Tel. 01 48 63 28 48
 E-Mail okatron@okatron.fr
 Web www.okatron.fr

G Greece

okatron sas
 Agence Sud-Est
 Villa Mercedes - Bât. C
 153, route de Vourles
 69230 Saint-Genis-Laval
 Tel. 04 78 56 80 00

FIN Finland

Noretron Komponentit Oy
 PL 22 (Mankkaantie 32)
 02631 Espoo
 Tel. 010 5 25 80 00
 E-Mail komponentit@noretron.fi
 Web www.noretron.fi

GR Greece

MAR Electronics
 10, Salaminos Str.
 54625 Thessaloniki
 Tel. (2310) 53 26 58
 E-Mail info@marelectronics.gr
 Web www.marelectronics.gr

H Hungary

INNOMED Medical zrt.
 Szabó József u. 12
 1146 Budapest
 Tel. 460-9212
 E-Mail innomed@innomed.hu
 Web www.innomed.hu

I Italy

Alhof di A. Hofmann SPA
 Via Melegnano 20
 20019 Settimo Milanese MI
 Tel. (02) 28 50 08 1
 E-Mail alhof@alhof.com
 Web www.alhof.com

IL Israel

Ambi-Tech Electronics
 20 Ta'as st. „Beit hapa'amon“
 industrial area, Kfar-Saba
 P.O. Box 50
 Kfar-Saba 44425
 Tel. 972-9-76 77 500
 E-Mail pweiss@netvision.net.il
 Web www.pweiss.co.il

IND India

Schurter Electronics (India) Pvt. Ltd.
 EPIP Plot# E-59, 60, 61, EPIP Zone, GIDC,
 Manjusar - 391 775
 Vadodara Savli Road, District-Vadodara
 Gujarat
 Tel. 91 2667 26 47 53 / 4
 E-Mail sales@schurter.co.in
 Web www.schurter.co.in

IRL Ireland

OKW Enclosures Ltd.
 15 Brunel Way
 Segensworth East
 Fareham, PO15 5TX
 Tel. (0 14 89) 58 38 58
 E-Mail sales@okw.co.uk
 Web www.okw.co.uk

J Japan

Settsu Metal
 Industrial Co., Ltd.
 4-1-26, Yagumonishi, Moriguchi
 Osaka 570-0006
 Tel. 06-69 92-23 31
 E-Mail eigyou@settsu.co.jp
 Web www.settsu.co.jp

KSA Kingdom Saudi Arabia

Schurter Electronics (India) Pvt. Ltd.
 EPIP Plot# E-59, 60, 61, EPIP Zone, GIDC,
 Manjusar - 391 775
 Vadodara Savli Road, District-Vadodara
 Gujarat
 Tel. 91 2667 26 47 53 / 4
 E-Mail sales@schurter.co.in
 Web www.schurter.co.in

LK Sri Lanka

Schurter Electronics (India) Pvt. Ltd.
 EPIP Plot# E-59, 60, 61, EPIP Zone, GIDC,
 Manjusar - 391 775
 Vadodara Savli Road, District-Vadodara
 Gujarat
 Tel. 91 2667 26 47 53 / 4
 E-Mail sales@schurter.co.in
 Web www.schurter.co.in

LT Lithuania

JML GROUP UAB
 NAUGARDUKO 91-108
 03202 Vilnius
 Tel. +370 52 13 36 03
 E-Mail info@jml-group.lt
 Web www.jml-group.lt

MAL Malaysia

Camwell Industries Pte. Ltd.
 59 Ubi Avenue 1
 #05-08 Bizlink Centre
 Singapore 408938
 Tel. (65) 67 41 32 33
 E-Mail sales@camwell.com.sg
 Web www.camwell.com.sg

N Norway

Freber Elektronik AS
 Box 3583
 3007 Drammen
 Tel. 32 20 88 20
 E-Mail mailbox@freber.no
 Web www.freber.no

NL Netherlands

Telerex Nederland B.V.
 Postbus 6852
 4802 HW Breda
 Tel. (0 76) 5 78 20 00
 E-Mail info@telereurope.com
 Web www.telereurope.com

NZ New Zealand

Soanar (New Zealand) Pty Ltd
 16-18 Fisher Crescent
 Mt Wellington, Auckland 1060
 Tel. 64 9 258 5133
 E-Mail okw@soanar.com
 Web www.soanar.com

P Portugal

Niposom - J. Nabais LDA
 Rua Humberto Cruz, 4
 1900-260 Lisboa
 Tel. 351-21-844 02 00
 E-Mail smsantos.gp@niposom.com
 Web www.niposom.pt

PL Poland

LC Elektronik
 UL. PULKOWA 58
 01-969 Warszawa
 Tel. (22) 569 53 00
 E-Mail lcel@lcel.com.pl
 Web www.lcel.com.pl

RI Indonesia

Camwell Industries Pte. Ltd.
 59 Ubi Avenue 1
 #05-08 Bizlink Centre
 Singapore 408938
 Tel. (65) 67 41 32 33
 E-Mail sales@camwell.com.sg
 Web www.camwell.com.sg

RO Romania

SC EEE S.A.
 Bv. Industriilor Nr. 4
 300714 Timisoara
 Tel. (0) 256 29 16 61
 E-Mail ee@eee.ro
 Web www.eee.ro

ROK South Korea

Zoontech Enclosuresystem Co.
 # 4525, Ma-dong
 Joongang Circulation Complex
 1258, Kurobon-don
 Kuro-ku, Seoul
 Tel. (82) 2 2060 8125
 E-Mail jschoi@zoontech.com
 Web www.zoontech.com

RU Russia

EFO Ltd.
 Politechnicheskaja, 21
 St. Petersburg, 194021
 Tel. (8 12) 3 31 09 64
 E-Mail eve@efo.ru
 Web www.korpusa.ru
 www.okw.ru

S Sweden

Swetouch AB
 Dalagatan 12
 57342 Tranås
 Tel. (0) 140 77 33 80
 E-Mail patrik@swetouch.se
 Web www.swetouch.se
 Elfa AB
 Elektronikhöjden 14
 17580 Järfälla
 Tel. (08) 58 09 41 00
 E-Mail order@elfa.se
 Web www.elfa.se

SRB Serbia

TAGOR Electronic d.o.o.
 Tihomira Brankovica 21
 18000 Niš
 Tel. 381 18 575 545
 E-Mail okw@tagor.rs
 Web www.tagor.rs

SGP Singapore

Camwell Industries Pte. Ltd.
 59 Ubi Avenue 1
 #05-08 Bizlink Centre
 Singapore 408938
 Tel. (65) 67 41 32 33
 E-Mail sales@camwell.com.sg
 Web www.camwell.com.sg

SK Slovakian Republic

okatec spol. s r.o.
 Zámecká 193
 564 01 Žamberk
 Tel. 465 61 80 61
 E-Mail info@okatec.cz
 Web www.okatec.cz

SLO Slovenia

Wilsonic d.o.o.
 Verje 28b
 1215 Medvode
 Tel. 386-1-3611278
 E-Mail sonja@wilsonic.si
 Web www.wilsonic.si

TH Thailand

Camwell Industries Pte. Ltd.
 59 Ubi Avenue 1
 #05-08 Bizlink Centre
 Singapore 408938
 Tel. (65) 67 41 32 33
 E-Mail sales@camwell.com.sg
 Web www.camwell.com.sg

TR Turkey

Spektrum Elektronik
 Salih Omurtak Cad No 65 Kosuyolu
 34718 Istanbul
 Tel. (216) 4 28 45 45
 E-Mail contact@spektrumelektronik.com
 Web www.spektrumelektronik.com

TW Taiwan

MechaTronix Kaohsiung Co. Ltd.
 4F, No. 308, Bade 1st Rd.
 Sinsin district, Kaohsiung 800
 Tel. +886-7-238-2185
 E-Mail annie@mechatronix-asia.com
 Web www.mechatronix-asia.com

UA Ukraine

Biakom Ltd.
 95-C, Vidradny Prospect
 03061 Kiev
 Tel./Fax +38 (044) 507-02-03
 mob. +38-068-128-7164
 E-Mail oxana.novikova@biakom.kiev.ua
 Web www.biakom.com

UAE United Arab Emirates

Schurter Electronics (India) Pvt. Ltd.
 EPIP Plot# E-59, 60, 61, EPIP Zone, GIDC,
 Manjusar - 391 775
 Vadodara Savli Road, District-Vadodara
 Gujarat
 Tel. 91 2667 26 47 53 / 4
 E-Mail sales@schurter.co.in
 Web www.schurter.co.in

UK United Kingdom

OKW Enclosures Ltd.
 15 Brunel Way
 Segensworth East
 Fareham, PO15 5TX
 Tel. (0 14 89) 58 38 58
 E-Mail sales@okw.co.uk
 Web www.okw.co.uk

USA United States of America

OKW Enclosures Inc.
 3000 Old Pond Road
 Bridgeville PA 15017
 Tel. (800) 9 65 98 72
 E-Mail sales@okwenclosures.com
 Web www.okwenclosures.com

VN Vietnam

Camwell Industries Pte. Ltd.
 59 Ubi Avenue 1
 #05-08 Bizlink Centre
 Singapore 408938
 Tel. (65) 67 41 32 33
 E-Mail sales@camwell.com.sg
 Web www.camwell.com.sg

ZA South Africa

Avnet Kopp (Pty) Ltd.
 P.O. Box 3853
 Rivonia 2128
 Tel. (0) 11 8 09 61 00
 E-Mail sales@avnet.co.za
 Web www.avnet.co.za

Manufacturer

Odenwälder Kunststoffwerke
 Gehäusesysteme GmbH
 Friedrich-List-Str. 3
 74722 Buchen/Germany
 www.okw.com

Sales Germany

Tel. +49 (0) 62 81 / 4 04-128
 Fax +49 (0) 62 81 / 4 04-144
 E-Mail InfoOG@okw.com

Sales Export

Tel. +49 (0) 62 81 / 4 04-165
 Fax +49 (0) 62 81 / 4 04-144
 E-Mail DittmannD@okw.com

