MULTIPLEXER

MX41

Operation and Installation Manual

LIMITED WARRANTY

Pacific Micro Systems warrants its products to be free from defects in materials and workmanship for a period of one year from date of sale to the original owner or fifteen months from date of sale from Pacific Micro Systems.
This warranty provides for the repair or replacement (at our option) of any parts found to be defective in normal and intended use, provided that such defects are in our opinion due to faulty material or workmanship.

This warranty does not apply to products that have been improperly installed, subjected to extremes beyond the limits of our specifications, or which have been physically damaged. Nor does it apply to products found to be defective due to abuse, lightning or any other electrical discharge, salt or fresh water, spray, or improper or unauthorised repair. Pacific Micro Systems will pay shipping (method to be of our choice) and insurance for return of said product provided that the returned product proved defective under the terms and conditions of this warranty.

The obligation of Pacific Micro Systems shall be limited to the repair or replacement only.
In no event shall Pacific Micro Systems be liable for any special, collateral, incidental or consequential damages for (1) breach of any provisions hereof, including, without limitation, provisions regarding warranties, guarantees, and/or indemnities: or (2) any claims by the purchaser concerning the goods without limitation, claims of loss of goodwill, loss of profit or revenues, loss of use, cost of removal, installation or reinstallation, personal injury of any kind to the purchaser or anyone else.

The forgoing warranty is in lieu of all other warranties, whether expressed or implied, or arising by law, custom, or conduct, including, without limitation, the warranties of merchantability and/or fitness for any particular purpose.

Pacific Micro Systems policy is one of continued development. For this reason, Pacific Micro Systems reserves the right to change specifications without notice and without incurring any obligation to similarly alter products previously purchased.

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CONTENTS

Page

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OUTLINE:

The MX41 has been designed to assist with the total integration of electronic equipment aboard a vessel.

This Multiplexer receives data from up to 4 NMEA sources, either current loop, RS422, or RS232. The data is then multiplexed together and output to 4 RS422 outputs (each capable of driving a number of current loop inputs) and 4 industry standard RS232 outputs.

It has an isolated power supply that provides full dc isolation between the input supply and ground/all outputs.

FEATURES:

LED Power On indicator.
LED DATA In/Out Indicators.
Wide range input supply voltage.
All necessary connectors supplied.
EMI/RFI shielded plastic case.
Isolated ground.
Low power opto isolated input.
Input data prioritising
4 RS422 outputs.
Each current loop/RS422 output is capable of driving a number of current loop loads.
4 independent RS232 outputs.
Flexible mounting capability.

PARTS SUPPLIED:

1 x MX41 Interface.
4 x 9 pin Female D connectors.

INSTALLATION:

1. Run a two core screened data cable from each serial data source to the required serial In/Out connector of the MX41.

2. Run a two core (for current loop or RS232) or three core (for RS422) screened cable from the MX41 outputs to the inputs of the receiving equipment.

3. Connect the supply cable to a suitable 10-35v supply (Black/Red + volts, Black - volts).

Note:

The MX41 has dc isolation between its power supply input and ground. This makes it suitable for interfacing to onboard computer installations and all isolated ground equipment, while being powered from the vessel's battery supply, without affecting the integrity of the battery positive (+) or negative (-) relative to ground.

SPECIFICATIONS:

Serial data capabilities:
Inputs: 1, 2, 3 and 4. RS232 or Current Loop/RS422.
Outputs: 1, 2, 3 and 4. RS232 or Current Loop/RS422.

Serial Formats Received:
NMEA0183.

Serial Format Transmitted:
NMEA0183.

Transmitted Data:
NMEA0183: 4800, 8 data bits, no parity, 1 stop bit.

Digital In:
0-5v

Digital Out:
Current sink 100mA, External supply required (50v max).

Power Requirements: 11-35 vdc @ 100 mA.
DC isolation between power supply input and ground is provided.

Weight: 300 grams.

Dimensions: 112 x 87 x 32 mm

Mounting: Table top or wall mounted

Enclosure: Plastic EMI/RFI shielded.

Indicators: (LED), Power ON and DATA IN & OUT.

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CONNECTION DETAILS

MX41 Port 1 DB9 male	Description
1	RS422 Output TX1 +
2	RS232 Output TX1
3	
4	Current Loop Input RX1 + (Signal)
5	Ground
6	RS422 Output TX1 -
7	
8	Current Loop Input RX1 - (Return)
9	Digital Out 4

MX41 Port 2 DB9 male	Description
1	RS422 Output TX2 +
2	RS232 Output TX2
3	Digital Out 1
4	Current Loop Input RX2 + (Signal)
5	Ground
6	RS422 Output TX2 -
7	Digital Out 2
8	Current Loop Input RX2 - (Return)
9	Digital Out 3

MX41 Port 3 DB9 male	Description
1	RS422 Output TX3 +
2	RS232 Output TX3
3	
4	Current Loop Input RX3 + (Signal)
5	Ground
6	RS422 Output TX3 -
7	
8	Current Loop Input RX3 - (Return)
9	Digital In 4

CONNECTION DETAILS cont.

MX41 Port 4 DB9 male	Description
1	RS422 Output TX4 +
2	RS232 Output TX4
3	Digital In 1
4	Current Loop Input RX4 + (Signal)
5	Ground
6	RS422 Output TX4 -
7	Digital In 2
8	Current Loop Input RX4 - (Return)
9	Digital In 3

DATA OUTPUT POLARITY: