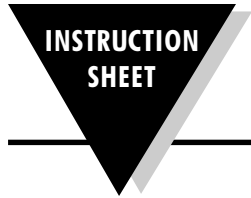




DRP Series

DRP-8505, DRP-8506, DRP-8507



M3207/0499



OMEGAnet[®] On-Line Service
<http://www.omega.com>

Internet e-mail
info@omega.com

Servicing North America:

USA: One Omega Drive, Box 4047
 Stamford, CT 06907-0047
 Tel: (203) 359-1660 FAX: (203) 359-7700
 e-mail: info@omega.com

Canada: 976 Bergar
 Laval (Quebec) H7L 5A1
 Tel: (514) 856-6928 FAX: (514) 856-6886
 e-mail: info@omega.ca

For immediate technical or application assistance:

USA and Canada: Sales Service: 1-800-826-6342 / 1-800-TC-OMEGASM
 Customer Service: 1-800-622-2378 / 1-800-622-BESTSM
 Engineering Service: 1-800-872-9436 / 1-800-USA-WHENSM
 TELEX: 996404 EASYLINK: 62968934 CABLE: OMEGA

Mexico and Latin America: Tel: (001) 800-826-6342 FAX: (001) 203-359-7807
 En Español: (001) 203-359-7803 e-mail: espanol@omega.com

Servicing Europe:

Benelux: Postbus 8034, 1180 LA Amstelveen, The Netherlands
 Tel: (31) 20 6418405 FAX: (31) 20 6434643
 Toll Free in Benelux: 0800 0993344
 e-mail: nl@omega.com

Czech Republic: ul. Rude armady 1868, 733 01 Karvina-Hranice
 Tel: 420 (69) 6311899 FAX: 420 (69) 6311114
 Toll Free: 0800-1-66342 e-mail: czech@omega.com

France: 9, rue Denis Papin, 78190 Trappes
 Tel: (33) 130-621-400 FAX: (33) 130-699-120
 Toll Free in France: 0800-4-06342
 e-mail: france@omega.com

Germany/Austria: Daimlerstrasse 26, D-75392 Deckenpfronn, Germany
 Tel: 49 (07056) 3017 FAX: 49 (07056) 8540
 Toll Free in Germany: 0130 11 21 66
 e-mail: info@omega.de

United Kingdom: One Omega Drive, River Bend Technology Centre
 ISO 9002 Certified Northbank, Irlam, Manchester
 M44 5EX, England
 Tel: 44 (161) 777-6611 FAX: 44 (161) 777-6622
 Toll Free in the United Kingdom: 0800-488-488
 e-mail: info@omega.co.uk

It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct, but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, patient-connected applications.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal one (1) **year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear are not warranted, including but not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY / DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

©Copyright 1999 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

Models DRP-8505 , DRP-8506 and DRP-8507 Dual Channel PLC Interface Modules

Features

- 4 to 20 mA or 0 to 10 Volt Analog Input
- Frequency Output to 5 kHz or 10 kHz
- Compatible with 24 Volt PLC Discrete High Speed Counter Inputs
- Isolated Input to Output
- High Resolution
- 0.01% Linearity
- Din Rail Mountable
- Operates on a 15 V to 26 V DC Supply

Applications

- PLC Control Systems
- Discrete Automation
- Industrial Process Control Systems
- Automated Control Systems

Description

These analog to frequency converters offer a cost effective solution for a single or multiple channel PLC I/O system. They are designed to operate into the common 24 volt, 7 mA PLC discrete counter inputs. The 4 to 20 mA input Model 8505 provides 1 kHz to 5 kHz output frequency for a 4 μ A per Hertz resolution. The Model DRP-8506 voltage input is scaled for 1 mV per Hertz to 10 kHz for 10 volts input. The Model DRP-8507 voltage input is scaled for 2 mV per Hertz to 5 KHz for 10 volts input. The output for all modules is linear to 0.01% with a very high accuracy of better than 0.1%. Their output is an isolated floating optocoupler transistor which provides DC isolation from the input and DC power. Connections are made easily accessible with screw clamp terminal blocks. The output can be configured to a Sink or Source connection (see figure 2).

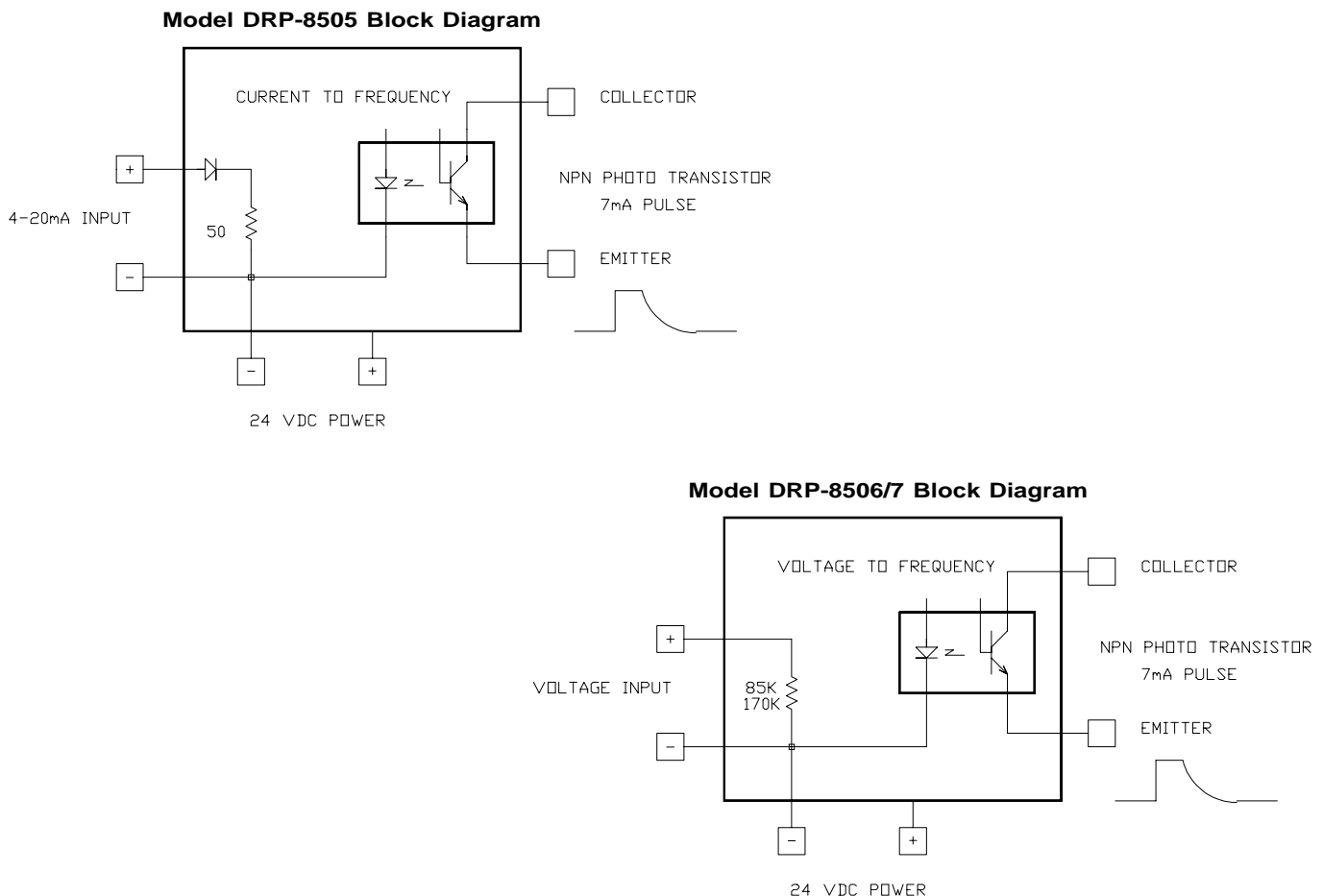


Figure 1. Block Diagrams

Models DRP-8505 , DRP-8506 and DRP-8507 Dual Channel PLC Interface Modules

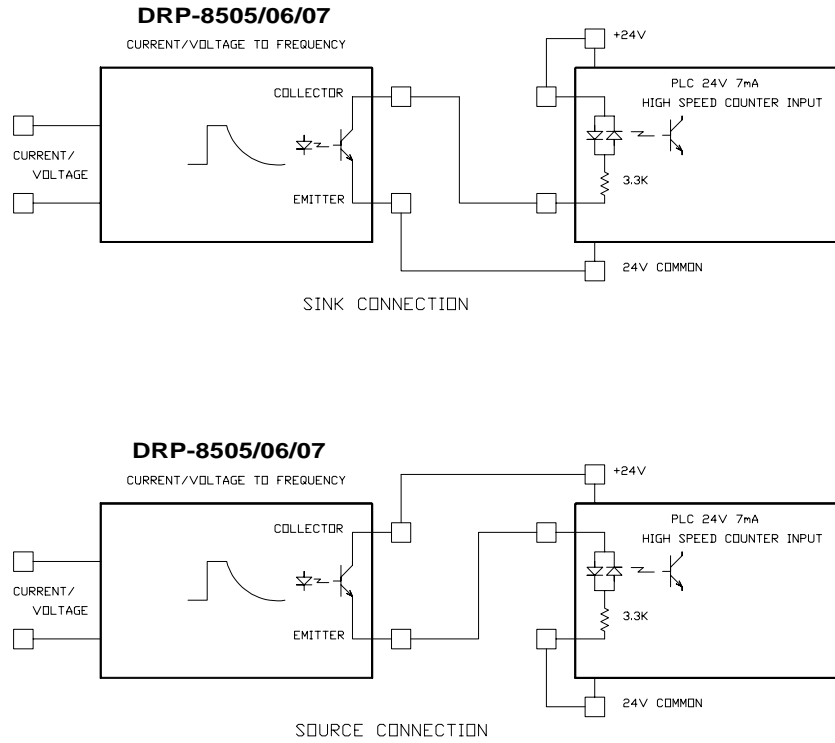


Figure 2. Models DRP-8505, DRP-8506 and DRP-8507 Sink and Source Connection Diagrams

Specifications	DRP-8505	DRP-8506	DRP-8507
Input	4 mA to 20 mA	0 to 5 Volts	0 to 10 Volts
Output	1000 to 5000 Hz	0 to 5,000 Hz	0 to 5,000 Hz
Resolution	4 μ A/Hz 12 Bits	1 mV/Hz 12 Bits	2 mV/Hz 12 Bits
Input Resistance	50 ohms	85K ohms	170K ohms
Linearity	$\pm 0.01\%$ Typical		
From 1% to Full Scale	$\pm 0.05\%$ Maximum		
Accuracy	$\pm 0.1\%$ Maximum		
Temperature Coefficient	$\pm 0.003\%/^{\circ}\text{C}$ Typical		
0° to 55°C	$\pm 0.01\%/^{\circ}\text{C}$ Maximum		
Output Source Transistor	Floating Optocoupler		
Pulse Width	50 μ s		
Output Current	7 mA Minimum Current		
Response Time - 2 Cycles of Final Frequency			
10% to 90%	0.4 ms	0.2 ms	0.2 ms
90% to 10%	4 ms	2 ms	2 ms
Isolation	700 Volts DC		
Input to Output Transistor	5 pF		
Power Requirements			
Voltage	15 to 26 Volts		
Current	15 mA Typical Power Supply Common Connected to Signal Input Common		
Size	1.65" H x 1.06" W x 3.78" L (42 x 27 x 96 mm)		
Weight	3 oz. (85 grams)		