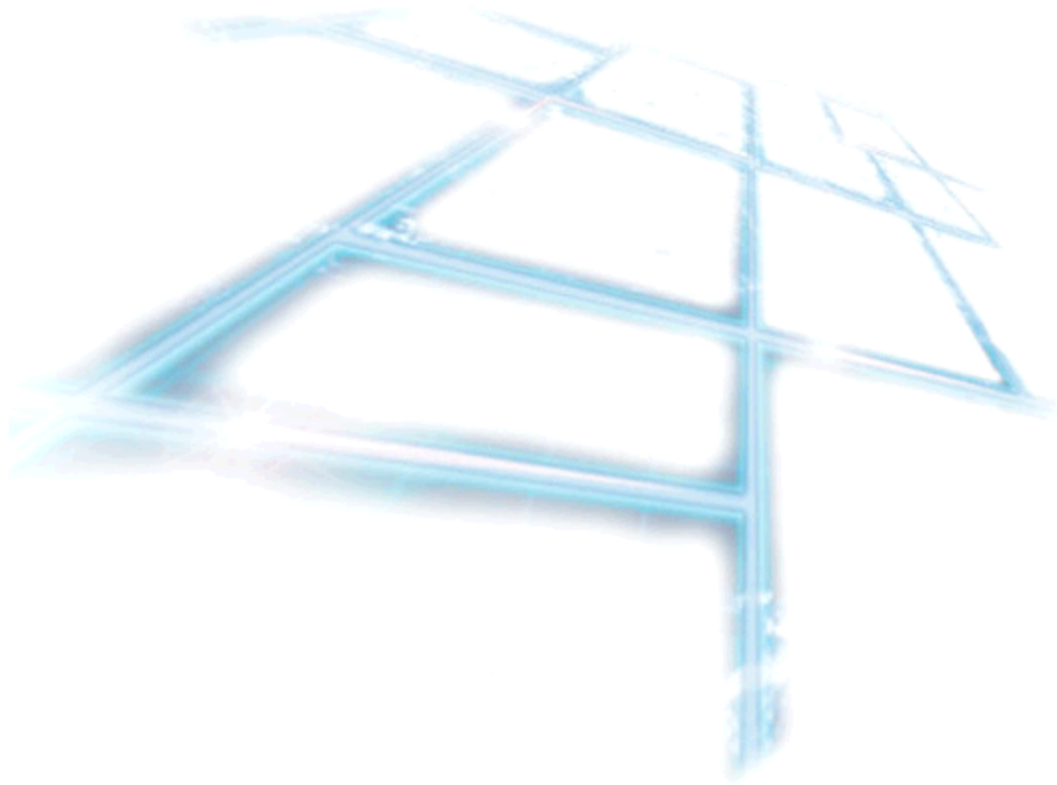


PARIW4



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*Wesseling, April 2009
Version 4.3.1*

Index

ChapterI	Overview	1
1	Introduction.....	1
2	Our experience is your profit.....	1
3	Customer Communication.....	1
4	Changes in this manual and software updates.....	2
5	Extend of Delivery.....	2
ChapterII	Functions of this module	3
ChapterIII	Technical Data	4
ChapterIV	Module overview	4
ChapterV	Annex	5
1	Customer Communication and Help.....	5
2	Technical support form.....	8
3	Hardware and software configuration form.....	9
4	Documentation comment form.....	10
5	Trademarks.....	11

1. Overview

1.1 Introduction

We congratulate you on buying the QUANCOM high quality measurement and automation board. You have chosen a product which attributes and functions show the latest updates of technology.

The following special attributes are included:

Features of the board:

- High input impedance of $> 10\text{ MW}$
- Signal range of 0 to $\pm 10\text{ V}$
- Low noise
- Mountable to mounting rail
- Easy and individual connection

1.2 Our experience is your profit

QUANCOM is specialised in development of hard- and software. QUANCOM has become one of the leading suppliers of measuring and automation technology in industry. At its design centres QUANCOM has developed an impressive range of products.

1.3 Customer Communication

QUANCOM wants to receive your comments on our products and manuals. We are interested in the applications you develop with our products, and we want to help you if you have problems with them. For easy contacting, this manual contains comment and configuration forms for you to complete, which are in chapter "**Customer Communication and Help**" at the end of this manual.

1.4 Changes in this manual and software updates

QUANCOM - products are marked out by their constant further development. You can watch all the actual information of the changes in the README-file on the installation disk or CD. You can always get more information and free software updates from our internet website.

www.quancom.de

1.5 Extend of Delivery

- Impedance converter
- User's manual

If a component is missing please contact your dealer. QUANCOM reserves the right to change the extent of delivery without a preliminary announcement

2. Functions of this module

You need this module to connect even low power signals to A/D-cards without changing the signal itself. This module amplifies **signals of 0 to +10V** and needs up to 100mA. The power-supply may range from 8V to 24V.

This module provides an amplification with the factor of one for up to four signals of 0V to +10V. The input signal is almost without burden because of its **input impedance of more than 10 M Ω** . The output may be loaded with up to 60mA shortly and 25mA permanent.

Through the use of high quality and ultra low noise operating amplifiers it is possible to amplify the signal without distortion of internal noise.

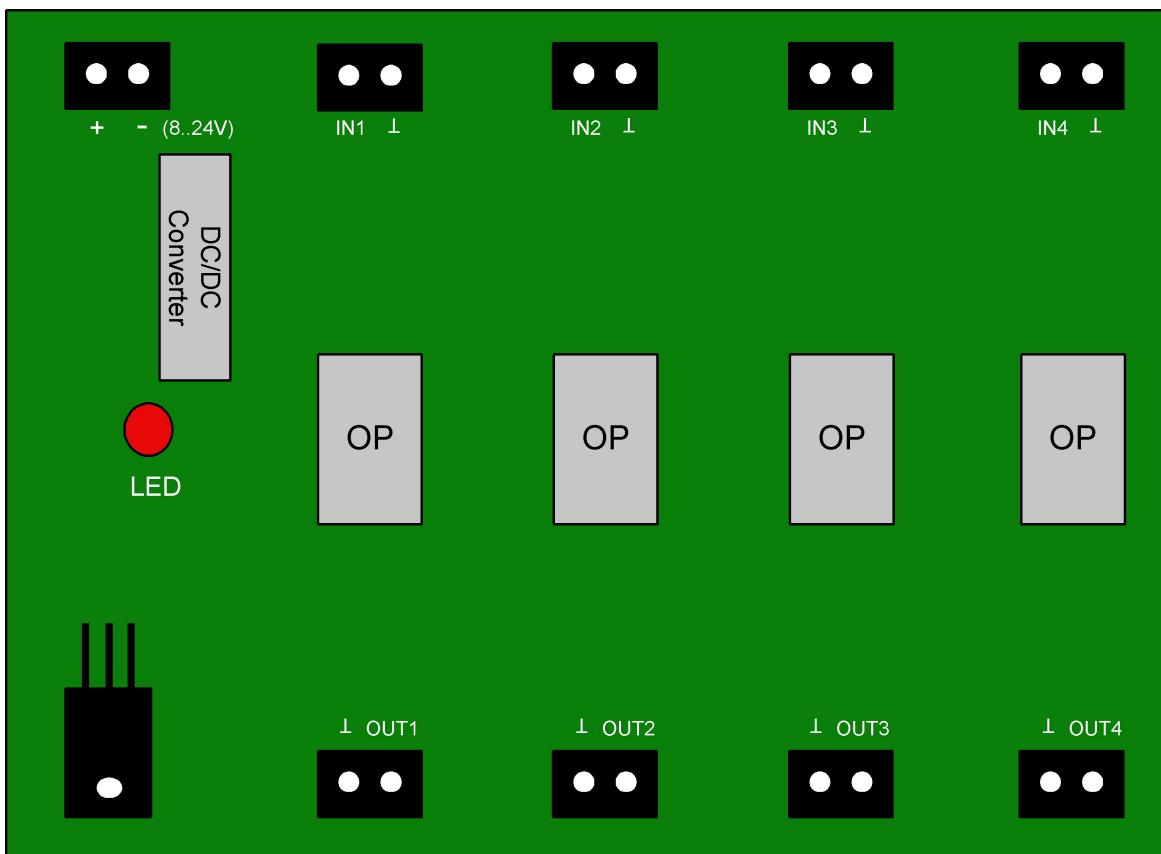
The slew-rate of **1.9V/ μ s** of the operating amplifier realises a transfer signal step from 0 to +10V to be displayed within 5 μ s. **Digital signals of up to 100kHz** may be amplified without any problem. Analogue signals may even be at higher frequencies.

With the PARIW4 you may decouple the voltage of a thermocouple for further conversion without worrying about your signal quality. The decoupled signal could be burdened without lowering the voltage of the thermocouple.

3. Technical Data

- **Supply voltage** 8V bis 24 V
- **Input voltage** ± 10 V
- **Output voltage** ± 10 V
- **Input impedance** > 10 M Ω
- **Output impedance** Wapprox. 60 Ω
- **Slew-rate** 1,9V/ μ s
- **Wire size** up to 1,0 mm²
- **Ambient temperature** 0...70°C (32°F...158°F)

4. Module overview



5. Annex

5.1 Customer Communication and Help



You need Help ?

If you don't know how to go on during the installation or operation of your QUANCOM board please first read this user's guide.

! Tip !

On the QUANCOM installation CD you can find a ASCII – Text – file README.TXT, which includes changes made after printing this user's manual.

! Important !

If you have further questions please contact our support team and have the following information handy:

- Exact type of board
- Operating system, hardware equipment and Bus-System
- Name and Version of the program, where the error is reported.
- A detailed failure description. To make sure, please try to reproduce the failure, describe it as exact as possible, and which steps led to this failure.

Who can you contact?

The QUANCOM internet website
www.quancom.de

Per Fax
+49 22 36 / 89 92 - 49

Per e-mail:
support@quancom.de

Address:
QUANCOM INFORMATIONSSYSTEME GmbH
In der Flecht 14
D-50389 Wesseling
Germany

If you need urgent help call:

QUANCOM Hotline Germany
+49 22 36 / 89 92 - 20

Monday-Thursday
from 9:00 to 18:00
Friday
from 9:00 to 17:00

Actual drivers

You can find the newest Version of QUANCOM software on our internet website www.quancom.de. You can also find a lot of information and "Frequently asked questions (FAQ's)". Before you contact the QUANCOM support, please check if you are using the newest software version of the QUANCOM software.

Reparatur

If you are not sure whether your QUANCOM board is defective please call the QUANCOM Hotline:

Tel.: **+49 22 36 / 89 92 – 20**

Before you send us the QUANCOM board to be repaired call:

Tel.: +49 22 36 / 89 92 – 20

If you send us your QUANCOM board, please use original package or any other suitable package, to protect the contents against transport damage. You also need to send us a copy of the original bill and the RMA number.

You can shorten the repair time by sending us an exact failure description, so that a faster failure search is possible. Send your QUANCOM board directly to the service department of QUANCOM Informations-systeme GmbH.

5.2 Technical support form

If you have internet access please enter the following URL in your browser:

<http://www.quancom.de/quancom/qshop.nsf/techniksupport?OpenForm&eng>

else photocopy this form and use the copy of this form as a reference for your current configuration. Complete this form before contacting QUANCOM Informationssysteme GmbH for technical support help and our applications engineers may answer your questions more efficiently. If you are using any other QUANCOM hardware or software products please add them to this configuration form. Include additional pages if necessary.

Name: _____

Company: _____

Address: _____

Phone: _____

Fax: _____

Computer brand / Processor: _____

Operating system: _____

Display adapter: _____

Mouse: _____

QUANCOM board: _____

Other adapters installed: _____

Hard disk (capacity, free): _____

The problem is: _____

List any error messages: _____

The following steps will reproduce the problem

5.3 Hardware and software configuration form

This form allows you to record the settings of your hardware and software. Complete this form each time you revise your software or hardware configuration, and use this form as a reference for your current configuration. Completing this form accurately before contacting QUANCOM Informationssysteme GmbH for technical support helps our application engineers answer your questions more efficiently.

• QUANCOM Product

Name / Name of board: _____
Interrupt Level: _____
DMA Channel: _____
Base I/O Address: _____
Operating system: _____

• Other information

Computer brand and Model: _____
Processor: _____
Clock Frequency: _____
Type of Video Board Installed: _____
DOS Version: _____
Programming Language: _____
Programming Language Version: _____

• Other Boards in System

Base I/O Address of other Boards: _____
DMA Channels of other Boards: _____
Interrupt Level of other Boards: _____

5.4 Documentation comment form

QUANCOM Informationssysteme GmbH would like you to comment on the documentation supplied with our products. This information helps us to provide you with quality products to meet your needs. Include additional pages if necessary.

Titel: PARIW4

Edition date: 15.04.2009

Name: _____

Firma: _____

Adresse: _____

Telefon: _____

Fax: _____

Kommentar: _____

Email to: support@quancom.de

Fax to: +49 2236 89 92 49

Adress: **QUANCOM Informationssysteme GmbH**
In der Flecht 14
50389 Wesseling

5.5 Trademarks

Linux is registered trade-mark of Linus Torvalds.

MS, MS-DOS, Microsoft, Visual Basic, Windows, Windows Vista/XP/2000/NT/ME/98/95 is registered trade-mark of Microsoft Corporation.

XT and PS/2 are trade-marks and IBM, OS/2 and AT are registered trade-mark of International Business Machines Corporation.

Intel, Pentium is registered trade-mark of Intel Corporation.

USB is registered trade-mark of USB Implementers Forum Inc.

JAVA is registered trade-mark of Sun Microsystems.

DELPHI and Pascal are registered trade-mark of Borland Corporation.

PCI is registered trade-mark of PCI Special Interest Group.

PCI Express is registered trade-mark of PCI-SIG.

National Instruments, LABVIEW is registered trade-mark of National Instruments Corporation.

Agilent VEE is registered trade-mark of Agilent Technologies.

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