



Addendum to the Operating Instructions



MOVIPRO® Drive and Application Controller
REC5 Radio Modem



Contents

1 General information..... 4

 1.1 Other applicable documentation 4

 1.2 Further information..... 4

2 Properties 5

 2.1 Functional description 5

 2.2 Coding..... 5

 2.3 Antenna connection operating modes 6

3 Antenna connections 7

4 Antennas 8

5 Technical data 9

 5.1 General information 9

 5.2 Power rating and channels 10

 5.3 Factory settings..... 11

6 Certifications 12

 6.1 Europe 12

 6.2 Brazil 14

 6.3 China..... 17

 6.4 USA/Canada 19

 6.5 India 24

 6.6 Mexico..... 26

 6.7 Thailand 27

7 MAXOLUTION® Competence Center 28

8 Address list 30

Index 41

1 General information

1.1 Other applicable documentation

The functions of the device depend on the characteristics of the MOVIPRO® drive and application controller with which the device is operated.

If the MOVIPRO® drive and application controller has the function W4 = WLAN/TCP + UDP, you can use the device.

In addition to this documentation, observe the operating instructions as well as all other applicable documentation of the respective MOVIPRO® drive and application controller.

1.2 Further information

For additional information about the antennas in different areas of application, refer to the following documentation:

- WNI Wireless Network Installation Compact Slotted Waveguide System
- WNI Wireless Network Installation Standard Slotted Waveguide System
- Wireless Network Installation WNI-EMS – EMS Support Rail with Integrated Slotted Waveguide
- MOVIPRO® Communication Material

2 Properties

2.1 Functional description

The MOVIPRO® unit has a "Radio Ethernet Client 5 GHz" (REC5) radio modem for connection to a wireless infrastructure network. It can be used for the frequency blocks 2.4 GHz (IEEE 802.11b/g) and 5 GHz (IEEE 802.11a).

The radio connection is designed for communication with the higher-level controller. The MOVIPRO® unit is accessible as a terminal in the network.

The radio modem has a wireless Ethernet bridge. For communication on the MAC level, you can only connect one Ethernet station. You have to enter the MAC address of this station in the bridge configuration. MOVIPRO® units that are equipped with SEWOS operating systems do this automatically.

Before the first logon to an access point and during the handover process, the radio modem is searching for a suitable access point according to the user configuration. This is called the "probing phase".

The handover probing phase starts when the signal level of the radio modem falls below a certain value (cell search threshold). When the signal level of the found access point is higher than the signal level of the current access point by a certain value (delta SNR), the radio modem logs on to the new access point (association/authentication/4-way handshake for WPA2-PSK). Process data communication is not possible during the probing and logon phase. The probing phase can be shortened by limiting the available channels according to the regulatory domain to the channels that exist in the plant.

Depending on the application requirements, the radio modem can be equipped with 1 or 2 wireless cards.

In one-card operation, the one card performs the entire probing with subsequent logon phase and process data communication.

In two-card operation, the secondary card performs the probing. The primary card only handles logon and process data communication. This omits the latency periods in process data communication that result from the probing phases.

Two antennas are connected to a wireless card. The connections are designated as X4211 (WLAN antenna (main)) and X4261 (WLAN antenna (aux)). If the radio modem is equipped with two wireless cards, the logon phase and process data communication are handled via connections X4211_1 and X4261_1. Connections X4211_2 and X4261_2 of the second card are used for the probing phase.

INFORMATION



When the unit is delivered, only the primary card is active, even though both cards are installed physically. The second card can be activated via the user configuration.

INFORMATION



Operation of the MOVIPRO® unit with radio modem is only permitted indoors.

2.2 Coding

The following encryption methods are supported:

- **Wired Equivalent Privacy (WEP)**
 - Key length 64 and 128 bit

- Open system authentication
- Shared key authentication
- **Wi-Fi Protected Access (WPA, WPA2)**
Authentication is with PSK (pre-shared key).

The recommended encryption method is WPA2-AES-PSK. Encryption methods that use a radius server are not supported due to their long latency periods during logon and handover.

2.3 Antenna connection operating modes

You can set the following operating modes for the antenna connections at the radio modem:

- **Mode 1: MAIN/AUX diversity** (reception diversity)
WLAN antenna (MAIN): Send and receive mode
WLAN antenna (AUX): Receive mode only
- **Mode 2: Diversity TX/AUX** (reception diversity)
WLAN antenna (MAIN): Receive mode only
WLAN antenna (AUX): Send and receive mode
- **Mode 3: AUTO RX/TX** (transmit and reception diversity)
WLAN antenna (MAIN): Send and receive mode
WLAN antenna (AUX): Send and receive mode
- **Mode 4: MAIN antenna**
WLAN antenna (MAIN): Send and receive mode
WLAN antenna (AUX): No function
- **Mode 5: AUX antenna**
WLAN antenna (MAIN): No function
WLAN antenna (AUX): Send and receive mode

INFORMATION



When 2 wireless cards are active, the operating modes apply to both cards.

3 Antenna connections



NOTICE

Damage to the radio modem due to missing antennas or terminating resistors.

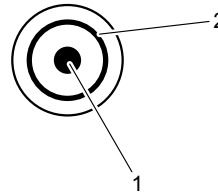
Damage to the radio modem.

- Connect a 50 Ω terminating resistor to those antenna ports that are not in use.

Two antennas are connected to a wireless card. The connections are designated as X4211 (WLAN antenna (main)) and X4261 (WLAN antenna (aux)).

If the radio modem is equipped with two wireless cards, the logon phase and process data communication are handled via connections X4211_1 and X4261_1. Connections X4211_2 and X4261_2 of the second card are used for the probing phase.

All antenna connections are designed as R-TNC socket and based on the following principle:



1: Inner conductor

2: Outer conductor

A 50 Ω terminating resistor for unused antenna terminals can be ordered from SEW-EURODRIVE with the part number 19069146.

4 Antennas

You can connect different antennas to the radio modem. In some regions, only specific antenna types are permitted.

The following table lists all antennas available from SEW-EURODRIVE that can be used with the radio modem:

| Antenna | for use with | Part number |
|---------------------------------------|-------------------|-------------|
| Near field coupler 2.4 GHz | Radiating cable | 13003356 |
| Near field coupler 5 GHz | Radiating cable | 18231942 |
| Vehicle coupler 2.4 GHz ¹⁾ | Slotted waveguide | 18244327 |
| Vehicle coupler 5 GHz | Slotted waveguide | 18235840 |

1) This antenna is not permitted in Canada and the USA.

The radio modem may not be operated with other, non-listed antennas.

5 Technical data

5.1 General information

The unit has the following technical data:

| General information | |
|----------------------------|--------------|
| Max. permitted input power | -25 dBm |
| Max. shown input power | -35 dBm |
| Impedance | 50 Ω |
| Connections | R-TNC socket |

| Modulation types | | | | | |
|------------------|------------|---------|--------------|------------|---------|
| IEEE 802.11b/g | | | IEEE 802.11a | | |
| Data rate | Modulation | Mode | Data rate | Modulation | Mode |
| 54/48 Mbps | 64-QAM | 802.11g | 54/48 Mbps | 64-QAM | 802.11a |
| 36/24 Mbps | 16-QAM | 802.11g | 36/24 Mbps | 16-QAM | 802.11a |
| 18/12 Mbps | QPSK | 802.11g | 18/12 Mbps | QPSK | 802.11a |
| 9/6 Mbps | BPSK | 802.11g | 9/6 Mbps | BPSK | 802.11a |
| 11/5.5 Mbps | CCK | 802.11b | – | – | – |
| 2 Mbps | DQPSK | 802.11b | – | – | – |
| 1 Mbps | DQPSK | 802.11b | – | – | – |

| Typ. receiver sensitivity | | | |
|---------------------------|-------------|--------------|-------------|
| IEEE 802.11b/g | | IEEE 802.11a | |
| Data rate | Sensitivity | Data rate | Sensitivity |
| 54 Mbps | -74 dBm | 54 Mbps | -72 dBm |
| 48 Mbps | -76 dBm | 48 Mbps | -76 dBm |
| 36 Mbps | -80 dBm | 36 Mbps | -82 dBm |
| 24 Mbps | -84 dBm | 24 Mbps | -85 dBm |
| 18 Mbps | -87 dBm | 18 Mbps | -88 dBm |
| 12 Mbps | -89 dBm | 12 Mbps | -90 dBm |
| 11 Mbps | -88 dBm | 9 Mbps | -90 dBm |
| 9 Mbps | -90 dBm | 6 Mbps | -91 dBm |
| 6 Mbps | -91 dBm | – | – |
| 2 Mbps | -93 dBm | – | – |
| 1 Mbps | -97 dBm | – | – |

5.2 Power rating and channels

The unit is supplied with the following output power and channels for various regions:

| Region | 802.11 standard | Typ. output power | Available channels | DFS | TPC |
|---|---------------------------------------|-------------------|--|--------|-----|
| China | IEEE 802.11b/g 2400.0 – 2483.5 MHz | 15 dBm | 1 – 13 | – | – |
| | IEEE 802.11a 5725 – 5825 MHz | 15 dBm | 149, 153, 157, 161, 165 | No | Yes |
| Europe Brazil India Mexico Thailand | IEEE 802.11b/g 2400.0 – 2483.5 MHz | 15 dBm | 1 – 13 | – | – |
| | IEEE 802.11a 5150 – 5250 MHz | 15 dBm | 36, 40, 44, 48 | No | Yes |
| Europe DFS | IEEE 802.11b/g 2400 – 2483.5 MHz | 15 dBm | 1 – 13 | – | – |
| | IEEE 802.11a 5150 – 5250 MHz | 15 dBm | 36, 40, 44, 48 | Yes | Yes |
| | IEEE 802.11a 5250 – 5350 MHz | | 52, 56, 60, 64 | Yes | Yes |
| | IEEE 802.11a 5470 – 5725 MHz | | 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140 | Yes | Yes |
| Canada USA | IEEE 802.11b/g 2400.0 – 2483.5 MHz | | 15 dBm | 1 – 11 | – |
| | IEEE 802.11a 5150 – 5250 MHz | 15 dBm | 36, 40, 44, 48 | No | Yes |

5.3 Factory settings

The unit is supplied with the following factory settings:

| Setting | Value |
|-----------------------|--|
| IP address | 192.168.1.100 |
| Subnet mask | 255.255.255.0 |
| Gateway address | 192.168.1.2 |
| Device name | SEW wlanBridge |
| Network specification | 802.11b/g |
| Radio channels | 802.11b/g: 1 – 11, 1 – 13 The available channels depend on the region in which the radio modem is operated (regulatory domain). |
| SSID | SEW |
| Network mode | Infrastructure |
| Coding | No encryption |
| Run mode | Mode 1: MAIN/AUX diversity (reception diversity) |
| User name | sew |
| Password | sew |

Upon delivery, those channels are activated that are listed in chapter "Power rating and channels" (→ 10) for the preset region.

6 Certifications

INFORMATION

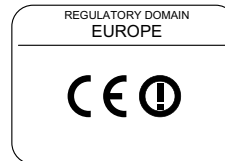


The unit may not be operated outside the preset regulatory domain.

The preset regulatory domain is indicated with a sticker on the MOVIPRO® unit.

6.1 Europe

The following label is attached to the MOVIPRO® unit:



5622327819

| Country approval | | | |
|------------------|-------|-----------------|-------|
| Country | Label | Country | Label |
| Belgium | CE Ⓢ | The Netherlands | CE Ⓢ |
| Denmark | CE Ⓢ | Norway | CE Ⓢ |
| Germany | CE Ⓢ | Austria | CE Ⓢ |
| Estonia | CE Ⓢ | Poland | CE Ⓢ |
| Finland | CE Ⓢ | Portugal | CE Ⓢ |
| France | CE Ⓢ | Sweden | CE Ⓢ |
| Great Britain | CE Ⓢ | Switzerland | CE Ⓢ |
| Greece | CE Ⓢ | Slovakia | CE Ⓢ |
| Ireland | CE Ⓢ | Slovenia | CE Ⓢ |
| Iceland | CE Ⓢ | Spain | CE Ⓢ |
| Italy | CE Ⓢ | Czech Republic | CE Ⓢ |
| Latvia | CE Ⓢ | Turkey | CE Ⓢ |
| Lithuania | CE Ⓢ | Hungary | CE Ⓢ |
| Luxembourg | CE Ⓢ | Cyprus | CE Ⓢ |
| Malta | CE Ⓢ | | |

Additional national regulations apply for compliance with the R&TTE 1999/05/EC directive.

SEW-EURODRIVE GmbH & Co KG hereby declares that the units of the MOVIPRO® product series are compliant with the basic requirements and other relevant regulations of the 1999/05/EC directive. A copy of the declaration of conformity can be obtained from SEW-EURODRIVE.

22521860/EN – 03/2016

6.1.1 Declaration of conformity

Declaration of Conformity



Translation of the original text

901290111/EN

SEW-EURODRIVE GmbH & Co. KG
Ernst-Blickle-Straße 42, D-76646 Bruchsal

declares under sole responsibility that the following products

| | | |
|--------------------------------------|--|-------------------|
| Communication system | REC5 IP5K basis programmable | (18240461) |
| in connection with | 1 × WLAN card | (17966167) |
| | #MPCI-DCMA-82-MMCX | |
| or | 2 × WLAN card | (17966167) |
| | #MPCI-DCMA-82-MMCX | |
| are in conformity with | | |
| R&TTE directive | 1999/05/EC | 9) |
| EMC Directive | 2004/108/EC (valid until April 19, 2016) | 4) |
| | 2014/30/EU (valid as of April 20, 2016) | 4) |
| | (L 96, 29.03.2014, 79-106) | |
| Low Voltage Directive | 2006/95/EC (valid until April 19, 2016) | |
| | 2014/35/EU (valid as of April 20, 2016) | |
| | (L 96, 29.03.2014, 357-374) | |
| Applied harmonized standards: | EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + | |
| | AC:2011 + A2:2013 | |
| | EN 62311:2008 | |
| | EN 301489-1 V1.9.2 | 6) |
| | EN 301489-17 V2.2.1 | 6) |
| | EN 300328 V1.8.1 | |
| | EN 301893 V1.7.1 | |

- 4) According to the EMC Directive, the listed products are not independently operable products. EMC assessment is only possible after these products have been integrated in an overall system. For the assessment, the product was installed in a typical plant configuration.
- 6) The limit values are met in the MOVIPRO® typical housing.
- 9) As far as the products are covered by this directive in the country of operation.

Bruchsal **24.02.2016**

Place Date

Johann Soder
Managing Director Technology

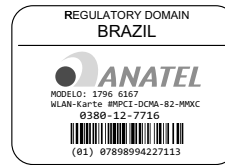
a) b)

- a) Authorized representative for issuing this declaration on behalf of the manufacturer
- b) Authorized representative for compiling the technical documents

22521860/EN – 03/2016

6.2 Brazil

The following label is attached to the MOVIPRO® unit:



5622333579

|  MASTER CERTIFICAÇÕES Organismo de Certificação Designado - OCD - ANATEL Organismo de Certificação de Produtos - OCP - INMETRO | |
|--|---|
| Certificado de Conformidade Técnica - Nº MT-1526/2012 <i>Technical Compliance Certificate</i> | |
| Data de Manutenção / Renewal Date: 03/12/2015 | Validade / Expiry date: 10/02/2018 |
| <p>A Master, organismo designado pela Agência Nacional de Telecomunicações - ANATEL, por intermédio do Ato nº 57.860, de 26 de abril de 2006 e do Termo de Responsabilidade 013/RFGCT/RFCE/SRF de 26/04/2006, certifica que o produto abaixo discriminado está em conformidade com os documentos normativos indicados.</p> | |
| Modelo (s): Model (s): | 1796 6167 WLAN-Karte #MPCI-DCMA-82-MMCX |
| Solicitante: Applicant: | Sew-Eurodrive Brasil Ltda. Av. Amâncio Gaiolli, 152 – Bonsucesso Guarulhos - SP CEP: 07251-250 CNPJ: 50.981.018/0001-90 |
| Produto: Product: | Transceptor de Radiação Restrita Categoria: II |
| Serviço/Aplicação: Service/Application: | Radiocomunicação de Radiação Restrita |
| Fabricante: Manufacturer: | Sew-Eurodrive GmbH & Co., KG. Ernst-Blickle-Strasse 42, Postfach 30 23, D-76642 - Germany! |
| Observações: Remarks: | O produto, objeto deste Certificado, deverá obter a Homologação da Anatel para fins de comercialização e uso e está sujeito à comprovação periódica de que mantém as suas características originalmente certificadas, nos termos da regulamentação. |
| Autenticação: Authentication |  Maristela Rodrigues Bento Presidente da Master / President of Master |
| Master Associação de Avaliação de Conformidade - www.master.org.br Avenida João Baldin, 464 – Parque Tecnológico – Betel – Paulínia/SP – CEP: 13148-195. – Fones: +55 (19) 2121-9946 / +55 (19) 3241-7580 CNPJ 07.832.680/0001-59 - master@master.org.br | |
| Certificado de Conformidade válido somente acompanhado de todas as suas páginas This Compliance Certificate is valid only with all its pages | |
| Rastreabilidade: Processo PMT-2380/11-M2_manutenção 02_es RSQM-DT-090-09-7310_CERT_MASTER_2026_M2 | 1 de 3 |

17479736843



MASTER CERTIFICAÇÕES

Organismo de Certificação Designado - OCD - ANATEL
Organismo de Certificação de Produtos - OCP - INMETRO

Características Técnicas Básicas:
Basic Technical Characteristics:

Módulo transceptor, de uso interno, utilizando tecnologias de Espalhamento Espectral por Sequência Direta - DSSS (Padrão 802.11b) e OFDM (Padrões 802.11a, 802.11g e 802.11g (Turbo Mode)).

| Tecnologias / Faixa de Frequências (MHz) | Potência Máxima de Saída (W) | Designação de Emissões | Técnica de Espalhamento | SAR (W/kg) | | Modulações | Taxas de Transmissão |
|---|------------------------------|------------------------|-------------------------|------------|-------|-----------------------|---|
| | | | | Cabeça | Corpo | | |
| 802.11b (2.4 GHz) 2400,0 – 2483,5 | 0,1754 | 12M7X9D | DSSS | -x- | -x- | CCK/DQPSK/DBPSK | 1 Mbps; 2 Mbps; 5,5 e 11 Mbps |
| 802.11g (2.4 GHz) 2400,0 – 2483,5 | 0,2163 | 17M3X9D | OFDM | -x- | -x- | BPSK/QPSK/16QAM/64QAM | 6 e 9 Mbps; 12 e 18 Mbps; 24 e 36 Mbps; 48 e 54 Mbps |
| 802.11g-Turbo (2.4 GHz) 2400,0 – 2483,5 | 0,2455 | 33M8X9D | OFDM | -x- | -x- | BPSK/QPSK/16QAM/64QAM | 12 Mbps até 108 Mbps |
| 802.11a (5.2 GHz) 5150,0 – 5250,0 | 0,1309 | -x- | OFDM | -x- | -x- | BPSK/QPSK/16QAM/64QAM | 6 e 9 Mbps; 12 e 18 Mbps; 24 e 36 Mbps; 48, 54 Mbps |
| 802.11a (5.8 GHz) 5725,0 – 5850,0 | 0,1905 | 17M4X9D | OFDM | -x- | -x- | BPSK/QPSK/16QAM/64QAM | 6 e 9 Mbps; 12 e 18 Mbps; 24 e 36 Mbps; 48, 54 Mbps |

Os valores de potência para a faixa de 5150,0 – 5250,0 MHz estão em e.i.r.p.

Comentários adicionais:
Additional comments:

Alimentação: N/A.

| Características das Antenas do ESC | | |
|------------------------------------|----------------|-------------|
| Faixa de Frequências (Tx) | Tipo | Ganho (dBi) |
| 2.4 GHz | Externa (Omni) | 5,0 |
| 5.2 GHz | Externa (Omni) | 5,0 |
| 5.8 GHz | Externa (Omni) | 4,5 |

Documentos Normativos:
Technical Standards:

a) Resolução nº 506, de 01/07/2008.

Master Associação de Avaliação de Conformidade - www.master.org.br
Avenida João Baldin, 464 – Parque Tecnológico – Betel – Paulínia/SP – CEP: 13148-195. – Fones: +55 (19) 2121-9946 / +55 (19) 3241-7580
CNPJ 07.832.680/0001-59 - master@master.org.br

Certificado de Conformidade válido somente acompanhado de todas as suas páginas
This Compliance Certificate is valid only with all its pages

Rastreabilidade: Processo PMT-2380/11-M2_manutenção 02_es
RSQM-DT-090-09-7310_CERT_MASTER_2026_M2

2 de 3

17479740427



MASTER CERTIFICAÇÕES

Organismo de Certificação Designado - OCD - ANATEL
Organismo de Certificação de Produtos - OCP - INMETRO

Laboratório (s): IBEC - Instituto Brasileiro de Ensaios de Conformidade Ltda. (www.ibec.com.br)
Laboratory:

Relatório (s): - IBEC 113201, de 24/11/2011.
Test Report:

Unidades Fabris: Não há outras unidades fabris.
Manufacturing Location (s):

Observações:
Remarks:
a) N° de Série: C194828A0022C01.
b) Versão de Software: N/A.
c) **SAR.** Ensaios N/A. Produto não acabado, cuja integração em outros equipamentos pode requerer nova avaliação.
d) Este certificado se refere ao processo de manutenção do produto para o período de 10/02/2016 a 10/02/2018.

Histórico de Revisões:
Revisions:

| Versão | N° Proposta | Data | Observações |
|--------|----------------|------------|---------------|
| 00 | PMT-2380/11-M2 | 02/12/2015 | Manutenção 02 |

Master Associação de Avaliação de Conformidade - www.master.org.br
Avenida João Baldin, 464 – Parque Tecnológico – Betel – Paulínia/SP – CEP: 13148-195. – Fones: +55 (19) 2121-9946 / +55 (19) 3241-7580
CNPJ 07.832.680/0001-59 - master@master.org.br

Certificado de Conformidade válido somente acompanhado de todas as suas páginas
This Compliance Certificate is valid only with all its pages

Rastreabilidade: Processo PMT-2380/11-M2_manutenção 02_es
RSQM-DT-090-09-7310_CERT_MASTER_2026_M2

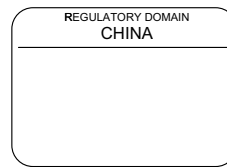
3 de 3

17479744395

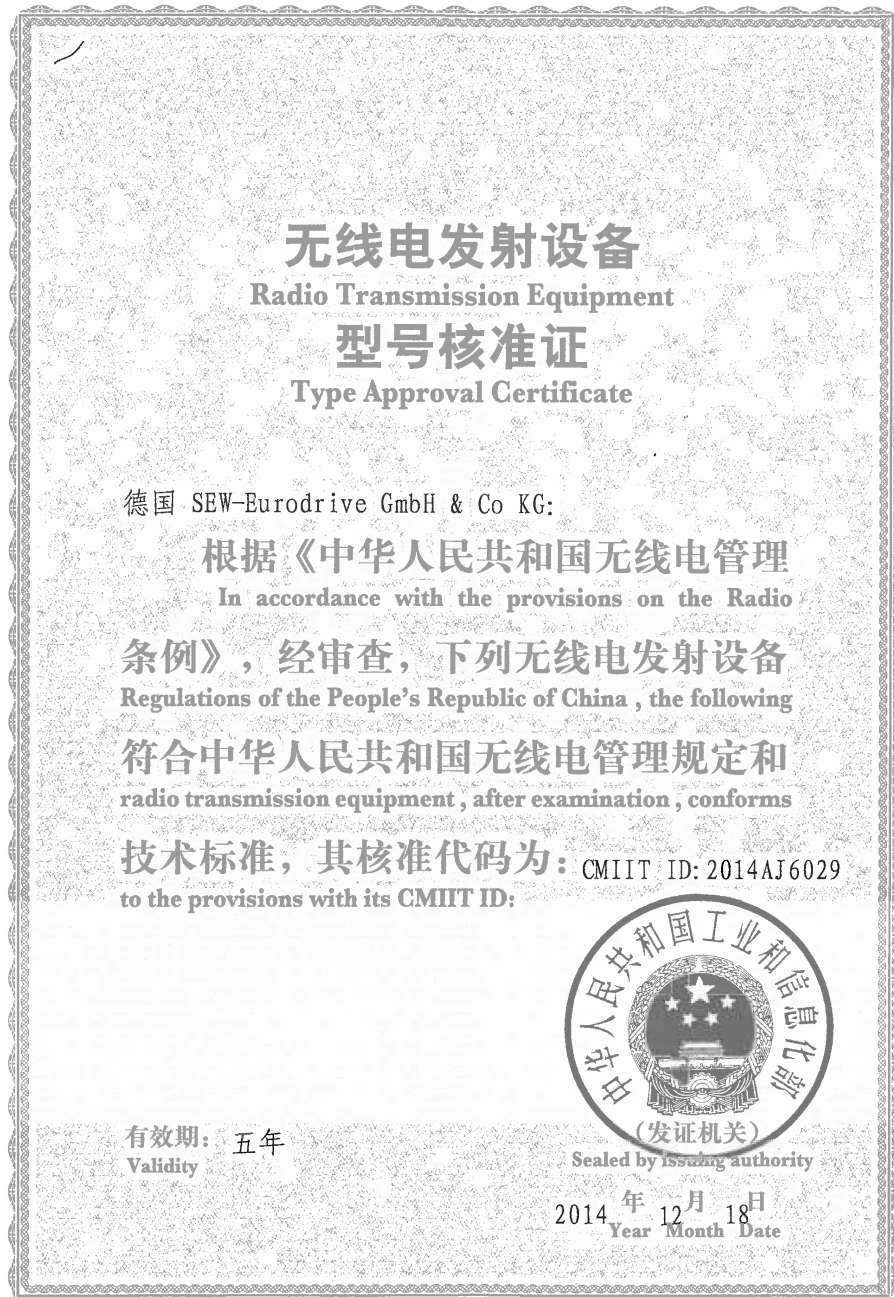
22521860/EN – 03/2016

6.3 China

The following label is attached to the MOVIPRO® unit:




5622331659



9007205000579851

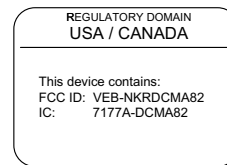
22521860/EN – 03/2016

| | |
|--|---|
| 编号: 2014-6029 | |
| Number | |
| 设备名称: 5.8GHz/5.1GHz/2.4GHz无线局域网设备 | |
| Equipment Name | |
| 设备型号: 18247962 | |
| Equipment Type | |
| 主要功能: 数据传输 | |
| Main Functions | |
| 调制方式: BPSK/QPSK/16QAM/64QAM/DBPSK/DQPSK/CCK | |
| Modulation Mode | |
| 主要技术参数及其指标值: | |
| Main Technical Parameters | |
| 频率范围: 5725-5850MHz 5150-5350MHz 2400-2483.5MHz | |
| Frequency Range | |
| 频率容限: $\leq 20\text{ppm}$ | 发射功率: $\leq 33\text{dBm}$ $\leq 23\text{dBm}$ (EIRP) |
| Frequency Tolerance | Transmitting Power |
| 占用带宽: $\leq 22\text{MHz}$ | 杂散发射限值: $\leq -30\text{dBm}$ |
| Occupied Bandwidth | Spurious Emission Limits |
|  (核发单位章) Sealed by Issuing authority 2014 年 12 月 18 日 Year Month Date | |

9007205000581771

6.4 USA/Canada

The following label is attached to the MOVIPRO® unit:



5622329739

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

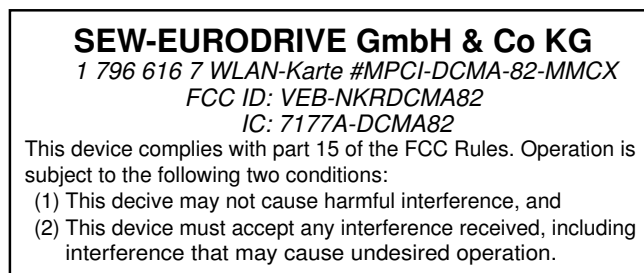
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Antenna:

The end-user product will be professionally installed in such a manner that only the authorized antennas are used.

Caution:

Changes or modifications not expressly approved by SEW-Eurodrive void the user's authority to operate the equipment.



3320545291

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This device has been designed to operate with an antenna having a maximum gain of 6.0dBi. Having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication.

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the Chapter 8: Regulatory information 8.4:

Safety general population; consult Safety Code 6, obtainable from Health Canada's web-site: <http://www.hc-sc.gc.ca/rpb>

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**
Certification
Issued Under the Authority of the
Federal Communications Commission
By:

TCB

PHOENIX TESTLAB GmbH
Koenigswinkel 10
D-32825 Blomberg,
Germany

Date of Grant: 05/20/2011
Application Dated: 05/20/2011

SEWEURODRIVE GmbH & Co KG
Ernst-Blicke-Straße 42
Bruchsal, 76646
Germany

Attention: Joerg Jahn , Head of Quality Management

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: VEB-NKRDCMA82
Name of Grantee: SEW-EURODRIVE GmbH & Co KG
Equipment Class: Digital Transmission System
Notes: WLAN Module 17966167
Modular Type: Limited Single Modular

| <u>Grant Notes</u> | <u>FCC Rule Parts</u> | <u>Frequency Range (MHZ)</u> | <u>Output Watts</u> | <u>Frequency Tolerance</u> | <u>Emission Designator</u> |
|--------------------|-----------------------|------------------------------|---------------------|----------------------------|----------------------------|
| CC | 15C | 2412.0 - 2462.0 | 0.363 | | |
| CC | 15C | 5745.0 - 5825.0 | 0.38 | | |

Output power listed is conducted. Limited Modular Approval for mobile RF Exposure conditions. The end product must be professionally installed on a fixed or permanent structure with a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Marketing to the General Public is prohibited. Approval is limited to OEM integration with final product subject to professional installation only. OEM integrators must be provided with antenna installation instructions. OEM integrators, installers and Users must be provided with transmitter operation conditions for satisfying RF exposure compliance. Only those antenna(s) tested with the device or similar antenna(s) with equal or lesser gain may be used with this transmitter. Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

Class II Permissive Change adds new antennas as documented in this filing.

CC: This device is certified pursuant to two different Part 15 rules sections.

5743732107

22521860/EN – 03/2016

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**

TCB

**Certification
Issued Under the Authority of the
Federal Communications Commission**

By:

**PHOENIX TESTLAB GmbH
Koenigswinkel 10
D-32825 Blomberg,
Germany**

**Date of Grant: 05/20/2011
Application Dated: 05/20/2011**

**SEWEURODRIVE GmbH & Co KG
Ernst-Blicke-Straße 42
Bruchsal, 76646
Germany**

Attention: Joerg Jahn , Head of Quality Management

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: VEB-NKRDCMA82
Name of Grantee: SEW-EURODRIVE GmbH & Co KG
Equipment Class: Unlicensed National Information Infrastructure TX
Notes: WLAN Module 17966167
Modular Type: Limited Single Modular

| <u>Grant Notes</u> | <u>FCC Rule Parts</u> | <u>Frequency Range (MHZ)</u> | <u>Output Watts</u> | <u>Frequency Tolerance</u> | <u>Emission Designator</u> |
|--------------------|-----------------------|------------------------------|---------------------|----------------------------|----------------------------|
| CC | 15E | 5180.0 - 5240.0 | 0.03 | | |

Output power listed is conducted. Limited Modular Approval for mobile RF Exposure conditions. The end product must be professionally installed on a fixed or permanent structure with a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Marketing to the General Public is prohibited. Approval is limited to OEM integration with final product subject to professional installation only. OEM integrators must be provided with antenna installation instructions. OEM Integrators, installers and Users must be provided with transmitter operation conditions for satisfying RF exposure compliance. Only those antenna(s) tested with the device or similar antenna(s) with equal or lesser gain may be used with this transmitter. Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

Class II Permissive Change adds new antennas as documented in this filing

CC: This device is certified pursuant to two different Part 15 rules sections.

9007204998475019

22521860/EN – 03/2016



**TECHNICAL APPROVAL
CERTIFICATE**

based on the Agreement on Mutual Recognition
between the European Community and Canada

**CERTIFICAT D'APPROBATION
TECHNIQUE**

en se basant l'accord de reconnaissance mutuelle
entre la Communauté Européenne et le Canada

| | | | |
|---|---|--|-----------------|
| CERTIFICATE NUMBER <i>NUMÉRO DE CERTIFICAT</i> | 11-111713 | | |
| CERTIFICATION NUMBER <i>NUMÉRO DE CERTIFICATION</i> | IC: 7177A-DCMA62 | | |
| TYPE OF SERVICE <i>TYPE DE SERVICE</i> | Modification / Modular Approval | | |
| CERTIFICATE HOLDER <i>TITULAIRE DU CERTIFICAT</i> | SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Str. 42 76646 - Bruchsal Germany | | |
| TYPE OF EQUIPMENT <i>GENRE DE MATÉRIEL</i> | WLAN MODULE | | |
| TRADE NAME AND MODEL NUMBER <i>MARQUE ET NUMÉRO DE MODÈLE</i> | SEW-EURODRIVE GmbH & Co KG / 1 796 616 7 | | |
| FREQUENCY RANGE <i>BANDE DE FRÉQUENCES</i> | 2412 – 2462 MHz 5760 – 5800 MHz | 4942 – 4988 MHz 5745 – 5825 MHz | 5180 – 5240 MHz |
| EMISSION DESIGNATION (TRC-43) <i>DÉSIGNATION D'ÉMISSION (CRT-43)</i> | 34M2D1D 34M7D1D | 19M9D1D 18M3D1D | 37M9D1D |
| R.F. POWER RATING (WATT) <i>PUISSANCE NOMINALE H.F. (WATT)</i> | 0.363 W 0.380 W | 0.476 W 0.363 W | 0.030 W |
| ANTENNA INFORMATION <i>INFORMATION D'ANTENNE</i> | External Antenna 13003326 (Gain 2.7dBi / 2.4 GHz) External Antenna 18231942 (Gain 3.7dBi / 5 GHz) External Antenna 18235840 (Gain 0.0dBi / 5 GHz) External Antenna TW-145 (Gain 2.0dBi / 2.4 GHz, 5 GHz) | | |
| CONTACT INFORMATION OF TESTING LABORATORY <i>COORDONNÉES DU LABORATOIRE D'ESSAI</i> | mikes-testingpartners gmbh Ohmstrasse 2-4 94342 Straßkirchen Germany | | |
| CERTIFIED TO <i>CERTIFIÉ SELON LE</i> | SPECIFICATION / ISSUE <i>CAHIER DES CHARGES / ÉDITION</i> | RSS-210 Issue 8, RSS-GEN Issue 3 RSS-102 Issue 4, RSS-111 Issue 3 | |

Certification of equipment means only that the equipment has met the requirements of the above noted specification. License applications, where applicable to use certified equipment, are acted on accordingly by the issuing office and will depend on the existing radio environment, service and location of operation. This certificate is issued on condition that the holder complies and will continue to comply with the requirements of the radio standards specifications and procedures issued by the Department.

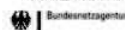
La certification du matériel signifie seulement que le matériel a satisfait aux exigences de la norme indiquée ci-dessus. Les demandes de licences nécessaires pour l'utilisation du matériel certifié sont traitées en conséquence par le bureau de délivrance et dépendent des conditions radio ambiantes, du service et de l'emplacement d'exploitation. Le présent certificat est dérivé à la condition que le titulaire satisfasse et continue de satisfaire aux exigences aux procédures d'Industry Canada.

Labeling of Certified Radio Equipment: Equipment that has received certification but is not labelled with the applicant's name, model number and the certification number as outlined above is not considered certified.

Étiquetage du matériel radio homologué: Le matériel pour lequel une certification a été obtenue mais qui n'est pas étiqueté conformément aux exigences ci-dessus (nom du requérant, numéro de modèle et numéro de certification) n'est pas considéré comme certifié.

Certification Body Code: DE0003

recognised by



B. Seick
Signed by / Signataire Bernd Seick

Blomberg, 21 June 2011

Foreign Certification Body (FCB)

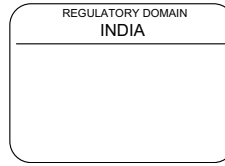
Blomberg CAB-0422-E3

PHOENIX TESTLAB GmbH • Königswinkel 10 D-32825 Blomberg, Germany • Phone: +49 (0)5235-9500-0 • Fax: +49 (0)5235-9500-10
<http://www.phoenix-testlab.de>

5743730187

6.5 India

The following label is attached to the MOVIPRO® unit:



13102615051




GOVERNMENT OF INDIA
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF TELECOMMUNICATION
WESTERN REGIONAL LICENCE OFFICE
Gorai Road, Borivali (W), Mumbai- 400 091.

No-L-14041/01/2012/ETA/2012 Dated: 07/05/2012

ETA CERTIFICATE NO : 1958/2012/WRLO

Equipment Type Approval is hereby granted for under mentioned equipment for operation with following parameters/conditions.

I. Details of Applicant and parameters of Equipment:

| | | |
|---|--------------------------|--|
| 1 | Name of Applicant | SEW Eurodrive India Pvt. Ltd. – Baroda |
| 2 | Equipment | WLAN 2.4 & 5 GHz (WLAN-Karte MPC1-DCMA-82-MMCX) |
| 3 | Model No | 1796 6167 |
| 4 | Manufactured by | SEW Eurodrive GmbH & Co KG – Germany |
| 5 | Frequency Range (in MHz) | 5150 – 5350 MHz ; 5745 – 5850 MHz |
| 6 | Max. Output Power | 5150 – 5350 MHz : 22.3 dBm 5745 – 5850 MHz : 18.8 dBm |
| 7 | Type of Modulation | OFDM |
| 8 | Remarks if any | - |

II. Conditions :-

1. This approval will not be valid in case any changes in the above parameters and not conforming to the notification GSR No. 46(E) dated 28/01/2005 and amended from time to time
2. The use of such equipment has been exempted from licensing requirement vide Gazette Notification GSR No. 46(E) dated 28th January 2005 (Max. Mean Effective Isotropic Radiated Power of 200mW) amended time to time and on non-interference and non-protection (non-exclusive) basis.
3. Use of such equipment in case not conforming to above notification will require a specific wireless licence and also, if applicable, fulfilment of specific service licence as required from this Ministry / Department.

III. Note:

1. This is a clearance from technical angle only. Separate Import License is required to be obtained for each import as per WPC procedures

2. Record of all equipment imported and their distributions needs to be maintained



(Anil Kumar)
Joint Wireless Advisor
सयुक्त बेतार सलाहकार, इन्फो पी सी
Joint Wireless Advisor, W P C
संचार एवं सूचना प्रौद्योगिकी मंत्रालय
Ministry of Communication & IT
सेविका कक्षा/सेवा कक्षा, मंत्रालय

13103961995

22521860/EN – 03/2016





GOVERNMENT OF INDIA
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF TELECOMMUNICATION
WESTERN REGIONAL LICENCE OFFICE
Gorai Road, Borivali (W), Mumbai- 400 091.



No-L-14041/01/2012/ETA/2012

Dated: 03 / 05 / 2012

ETA CERTIFICATE NO : 1957 /2012/WRLO

Equipment Type Approval is hereby granted for under mentioned equipment for operation with following parameters/conditions.

I. Details of Applicant and parameters of Equipment:

| | | |
|---|---------------------------------|--|
| 1 | Name of Applicant | SEW Eurodrive India Pvt. Ltd. – Baroda |
| 2 | Equipment | WLAN 2.4 & 5 GHz (WLAN-Karte MPC1-DCMA-82-MMCX) |
| 3 | Model No | 1796 6167 |
| 4 | Manufactured by | SEW Eurodrive GmbH & Co KG – Germany |
| 5 | Frequency Range (in MHz) | 2400-2483.5 MHz |
| 6 | Max. Output Power | 19.9 dBm |
| 7 | Type of Modulation | DSSS ; OFDM |
| 8 | Remarks if any | - |

II. Conditions :-

1. This approval will not be valid in case any changes in the above parameters and not conforming to the notification GSR No. 45(E) dated 28/01/2005 and amended from time to time
2. The use of such equipment has been exempted from licensing requirement vide Gazette Notification GSR No. 45(E) dated 28/01/2005 (Max. Mean Effective Isotropic Radiated Power of 36 dBm) and amended time to time and on non-interference and non-protection (non-exclusive) basis.
3. Use of such equipment in case not conforming to above notification will require a specific wireless licence and also, if applicable, fulfilment of specific service licence as required from this Ministry / Department.

III. Note:

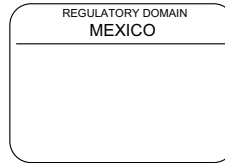
- 1) This is a clearance from technical angle only. Separate Import License is required to be obtained for each import as per WPC procedures
- 2) Record of all equipment imported and their distributions needs to be maintained

(Anil Kumar)
Joint Wireless Advisor
संयुक्त बेतार सलाहकार, इलेक्ट्रॉनिक्स
Joint Wireless Advisor, W P C
संचार एवं सूचना प्रौद्योगिकी मंत्रालय
Ministry of Communication & IT

13103964043

6.6 Mexico

The following label is attached to the MOVIPRO® unit:



13102618251

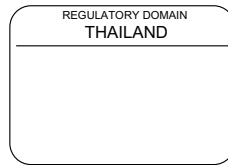
| | | | |
|---|--|--|--|
| INSTITUTO FEDERAL DE TELECOMUNICACIONES | | UNIDAD DE SERVICIOS A LA INDUSTRIA DIRECCION GENERAL DE REDES DE TELECOMUNICACIONES Y SERVICIOS | |
| CERTIFICADO DE HOMOLOGACION | | | |
| Clase: DEFINITIVO | | | |
| Número: RCPSE1712-1432 | | | |
| ALFONSO SANTOYO MORALES REPRESENTANTE LEGAL DE SEW EURODRIVE MEXICO, S.A. DE C.V. Tequisquiapan No. 102 Col. Parque Industrial Queretaro C.P. 76220, Queretaro, Queretaro | | | |
| Fecha de emisión: 17 de enero de 2014 | Oficio respuesta a solicitud: IFT/D03/USI/DGRTS/0526/2014 | | |
| Equipo: RADIO CONVERTIDOR ETHERNET | | | |
| Marca: SEW | Modelo: 1796 6167 WLAN Karte MPC1-DCMA-82-MMCX | | |
| Perito(s) en Telecomunicaciones: Ing. Tomás Salazar Morán (596), Ing. Ernesto Sareña Martínez (598) | | | |
| Organismo de Certificación: NORMALIZACION Y CERTIFICACION ELECTRONICA S.C. (NYCE) | | | |
| Tipo De Certificado: Certificado de Conformidad de producto nuevo en la modalidad prueba de tipo más seguimiento | | Número: NYCE/CT/0609/12/TS | |
| CUMPLIMIENTO NORMATIVO | | | |
| NOM-121-SCT1-2009 | | | |
| Banda de frecuencias: 2400 - 2483.5 MHz Densidad espectral de potencia del transmisor: -13.671 dBm/3kHz Potencia pico máxima de salida: 987.715 E-6 W Anchura de banda de RF a 6 dB: 753 kHz Atenuación a emisiones no esenciales: 36.091 / 28.725 dB Emisiones no esenciales radiadas: 173.4 uV/m | | | |
| CARACTERISTICAS TECNICAS | | | |
| Banda de frecuencias | | 5150 – 5250 MHz , 5250 – 5350 MHz 5470 – 5600 MHz, 5650 – 5725 MHz | |
| Medio Inalámbrico | | OFDM; BPSK, QPSK, QAM, 64QAM | |
| Potencia de salida | | 22 dBm | |
| Número de canales | | 12 canales | |
| Dictaminó: ARTURO CUBILLAS DOMINGUEZ | Revisó: El Director de Homologación ING. ANGEL AGUILAR LOPEZ | Autorizó: El Director General ING. GERARDO LOPEZ MOCTEZUMA | |
| El presente Certificado está sujeto a las condiciones y notas descritas al reverso de la hoja 1. | | | |
| hoja 1 de 1 | | | |

13103966091

22521860/EN – 03/2016

6.7 Thailand

The following label is attached to the MOVIPRO® unit:



16391310219

ภาคผนวก ข

Supplier's Declaration of Conformity (SDoC) Format

สำนักงานคณะกรรมการกิจการโทรคมนาคมแห่งชาติ

แบบรับรองตนเองของผู้ประกอบการ
(Supplier's Declaration of Conformity)

1. รายละเอียดของผู้ประกอบการ

| | | |
|-----|--------------|---|
| 1.1 | ชื่อหน่วยงาน | SEW-EURODRIVE (THAILAND) LTD. |
| 1.2 | ที่อยู่ | 700/456 Moo 7 Donhuaroh, Muang District, Chonburi 20000 |

2. รายละเอียดของเครื่องโทรคมนาคมและอุปกรณ์

| | | |
|-----|---|--|
| 2.1 | ประเภท/ชนิดของเครื่องโทรคมนาคมและอุปกรณ์ WLAN-Karte #MPCI-DCMA-82-MMCX | |
| 2.2 | ตราอักษร (brand name) SEW-EURODRIVE | 2.3 แบบรุ่น (model) WLAN-Karte #MPCI-DCMA-82-MMCX |
| 2.4 | มาตรฐานทางเทคนิคหรือข้อกำหนดทางเทคนิคที่แสดงความสอดคล้อง | |

ข้าพเจ้าขอรับรองว่า เครื่องโทรคมนาคมและอุปกรณ์ข้างต้น มีความสอดคล้องตามมาตรฐานทางเทคนิคหรือข้อกำหนดทางเทคนิคของคณะกรรมการกิจการโทรคมนาคมแห่งชาติ ตามที่ระบุไว้

3. เอกสารหลักฐานประกอบการรับรองตนเอง

| | | | | | | | |
|--|---|--------|---|---------|-------------------|--------|--|
| 1. SDoC 2. Operating description 3. Test report no.: T34715-00-00AA_328 T34715-00-01AA_301893 T34715-04-01KG T37644-01-00GK EN300328 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">ลงชื่อ</td> <td style="width: 45%; text-align: center;"> นายประยุทธ์ ศรีสุวรรณทอง ผู้อำนวยการ SEW EURODRIVE (THAILAND) LIMITED </td> </tr> <tr> <td>ตำแหน่ง</td> <td style="text-align: center;">Managing Director</td> </tr> <tr> <td>วันที่</td> <td></td> </tr> </table> | ลงชื่อ | นายประยุทธ์ ศรีสุวรรณทอง ผู้อำนวยการ SEW EURODRIVE (THAILAND) LIMITED | ตำแหน่ง | Managing Director | วันที่ | |
| ลงชื่อ | นายประยุทธ์ ศรีสุวรรณทอง ผู้อำนวยการ SEW EURODRIVE (THAILAND) LIMITED | | | | | | |
| ตำแหน่ง | Managing Director | | | | | | |
| วันที่ | | | | | | | |

ผู้ประกอบการจะต้องจัดส่งแบบรับรองตนเองที่กรอรายละเอียดครบถ้วนสมบูรณ์ ให้สำนักงานคณะกรรมการกิจการโทรคมนาคมแห่งชาติ และเก็บรักษาสำเนาแบบรับรองตนเองพร้อมเอกสารหลักฐานประกอบการรับรองตนเอง เพื่อใช้ประกอบการตรวจสอบติดตามของสำนักงาน ตามมาตรการกำกับดูแลเครื่องโทรคมนาคมและอุปกรณ์ภายใต้หลังการตรวจสอบและรับรองมาตรฐาน และตามกฎหมายอื่น (ถ้ามี)

16389904523

7 MAXOLUTION® Competence Center

Germany

| | | |
|-----------|---|---|
| Bruchsal | SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal P.O. Box Postfach 3023 – D-76642 Bruchsal | Tel. +49 7251 75-0 Fax +49 7251 75-1970 http://www.sew-eurodrive.de maxolution@sew-eurodrive.de |
| Kirchheim | SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim (München) | Tel. +49 89 909552-10 Fax +49 89 909552-50 dts-sued@sew-eurodrive.de |

Australia

| | | |
|-----------|--|--|
| Melbourne | SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043 | Tel. +61 3 9933-1000 Fax +61 3 9933-1003 http://www.sew-eurodrive.com.au enquires@sew-eurodrive.com.au |
|-----------|--|--|

Brazil

| | | |
|-----------|--|---|
| São Paulo | SEW-EURODRIVE Brasil Ltda. Estrada Municipal José Rubim, 205 – Rodovia Santos Dumont Km 49 Indaiatuba – 13347-510 – SP | Tel. +55 19 3835-8000 sew@sew.com.br |
|-----------|--|---|

China

| | | |
|---------|--|--|
| Tianjin | SEW-EURODRIVE (Tianjin) Co., Ltd. No. 78, 13th Avenue, TEDA Tianjin 300457 | Tel. +86 22 25322612 Fax +86 22 25323273 http://www.sew-eurodrive.cn info@sew-eurodrive.cn |
|---------|--|--|

France

| | | |
|---------|--|--|
| Hagenau | SEW-USOCOME 48-54 route de Soufflenheim B. P. 20185 67506 Hagenau Cedex | Tel. +33 3 88 73 67 00 Fax +33 3 88 73 66 00 http://www.usocome.com sew@usocome.com |
|---------|--|--|

India

| | | |
|---------|---|---|
| Chennai | SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu | Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com |
|---------|---|---|

Italy

| | | |
|--------|---|--|
| Solaro | SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini, 14 20020 Solaro (Milano) | Tel. +39 02 96 9801 Fax +39 02 96 79 97 81 http://www.sew-eurodrive.it sewit@sew-eurodrive.it |
|--------|---|--|

Poland

| | | |
|-------|---|---|
| Tychy | SEW-EURODRIVE Polska Sp.z.o.o. ul. Strzelecka 66 43-109 Tychy | Tel. +48 32 32 32 610 Fax +48 32 32 32 648 |
|-------|---|---|

South Africa

| | | |
|--------------|---|--|
| Johannesburg | SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013 | Tel. +27 11 248-7000 Fax +27 11 248-7289 http://www.sew.co.za info@sew.co.za |
|--------------|---|--|

South Korea

| | | |
|-------|--|--|
| Ansan | SEW-EURODRIVE KOREA CO., LTD. 7, Dangjaengi-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Zip 425-839 | Tel. +82 31 492-8051 Fax +82 31 492-8056 http://www.sew-eurodrive.kr master.korea@sew-eurodrive.com |
|-------|--|--|

Sweden

| | | |
|-----------|---|--|
| Jönköping | SEW-EURODRIVE AB Gnejsvägen 6-8 553 03 Jönköping Box 3100 S-550 03 Jönköping | Tel. +46 36 34 42 00 Fax +46 36 34 42 80 http://www.sew-eurodrive.se jonkoping@sew.se |
|-----------|---|--|

USA

| | | |
|-------|---|--|
| Lyman | SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365 | Tel. +1 864 439-7537 Fax +1 864 439-7830 http://www.seweurodrive.com cslyman@seweurodrive.com |
|-------|---|--|

8 Address list

| Algeria | | | |
|--------------------------------|---------------------|---|--|
| Sales | Algiers | REDUCOM Sarl 16, rue des Frères Zaghroune Bellevue 16200 El Harrach Alger | Tel. +213 21 8214-91 Fax +213 21 8222-84 http://www.reducom-dz.com info@reducom-dz.com |
| Argentina | | | |
| Assembly Sales | Buenos Aires | SEW EURODRIVE ARGENTINA S.A. Ruta Panamericana Km 37.5, Lote 35 (B1619IEA) Centro Industrial Garín Prov. de Buenos Aires | Tel. +54 3327 4572-84 Fax +54 3327 4572-21 http://www.sew-eurodrive.com.ar sewar@sew-eurodrive.com.ar |
| Australia | | | |
| Assembly Sales Service | Melbourne | SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043 | Tel. +61 3 9933-1000 Fax +61 3 9933-1003 http://www.sew-eurodrive.com.au enquires@sew-eurodrive.com.au |
| | Sydney | SEW-EURODRIVE PTY. LTD. 9, Sleigh Place, Wetherill Park New South Wales, 2164 | Tel. +61 2 9725-9900 Fax +61 2 9725-9905 enquires@sew-eurodrive.com.au |
| Austria | | | |
| Assembly Sales Service | Vienna | SEW-EURODRIVE Ges.m.b.H. Richard-Strauss-Strasse 24 1230 Wien | Tel. +43 1 617 55 00-0 Fax +43 1 617 55 00-30 http://www.sew-eurodrive.at sew@sew-eurodrive.at |
| Bangladesh | | | |
| Sales | Bangladesh | SEW-EURODRIVE INDIA PRIVATE LIMITED 345 DIT Road East Rampura Dhaka-1219, Bangladesh | Tel. +88 01729 097309 salesdhaka@seweurodrivebangladesh.com |
| Belarus | | | |
| Sales | Minsk | Foreign unitary production enterprise SEW- EURODRIVE RybalkoStr. 26 220033 Minsk | Tel. +375 17 298 47 56 / 298 47 58 Fax +375 17 298 47 54 http://www.sew.by sales@sew.by |
| Belgium | | | |
| Assembly Sales Service | Brussels | SEW-EURODRIVE n.v./s.a. Researchpark Haasrode 1060 Evenementenlaan 7 3001 Leuven | Tel. +32 16 386-311 Fax +32 16 386-336 http://www.sew-eurodrive.be info@sew-eurodrive.be |
| Service Competence Center | Industrial Gears | SEW-EURODRIVE n.v./s.a. Rue de Parc Industriel, 31 6900 Marche-en-Famenne | Tel. +32 84 219-878 Fax +32 84 219-879 http://www.sew-eurodrive.be service-wallonie@sew-eurodrive.be |
| Brazil | | | |
| Production Sales Service | São Paulo | SEW-EURODRIVE Brasil Ltda. Estrada Municipal José Rubim, 205 – Rodovia Santos Dumont Km 49 Indaiatuba – 13347-510 – SP | Tel. +55 19 3835-8000 sew@sew.com.br |
| Assembly Sales Service | Rio Claro | SEW-EURODRIVE Brasil Ltda. Rodovia Washington Luiz, Km 172 Condomínio Industrial Conpark Caixa Postal: 327 13501-600 – Rio Claro / SP | Tel. +55 19 3522-3100 Fax +55 19 3524-6653 montadora.rc@sew.com.br |
| | Joinville | SEW-EURODRIVE Brasil Ltda. Rua Dona Francisca, 12.346 – Pirabeiraba 89239-270 – Joinville / SC | Tel. +55 47 3027-6886 Fax +55 47 3027-6888 filial.sc@sew.com.br |
| Bulgaria | | | |
| Sales | Sofia | BEVER-DRIVE GmbH Bogdanovetz Str.1 1606 Sofia | Tel. +359 2 9151160 Fax +359 2 9151166 bever@bever.bg |

Cameroon

| | | | |
|-------|--------|--|---|
| Sales | Douala | SEW-EURODRIVE S.A.R.L. Ancienne Route Bonaberi P.O. Box B.P 8674 Douala-Cameroun | Tel. +237 233 39 02 10 Fax +237 233 39 02 10 sew@sew-eurodrive.cm |
|-------|--------|--|---|

Canada

| | | | |
|------------------------------|-----------|--|---|
| Assembly Sales Service | Toronto | SEW-EURODRIVE CO. OF CANADA LTD. 210 Walker Drive Bramalea, ON L6T 3W1 | Tel. +1 905 791-1553 Fax +1 905 791-2999 http://www.sew-eurodrive.ca l.watson@sew-eurodrive.ca |
| | Vancouver | SEW-EURODRIVE CO. OF CANADA LTD. Tilbury Industrial Park 7188 Honeyman Street Delta, BC V4G 1G1 | Tel. +1 604 946-5535 Fax +1 604 946-2513 b.wake@sew-eurodrive.ca |
| | Montreal | SEW-EURODRIVE CO. OF CANADA LTD. 2555 Rue Leger Lasalle, PQ H8N 2V9 | Tel. +1 514 367-1124 Fax +1 514 367-3677 a.peluso@sew-eurodrive.ca |

Chile

| | | | |
|------------------------------|-------------------|---|---|
| Assembly Sales Service | Santiago de Chile | SEW-EURODRIVE CHILE LTDA Las Encinas 1295 Parque Industrial Valle Grande LAMP Santiago de Chile P.O. Box Casilla 23 Correo Quilicura - Santiago - Chile | Tel. +56 2 2757 7000 Fax +56 2 2757 7001 http://www.sew-eurodrive.cl ventas@sew-eurodrive.cl |
|------------------------------|-------------------|---|---|

China

| | | | |
|--|-----------|--|---|
| Production Assembly Sales Service | Tianjin | SEW-EURODRIVE (Tianjin) Co., Ltd. No. 78, 13th Avenue, TEDA Tianjin 300457 | Tel. +86 22 25322612 Fax +86 22 25323273 http://www.sew-eurodrive.cn info@sew-eurodrive.cn |
| Assembly Sales Service | Suzhou | SEW-EURODRIVE (Suzhou) Co., Ltd. 333, Suhong Middle Road Suzhou Industrial Park Jiangsu Province, 215021 | Tel. +86 512 62581781 Fax +86 512 62581783 suzhou@sew-eurodrive.cn |
| | Guangzhou | SEW-EURODRIVE (Guangzhou) Co., Ltd. No. 9, JunDa Road East Section of GETDD Guangzhou 510530 | Tel. +86 20 82267890 Fax +86 20 82267922 guangzhou@sew-eurodrive.cn |
| | Shenyang | SEW-EURODRIVE (Shenyang) Co., Ltd. 10A-2, 6th Road Shenyang Economic Technological Development Area Shenyang, 110141 | Tel. +86 24 25382538 Fax +86 24 25382580 shenyang@sew-eurodrive.cn |
| | Taiyuan | SEW-EURODRIVE (Taiyuan) Co., Ltd. No.3, HuaZhang Street, TaiYuan Economic & Technical Development Zone ShanXi, 030032 | Tel. +86-351-7117520 Fax +86-351-7117522 taiyuan@sew-eurodrive.cn |
| | Wuhan | SEW-EURODRIVE (Wuhan) Co., Ltd. 10A-2, 6th Road No. 59, the 4th Quanli Road, WEDA 430056 Wuhan | Tel. +86 27 84478388 Fax +86 27 84478389 wuhan@sew-eurodrive.cn |
| | Xi'An | SEW-EURODRIVE (Xi'An) Co., Ltd. No. 12 Jinye 2nd Road Xi'An High-Technology Industrial Development Zone Xi'An 710065 | Tel. +86 29 68686262 Fax +86 29 68686311 xian@sew-eurodrive.cn |
| Sales Service | Hong Kong | SEW-EURODRIVE LTD. Unit No. 801-806, 8th Floor Hong Leong Industrial Complex No. 4, Wang Kwong Road Kowloon, Hong Kong | Tel. +852 36902200 Fax +852 36902211 contact@sew-eurodrive.hk |

8 Address list

| Colombia | | | |
|--------------------------------|---|---|--|
| Assembly Sales Service | Bogota | SEW-EURODRIVE COLOMBIA LTDA. Calle 17 No. 132-18 Interior 2 Bodega 6, Manzana B Santafé de Bogotá | Tel. +57 1 54750-50 Fax +57 1 54750-44 http://www.sew-eurodrive.com.co sew@sew-eurodrive.com.co |
| Croatia | | | |
| Sales Service | Zagreb | KOMPEKS d. o. o. Zeleni dol 10 10 000 Zagreb | Tel. +385 1 4613-158 Fax +385 1 4613-158 kompeks@inet.hr |
| Czech Republic | | | |
| Assembly Sales Service | Hostivice | SEW-EURODRIVE CZ s.r.o. Floriánova 2459 253 01 Hostivice | Tel. +420 255 709 601 Fax +420 235 350 613 http://www.sew-eurodrive.cz sew@sew-eurodrive.cz |
| | Drive Service Hotline / 24 Hour Service | +420 800 739 739 (800 SEW SEW) | Service Tel. +420 255 709 632 Fax +420 235 358 218 servis@sew-eurodrive.cz |
| Denmark | | | |
| Assembly Sales Service | Copenhagen | SEW-EURODRIVEA/S Geminivej 28-30 2670 Greve | Tel. +45 43 95 8500 Fax +45 43 9585-09 http://www.sew-eurodrive.dk sew@sew-eurodrive.dk |
| Egypt | | | |
| Sales Service | Cairo | Copam Egypt for Engineering & Agencies Building 10, Block 13005, First Industrial Zone, Obour City Cairo | Tel. +202 44812673 / 79 (7 lines) Fax +202 44812685 http://www.copam-egypt.com copam@copam-egypt.com |
| Estonia | | | |
| Sales | Tallin | ALAS-KUUL AS Reti tee 4 75301 Peetri küla, Rae vald, Harjumaa | Tel. +372 6593230 Fax +372 6593231 http://www.alas-kuul.ee veiko.soots@alas-kuul.ee |
| Finland | | | |
| Assembly Sales Service | Hollola | SEW-EURODRIVE OY Vesimäentie 4 15860 Hollola 2 | Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi |
| Service | Hollola | SEW-EURODRIVE OY Keskikankaantie 21 15860 Hollola | Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi |
| Production Assembly | Karkkila | SEW Industrial Gears Oy Santasalonkatu 6, PL 8 03620 Karkkila, 03601 Karkkila | Tel. +358 201 589-300 Fax +358 201 589-310 http://www.sew-eurodrive.fi sew@sew.fi |
| France | | | |
| Production Sales Service | Hagenau | SEW-USOCOME 48-54 route de Soufflenheim B. P. 20185 67506 Hagenau Cedex | Tel. +33 3 88 73 67 00 Fax +33 3 88 73 66 00 http://www.usocom.com sew@usocom.com |
| Production | Forbach | SEW-USOCOME Zone industrielle Technopôle Forbach Sud B. P. 30269 57604 Forbach Cedex | Tel. +33 3 87 29 38 00 |
| | Brumath | SEW-USOCOME 1 Rue de Bruxelles 67670 Mommenheim Cedex | Tel. +33 3 88 37 48 00 |
| Assembly Sales Service | Bordeaux | SEW-USOCOME Parc d'activités de Magellan 62 avenue de Magellan – B. P. 182 33607 Pessac Cedex | Tel. +33 5 57 26 39 00 Fax +33 5 57 26 39 09 |

22521860/EN – 03/2016

France

| | | |
|--------|---|---|
| Lyon | SEW-USOCOME 75 rue Antoine Condorcet 38090 Vaulx-Milieu | Tel. +33 4 74 99 60 00 Fax +33 4 74 99 60 15 |
| Nantes | SEW-USOCOME Parc d'activités de la forêt 4 rue des Fontenelles 44140 Le Bignon | Tel. +33 2 40 78 42 00 Fax +33 2 40 78 42 20 |
| Paris | SEW-USOCOME Zone industrielle 2 rue Denis Papin 77390 Verneuil l'Étang | Tel. +33 1 64 42 40 80 Fax +33 1 64 42 40 88 |

Gabon

representation: Germany.

Germany

| | | | |
|-------------------------------------|-----------------------------|--|---|
| Headquarters Production Sales | Bruchsal | SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal P.O. Box Postfach 3023 – D-76642 Bruchsal | Tel. +49 7251 75-0 Fax +49 7251 75-1970 http://www.sew-eurodrive.de sew@sew-eurodrive.de |
| Production / Industrial Gears | Bruchsal | SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Str. 10 76646 Bruchsal | Tel. +49 7251 75-0 Fax +49 7251 75-2970 |
| Production | Graben | SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf P.O. Box Postfach 1220 – D-76671 Graben-Neudorf | Tel. +49 7251 75-0 Fax +49 7251-2970 |
| | Östringen | SEW-EURODRIVE GmbH & Co KG, Werk Östringen Franz-Gurk-Straße 2 76684 Östringen | Tel. +49 7253 9254-0 Fax +49 7253 9254-90 oestringen@sew-eurodrive.de |
| Service Competence Center | Mechanics / Mechatronics | SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf | Tel. +49 7251 75-1710 Fax +49 7251 75-1711 scc-mechanik@sew-eurodrive.de |
| | Electronics | SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal | Tel. +49 7251 75-1780 Fax +49 7251 75-1769 scc-elektronik@sew-eurodrive.de |
| Drive Technology Center | North | SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Straße 40-42 30823 Garbsen (Hannover) | Tel. +49 5137 8798-30 Fax +49 5137 8798-55 dtc-nord@sew-eurodrive.de |
| | East | SEW-EURODRIVE GmbH & Co KG Dänkritzter Weg 1 08393 Meerane (Zwickau) | Tel. +49 3764 7606-0 Fax +49 3764 7606-30 dtc-ost@sew-eurodrive.de |
| | South | SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim (München) | Tel. +49 89 909552-10 Fax +49 89 909552-50 dtc-sued@sew-eurodrive.de |
| | West | SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 40764 Langenfeld (Düsseldorf) | Tel. +49 2173 8507-30 Fax +49 2173 8507-55 dtc-west@sew-eurodrive.de |
| Drive Center | Berlin | SEW-EURODRIVE GmbH & Co KG Alexander-Meißner-Straße 44 12526 Berlin | Tel. +49 306331131-30 Fax +49 306331131-36 dc-berlin@sew-eurodrive.de |
| | Ludwigshafen | SEW-EURODRIVE GmbH & Co KG c/o BASF SE Gebäude W130 Raum 101 67056 Ludwigshafen | Tel. +49 7251 75 3759 Fax +49 7251 75 503759 dc-ludwigshafen@sew-eurodrive.de |
| | Saarland | SEW-EURODRIVE GmbH & Co KG Gottlieb-Daimler-Straße 4 66773 Schwalbach Saar – Hülzweiler | Tel. +49 6831 48946 10 Fax +49 6831 48946 13 dc-saarland@sew-eurodrive.de |
| | Ulm | SEW-EURODRIVE GmbH & Co KG Dieselstraße 18 89160 Dornstadt | Tel. +49 7348 9885-0 Fax +49 7348 9885-90 dc-ulm@sew-eurodrive.de |

| Germany | | | |
|---|-----------|---|---|
| | Würzburg | SEW-EURODRIVE GmbH & Co KG Nürnbergerstraße 118 97076 Würzburg-Lengfeld | Tel. +49 931 27886-60 Fax +49 931 27886-66 dc-wuerzburg@sew-eurodrive.de |
| Drive Service Hotline / 24 Hour Service | | | 0 800 SEWHELP 0 800 7394357 |
| Great Britain | | | |
| Assembly Sales Service | Normanton | SEW-EURODRIVE Ltd. DeVilliers Way Trident Park Normanton West Yorkshire WF6 1GX | Tel. +44 1924 893-855 Fax +44 1924 893-702 http://www.sew-eurodrive.co.uk info@sew-eurodrive.co.uk |
| Drive Service Hotline / 24 Hour Service | | | Tel. 01924 896911 |
| Greece | | | |
| Sales | Athens | Christ. Boznos & Son S.A. 12, K. Mavromichali Street P.O. Box 80136 18545 Piraeus | Tel. +30 2 1042 251-34 Fax +30 2 1042 251-59 http://www.boznos.gr info@boznos.gr |
| Hungary | | | |
| Sales Service | Budapest | SEW-EURODRIVE Kft. Csillaghegyi út 13. 1037 Budapest | Tel. +36 1 437 06-58 Fax +36 1 437 06-50 http://www.sew-eurodrive.hu office@sew-eurodrive.hu |
| Iceland | | | |
| Sales | Reykjavik | Varma & Vélaverk ehf. Knarrarvogi 4 104 Reykjavik | Tel. +354 585 1070 Fax +354 585)1071 http://www.varmaverk.is vov@vov.is |
| India | | | |
| Registered Office Assembly Sales Service | Vadodara | SEW-EURODRIVE India Private Limited Plot No. 4, GIDC POR Ramangamdi • Vadodara - 391 243 Gujarat | Tel. +91 265 3045200 Fax +91 265 3045300 http://www.seweurodriveindia.com salesvadodara@seweurodriveindia.com |
| Assembly Sales Service | Chennai | SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu | Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com |
| | Pune | SEW-EURODRIVE India Private Limited Plant: Plot No. D236/1, Chakan Industrial Area Phase- II, Warale, Tal- Khed, Pune-410501, Maharashtra | Tel. +91 21 35 628700 Fax +91 21 35 628715 salespune@seweurodriveindia.com |
| Indonesia | | | |
| Sales | Medan | PT. Serumpun Indah Lestari Jl.Pulau Solor no. 8, Kawasan Industri Medan II Medan 20252 | Tel. +62 61 687 1221 Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041 sil@serumpunindah.com serumpunindah@yahoo.com http://www.serumpunindah.com |
| | Jakarta | PT. Cahaya Sukses Abadi Komplek Rukan Puri Mutiara Blok A no 99, Sunter Jakarta 14350 | Tel. +62 21 65310599 Fax +62 21 65310600 csajkt@cbn.net.id |
| | Jakarta | PT. Agrindo Putra Lestari Jl.Pantai Indah Selatan, Komplek Sentra In- dustri Terpadu, Pantai indah Kapuk Tahap III, Blok E No. 27 Jakarta 14470 | Tel. +62 21 2921-8899 Fax +62 21 2921-8988 aplindo@indosat.net.id http://www.aplindo.com |

Indonesia

| | | |
|----------|--|--|
| Surabaya | PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60111 | Tel. +62 31 5990128 Fax +62 31 5962666 sales@triagri.co.id http://www.triagri.co.id |
| Surabaya | CV. Multi Mas Jl. Raden Saleh 43A Kav. 18 Surabaya 60174 | Tel. +62 31 5458589 Fax +62 31 5317220 sianhwa@sby.centrin.net.id http://www.cvmultimas.com |

Ireland

| | | | |
|------------------|--------|---|---|
| Sales Service | Dublin | Alperon Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11 | Tel. +353 1 830-6277 Fax +353 1 830-6458 http://www.alperon.ie info@alperon.ie |
|------------------|--------|---|---|

Israel

| | | | |
|-------|----------|---|--|
| Sales | Tel Aviv | Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon | Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il |
|-------|----------|---|--|

Italy

| | | | |
|------------------------------|-------|--|--|
| Assembly Sales Service | Milan | SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini,14 20020 Solaro (Milano) | Tel. +39 02 96 980229 Fax +39 02 96 980 999 http://www.sew-eurodrive.it milano@sew-eurodrive.it |
|------------------------------|-------|--|--|

Ivory Coast

| | | | |
|-------|---------|---|---|
| Sales | Abidjan | SEW-EURODRIVE SARL Ivory Coast Rue des Pêcheurs, Zone 3 26 BP 916 Abidjan 26 | Tel. +225 21 21 81 05 Fax +225 21 25 30 47 info@sew-eurodrive.ci http://www.sew-eurodrive.ci |
|-------|---------|---|---|

Japan

| | | | |
|------------------------------|-------|---|---|
| Assembly Sales Service | Iwata | SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818 | Tel. +81 538 373811 Fax +81 538 373814 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp hamamatsu@sew-eurodrive.co.jp |
|------------------------------|-------|---|---|

Kazakhstan

| | | | |
|-------|-------------|---|--|
| Sales | Almaty | SEW-EURODRIVE LLP 291-291A, Tole bi street 050031, Almaty | Tel. +7 (727) 350 5156 Fax +7 (727) 350 5156 http://www.sew-eurodrive.kz sew@sew-eurodrive.kz |
| | Tashkent | SEW-EURODRIVE LLP Representative office in Uzbekistan 96A, Sharaf Rashidov street, Tashkent, 100084 | Tel. +998 71 2359411 Fax +998 71 2359412 http://www.sew-eurodrive.uz sew@sew-eurodrive.uz |
| | Ulaanbaatar | SEW-EURODRIVE LLP Representative office in Mongolia Suite 407, Tushig Centre Seoul street 23, Sukhbaatar district, Ulaanbaatar 14250 | Tel. +976-77109997 Fax +976-77109997 http://www.sew-eurodrive.mn sew@sew-eurodrive.mn |

Kenya

representation: Tanzania

Latvia

| | | | |
|-------|------|--|--|
| Sales | Riga | SIA Alas-Kuul Katlakalna 11C 1073 Riga | Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.lv info@alas-kuul.com |
|-------|------|--|--|

8 Address list

Lebanon

| | | | |
|---|--------|---|---|
| Sales (Lebanon) | Beirut | Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut | Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb |
| Sales (Jordan, Kuwait , Beirut Saudi Arabia, Syria) | | Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut | Tel. +961 1 494 786 Fax +961 1 494 971 http://www.medrives.com info@medrives.com |

Lithuania

| | | | |
|-------|--------|---|--|
| Sales | Alytus | UAB Irseva Statybininku 106C 63431 Alytus | Tel. +370 315 79204 Fax +370 315 56175 http://www.irseva.lt irmantas@irseva.lt |
|-------|--------|---|--|

Luxembourg

representation: Belgium

Macedonia

| | | | |
|-------|--------|--|--|
| Sales | Skopje | Boznos DOOEL Dime Anicin 2A/7A 1000 Skopje | Tel. +389 23256553 Fax +389 23256554 http://www.boznos.mk |
|-------|--------|--|--|

Madagascar

| | | | |
|-------|--------------|---|--|
| Sales | Antananarivo | Ocean Trade BP21bis. Andraharo Antananarivo 101 Madagascar | Tel. +261 20 2330303 Fax +261 20 2330330 oceanrabp@moov.mg |
|-------|--------------|---|--|

Malaysia

| | | | |
|------------------------------|-------|---|---|
| Assembly Sales Service | Johor | SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia | Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my |
|------------------------------|-------|---|---|

Mexiko

| | | | |
|------------------------------|-----------|--|--|
| Assembly Sales Service | Quéretaro | SEW-EURODRIVE MEXICO S.A. de C.V. SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Querétaro, México | Tel. +52 442 1030-300 Fax +52 442 1030-301 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx |
| Sales Service | Puebla | SEW-EURODRIVE MEXICO S.A. de C.V. Calzada Zavaleta No. 3922 Piso 2 Local 6 Col. Santa Cruz Buenavista C.P. 72154 Puebla, México | Tel. +52 (222) 221 248 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx |

Mongolia

| | | | |
|------------------|-------------|---|--|
| Technical Office | Ulaanbaatar | SEW-EURODRIVE LLP Representative office in Mongolia Suite 407, Tushig Centre Seoul street 23, Sukhbaatar district, Ulaanbaatar 14250 | Tel. +976-77109997 Fax +976-77109997 http://www.sew-eurodrive.mn sew@sew-eurodrive.mn |
|------------------|-------------|---|--|

Morocco

| | | | |
|------------------|-----------|---|--|
| Sales Service | Bouskoura | SEW-EURODRIVE Marokko Parc Industriel CFCIM, Lot 55 et 59 Bouskoura | Tel. +212 522 88 84 50 Fax +212 522 88 85 00 http://www.sew-eurodrive.ma sew@sew-eurodrive.ma |
|------------------|-----------|---|--|

Namibia

| | | | |
|-------|------------|--|--|
| Sales | Swakopmund | DB Mining & Industrial Services Einstein Street Strauss Industrial Park Unit1 Swakopmund | Tel. +264 64 462 738 Fax +264 64 462 734 anton@dbminingnam.com |
|-------|------------|--|--|

22521860/EN – 03/2016

Netherlands

| | | | |
|------------------------------|-----------|---|---|
| Assembly Sales Service | Rotterdam | SEW-EURODRIVE B.V. Industrieweg 175 3044 AS Rotterdam Postbus 10085 3004 AB Rotterdam | Tel. +31 10 4463-700 Fax +31 10 4155-552 Service: 0800-SEWHELP http://www.sew-eurodrive.nl info@sew-eurodrive.nl |
|------------------------------|-----------|---|---|

New Zealand

| | | | |
|------------------------------|--------------|--|--|
| Assembly Sales Service | Auckland | SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland | Tel. +64 9 2745627 Fax +64 9 2740165 http://www.sew-eurodrive.co.nz sales@sew-eurodrive.co.nz |
| | Christchurch | SEW-EURODRIVE NEW ZEALAND LTD. 30 Lodestar Avenue, Wigram Christchurch | Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz |

Nigeria

| | | | |
|-------|-------|---|---|
| Sales | Lagos | Greenpeg Nig. Ltd Plot 296A, Adeyemo Akapo Str. Omole GRA Ikeja Lagos-Nigeria | Tel. +234-701-821-9200-1 http://www.greenpeg ltd.com bolaji.adekunle@greenpeg ltd.com |
|-------|-------|---|---|

Norway

| | | | |
|------------------------------|------|--|--|
| Assembly Sales Service | Moss | SEW-EURODRIVE A/S Solgaard skog 71 1599 Moss | Tel. +47 69 24 10 20 Fax +47 69 24 10 40 http://www.sew-eurodrive.no sew@sew-eurodrive.no |
|------------------------------|------|--|--|

Pakistan

| | | | |
|-------|---------|---|---|
| Sales | Karachi | Industrial Power Drives Al-Fatah Chamber A/3, 1st Floor Central Com- mercial Area, Sultan Ahmed Shah Road, Block 7/8, Karachi | Tel. +92 21 452 9369 Fax +92-21-454 7365 seweurodrive@cyber.net.pk |
|-------|---------|---|---|

Paraguay

| | | | |
|-------|------------------------|--|---|
| Sales | Fernando de la Mora | SEW-EURODRIVE PARAGUAY S.R.L De la Victoria 112, Esquina nueva Asunción Departamento Central Fernando de la Mora, Barrio Bernardino | Tel. +595 991 519695 Fax +595 21 3285539 sewpy@sew-eurodrive.com.py |
|-------|------------------------|--|---|

Peru

| | | | |
|------------------------------|------|--|--|
| Assembly Sales Service | Lima | SEW EURODRIVE DEL PERU S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima | Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe |
|------------------------------|------|--|--|

Philippines

| | | | |
|-------|--------|---|--|
| Sales | Makati | P.T. Cerna Corporation 4137 Ponte St., Brgy. Sta. Cruz Makati City 1205 | Tel. +63 2 519 6214 Fax +63 2 890 2802 mech_drive_sys@ptcerna.com http://www.ptcerna.com |
|-------|--------|---|--|

Poland

| | | | |
|------------------------------|---------|---|--|
| Assembly Sales Service | Łódź | SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 92-518 Łódź | Tel. +48 42 293 00 00 Fax +48 42 293 00 49 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl |
| | Service | Tel. +48 42 293 0030 Fax +48 42 293 0043 | 24 Hour Service Tel. +48 602 739 739 (+48 602 SEW SEW) serwis@sew-eurodrive.pl |

Portugal

| | | | |
|------------------------------|---------|---|--|
| Assembly Sales Service | Coimbra | SEW-EURODRIVE, LDA. Av. da Fonte Nova, n.º 86 3050-379 Mealhada | Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt |
|------------------------------|---------|---|--|

8 Address list

| Romania | | | |
|-------------------------------|----------------|---|---|
| Sales Service | Bucharest | Sialco Trading SRL str. Brazilia nr. 36 011783 Bucuresti | Tel. +40 21 230-1328 Fax +40 21 230-7170 sialco@sialco.ro |
| Russia | | | |
| Assembly Sales Service | St. Petersburg | ЗАО «СЕВ-ЕВРОДРАЙФ» а. я. 36 195220 Санкт-Петербург | Tel. +7 812 3332522 / +7 812 5357142 Fax +7 812 3332523 http://www.sew-eurodrive.ru sew@sew-eurodrive.ru |
| Sambia | | | |
| representation: South Africa. | | | |
| Senegal | | | |
| Sales | Dakar | SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar | Tel. +221 338 494 770 Fax +221 338 494 771 http://www.senemeca.com senemeca@senemeca.sn |
| Serbia | | | |
| Sales | Belgrade | DIPAR d.o.o. Ustanicka 128a PC Košum, IV floor 11000 Beograd | Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.rs |
| Singapore | | | |
| Assembly Sales Service | Singapore | SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644 | Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com |
| Slovakia | | | |
| Sales | Bratislava | SEW-Eurodrive SK s.r.o. Rybničná 40 831 06 Bratislava | Tel. +421 2 33595 202, 217, 201 Fax +421 2 33595 200 http://www.sew-eurodrive.sk sew@sew-eurodrive.sk |
| | Košice | SEW-Eurodrive SK s.r.o. Slovenská ulica 26 040 01 Košice | Tel. +421 55 671 2245 Fax +421 55 671 2254 Mobile +421 907 671 976 sew@sew-eurodrive.sk |
| Slovenia | | | |
| Sales Service | Celje | Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 3000 Celje | Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net |
| South Africa | | | |
| Assembly Sales Service | Johannesburg | SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013 | Tel. +27 11 248-7000 Fax +27 11 248-7289 http://www.sew.co.za info@sew.co.za |
| | Cape Town | SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442 | Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 bgriffiths@sew.co.za |
| | Durban | SEW-EURODRIVE (PROPRIETARY) LIMITED 48 Prospecton Road Isipingo Durban P.O. Box 10433, Ashwood 3605 | Tel. +27 31 902 3815 Fax +27 31 902 3826 cdejager@sew.co.za |

22521860/EN – 03/2016

South Africa

| | | |
|-----------|-------------------------------------|----------------------|
| Nelspruit | SEW-EURODRIVE (PROPRIETARY) LIMITED | Tel. +27 13 752-8007 |
| | 7 Christie Crescent | Fax +27 13 752-8008 |
| | Vintonia | robermeyer@sew.co.za |
| | P.O.Box 1942 | |
| | Nelspruit 1200 | |

South Korea

| | | | |
|------------------------------|-------|---|--|
| Assembly Sales Service | Ansan | SEW-EURODRIVE KOREA CO., LTD. 7, Dangjaengi-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Zip 425-839 | Tel. +82 31 492-8051 Fax +82 31 492-8056 http://www.sew-eurodrive.kr master.korea@sew-eurodrive.com |
| | Busan | SEW-EURODRIVE KOREA CO., LTD. 28, Noksansandan 262-ro 50beon-gil, Gangseo-gu, Busan, Zip 618-820 | Tel. +82 51 832-0204 Fax +82 51 832-0230 |

Spain

| | | | |
|------------------------------|--------|--|--|
| Assembly Sales Service | Bilbao | SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 48170 Zamudio (Vizcaya) | Tel. +34 94 43184-70 Fax +34 94 43184-71 http://www.sew-eurodrive.es sew.spain@sew-eurodrive.es |
|------------------------------|--------|--|--|

Sri Lanka

| | | | |
|-------|---------|---|---|
| Sales | Colombo | SM International (Pte) Ltd 254, Galle Raod Colombo 4, Sri Lanka | Tel. +94 1 2584887 Fax +94 1 2582981 |
|-------|---------|---|---|

Swaziland

| | | | |
|-------|---------|--|--|
| Sales | Manzini | C G Trading Co. (Pty) Ltd PO Box 2960 Manzini M200 | Tel. +268 2 518 6343 Fax +268 2 518 5033 engineering@cgtrading.co.sz |
|-------|---------|--|--|

Sweden

| | | | |
|------------------------------|-----------|---|--|
| Assembly Sales Service | Jönköping | SEW-EURODRIVE AB Gnejsvägen 6-8 553 03 Jönköping Box 3100 S-550 03 Jönköping | Tel. +46 36 34 42 00 Fax +46 36 34 42 80 http://www.sew-eurodrive.se jonkoping@sew.se |
|------------------------------|-----------|---|--|

Switzerland

| | | | |
|------------------------------|-------|--|---|
| Assembly Sales Service | Basel | Alfred Imhof A.G. Jurastrasse 10 4142 Münchenstein bei Basel | Tel. +41 61 417 1717 Fax +41 61 417 1700 http://www.imhof-sew.ch info@imhof-sew.ch |
|------------------------------|-------|--|---|

Taiwan

| | | | |
|-------|---------|--|---|
| Sales | Taipei | Ting Shou Trading Co., Ltd. 6F-3, No. 267, Sec. 2 Tung Huw S. Road Taipei | Tel. +886 2 27383535 Fax +886 2 27368268 Telex 27 245 sewtwn@ms63.hinet.net http://www.tingshou.com.tw |
| | Nan Tou | Ting Shou Trading Co., Ltd. No. 55 Kung Yeh N. Road Industrial District Nan Tou 540 | Tel. +886 49 255353 Fax +886 49 257878 sewtwn@ms63.hinet.net http://www.tingshou.com.tw |

Tanzania

| | | | |
|-------|------------|--|--|
| Sales | Daressalam | SEW-EURODRIVE PTY LIMITED TANZANIA Plot 52, Regent Estate PO Box 106274 Dar Es Salaam | Tel. +255 0 22 277 5780 Fax +255 0 22 277 5788 http://www.sew-eurodrive.co.tz info@sew.co.tz |
|-------|------------|--|--|

Thailand

| | | | |
|------------------------------|----------|---|--|
| Assembly Sales Service | Chonburi | SEW-EURODRIVE (Thailand) Ltd. 700/456, Moo.7, Donhuaroh Muang Chonburi 20000 | Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.com |
|------------------------------|----------|---|--|

| Tunisia | | | |
|---|---------------------|---|---|
| Sales | Tunis | T. M.S. Technic Marketing Service Zone Industrielle Mghira 2 Lot No. 39 2082 Fouchana | Tel. +216 79 40 88 77 Fax +216 79 40 88 66 http://www.tms.com.tn tms@tms.com.tn |
| Turkey | | | |
| Assembly Sales Service | Kocaeli-Gebze | SEW-EURODRIVE Hareket Sistemleri San. Ve TIC. Ltd. Sti Gebze Organize Sanayi Böl. 401 Sok No. 401 41480 Gebze Kocaeli | Tel. +90 262 9991000 04 Fax +90 262 9991009 http://www.sew-eurodrive.com.tr sew@sew-eurodrive.com.tr |
| Ukraine | | | |
| Assembly Sales Service | Dnipropetrovsk | ООО «СЕВ-Евродрайв» ул. Рабочая, 23-В, офис 409 49008 Днепропетровск | Tel. +380 56 370 3211 Fax +380 56 372 2078 http://www.sew-eurodrive.ua sew@sew-eurodrive.ua |
| Uruguay | | | |
| Assembly Sales | Montevideo | SEW-EURODRIVE Uruguay, S. A. Jose Serrato 3569 Esquina Corumbe CP 12000 Montevideo | Tel. +598 2 21181-89 Fax +598 2 21181-90 sewuy@sew-eurodrive.com.uy |
| USA | | | |
| Production Assembly Sales Service | Southeast Region | SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365 | Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Production +1 864 439-9948 Fax Assembly +1 864 439-0566 Fax Confidential/HR +1 864 949-5557 http://www.seweurodrive.com cslyman@seweurodrive.com |
| Assembly Sales Service | Northeast Region | SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014 | Tel. +1 856 467-2277 Fax +1 856 845-3179 csbridgeport@seweurodrive.com |
| | Midwest Region | SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373 | Tel. +1 937 335-0036 Fax +1 937 332-0038 cstroy@seweurodrive.com |
| | Southwest Region | SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237 | Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com |
| | Western Region | SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, CA 94544 | Tel. +1 510 487-3560 Fax +1 510 487-6433 cshayward@seweurodrive.com |
| | Wellford | SEW-EURODRIVE INC. 148/150 Finch Rd. Wellford, S.C. 29385 | IGLogistics@seweurodrive.com |
| Additional addresses for service provided on request! | | | |
| Uzbekistan | | | |
| Technical Office | Tashkent | SEW-EURODRIVE LLP Representative office in Uzbekistan 96A, Sharaf Rashidov street, Tashkent, 100084 | Tel. +998 71 2359411 Fax +998 71 2359412 http://www.sew-eurodrive.uz sew@sew-eurodrive.uz |
| Vietnam | | | |
| Sales | Ho Chi Minh City | Nam Trung Co., Ltd Huế - South Vietnam / Construction Materials 250 Binh Duong Avenue, Thu Dau Mot Town, Binh Duong Province HCM office: 91 Tran Minh Quyen Street District 10, Ho Chi Minh City | Tel. +84 8 8301026 Fax +84 8 8392223 khanh-nguyen@namtrung.com.vn http://www.namtrung.com.vn |
| | Hanoi | MICO LTD Quảng Trị - North Vietnam / All sectors except Construction Materials 8th Floor, Ocean Park Building, 01 Dao Duy Anh St, Ha Noi, Viet Nam | Tel. +84 4 39386666 Fax +84 4 3938 6888 nam_ph@micogroup.com.vn http://www.micogroup.com.vn |

Index

A

Antennas

| | |
|--------------------------|---|
| Near field coupler | 8 |
| Vehicle coupler | 8 |

C

| | |
|--------------|---|
| Coding | 5 |
|--------------|---|

Connections

| | |
|-------------|------|
| X4211 | 5, 7 |
| X4261 | 5, 7 |

F

| | |
|------------------------|----|
| Factory settings | 11 |
|------------------------|----|

| | |
|------------------------------|---|
| Functional description | 5 |
|------------------------------|---|

L

Label

| | |
|--------------|----|
| Brazil | 14 |
|--------------|----|

| | |
|-------------|----|
| China | 17 |
|-------------|----|

| | |
|--------------|----|
| Europe | 12 |
|--------------|----|

| | |
|-------------|----|
| India | 24 |
|-------------|----|

| | |
|--------------|----|
| Mexico | 26 |
|--------------|----|

| | |
|----------------|----|
| Thailand | 27 |
|----------------|----|

| | |
|------------------|----|
| USA/Canada | 19 |
|------------------|----|

O

| | |
|-----------------------|---|
| Operating modes | 6 |
|-----------------------|---|

P

| | |
|---------------------|---|
| Probing phase | 5 |
|---------------------|---|

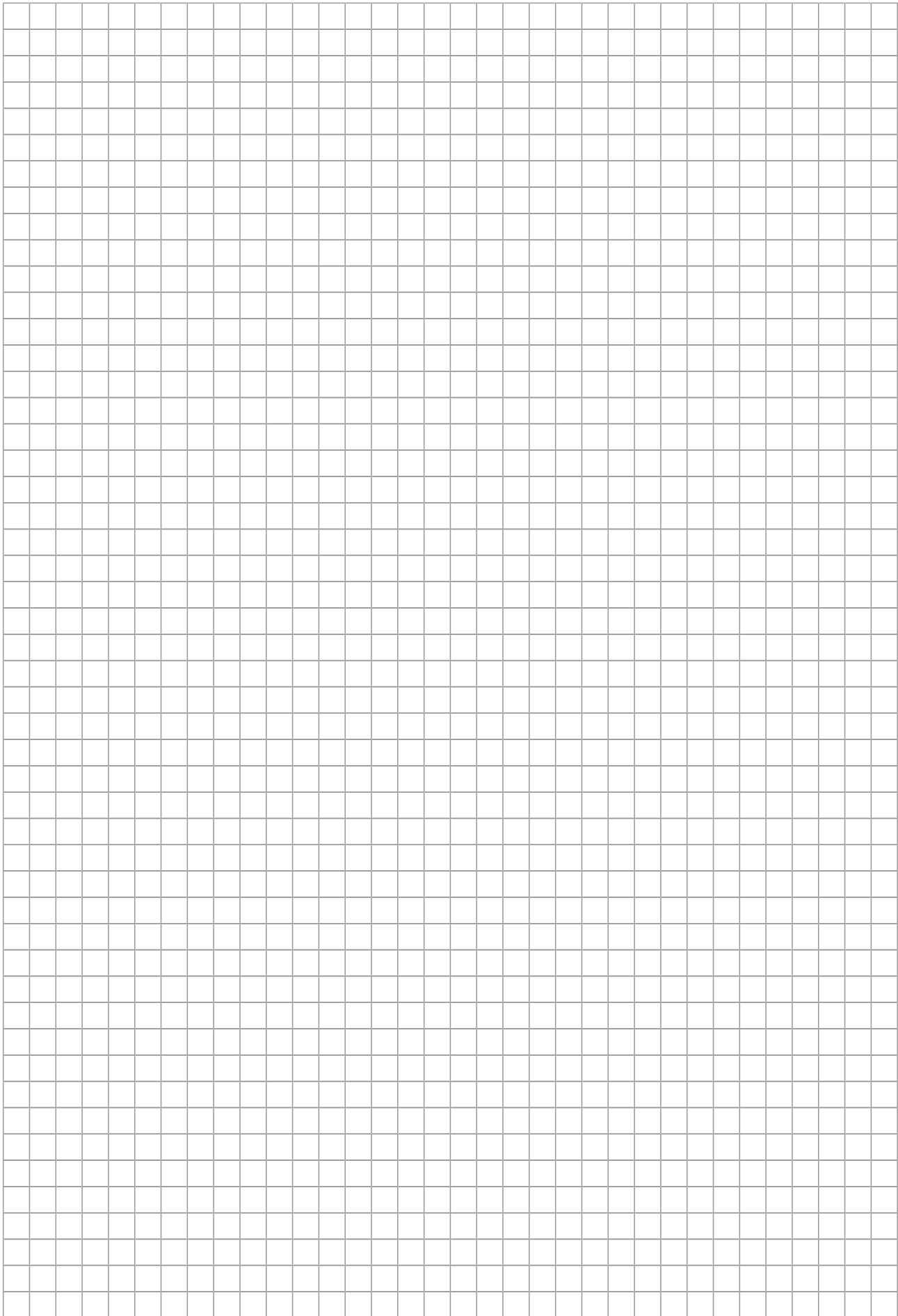
T

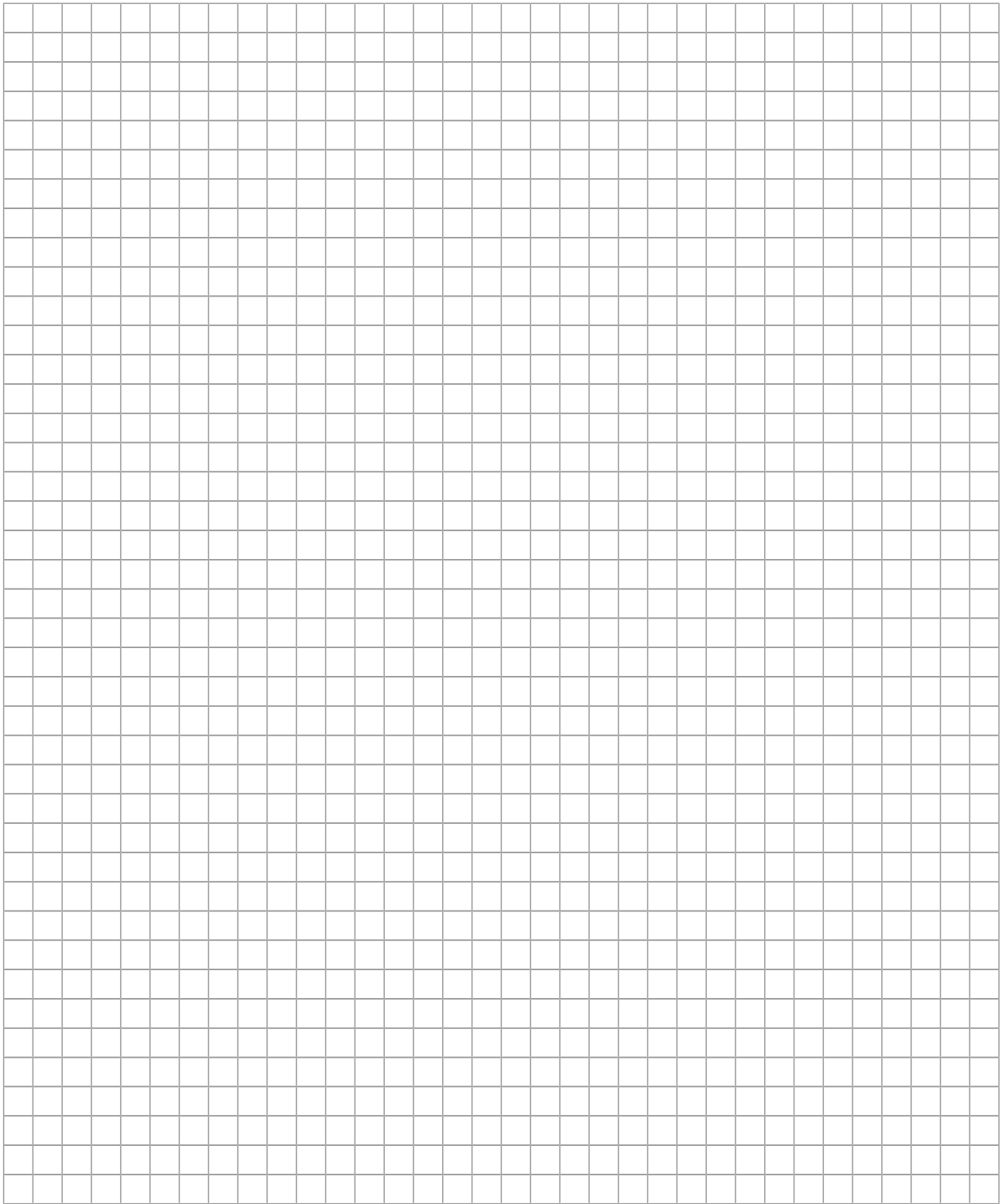
| | |
|----------------------|-----------|
| Technical data | 9, 10, 11 |
|----------------------|-----------|

W

| | |
|----------------------|---|
| Wireless cards | 5 |
|----------------------|---|

| | |
|--------------------|---|
| WPA2-AES-PSK | 5 |
|--------------------|---|







SEW-EURODRIVE
Driving the world

SEW
EURODRIVE

SEW-EURODRIVE GmbH & Co KG
P.O. Box 3023
76642 BRUCHSAL
GERMANY
Phone +49 7251 75-0
Fax +49 7251 75-1970
sew@sew-eurodrive.com
→ www.sew-eurodrive.com